



Docucreate User Guide

version 11.2

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CHAPTER 1

Introduction

Welcome to the Documaker's rules-processing solution. This solution is comprised of these primary components: Docucreate, the Rules Processor, Documaker Workstation, and resource libraries.

This manual serves as a reference tool for Docucreate users. This manual contains information which will help you...

- Create, store and use images
- Combine images to create forms
- Create and maintain sets of forms
- Define the recipients for the forms you create
- Create and maintain master resource libraries

This chapter introduces you to the system and discusses the following topics:

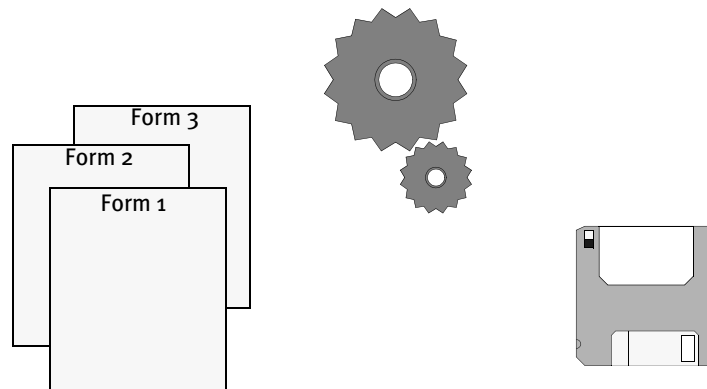
- [Document Automation Concepts on page 2](#)
- [Understanding the Documaker System on page 6](#)
- [Docucreate Tools on page 7](#)
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DOCUMENT AUTOMATION CONCEPTS

Document automation is a basic concept underlying the system's architecture. An understanding of document automation helps you understand the purpose of the system.

Document automation is the strategic replacement of paper documents with electronic media. Generally, document automation is an integrated process within enterprise information systems.

The greatest challenge that document intensive industries face is the efficient processing of forms and documents. The movement toward the era of electronic information necessitates finding workable solutions for the paper-to-electronic media replacement process. New business directions include developing ways to automate document handling processes, which extend beyond simply creating electronic output or printing documents.



Document automation is rapidly becoming an integral part of today's business environment. Skywire Software's applications create a total business solution enabling customers to automate *both* paper document processing and electronic document management.

Let's examine document automation outside our system in order to build a knowledge base applicable to unique platforms. Then we can apply the basic concepts to our system.

DOCUMENT AUTOMATION EVOLUTION

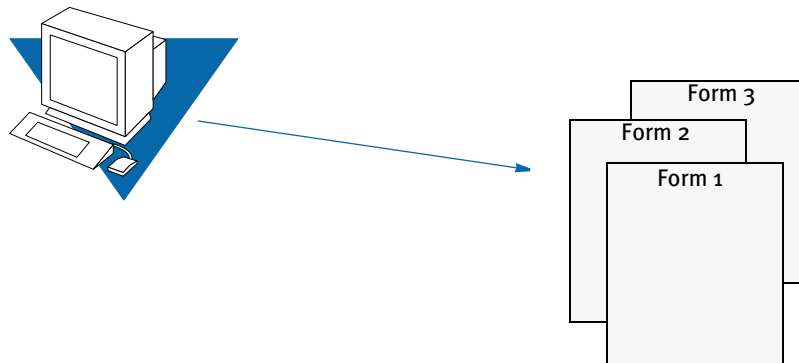
Through the years, document automation has moved in concert with technological evolution. The technological evolution has progressed from initial ideas and applications about forms processing, to the integrated management of electronic documents. The distinction between merely automating paper production and permanently integrating electronic processing and management is critical to understanding the technological evolution.

The following table shows the progression of document automation in the current environment. A discussion of each stage of document automation follows.

Stage	Type of Automation	Components
1	Paper Automation	Business correspondence Forms processing Document assembly
2	Workflow Automation	Electronic mail Electronic data interchange Electronic funds transfer Integrated facsimile
3	Paperless Information Automation	Cooperative processing Enterprise indexing Integrated image processing Multimedia

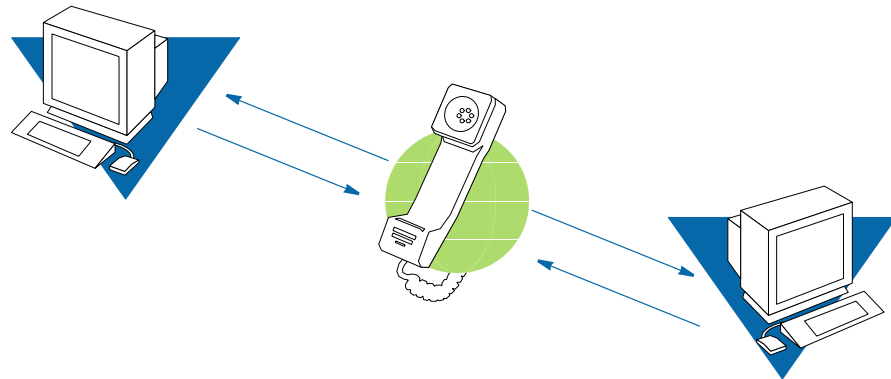
Stage 1 - Paper Automation

Paper automation, enabled by the advent of computers and laser printers, is the first stage of the document automation evolution. Most people think of the processing and assembly of business correspondence and forms by computers as document automation. While the computer does perform some information processing, this stage of document automation evolution is still very paper intensive. It does not extend to associated automated document workflow and procedures.



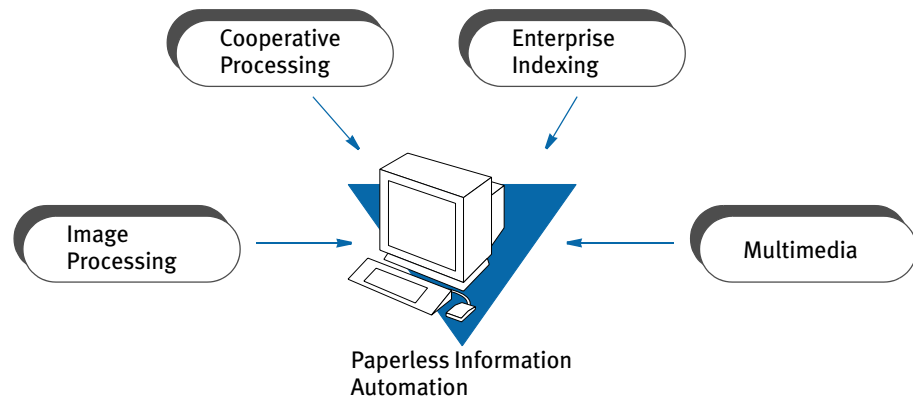
Stage 2 - Workflow Automation

Workflow automation, enabled by the proliferation of personal computers, communication standards, Local Area Networks (LANs), Wide Area Networks (WANs), and integrated FAX machines, is the second stage in the document automation evolution. Workflow automation goes beyond information processing to the transfer of digitized information across telecommunication lines. It eliminates many manual procedures, often clerical in nature, from the workflow process.



Stage 3 - Paperless Information Automation

Paperless information automation combines multiple technologies across multiple organizations, enterprises, and government entities. Information elements from various sources are shared and are readily available in flexible electronic formats. Paperless information automation enables you to reuse the information contained in the documents. Electronic documents are much easier to track, maintain, update, route, file, and retrieve.



DOCUMENT AUTOMATION GOALS

Document automation combines many elements of the evolutionary stages previously discussed to accomplish the following three primary objectives:

- **Eliminate Paper**
Paper consumes enormous resources. Document automation decreases the costs associated with paper documents, and decreases the requirements for both long term and short term storage, retrieval, and document distribution.
- **Automate Manual Procedures**

Automating manual procedures associated with document automation increases efficiency, increases accuracy, and reduces costs. Repetitive and unnecessary procedures are identified and eliminated, along with accompanying “procedures manuals.”

- Automate System Interfaces

Interfaces which allow exchange of data between automated systems eliminate the need to manually enter data. Automated system interfaces also eliminate the need to supplement automated processes with manual functions. Automated system interfaces reduce errors, increase efficiency and simplify the workflow.

As you can see, document automation encompasses many different technologies which merge in a variety of ways. In the current business environment, there are many single technologies and partial solutions which mimic document automation at first glance. Keep in mind, a single solution using one technology is *not* document automation. Document automation involves multiple technologies which help you manage forms and documents, workflow, procedures, and other electronic media, based on the needs and requirements of each individual organization or enterprise.

UNDERSTANDING THE DOCUMAKER SYSTEM

Documaker is a complete group of software applications which provide solutions to all your document and forms processing needs. Documaker's goal is to offer you a business solution for reducing mass paper production, to increase forms processing efficiency, and improve customer service.

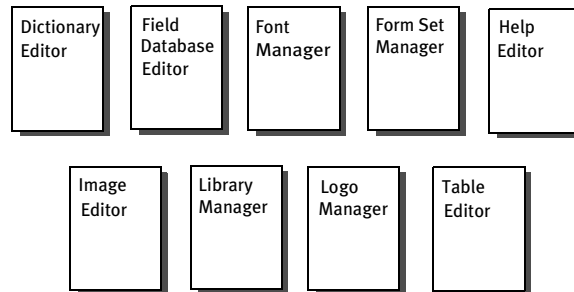
Documaker automates the operating procedures and business practices associated with creating, maintaining, processing, storing and distributing electronic forms and other electronic documents. The system lets you build customized development, resource, and processing systems. You build your system by selecting and configuring the modules required in your business environment.

Documaker consists of four components: the resource libraries, Docucreate, Documaker Workstation, and the Rules Processor. Each component performs specific activities necessary for full scale document automation. A brief description of each system component appears in the table below.

Component	Purpose	Description
Rules Processor	Process or manipulate resources to create a finished product	Contains the system programs and other resources which you combine to meet your processing needs.
Docucreate	Create resources	Contains the applications used to create the resources stored in resource libraries. The applications include the Image Editor, Dictionary Editor, the Field Database Editor, Font Manager, Form Set Manager, Help Editor, Logo Manager, and Table Editor.
Documaker Workstation	Electronically process forms	Contains system modules that allow you to import data from an external or an internal source to produce, print, store, and archive forms electronically.
Resource libraries	Store Resources	Contains both generic resources and customized resources used to create and process images. The resource libraries includes the <i>master resource library</i> and the <i>distributed resource library</i> .

DOCUCREATE TOOLS

There are several tools included in the Docucreate, as shown in the following illustration:



Dictionary Editor

The Dictionary Editor provides you with an easy mechanism to create and maintain information about the extract file being used. The data in the file can be automatically merged into a form's variable fields by using the Dictionary Editor. The Dictionary Editor can import DDF, DFD, DBF, and COBOL Copy Book files and SAP RDI files. The tool defines customer data or transaction file data. This provides you with a greater ability to apply and modify data, and increase the ease of reusing resources.

Field Database Editor

The Field Database Editor provides you with an easy mechanism to store common variable field information to make setting up and creating forms faster and more consistent. This file contains a record for each unique variable field name, and is indexed in ascending order. Use this tool to ensure consistency in form sets. For example, if you have a Name variable field on a form, you can pull the attributes for that field into the form from the Field Database Editor. The database contains such information as the name of the field, font, type of variable field, and so on.

Font Manager

The Font Manager is used to organize fonts and font sets. A font is a collection of letters, symbols, and numbers that share a particular design. A font set is a collection of fonts you choose to group together for your image and printing needs. The font set information is stored in the *font cross-reference file* (FXR file) which is created by the Font Manager.

A well organized font set makes image creation quick and efficient. Forms composers need a variety of fonts for text and field creation. The Font Manager does not change the actual printer fonts. This tool is used for defining the appropriate characteristics (bold, size, and so on) about the font so the fonts used to create a particular form set are consistent and easily accessible to the forms composers.

Form Set Manager

This tool helps you group the individual images and forms you create using the Image Editor into a set of related forms. This information is stored in the *form set definition table* file typically called the FORM.DAT file. Documaker Workstation uses the FORM.DAT file to control the data entry, print, work-in-process, and archive/retrieval functions for related forms and images.

The system stores the form set information in a semi-colon delimited file with a specific format. The file includes information about the company, lines of business, forms, each page (image) in the form, and the names of the person, organization, or entity that receives a copy of each page of the form.

Help Editor The Help Editor is a tool you can use to create user specific help records that are accessible from a variable field during form entry time. You can easily create a help file which contains records for the variable fields on a form. Each help record usually contains an explanation of a description for entering correct data into a variable field. Help files reside in the resource library.

Image Editor The Image Editor lets you create forms and images that become part of an electronic form or document. It is a WYSIWYG editor with an easy to use and easy to learn graphical user interface. With the Image Editor, you have complete control and flexibility in managing and creating your image. The image and objects that you create are stored in the Resource Library's Image Library.

Use the Image Editor to assign rules to your variable fields to determine a flow of data into your image. This procedure gives you an easy way to assign and modify rules for each field accepting external data. Rules perform a variety of functions during merge procedures. Transferring data between images and your files decreases the need for repeated manual data entry, thus decreasing errors, increasing speed, and maintaining the integrity of your documents.

Library Manager The Library Manager offers an effective way to manage your documents and logos while maintaining the versions, revisions, and integrity of the images you are developing. You may want to set up a library for a specific client or form set. The Library Manager optimizes forms development and security procedures by allowing developers to create and maintain forms and logos for processing and archiving electronically. You have the option to store all images (both documents and logos) in a resource library. The storage consists of a listing of the image or logo as well as a snap shot of the image.

When you set up a library, you must declare the locations of library and storage files. Entries made during library setup are automatically saved back to the FAPCOMP.INI file when you exit the module.

Logo Manager Logos are scanned objects that can be placed on an image. Logos are usually customized pictures that fit a particular company's needs. These objects cannot be displayed or printed on an image using any other method. Once an object has been electronically created, it can be edited using the Logo Manager. This tool lets you resize, reverse, rotate, crop, and otherwise manipulate an image to fit your needs.

Table Editor The Table Editor lets you create a table of data used to automatically fill a variable field during form data entry. Tables make the entry process quicker and more efficient for the end user. Users can choose from data options within a table format rather than keying information. Using tables reduces data entry errors and increases speed. Using the Table Editor, you can create and edit table files, tables, and table entries. Tables are stored in the resource library.

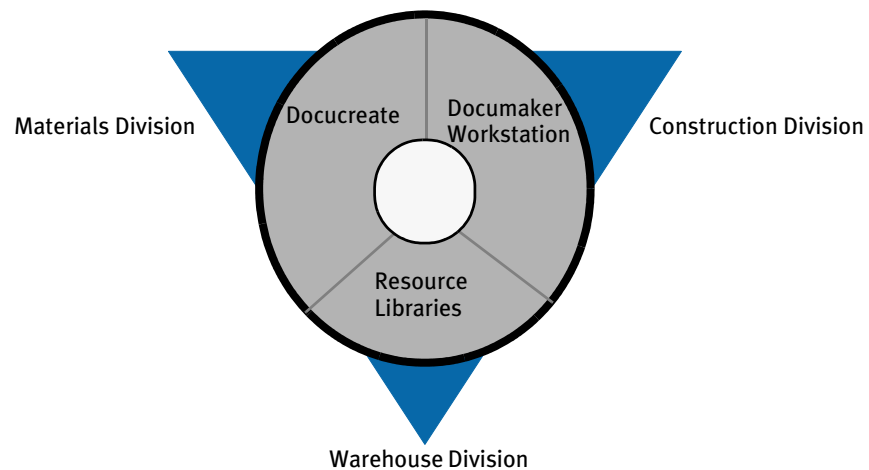
AN ANALOGY

Before we discuss the system in detail, let's draw comparisons between the system's primary functions and the functions of a company within a familiar, non-technical environment. Our example describes a building company with three divisions functioning as a cohesive unit. In this example, we show how system divisions parallel the functions of our fictional company.

Setting the Stage

The Building Company offers a complete range of building services from manufacturing to retailing products and has three corporate divisions: a Materials Division, a Warehouse Division, and a Construction Division. Each division is an independent unit which complements with the two other divisions in the company.

The Materials Division manufactures resources such as prefab framing components, electrical supplies, and plumbing supplies. The Warehouse Division stores the resources manufactured by the Materials Division in various warehousing centers throughout the country. In turn, the Construction Division coordinates the selection, distribution, and processing of resources stored in the Warehouse Division to use during the construction phase. While each division is an independent unit, its function requires interaction with the other divisions in order to meet its objectives.



Now let's relate the structure and the functions of our fictitious company to the structure and the functions of the system. Like the Building Company, the system also consists of three components which work together.

Docucreate contains applications for creating resources used to build and process documents, just as the Materials Division manufactures building supplies for constructing houses. Both components provide the tools and supplies necessary to create resources. While the Materials Division creates building supplies, Docucreate lets you create images, forms, data dictionaries, and processing rules necessary for document automation.

The Resource Library stores both generic and customized resources for creating and processing documents, just as the Warehouse Division stores the resources used to construct houses. Both components provide segmented storage facilities. While the Warehouse Division stores building materials, in several warehouses at different sites, the Resource Library stores your resources such as images, processing rules, and variable field attributes at different sites called libraries. Like many warehouse operations, the Resource Library contains a *centralized* warehouse, and a *decentralized* warehouse. The Master Resource Library is the centralized warehouse, storing *all* resources needed for forms processing. The Distributed Resource Library is the decentralized warehouse that stores all resources specific to your company. Both the Master and the Distributed Resource Libraries may also contain component libraries that store each separate type of resource, such as images and processing rules.

Documaker Server contains the processing modules and the Rules Processor, just as the Construction Division provides the power equipment, and coordinates the skilled labor and activities necessary for building houses. Both components provide the power and the instruction to transform and manipulate resources into new products. While the Construction Division constructs a house, Documaker Server lets you process business transactions.

SYSTEM BENEFITS

The system's cohesive design results in many benefits to the user. The system provides a seamless interface to your existing systems by integrating document automation technology with your current systems, and by offering you a customized computer system with reusable resources. You can select system modules to meet your specifications.

The system also provides these advantages in your document automation processing:

- *Functional* - The system's configuration meets a wide variety of document processing needs. The system's expandable architecture utilizes technological innovations to meet changing processing needs.
- *Portable* - The system's architecture allows core processing modules to operate on multiple hardware platforms and in multiple operating environments. This design gives the user control of the system configuration in order to meet individual needs.
- *Modular* - The system's configuration lets you select modules to customize your system. The modular design eases maintenance by segregating functions in independent modules. A change in one module does not necessitate multiple changes throughout the system. This modular design also improves performance by eliminating unnecessary processing.
- *Reusable* - The biggest advantage in using the system is that it lets you reuse resources. The system libraries are composed of customizable resource units such as images and rules, which the system repeatedly uses as required. Reusing resources increases efficiency and promotes consistency throughout your system and product.
- *Easy to Use* - The system components have a graphical user interface common to all components. The system's seamless system interface provides transparent print and data merge capabilities.

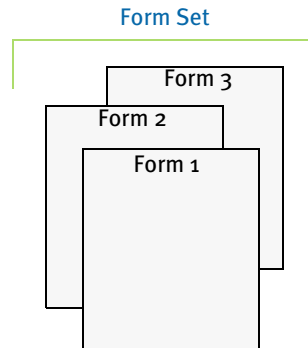
SYSTEM TERMINOLOGY

Form sets

All components use specific terminology. We suggest you familiarize yourself with these terms before you start to use Docucreate. Some of the most important terms and concepts are explained below.

A form set is made up of all forms and copies of forms associated with a single transaction, such as an insurance policy or a loan application. You can group forms any way you want as you create form sets.

Form sets
consist of one
or more forms



Forms

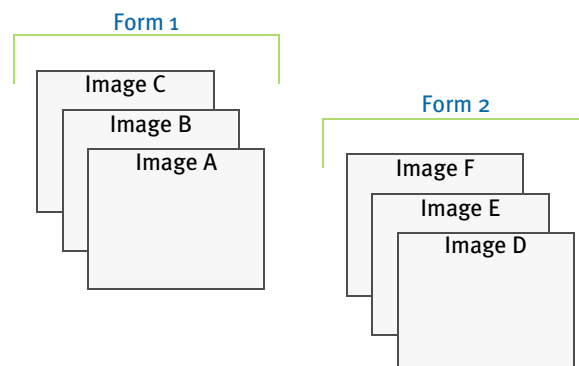
A form is a single document containing one or more pages or images. Most forms contain multiple pages that are usually printed on both sides of a single sheet (duplex). Some forms are printed only on one side (simplex). Typical forms include insurance policies, tax returns, and mortgage documents.

A form includes two types of data: *fixed* and *variable*.

- *Fixed* data is the same on every copy of the form. This includes items such as logos. This information remains constant regardless of the data entry.
- *Variable* data may differ from form to form. This includes items such as individuals' names, addresses and policy numbers. This information relates to the specific data processed on each form.

A single form consists of one or more images. Since multiple forms and images make up a form set, you can view and navigate through each form and image individually.

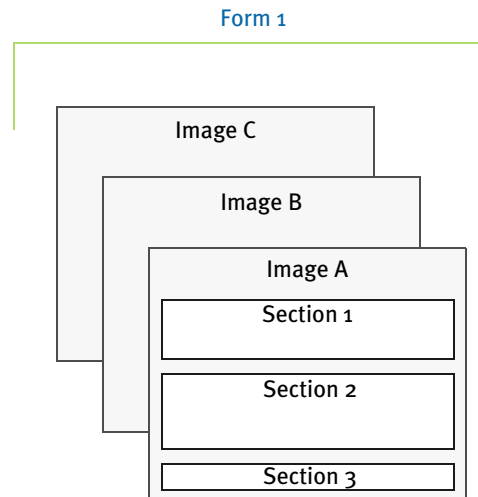
Forms consist
of one or more
images



A form may consist of multiple images, and consequently you can view the varying images within a form by displaying different pages of the form.

An image can contain varying sections on one page. For example, an automobile insurance application form could consist of three images. The first image or page may contain three separate *sections*: a section for listing the automobiles you want to insure, a section for recording household driver information, and a section for selecting the type and amount of coverage you want for each vehicle. Using the page display options, you can zero in on and view the beginning of a particular section of the insurance application image.

Images consist
of one or more
sections



Objects Objects are the individual items which comprise your image. Examples of objects are boxes, bar codes, lines, graphics, and text. All objects have unique attributes within the image. Attributes include items such as position, size, font type, and color.

MANAGING YOUR DATA

As you begin to create electronic images, you may need to think about new data management issues. Electronic image creation, retrieval and use provide enhanced capabilities, but also create information and data management considerations. Some of the issues you should consider are discussed below.

You should consider how and where your electronic form data is stored. The format of the stored data may vary depending on your operating environment and your hardware constraints. How and where you store the data influences other functions you wish to perform on the data. You should fully evaluate your data storage capacity and needs.

In a networked environment, electronic form creation allows multiple users to share information. You maximize your resources by sharing information through a network. You are also assured that every user is using the most current versions of forms and documents.

Using form sets

Electronic forms give you the flexibility to link certain forms and create a form set. A form set contains all the forms necessary to process a transaction. By creating a form set you can quickly share common information by propagating data. When you complete a common field, Docucreate propagates information to each form. Creating the form set is like creating an electronic file folder to hold all related forms. But an electronic version gives you greater processing and assembly speed. For more information on defining form sets, see [Form Set Manager on page 481](#).

Security considerations

Security is a key consideration in electronic form use. For instance, you can design a form, approve it for distribution and then *lock it* so that it cannot be changed. You can also use bitmap or graphic signatures. You control the signature and prevent its unauthorized use. These security features give you enhanced monitoring options and control of business procedures.

NOTE: The security feature locks the form and all objects included, except for variable fields.

INSTALLING THE SYSTEM

If your system supervisor has not installed the system on your computer, you can do so easily, once you have made sure your computer has the correct hardware and software. Simply insert the CD-ROM into the appropriate drive and follow the instructions that appear on your screen.

NOTE: In most cases, the system supervisor will set up Docucreate on your computer for you. If you install the system yourself, check with your system supervisor to make sure any custom settings are configured correctly for your computer.

ABOUT FONTS

The software lets you work with virtually any type of font. Skywire Software supplies a standard font set with the system. Currently, Skywire Software ships Monotype, PCL, AFP, and Xerox fonts with the system. The following fonts are included in the standard font set:

- Courier
- Times(Roman)
- Univers(al)

See [Working with Fonts on page 113](#), for specific information about converting fonts.

If you choose to use fonts other than those supplied with the system, you must purchase your font files and install them before you print the images you create. The fonts must reside on your hard disk, preferably in the FAP\mstrres\fmres\deflib directory. The master resource library setup tells the system where your font files are stored. (See [Managing Resources Using Libraries on page 387](#), for specific information about setting up your master resource library.)

Skywire Software also supplies font cross-reference files. These files contain information the system needs about each font. The font cross-reference files distributed with the system are listed below:

This file...	Provides these fonts...	For these printers...
DESKJET.FXR	Internal HP fonts	HP Deskjets and compatibles
HPINTL.FXR HPINTLSM.FXR REL112.FXR REL112SM.FXR	Times(Roman), Courier, and Univers(al) fonts	PostScript and PCL printers

The font cross reference file and your font files work together in the same way a telephone book and a telephone work together. The phone book contains precise and necessary information which lets you call any available phone. A font cross reference file contains the precise information necessary to use your available fonts. A phone is necessary to utilize the information in the phone book. Fonts are necessary to use the information in the font cross reference file. Neither is useful without the other.

See [Working with Fonts on page 113](#), for more information about font cross-reference files, and converting the standard system fonts for use with your printers.

Remember, you must install the fonts on your operating system before you can use these fonts to print the forms you create. See the [Docucreate Supervisor Guide](#) for specific information about installing fonts.

CHAPTER 2

Image Editor Overview

The Image Editor automates the operating procedures and business practices associated with creating, maintaining, processing, storing and distributing forms and documents. Among the Image Editor's many benefits are the following:

- *Functional* - Configured to meet a wide variety of forms processing needs. Expandable architecture takes advantage of technological innovations to meet changing processing needs.
- *Portable* - Allows system modules to operate on multiple hardware platforms and multiple operating environments. Developed in ANSI standard programming to ensure portability. Allows user control of configuration to meet individual needs.
- *Modular* - Designed so you can use customized modules to create your system. Eases maintenance and improves performance by letting you automate or eliminate modules necessary for a task.
- *Easy to Use* - Designed with an easy-to-use interface which provides transparent print and data merge capabilities.

This chapter provides information about...

- [Terminology on page 18](#)
- [Managing Your Data on page 20](#)
- [Composition Flow on page 21](#)
- [Image Design Concepts on page 22](#)

TERMINOLOGY

All components of Rules Publishing Solution use specific terminology. We suggest you learn these terms before you start to use the Image Editor. Some of the most important terms and concepts are explained below.

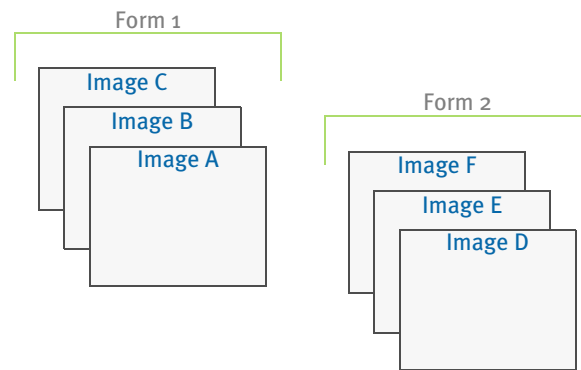
FORM SET

A form set is a group of logically related forms required to process a single transaction. A form set may contain single or multiple forms. You can group forms in any way desired to create form sets.

FORM

A form is a document comprised of either a single image or multiple images. It is a logically connected entity which processes a business transaction. A form is a single document containing one or more pages. Most forms contain multiple pages that are usually printed on both sides of a single sheet (duplex). Typical forms include insurance policies, tax returns, and mortgage documents.

Forms consist of one or more images



A form has two types of data: fixed and variable.

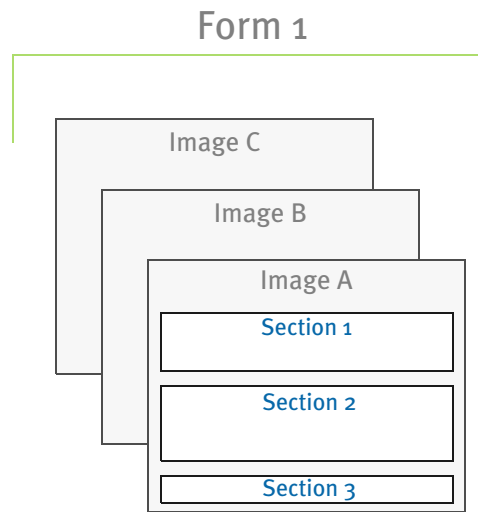
The *fixed data* is the same on every copy of the form. This includes items such as logos. This information remains constant regardless of the data entry.

The *variable data* may differ from form to form. This includes items such as individuals' names, addresses and policy numbers. This information relates to the specific data processed on each form.

IMAGE

An image is a group of text or graphics or both which make up all or part of a form. You create images with the Image Editor. Each image is stored in a separate file, so you can reuse images in multiple forms and form sets. For example, often a three-page form with text and graphics printed on both sides of each page, contains a total of six images. Two examples of images include an insurance policy declaration page, and page one of a 1040 Federal tax return form.

Images consist
of one or more
sections



You may choose to create a single page containing multiple images, especially if you develop a page with graphics.

OBJECTS

Objects are the individual items which comprise your image. Examples of objects are boxes, bar codes, lines, graphics, and text. All objects have unique property settings within the image. Property settings may include position, size, font type, and color.

MANAGING YOUR DATA

As you create electronic images, you may need to think about new data management issues. Electronic image creation, retrieval and use provide enhanced capabilities, but also create information and data management considerations. Some of the issues you should consider are discussed below.

DATA FORMAT

Consider how and where your electronic form data is stored. The format of the stored data may vary depending on your operating environment and your hardware constraints. How and where you store the data influences other tasks you perform on the data. Be sure to fully evaluate your data storage capacity and needs.

DATA ORGANIZATION

In a networked environment, electronic form creation lets multiple users share information. You maximize your resources by sharing information through a network. This also means that every user is using the most current versions of forms and documents.

FORM SET

Using electronic forms lets you link certain forms to create a form set, which contains all the forms necessary to process a transaction. By creating a form set you can quickly share common information by propagating data. When you complete a common field, the system propagates information to each form. Creating the form set is like creating an electronic file folder to hold all related forms. But an electronic version gives you greater processing and assembly speed. For more information on defining form sets, see [Logo Manager on page 471](#).

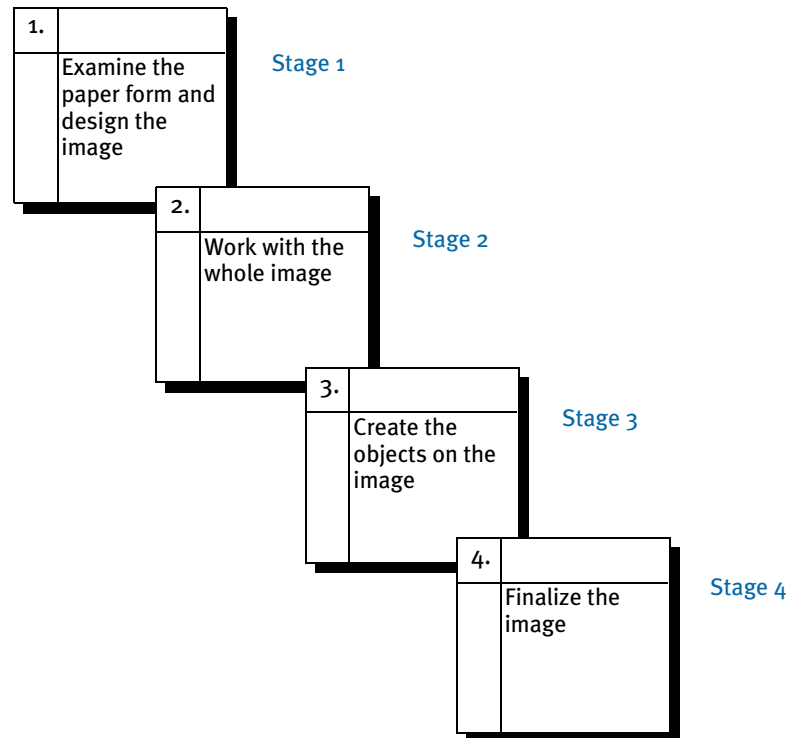
SECURITY

Security is a key consideration in electronic form use. For instance, you can design a form, approve it for distribution and then *lock it* so it cannot be changed. You can also use bitmap or graphic signatures. You control the signature and prevent its unauthorized use. These security features give you enhanced monitoring options and control of business procedures.

NOTE: The security feature locks the form and all objects on the form, except for variable fields.

COMPOSITION FLOW

Before you begin using Image Editor, think about the process of creating an electronic document. Composition often proceeds in a series of four stages. First, examine the paper copy of your form or document and make design decisions. Second, assign certain features to the entire form. Third, create objects within the image. As a fourth step, you finalize the image.

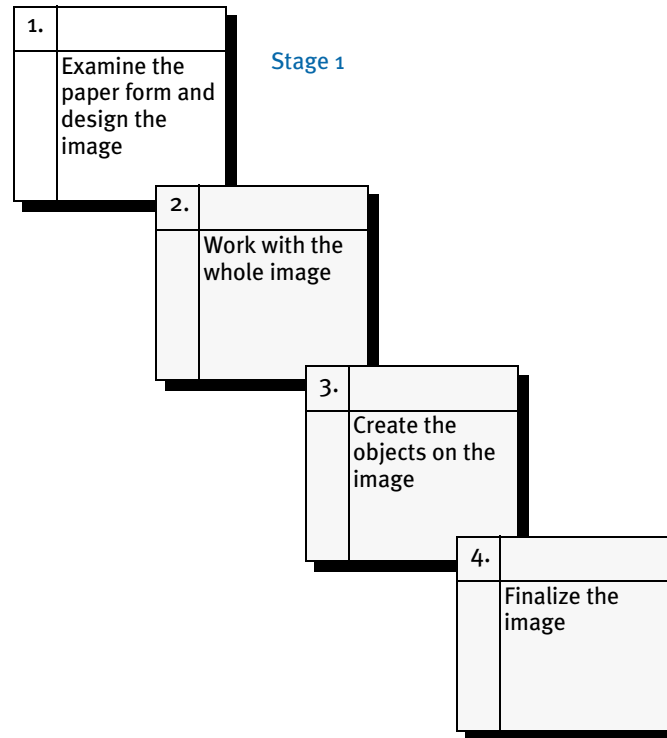


Each of the stages which typically make up the composition flow are explained below:

- Stage 1** In the first stage of image composition you must examine the paper form and make image design decisions. During this stage you are not actually using the Image Editor, rather you are planning the most effective design for the form based on its intended use. Image design concepts are discussed in the next section of this chapter.
- Stage 2** At the second stage of composition flow you begin building your image using the Image Editor. The Image Editor has numerous options, such as grids, rulers, guide boxes, cross hairs and zoom choices, to help simplify the composition process. During this stage you define the image properties such as page layout, margins, orientation, and fonts.
- Stage 3** At the third stage of composition you start to create specific objects within the image. You define the objects which make up the image. You select, place and define objects such as boxes, lines, graphics, bar codes, variable fields and text areas in your image.
- Stage 4** At the last stage of the composition flow you finalize the image. The Image Editor includes tools that let you check spelling, fonts, and the entry fields you have created. You can also assign mapping rules to the entry fields, called *variable fields*. Mapping rules are used by the Rules Processor.

IMAGE DESIGN CONCEPTS

In stage one of the composition process you design your image. Before you use the Image Editor to create electronic forms consider the form's definition and purpose and some essential concepts of form design. There are many types of users and many ways of integrating forms and data. Your electronic form design deserves careful consideration.



NOTE: If you create a form called ABC.FAP and need to make revisions to it later, be sure the form is not given a new name, such as ABC1.FAP, otherwise you may have problems when you retrieve that form from archive, unless you are storing your forms in a library file.

USERS AND INFORMATION

As you design the form consider what information, fixed and variable, the form is meant to gather and convey. Consider the intended users of the form. After analyzing the users and the information, consider how the form design best satisfies the users' goals and purposes. The goal of form design is to accurately and clearly combine information for the user and accomplish the desired business transaction.

The image or form you are designing has a variety of possible users and readers. It is not possible to address every concern of every user. You must focus your efforts on the type of user who is probably the most frequent user. For instance, a form designed for internal personnel should focus on their specific needs, even though others may occasionally see the form. A form designed for internal users is significantly different from a form designed for clients or customers.

Every user, from data entry personnel to recipients, responds best to forms that are easy to read and understand. A form that is easy to read and understand is processed more quickly. The person entering data must understand the information requested and its logical sequence. Readers and recipients must understand the information conveyed. A customer receiving an invoice should immediately see your company name, the amount due, due date, and the return address.

After thinking about the user you must consider how to best combine the information, fixed and variable, on the form for appearance and functionality. You should emphasize the functionality of the form if it is primarily for information gathering and filing. Emphasize the appearance of a form if it is primarily for presentation purposes.

COMMON FEATURES

After thinking about the users and the data identify any common features many forms share. Some features to consider are discussed below.

Identification

The company name and logo usually appear prominently at the top of the page. The name of the form, which usually appears below the company name, should be brief but descriptive. The name should quickly convey how the form is to be used and by whom; along with what action is to be initiated or carried out. A form identification number is also frequently included to provide a version and a date to increase form control.

Instructions

A well-designed form is largely self explanatory; however, you may need to include some instructions. One of the benefits of electronic forms is that special instructions attach to the document electronically in the same way you attach a sticky note or memo to paper documents. It does not interfere with form design. You create and view Image Editor sticky notes or memo instructions using the Insert, Notes option. Sticky notes are not visible in Documaker Workstation, only in the Image Editor.

Margins

Forms should include generous margins and white space so the eye flows naturally through the sections and the user is not overwhelmed with too much information. You should also take into consideration your printer hardware. For example, PCL printers will not print properly if your margins are set at zero.

Variable Fields

Variable or data entry fields, where variable data is entered or merged, are often segmented by boxes or heavier line weights to separate major areas. You may want to include easy to use check mark boxes or columns. A benefit of electronic forms is the ability to have automatic data checking and fill-in features. In other words, you define what type of data is acceptable for a particular field and you establish calculations or table look-ups on the data entered. Image Editor data definition and calculations are set up through the Insert, Variable Fields option.

Typeface

Typeface or font choices are very important. Typefaces which flow together increase reading speed and should be used for blocks of text or sentences. You select the fonts you will use for a form using the Tools, Font Manager option.

Special Effects

Special effects, such as shading are best used to draw attention to important areas of the form or to segment certain areas. Special effects should not detract from the purpose of the form. You can add shading to an object using the Insert, Shaded Area option.

Shown below is a sample form created with the Image Editor. Many frequently-used objects are included on this form.

Box

Variable field

Shaded area

Text area

Text label

Lines

Margins

**COMMERCIAL LINES POLICY
COMMON DECLARATIONS**

Named Insured POLICY NUMBER
ADDRESS

Policy Period: From: To:
REPRESENTATIVE: Agent or Broker
Address

ACME INSURANCE COMPANY OF AMERICA

Business Description:

IN RETURN FOR THE PAYMENT OF THE PREMIUM, AND SUBJECT TO ALL THE TERMS OF THIS POLICY, WE AGREE WITH YOU TO PROVIDE THE INSURANCE AS STATED IN THIS POLICY. THIS POLICY CONSISTS OF THE FOLLOWING COVERAGE PARTS FOR WHICH A PREMIUM IS INDICATED. THIS PREMIUM MAY BE SUBJECT TO ADJUSTMENT.

	PREMIUM
Commercial Property Coverage Part	\$
Commercial General Liability Coverage Part	\$
Commercial Crime Coverage Part	\$
TOTAL	\$

Countersigned: By

This chapter introduced you to the Image Editor and its role in Docucreate. Now you are ready to start using the Image Editor.

CHAPTER 3

Getting Started

In Chapter 2, you were introduced to the role the Image Editor plays in the system. This chapter tells you how to start and exit the system, provides an overview of the menus, and discusses how to move around in the system.

In addition, this chapter also provides information on how to...

- [Starting the System on page 26](#)
- [A Quick Tour on page 28](#)
- [Conversion Setup on page 32](#)
- [Converting Files on page 34](#)
- [Converting Multiple FAP Files on page 36](#)
- [Quick Introduction to the Image Editor on page 44](#)
- [Using System Menus on page 47](#)
- [Moving Around in the System on page 59](#)
- [Customizing Your Work Area on page 74](#)
- [Learning More on page 79](#)

STARTING THE SYSTEM

If you are a new user, you'll find installation instructions in the Docucreate Supervisor Guide. If you have received an update to the system, refer to the instructions in the Supervisor Guide and any additional information in the release letter that accompanies the update.

When you first install the system, the operating system creates icons for Docucreate and the various tools such as the Image Editor, Form Set Manager, Logo Manager, and Library Manager. You can start any of these tools by simply clicking on the appropriate icon.

Click this icon...	To work in this tool...
	Dictionary Editor
	Docucreate
	Field Database Editor
	Font Manager
	Form Set Manager
	Help Editor
	Image Editor
	Library Manager
	Logo Manager
	Docucreate
	Table Manager



NOTE: Use the operating system's features to place the icons and folder anywhere you like. For example, if you use Windows 95, you may want to place the Image Editor icon on the desktop or Start menu so you can get to it more quickly.

Depending on how your system is set up, you may need to enter a user ID and password when you start the Image Editor. Normally, you will have a user ID and password if you are working in a network environment. Since installations differ, consult your system supervisor if you have questions about how to log on.

LOGGING ONTO THE SYSTEM

Use these instructions to log onto the system. Logon names and passwords are set up by the system supervisor.

NOTE: You only have to log into the system or one of its modules the first time you start a new session. For example, if you start a session by logging into the Logo Manager, you will not have to log in again to use the Image Editor.

- 1 Click the Docucreate icon, or click one of the other module's icons. The Logon window appears.



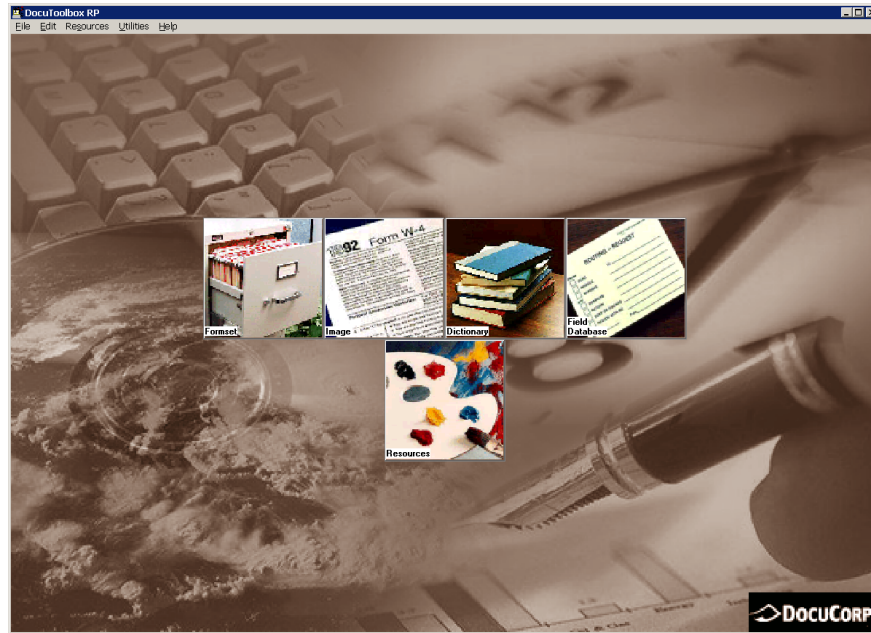
- 2 Type in your user ID and password.
- 3 Click Ok. You are logged into the system.

EXITING THE SYSTEM

Choose File, Exit to exit the system.

A QUICK TOUR

After you log on to the system, this window appears:



From this window, you can access every module of Docucreate, set up for conversion, convert files, set up printers, and more. The following table discusses the pull down menus and icons available from the system. The following topics discuss each option on these menus.

Menu	Icon	Description
File Menu		
Convert		Use the File, Convert options to convert various file types to file types recognized by the system, read and remove log files created during the conversion process, and to make changes to multiple FAP (image) files.
Conversion Setup		Use the File, Conversion Setup option to set up the paths of the various file types you want to convert. This keeps you from having to select a path each time you want to convert a file of a certain type.
Print		Use the Print option from Docucreate to batch print multiple FAP or RPT files without having to open each file you want to print.
Printer Setup		This option lets you set up your printer and select a default printer.
Library Setup		Use this option to select the library you want to work with, and to add, change or delete libraries.

Exit Use to exit Docucreate.

Edit

Formset



Select the Edit, Formset option to go to the Form Set Manager. The Form Set Manager helps you define the selection and arrangement of images that comprise the form set. For more on using the Form Set Manager, see [Logo Manager on page 471](#).

Image



Use the Edit, Image option to go to the Image Editor. The Image Editor is the module you use to create and manage the images you use to make up forms.

Dictionary



Use the Edit, Dictionary option to create and maintain information about the extract files you use to automatically merge information into variable fields on a form. You can import Data Dictionary File Layout (DDF), Data File Definition (DFD), dBase IV (DBF), COBOL Copy Book files and SAP RDI files. This lets you define customer data or transaction file data, and gives you a greater ability to apply and modify data, and increase the ease of reusing resources. For more on using the Dictionary, see [Field Database Editor on page 545](#).

Field Database



Use the Edit, Field Database option to store common variable field information to make setting up and creating FAP files faster and more consistent. This file contains a record for each unique variable field name, and is indexed in ascending order. For more on using the Field Database Editor, see [Form Set Manager on page 481](#).

Resources



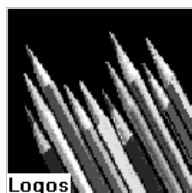
Click the Resources icon to display icons for managing image resources. These resources include fonts, logos, help, and tables.

Fonts



Use the Resources, Fonts option to open the Font Manager. A font is a collection of letters, symbols, and numbers which share a particular design. The Font Manager lets you organize your fonts into sets of fonts you group together for image creation and printing needs. For more about using the Font Manager, [Using Font Manager on page 151](#).

Logos



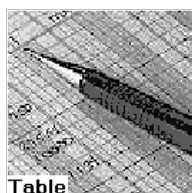
Use the Resources, Logos option to open the Logo Manager. Logos are scanned objects that can be placed on an image using the Image Editor. These objects cannot be displayed or printed on an image using any other method. Once you create a logo, you can edit it using the Logo Manager. This gives you an easy way to resize, reverse, rotate, and manipulate the logo to fit your needs. For more about using logos, see [Master Resource Libraries on page 461](#).

Help



Use the Resources, Help option to open the Help Editor. Use the Help Editor to attach help messages to a variable data entry field. The help messages you create with the Help Editor are available to the user during manual data entry. Help messages and instructions make the entry process quicker and more efficient. Users have the option to display the help message if they need assistance with data entry. For a complete discussion about creating and applying help context to variable fields, see [Adding Help Information on page 285](#).

Tables



Use the Resources, Help option to open the Table Editor. The Table Editor lets you create lookup tables for the variable fields you create. Tables make the entry process quicker and more efficient for the end user. Users choose from data in a table rather than keying in information. This is especially useful, for example, when entering lengthy codes. For more on using Tables, see [Adding Tables on page 295](#).

Utilities

Library
Manager

Use the Utilities, Library Manager option to open the Library Manager Utility. From the Library Manager, you can record descriptions when files are updated to a new version. The Library Manager controls resources much in the same way a traditional book library operates. You *check out* files to use them and *check in* files when you are done using the Image Editor and the Logo Manager. You can also create versions that are for future use and date stamp them so they are active on the effective date. This lets you create a form before it goes into effect. For more on using the Library Manager, see [Mapping Variable Fields on page 369](#).

User ID
Maintenance

This option lets you set up users, passwords, security levels, and other user information in the system. For an explanation of setting up users, see the [Docucreate Supervisors Guide](#).

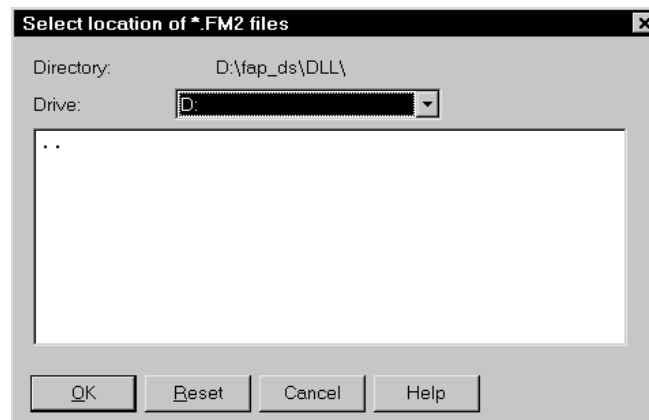
CONVERSION SETUP

When you use Docucreate, you can batch convert FormMaker II file types. Before you begin converting files, you should first set up the paths you want to use for the conversion. These paths let the system know where the files you want to convert currently reside, and where you want the converted files to be placed after conversion. You can set up additional paths for the conversion tool by specifying an input DDT and an output DDT.

- 1 From the File menu, select Conversion Setup.
- 2 From the Conversion Setup menu, select one of these options:

Select . . .	To . . .
FM2 Path	Enter the path where your FormMaker II source files (FM2) currently reside.
PCL Path	Enter the path where your HP Printer Control Language (PCL) files (OVL, DSK, and TRN) currently reside.
RTF Path	Select the path where any Rich Text Format files (.RTF) currently reside.
FIB Path	Enter the path where your FormMaker II Form Entry Files (FIB, VDA, and VIX) currently reside.
LOB Path	Enter the path where your FormMaker II LOB files currently reside. LOB files are FormMaker II's logo files.
Multiple FAPs Path	Enter the path you want to use when you use the File, Convert, Multiple FAPs option. This path tells the system where to place the converted FAPs.
Output DDTs Path	Enter the path for storing DDT information when separating the DDT from the FAP file.
XDB File	Enter the path for the XDB file.
FAP Path	Enter the path for the directory you want FAP files to be stored in after conversion.
Input DDT Path	Enter the path for the DDT information you want to merge with the FAP file during the conversion.
LOG Path	Enter the path for the directory you want your Logo files (LOG) to be stored in after conversion.
AFP Path	Enter the path where your Advanced Function Printing (AFP) files currently reside. AFP, developed by IBM, is a print server language that generates data streams of objects. The data streams merge with print controls and system commands to generate Intelligent Printer Data Stream (IPDS). Your system then sends the IPDS to the AFP printer for printing.
MET Path	Enter the path where your Metacode print files currently reside.

A window similar to the following appears:



- 3 If you are entering set up information for a file type to be converted, enter the drive where the file type is located in the Drive field. If you are entering set up information for a converted file type, enter the drive where the file type should be located after conversion in the Drive field.
- 4 Click the double dots in the box to display directories and subdirectories for your selection.
- 5 Continue selecting directories and subdirectories until you have entered the complete path for the selected file type. The path displays in the top portion of the window.
- 6 When you have finished entering the complete path, click Ok. Or, click Reset to return to the default path.

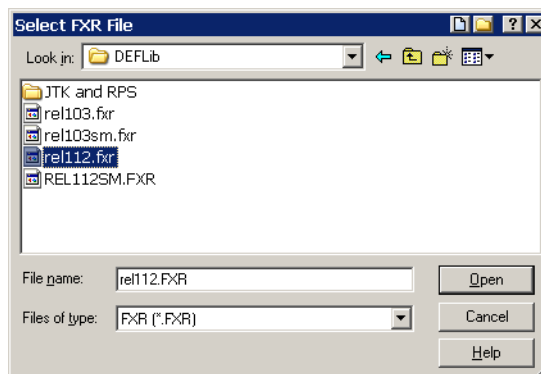
CONVERTING FILES

After you have set up the conversion paths (see the previous topic, [Conversion Setup on page 32](#)), you may now begin converting files. The system uses the paths you entered in the previous step, but you can change the paths as you convert files, as necessary.

- 1 From the File menu, select Convert.
- 2 From the Convert menu, select one of the following options:

Select . . .	To . . .
Multiple FAPs	Make changes to one or more images
Logos	Convert graphic files (such as BMP, PCX, and TIF) into LOG files, AFP page segments, JPEG, or Xerox font (FNT or IMG) files
FM2 to FAP	Convert FM2 files to FAP files
PCL to FAP	Convert PCL files to FAP files
RTF to FAP	Convert RTF files to FAP files
LOG to LOB	Convert LOG files to LOB files
FAP to PCL	Convert FAP files to PCL files
FAP to FIB	Convert FAP files to FIB files
FAP to AFP	Convert FAP files to AFP files
FAP to Met	Convert FAP files to Met files
FAP to Normalize	Convert FAP files to normalized AFP files
Read Log File	Display a log file that tells you of any errors during the conversion
Remove Log File	Delete the log file

- 3 A window similar to the following may appear, depending on what conversion you are running:



NOTE: For some conversions, you must select a font file (FXR) before you select the file types to convert from and to. The converted file uses the font file you selected before the conversion.

- 4 To convert all the files of the selected type in the directory, make sure an asterisk appears before the extension of the file type you want to convert. To convert only one file, click on the file you want to convert or enter the file name in the File Name field. Click Ok.
- 5 An identical window appears for the file type you want to convert to. Enter the information and click Ok.

You can also convert Document Sciences CompuSet scripts into Documaker FAP files either by using the CSET2FAP utility for batch conversions or by configuring your FAPCOMP.INI file to load CompuSet scripts directly into Image Editor. Information on configuring the FAPCOMP.INI file for conversion can be found in the [Docucreate Supervisor Guide](#). For information on using the CSET2FAP utility, see the [Docutoolbox Reference](#). Either conversion method lets you open CompuSet scripts in Image Editor or Documaker Studio Images.

NOTE: See the [Docutoolbox Reference](#) for information on using the DCD2FAP utility to convert a Docucorp Compound Document (DCD) file into a FAP file.

CONVERTING MULTIPLE FAP FILES

The Multiple FAPs option lets you make numerous changes to a group of image and DDT files. You can also use this option to make global changes to a group of FAP files you select.

For instance, you can use this option to:

- Change fonts
- Change field names
- Recalculate font coordinates
- Replace specific characters
- Update FAP files from the Field Database
- Update DDT files from FAP files and the Data Dictionary

To use this option, follow these steps:

- 1 Choose the File, Convert, Multiple FAPs option from the system menu. The select FAP Files window appears.
- 2 Select those FAP files you want to convert and click Ok. The Converting Multiple FAPs window appears.
- 3 The Select FAP files window appears so you can select the FAP files you want to convert.
- 4 Click the appropriate tab to indicate the changes you want the system to make. Then click Ok. The Convert Multiple FAPs window contains the following tabs:
 - Images
 - Fields
 - Fonts
 - Others

NOTE: These settings are stored in your FAPCOMP.INI file, in the FixOptions group. To change the output location for FAP files processed using this option, choose the File, Conversion Setup, Multiple FAPs Path option.

Finding the Source Name

The system checks the XDB for a root name as the source name after it determines the original sequence name (#nnn) is missing. This applies to both the Image Editor and the Convert Multiple FAPs option of Docucreate.

Here is an example:

You create a field in the XDB called *Description*. Then, in the image, you create a field named *Description*. As you would expect, the XDB matches the two fields.

Now, when you duplicate *Description* and create *Description #002*, the system first checks to see if *Description #002* is a valid source name in the XDB. If it is not, the system takes the root name *Description* and looks for that.

If it finds that name, the system uses it as the source name and sets the DDT Source Record variable to two (2). Likewise, for *Description #003* the system would find the root name *Description* and set the source record number to three (3) and so on.

The system sets the source record number (SrcRec) to the index number because this could be useful in an overflow situation. Depending upon your associated rule (or XPath), however, it may not get used at all.

If the field name referenced in the SourceName field is not found in the XDB, the system does not change it. This means the system will not change the source name field if neither the original nor the root name of the field are in the XDB.

So, you can use the Docucreate menu to convert existing FAP files and if the system finds the root name matches when the original did not, it will be updated.

IMAGES TAB

The Images tab on the Convert Multiple FAPs window lets you make changes that apply to several images at one time. You can use the options on this tab as follows:

To...	Do this...
Fix negative coordinates	Check the Fix Negative Coordinates field. Negative coordinates are not produced by the system, but some users have encountered them with conversions into the Rules Publishing Solution software from print streams.
Retain current image dimensions	The system increases an images horizontal or vertical dimensions if you place objects outside the images borders. To prevent this from happening, check the Retain Image Dimensions field.
Rotate images 90 degrees	Check the Rotate 90 Degrees field. Note that you can not rotate these objects: logos, guideboxes, text areas, and multi-line text variable fields.
Broaden Text Area	Check this option to make sure text areas will be large enough to contain the text without re-wrapping it.
Adjust X coordinates	Enter the appropriate value in FAP units into the Adjust X Coordinates field. FAP units are 2400 units per inch. For instance, to adjust by 1.5 inches, you would enter 3600 in this field.
Adjust Y coordinates	Enter the appropriate value in FAP units into the Adjust Y Coordinates field. FAP units are 2400 units per inch. For instance, to adjust by 1.5 inches, you would enter 3600 in this field.

To...	Do this...
Change the names of FAP files	Enter the names you want to change the old names to in the New Name field. The Old Name field automatically has the names of the fap files initially selected. You can use the Import button to import a semicolon delimited file with these names. If you import a file, make sure the image names are listed as shown below, with the new name last: <pre>;IMG001;IMGABC; ;IMG002;NEW002;</pre>

NOTE: Check the Match Case field if you want the system to consider upper- and lowercase letters when it searches for the FAP files to change.

FIELDS TAB

The Fields tab on the Convert Multiple FAPs window lets you make changes that apply to several fields at one time. You can use the options on this tab as follows:

To...	Do this...
Change the calculation designation on the variable fields from DAL Calc to DAL Script	Check the Change DAL Calcs to DAL Scripts field.
Update fields from the Field Database	Check the Update Fields from Database Field option. The system brings up a separate window providing you with a selection of attributes that can be updated from the Field Database.
Use unique field names	Check the Require Unique Field Names field if you want the system to check for duplicate field names and warn you if any are found. If the system finds duplicate fields, it appends a pound sign (#) followed by a number such as 001 to the field name.
Delete fields	Check the Delete Fields field if you want the system to delete all variable fields from the images you selected. The system does not delete the fields from the Field Database. You can use this option to turn an image into a template which you can reuse or as another way of creating overlays.
Change field names	Enter the current name of the field in the Old Name field and the name you wish to change to in the New Name field. You can use the Import button to import a semicolon delimited file with these names. If you import a file, make sure the field names are listed as shown below, with the new name last: <pre>;PLCY#;POLICY_NUM; ;FIELD;LAST_NAME;</pre>

To...	Do this...
Format dates using 4-digit years	Check the Use 4-digit Year Date Format field to change all date fields on the selected images to use 4-digit years. The system will adjust the fields input length if necessary, but makes no other changes to the field.

NOTE: When changing field names, check the Match Case field if you want the system to consider upper- and lowercase letters when it searches for the field names to change.

Fonts Tab

The Fonts tab on the Convert Multiple FAPs window lets you make changes that apply to several fonts at one time. You can use the options on this tab as follows:

To...	Do this...
Calculate coordinates	To have the system recalculate font coordinates, click the appropriate option. Typically, you would use the Retain Bottom, Adjust Top Coordinates option so the text would retain its current baselines. Click Retain Top, Adjust Bottom Coordinates if you want to keep the top coordinates. Click Retain Top and Bottom Coordinates if you do not want the system to recalculate font coordinates.
Change font IDs	Enter the current ID of the font in the Old ID field and the ID you wish to change to in the New ID field. You can use the Import button to import a semicolon delimited file with these IDs. If you import a file, make sure the IDs are listed as shown below, with the new font ID last: <pre>;6010;11010; ;6110;11110;</pre>

Other Tab

The Other tab on the Convert Multiple FAPs window lets you make miscellaneous changes to the images you selected. You can use the options on this tab as follows:

Select...	To do this...
Merge DDT into FAP	With version 11.0, DDT information can be manually merged into its associated FAP file using this option. However, if you are using version 11.0 — and are therefore using the BDF, GRP and FOR file types — the system assumes you have merged DDT information into your FAP files. Selecting this option disables the Split DDT from FAP option since they are mutually exclusive. Additionally, if you are merging DDT information, the Update DDT from FAP option is turned off and disabled since that behavior is assumed. Versions prior to 11.0 expect separate DDT and FAP files and this option will not be available on the Other tab. If you use the Documaker Studio import process to migrate your master resource library to a new workspace, the merging of DDT files into FAP files happens automatically.
Update DDT from FAP	To update the DDT files for the images you selected using existing FAP information, click this field. The system updates the font ID and x and y coordinates. If the system finds field name matches in the FAP file, it updates the appropriate DDT information. The Update DDT from FAP option in Docucreate and the FAP2DDT utility add a SetOrigin rule to the Image Rules section if one does not exist. Some caveats apply. For more information, see Automatically Adding a SetOrigin Rule on page 42.
Split DDT from FAP	If you are using version 11.0 — and are therefore using the BDF, GRP and FOR file types — the system assumes you have merged DDT information into your FAP files. Use this option to manually split the DDT information from the FAP file. Versions prior to 11.0 expect separate DDT and FAP files and this option will not be available on the Other tab.
Update DDT from XDB	To update the DDT files for the images you selected using data dictionary (XDB) information, click this field. The system updates the font ID and x and y coordinates. If the system finds field name matches in the XDB file, it updates the appropriate DDT information. If you select this field, you can also click the Options button to specify whether you want the offset, length, mask, rule, or data information updated. You can also use the Options button to tell the system to use the XDB rule when converting multiple FAP files. Checking this option updates all selected files using the XDB rule and turns off other selections on the Update DDT from XDB window, such as Offset, Length, Mask, Rule, Data and so on. If the source field is in the XDB, select the XDB rule as the DDT rule name for the DDT file. The source record in the XDB can name any rule it wants, but typically would not name the XDB rule.

Select...	To do this...
Combine adjacent text labels	To combine adjacent text labels, click this field. The system combines labels that use the same font and have the same baseline. If the labels are located closer than half the width of a space character, the system joins the labels without a space. If the labels are more than half the width of a space character apart, but less than the width of a space character, the system joins the labels with a space between them. If more than a space separates the labels, the system does not combine them. Keep in mind that you can use the Image Editor's Format, Convert to text label or Convert to text area options to combine text areas and labels you select on a specific image. This option is more often used to when print files are converted to FAP files and each character is turned into a separate label.
Combine overlapping text labels	To combine overlapping text labels, click this field. Occasionally, conversions from print streams produce text labels which overlap. Check the Combine Overlapping Text Labels field to have the system correct these kinds of problems.
Return to default colors	Check the Return to Default Colors field to reset all colors on the selected images to the default colors.
Print in color	Check the Print in Color field if you want the system to make all colors printable for the images you selected. This option, in effect, checks the Print in Color field on each object's Color Selection window.
Map alternate characters	Enter the current character of the font in the Old Character field and the character you wish to change to in the New Character field. You can use the Import button to import a semicolon delimited file with these characters. If you import a file, make sure the characters are listed as shown below, with the new character last: <pre> ; & ; * ; ; ; _ ; </pre> Typically, you would use this option to replace a character which exists in one code page, but not in another. For instance, some code pages include typographical quotation marks (sometimes called smart quotes) while others do not. You can use this option to replace the typographical quotation marks with standard quotation marks (").

Automatically Adding a SetOrigin Rule

The SetOrigin rule that is added is:

```
;SetOrigin;Abs+0,Abs+0;
```

For the FAP2DDT utility or Docutoolbox to add a SetOrigin rule to your DDT, you must include this option in your FAPCOMP.INI file:

```
< DDTResource >  
AutoIncludeSetOrigin = ;SetOrigin;Abs+0,Abs+0;
```

The DDTResource control group is used for DDT settings such as WriteCoordinates, MultipleDDTs, and so on.

The system only adds a SetOrigin rule to a DDT file if there is an AutoIncludeSetOrigin setting and these conditions are true:

- The AutoIncludeSetOrigin setting begins with a semicolon (;)
- The AutoIncludeSetOrigin setting contains *SetOrigin*
- The DDT file does not already contain a SetOrigin rule (SetOrigin, SetOriginI, SetOriginM, RULSetOrigin2, or UTILSetOrigin)

Other than verifying that the rule begins with a semicolon and contains some form of *SetOrigin*, no other validation is performed. You must specify a valid rule with valid parameters.

Printing Multiple Images and Reports

You can batch print multiple FAP images (including multi-page FAPs) without having to open the FAP file, print it, close it, and open the next FAP file. This option has been added to File menu. After selecting the Multiple FAPs option, the Printing Multiple FAPs window appears, which lets you choose one or more FAP files to print.

To select multiple FAPS one at a time, click the left mouse button while pressing CTRL. To select a group, click on the FAP file that begins the range and then click on the FAP file that ends the range while pressing SHIFT. In either case, the selections will be highlighted, and after clicking Ok, all selections are sent to the printer.

Creating reports

Additionally, you can also create a report for multiple FAP files. This option is also available from the File menu. Using this feature, you can select multiple FAP files in the same manner described previously for printing multiple FAP files. After selecting the FAP files, you select what type of information should be included in the image report.

The Report window lets you select reporting options.

Report

For the report to include data concerning these areas the appropriate check boxes must be selected.

☐ Bar codes
 ☐ Lines

☐ Boxes
 ☒ Logos

☐ Charts
 ☐ Notes

☐ DAL scripts
 ☒ Sections

☒ Variable fields
 ☐ Text areas

☒ Fonts used
 ☐ Text labels

Select All

Set as Default

OK

Reset

Cancel

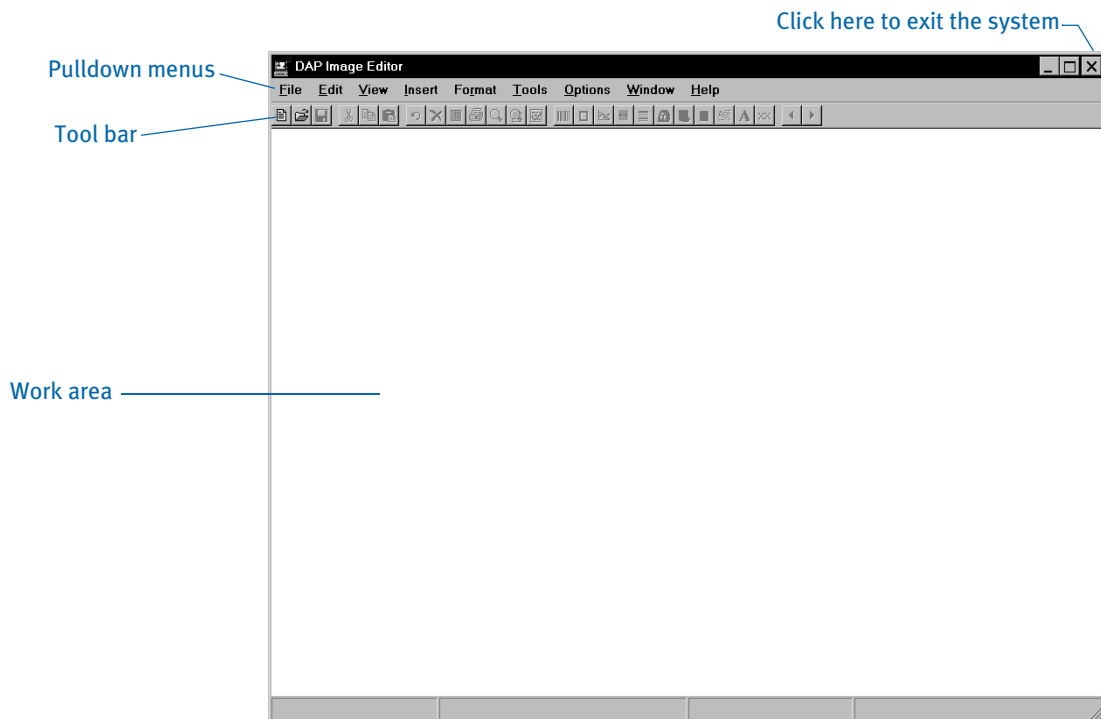
Help

43

QUICK INTRODUCTION TO THE IMAGE EDITOR

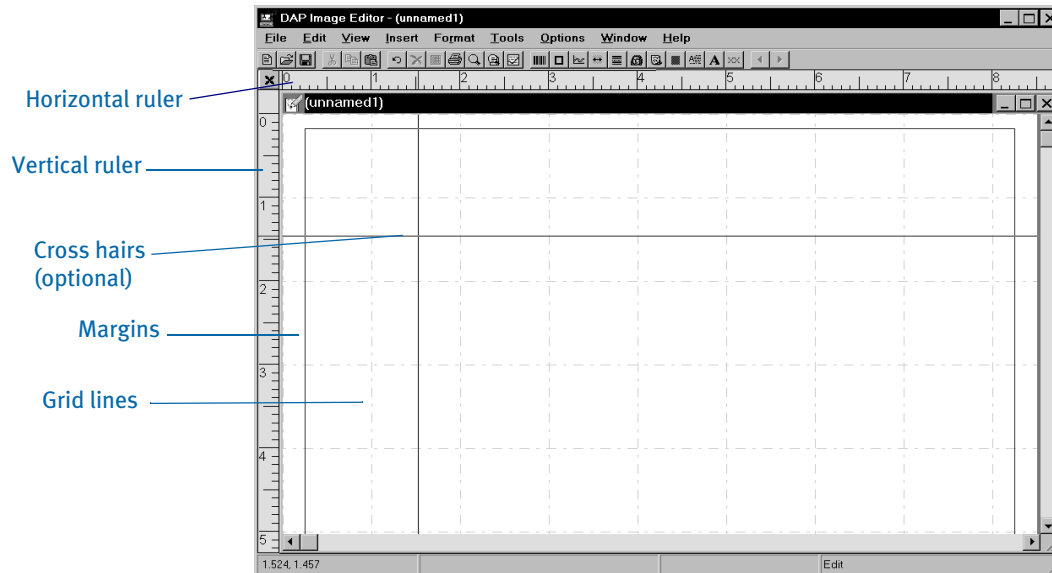
The best way to learn a new tool or to get acquainted with the new features of an update is to try them out. This topic provides a brief example of how you create a new image and add an object to the image. You'll also learn about some of the screen features.

When you start the Image Editor, the system displays the following window:



This window is your work area as you create images. The pull down menus let you choose system options and the tool bar provides shortcuts to commonly-used menu options. As you move the mouse pointer across the tool bar, short descriptions of the tool icons appear.

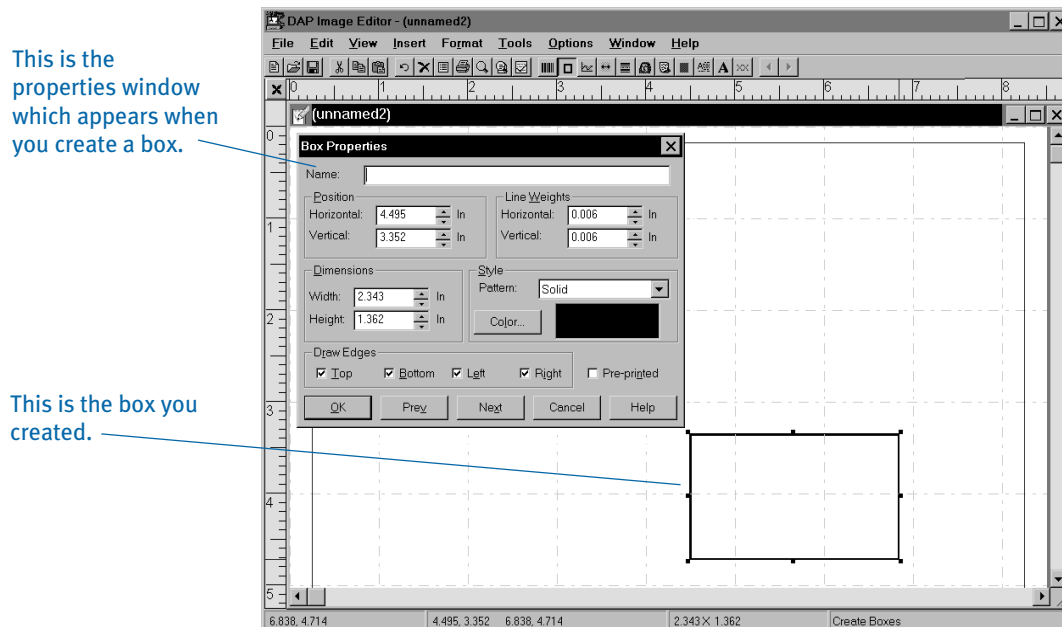
To quickly get started using the system, click on the File menu and choose the New option. The window changes slightly, as shown in the following window:



The window now includes rulers, margins, and grid lines to help you align the objects, such as boxes, lines, logos, and text areas, that you place on your form.

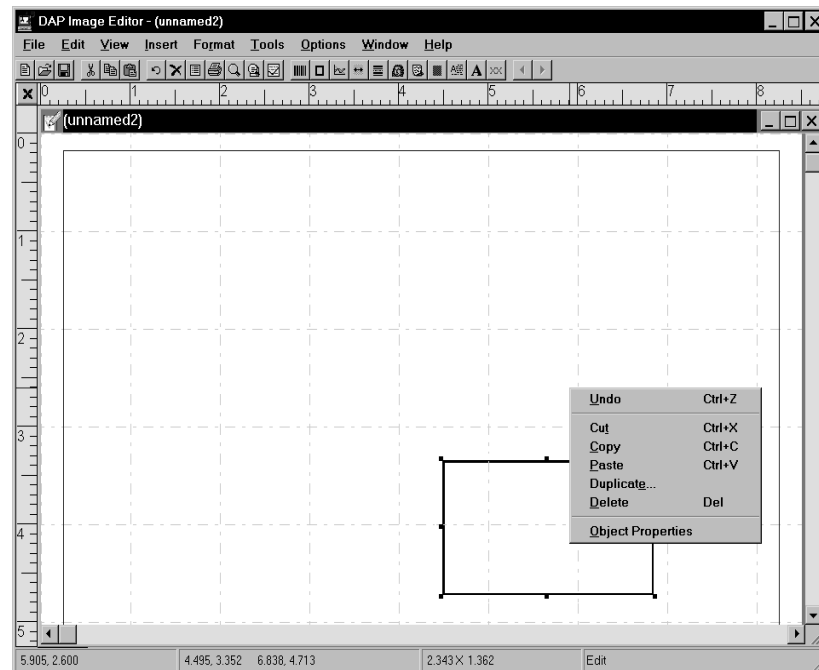
NOTE: You can turn on or off the rulers, grid lines, and other design aids as often as you like. See [Customizing Your Work Area on page 74](#) for more information.

Now let's create an object. Click on the Box icon on the tool bar and then move your mouse pointer into the work area. Now press the left mouse button and drag the mouse pointer to the right an inch or so and release the mouse button. Your window should look similar to the following window.



With the exception of text areas and charts, all the objects you can create display a properties window which lets you enter the properties or attributes of the object. Here you see the properties window for boxes. In this window you can enter a name for this box, its dimensions, its location on the form, border characteristics, fill pattern, and other properties. For text areas, the system displays the Text Editor, into which you enter your text.

For this example, you do not have to enter anything in the properties window. Just click Ok to save the box. Then, click the right mouse button. A menu appears which provides quick access to common editing options.



Click anywhere outside the menu to exit this menu without making a choice. This example showed you how to create a new image file and insert an object. Try creating some of the other objects included on the tool bar, such as logos, lines, and text areas.

Choose File, Exit when you are finished. You do not have to save this image file.

The following topic provides more information about the menus and options you can use as you create images.

USING SYSTEM MENUS

This topic discusses the pull down menus available when you are creating an image. The following topics discuss each option on these menus.

Select	To
File	Create, open, close, close all, save, view, check in, check out, unlock, and print files nor a specific page in an image. Also, it lets you set up master resource libraries and printers.
Edit	Perform normal editing functions such as undo, cut, copy, paste, duplicate, delete, and change colors and fonts.
View	Set View options such as fit to width, zoom in and out, and set display options for image objects, rulers, tool bars, grids and cross hairs and so on.
Insert	Insert boxes, lines, bar codes, logos, variable fields, and other objects into your image.
Format	Adjust the spacing and alignment, work with object and image properties. This menu also lets you convert and split text objects.
Tools	Check spelling and fonts, find and replace text, test the form in data entry mode, manage fonts, display a report which shows statistics about your form, and compile or normalize your form.
Options	Turn on the Autocreate option, protect the image, and set selection filters. You can also use this menu to set editor defaults and defaults for the objects you create.
Window	Use to control the display of your windows. You can elect to have the windows display in tile, stack, or cascade format.
Help	Display Help contents, how to topics, shortcuts, the glossary, and product information.

FILE MENU

The File menu controls creating, opening, closing, saving, checking in or out, and printing your files. You also exit the system and return to your operating system from the File menu. When you select File, this menu appears:

N ew	Ctrl+N
O pen...	Ctrl+O
C lose	
C lose All	
S ave	Ctrl+S
S ave A s...	
V iew...	
C heck O ut...	
C heck I n...	
U nlock	
P rint	▶
P rint S etup...	
L ibrary S etup...	
E xit	

A brief summary of each option appears below.

Select	To
New	Create a new image (FAP file).
Open	Open an image file.
Close	Close the current image. The system prompts you to save the image.
Close All	Close all the open images in the window. The system prompts you to save each image as the window is closed if changes have been made.
Save	Save the image you are working with. Depending on the choices you made when you set up Editor Properties on the Options menu, the system lets you enter comments about the image and save it in version 7.x format, check spelling, and update the .DDT file. You can view any comments by choosing Format, Image Properties.
Save As	Save the current image under a new name. This option lets you make a copy of an existing image, without changing the original.
View	View an image in a library. You can only look at the image, you cannot change it. Other users can also view the image or check it out.
Check Out	Retrieves an image from a library and locks it, so no other user can check it out while you work with it.
Check In	Returns an image to a library and unlocks it. Other users can then check out the image.
Unlock	Remove the lock placed on a document when you retrieved it with Check Out, but did not use the Check In option to return it to the library.

Select	To
Print	Print the current image or page. The system lets you choose where to print the image and whether to insert XXXs as place holders for variable fields. You can choose to print the image, just one page of the image, or all open images.
Print Setup	Select the printer you will print to and set up printer-specific options.
Library Setup	Change to, add, or delete a master resource library. Master resource libraries determine which images and files are available for you to use. This option is only available when all images are closed.
Exit	Close the Image Editor. Depending on the confirmation choices you made when you set up Editor Properties on the Options menu, the system prompts you to save the image before you exit.

NOTE: The system displays the path and file name of the last five opened FAP files.

EDIT MENU

The Edit menu lets you make changes to images and objects within images. You can undo, copy, cut, delete, and paste individual objects or select all the objects for editing. When you select Edit, this menu appears:

<u>U</u> ndo	Ctrl+Z
Cu <u>t</u>	Ctrl+X
<u>C</u> opy	Ctrl+C
P aste	Ctrl+V
Duplicate...	
<u>D</u> elete	Del
Delete Page	
S elect All...	
F ont Change...	
Color...	

A brief summary of each option appears below.

Select...	To...
Undo	Cancel or reverse your last action or choice.
Cut	Remove a selection and place it on the clipboard. Use Paste to insert the selection into another part of the image or into a different image.
Copy	Make a copy of the selection and place it in the clipboard. Use Paste to insert the selection into another part of the image or into a different image.
Paste	Insert the contents of the clipboard at the cursor location.
Duplicate	Make multiple copies of an object and paste the copies adjacent to the original. You can also tell the system to place the copies at specified horizontal or vertical intervals, based on the original object.
Delete	Erase the selection. The selection is not stored on the clipboard so you must immediately select Undo if you change your mind.
Delete Page	Delete an entire page from your image. The system prompts you to confirm the deletion. You cannot use Edit, Undo to restore the page.
Select All	Select all objects or text so that you can perform actions to all of the objects at once. You select the types of objects you want the system to select.
Font Change	Replace the font you specify with another font. You can replace individual or all occurrences of a font in the current image.
Color	Lets you change the color for selected objects to another of the 16 colors in the color select list or to a custom color.

VIEW MENU

The View menu controls the appearance of your screen. You can turn on and off the display of various parts of the screen such as rulers, grid lines and cross hairs. You control how you view an image within the work area. When you select View, this menu appears:



A brief summary of each option appears below:

Select...	To...
Fit to Window	See the entire image in the active window.
Fit to Width	See the entire width of the image in the active window.
Actual Size	Display the image at the same size as when printed.
Zoom	Magnify or reduce the size of the image display.
Zoom Area	Magnify an area of the image to fill the entire display area.
Zoom In	Increase the magnification of your display. Each time you select the Zoom In option, the display increases by 10%. Zoom In lets you quickly increase your display size for a “close up” view.
Zoom Out	Decrease the magnification of your display. Each time you select the Zoom Out option, the display decreases by 10%. Zoom Out lets you quickly decrease your display size for complete view.
Page	Go to the next, previous, or a specific page.
Lists	Display lists of the various types of objects in the form. From these lists you can select an object and modify its properties. You can also double click on an object or use the Format, Object Properties option to edit the properties of a single object.
Refresh	Update and re-display the image.
Options	Select the objects you want to appear on your screen, customize the horizontal and vertical rulers, and customize the grid display. For more information, see Customizing Your Work Area on page 74 .

INSERT MENU

The Insert menu lets you add objects such as boxes, bar codes, lines, and text areas to your image. You select the object you want to add from the Insert menu or from the tool bar and then move your cursor to the place you want the object. When you select Insert, this menu appears:

<u>B</u> ar Code	
B <u>o</u> x	Ctrl+Q
<u>C</u> hart	
G <u>u</u> ide Box	
<u>L</u> ine	Ctrl+L
L <u>o</u> go	Ctrl+G
<u>N</u> ote	
S <u>h</u> aded Area	Ctrl+H
T <u>e</u> xt A <u>r</u> ea	Ctrl+A
T <u>e</u> xt A <u>r</u> ea S <u>pe</u> cial	▸
T <u>e</u> xt L <u>a</u> bel	Ctrl+T
V <u>a</u> riable F <u>ie</u> ld	Ctrl+F
P <u>a</u> ge...	

A brief summary of each option appears below.

Select...	To...
Bar Code	Insert a bar code. This option lets you draw and place a sized area for one of the twenty-six supported bar code formats. You can either place the bar code in the image (a static bar code) or merge it into the image at runtime (a dynamic bar code).
Bookmark	Add bookmarks to the FAP files that comprise the form set. These bookmarks define the text you want to print in the table of contents.
Box	Draw a box. Use boxes to segment areas on the image. You can also place other object types inside boxes
Chart	Insert a chart.
Guide Box	Create a guide box. Guide boxes help you align objects. Choose View, Options to turn on or off the display of guide boxes.
Index and Tables	Add a table of contents (or list of figures or index) object to your form set. You can place this object on a new form or wherever you want the system to create the table of contents.
Line	Draw a line. Use lines to separate areas on the image. You can vary the width of the line to indicate major and minor divisions of information
Logo	Insert a logo. This option lets you create an area for a graphic, logo, picture or signature. You determine the logo or graphic format when you create the image or at runtime. The graphic must be in the .LOG format. The system includes tools to convert TIF, BMP, IMG, SEG, FNT, OVL, and PCX files into LOG files.

Select...	To...
Note	Add a note. This option lets you add supplemental or descriptive text, which does not print, to your image. For instance, you can use this option to leave notes to yourself or to another image creator. Choose View, Options to turn on or off the display of notes.
Page	Insert a page before or after the current page. You can also use this option to insert a file before or after the current page.
Shaded Area	Create a shaded area. Use shading to emphasize parts of the image. You can choose from several halftones and shading patterns.
Text Area	Create a text area. This option lets you create an area into which you can enter text using the built-in text editor. Use text areas, as opposed to text labels, to enter a large amount of text and to use features such as word-wrap, spell check, bold, italics, and underlining.
Text Area Special	Insert a file from the clipboard or from disk. You can insert a FM2 (FormMaker II) text file, an ASCII file, system text from the clipboard, or ASCII text from the clipboard. The system can convert many images to the format of the current image.
Text Label	Create a text label. This option lets you add short amounts of text into your image. Use text labels for short field labels and titles which require exact positioning.
Variable Field-	Add a variable field. This option lets you add a blank field to the image. Variable data is entered in the field during entry or merged at runtime. Use variable fields to create data entry areas.
Vector	Create vector drawings in your images.

FORMAT MENU

The Format menu lets you set and change specific object properties. You create objects using the Insert menu or by selecting the view option on the tool bar. Edit object properties using the Format menu options or by double clicking on the object. From this menu you can also edit properties assigned to the entire image or page. When you select Format, this menu appears:



A brief summary of each option appears below.

Select...	To...
Align	Align selected objects. You can either align objects relative to the master object you selected or to the page margins.
Spacing	Place selected objects at specified horizontal or vertical intervals.
Convert to Text Area	Convert individual text labels into a single text area. After you convert text labels, you can use the Text Editor's word processing features as you edit the text.
Convert to Text Label	Convert individual text labels into a single, larger text label. After you convert text labels, you cannot use the Text Editor's word processing features as you edit the text.
Split Text Area	Split a text area into individual text labels. After you split a text area, you can move the text labels to new locations in the image, but you cannot use the Text Editor's word processing features as you edit the text. You can select multiple text areas to split.
Page Properties	Edit page properties such as margins, orientation, and paper size. For example, you would use this option if you wanted to create a landscape form on legal or A4 paper.
Image Properties	Edit image properties such as descriptive information and view historical information about the creation of the form. With this option you can also set the Help and Table defaults and set up procedures you want run before or after the image is edited.
Object Properties	Edit properties assigned to the object currently selected. You can use the View, Lists option to more quickly edit all objects of a single type, like boxes.

TOOLS MENU

The Tools menu controls features often used when your image is complete or near completion. Font Check, Spell Check, and Data Entry Check options are available. When you select Tools, this menu appears:



A brief summary of each option appears below:

Select...	To...
Spell Check	Check the spelling of all text in the image. You can also add words to your custom dictionary using this option.
Spelling Options	Set options for the Spell Check option. For instance, you can use this option to choose the language, ignore words with mixed case, and so on.
Find/Replace	Search for occurrences of text in an image. Find lets you replace the text with another word or phrase.
Font Check	Make sure all fonts used in the image are in your current font set.
Grammar Check	Check for common grammatical errors when entering or editing text using the Text Editor.
Grammar Options	Specify the types of grammar errors you want to search for.
Data Entry Check	Test the data entry, navigation rules, and any DAL scripts you assigned to variable fields.
Font Manager	Select and manage the set of fonts you will use as you create the image.
Common Field Editor	Start the Field Database Editor.
Report	Generate an informational report about the current image. You can view and print the report.
Compile	Compile your image file for a particular printer. Compile creates an image file for a PCL, AFP, or Metacode printer. You can also compile an image created with FormMaker II for a PCL printer. In addition, you can compile individual font set files into a single file.
Convert	Generate a normalized AFP file.

OPTIONS MENU

The Options menu lets you set a variety of options useful when working with images. For example, this menu lets you lock certain objects in your image so you cannot inadvertently make changes to those objects. This menu also lets you set default properties for all of the objects you can create and for the Image Editor itself. When you select Options, this menu appears:



A brief summary of each option appears below.

Select...	To...
Autocreate	Duplicate objects. Autocreate uses the properties from the last object you created as a temporary default for objects of that type.
Protect Layout	Prevent any modifications to layout objects such as lines and boxes. You can add and change variable fields after you select this option. Select this option again to <i>unlock</i> the layout of the image.
Selection Filter	Limit the object types that you can select as you work on your image. This lets you <i>freeze</i> specific image objects that you want to remain static or unchanged during the creation process.
Font Setup	Select the font set you want to use or to edit a the fonts in a font set. You can verify the fonts and font attributes in the font set.
Default Properties	Set defaults for the objects you create. For example, use this option to set the default font for text areas or the line width for boxes.
Editor Properties	Set basic defaults which affect the page, zoom settings, save settings, and confirmations.

WINDOW MENU

Use the Window menu to control the way the system displays multi-windows. You can elect to stack, cascade, and tile the windows. When you select Window, the following menu appears:



A brief summary of each option appears below.

Select...	To...
Cascade	Use this option to display multiple form or image windows in a layered fashion. The system stacks the forms one behind another so you easily see the name or title of each window or form.
Tile	Use this option to display multiple form or image windows on your screen.
Stack	Use this option to display multiple form or image windows stacked on top of one another. You close each top layer display window to reveal underlying windows.
(images)	Below the menu options, the system lists the images you currently have open. In the example above, two images are open: ADDRESS.FAP and SIGNATUR.FAP.

HELP MENU

The Help menu controls access to Help screens. When you select Help, this menu appears:

C <u>o</u> ntents	F11
H <u>o</u> w to...	Ctrl+F2
S <u>h</u> ortcuts	Shift+F2
G <u>l</u> ossary...	Ctrl+F11
U <u>s</u> ing Help	Shift+F11
P <u>ro</u> duct Information...	

A brief summary of each option appears below.

Select...	To...
Contents	See a general table of contents to the Help system.
How To	Find step-by-step instructions for a variety of tasks.
Shortcuts	See a list of keyboard shortcuts.
Glossary	Review definitions of terms used in the system.
Using Help	Find an explanation of how to use help.
Product Information	Review product information such as version and patch information. You may need to refer to this information if you contact Customer Support.

MOVING AROUND IN THE SYSTEM

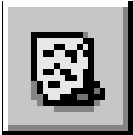
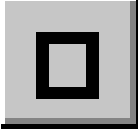
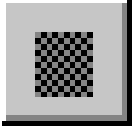
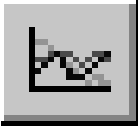
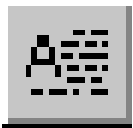
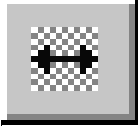
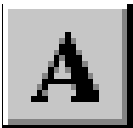
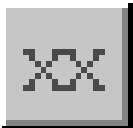
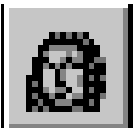
If you currently use other Windows applications, moving around in the system will be familiar to you. If not, please review the operating system documentation and help for more information on basic tasks such as selecting options, opening and closing windows, selecting text, and so on.

SHORTCUTS

When you are first learning the system, it's usually easier to work with the menus because the menu text reinforces what you are doing. Once you become familiar with the system you may want to use the following toolbar and keyboard shortcuts to those same options.

Toolbar Shortcuts

The following tables show you the buttons on the toolbar you can click to quickly perform a task.

To create a	Click	To create a	Click
Bar code		Note	
Box		Shaded area	
Chart		Text area	
Guide box		Text label	
Line		Variable filed	
Logo		Index and Tables	

To create a
Bookmark

Click



To create a
Vector

Click

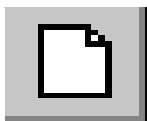


Editing and Viewing

To choose

Click

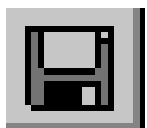
File, New



File, Open



File, Save



Edit, Cut



Edit, Copy



Edit, Paste



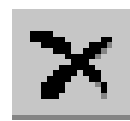
Edit, Undo



To choose

Click

Edit, Delete



File, Print



View, Properties



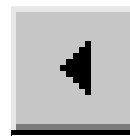
View, Zoom



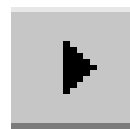
View, Zoom Area



View, Page,
Previous Page



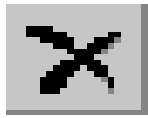
View, Page,
Next Page



To choose

Edit, Delete

Click



To choose

Tools, Data Entry
Check

Click



Keyboard Shortcuts

Use these shortcuts as you create images:

To...	Press
Bold text (Text Editor)	CTRL+B
Check spelling	F7
Choose a font (Text Editor)	CTRL+F
Format a paragraph (Text Editor)	CTRL+P
Go to the bottom of the page	CTRL+PAGEDOWN
Go to the next page	ALT+PAGEDOWN
Go to the previous page	ALT+PAGEUP
Go to the top of the page	CTRL+PAGEUP
Italicize text (Text Editor)	CTRL+I
Reformat (Text Editor)	F6
Scroll down one inch	SHIFT+↓
Scroll down two inches	PAGEDOWN
Scroll left one inch	SHIFT+←
Scroll left two inches	CTRL+←
Scroll right one inch	SHIFT+→
Scroll right two inches	CTRL+→
Scroll to the left edge	SHIFT+HOME
Scroll to the right edge	SHIFT+END
Scroll up one inch	SHIFT+↑
Scroll up two inches	PAGEUP
Set tabs (Text Editor)	CTRL+T

To...	Press
Underline text (Text Editor)	CTRL+U

To choose	Mnemonic	Shortcut
File	ALT+F	
New	ALT+F,N	CTRL+N
Open	ALT+F,O	CTRL+O
Close	ALT+F,C	
Close All	ALT+F, L	
Save	ALT+F, S	CTRL+S
Save As	ALT+F,A	
View	ALT+F,V	
Check Out	ALT+F,T	
Check In	ALT+F,I	
Unlock	ALT+F,U	
Print	ALT+F,P	CTRL+P (image)
Print Setup	ALT+F,R	
Library Setup	ALT+F, L	
Exit	ALT+F, X	

To choose	Mnemonic	Shortcut
Edit	ALT+E	
Undo	ALT+E, U	CTRL+Z
Cut	ALT+E, T	CTRL+X
Copy	ALT+E, C	CTRL+C
Paste	ALT+E, P	CTRL+V
Duplicate	ALT+E, E	
Delete	ALT+E, D	DELETE, CTRL+E
Delete Page	ALT+E, L	
Select All	ALT+E, S	CTRL+/

To choose	Mnemonic	Shortcut
Font Change	ALT+E, F	
Color	ALT+E, R	

To choose	Mnemonic	Shortcut
View	ALT+V	
Fit to Window	ALT+V, F	CTRL+W
Fit to Width	ALT+V, W	
Actual Size	ALT+V, A	CTRL+R
Zoom	ALT+V, Z	
Zoom Area	ALT+V, M	
Zoom In	ALT+V, I	
Zoom Out	ALT+V, U	
Page	ALT+V, P	
Lists	ALT+V, L	
Refresh	ALT+V, R	F5
Options	ALT+V, O	

To choose	Mnemonic	Shortcut
Insert	ALT+I	
Bar code	ALT+I, B	
Bookmark	ALT+I, K	
Box	ALT+I, X	CTRL+Q
Chart	ALT+I, C	
Guide box	ALT+I, U	
Index and Tables	ALT+I, I	
Line	ALT+I, L	CTRL+L
Logo	ALT+I, G	CTRL+G
Note	ALT+I, N	

To choose	Mnemonic	Shortcut
Shaded area	ALT+I, H	CTRL+H
Text area	ALT+I, A	CTRL+A
Text area special	ALT+I, S	
Text label	ALT+I, T	CTRL+T
Variable field	ALT+I, F	CTRL+F
Page	ALT+I, P	
Vector	ALT+I, V	

To choose	Mnemonic	Shortcut
Format	ALT+R	
Align	ALT+R, A	
Spacing	ALT+R, S	
Convert to Text Area	ALT+R, C	
Convert to Text Label	ALT+R, L	
Split Text Area	ALT+R, T	
Page Properties	ALT+R, P	
Image Properties	ALT+R, I	
Object Properties	ALT+R, O	

To choose	Mnemonic	Shortcut
Tools	ALT+T	
Spell Check	ALT+T, S	F7
Spelling Options	ALT+T, O	
Find/Replace	ALT+t, F	
Font Check	ALT+T, N	
Data Entry Check	ALT+T, D	
Font Manager	ALT+T, M	
Common Field Editor	ALT+T, C	

To choose	Mnemonic	Shortcut
Report	ALT+T, E	
Compile	ALT+T, P	

To choose	Mnemonic	Shortcut
Options	ALT+O	
Autocreate	ALT+O, A	
Protect Layout	ALT+O, R	
Selection Filter	ALT+O, S	
Font Setup	ALT+O, F	
Default Properties	ALT+O, D	
Editor Properties	ALT+O, E	

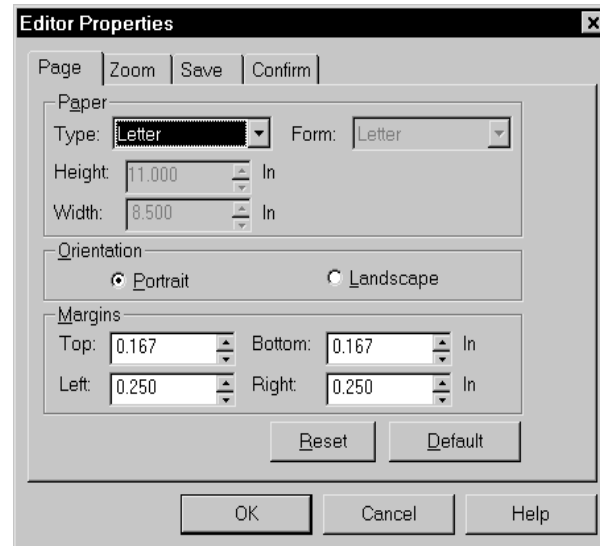
To choose	Mnemonic	Shortcut
Window	ALT+W	
Cascade	ALT+W, C	
Tile	ALT+W, T	
Stack	ALT+W, S	

To choose	Mnemonic	Shortcut
Help	ALT+H	
Contents	ALT+H, C	F1 or F11
How To	ALT+H, H	CTRL+F2
Shortcuts	ALT+H, S	SHIFT+F2
Glossary	ALT+H, G	CTRL+F11
Using Help	ALT+H, U	SHIFT+F11
Product Information	ALT+H, P	

CUSTOMIZING THE IMAGE EDITOR

Use the Options, Editor Properties option to set page layout defaults, zoom defaults, and control the display of confirmation messages and what happens when you save your work. You can change these properties as often as you like.

To set Editor Properties, choose Options, Editor Properties. The Editor Properties window appears:



NOTE: The Reset button lets you return to your previous settings.

The Default button lets you return to the system's default settings.

The Editor Properties window contains these tabs:

- **Page.** Lets you select the default page margins, orientation, and paper size which appear when you select Format, Page Properties.
- **Zoom.** Lets you select the default zoom settings which appear when you select View, Zoom.
- **Save.** Lets you determine what happens when you save an image and how often the system automatically saves the image for you.
- **Confirm.** Lets you specify when confirmation messages appear. For example, you can use this option to turn on or off the display of the message that appears when you delete an object.

The following topics discuss the options on these tabs in more detail.

SETTING THE DEFAULT PAGE LAYOUT

Use the Page tab to select the defaults which appear when you choose Format, Page Layout. Typically, you will want to use this tab to define the page layout you use most often and then use the Format, Page Properties option to make any necessary changes for the image you are working on.

Click either Portrait or Landscape in the Orientation field. For example, a standard letter size portrait page is 8½x11 inches, while a landscape page measures 11x8½ inches.

Enter each margin (top, bottom, left and right) in the Margins field.

Type or select the Type of paper in the Paper field. Note that height and width display on the window when you select a type. With version 11.0 and higher, you can choose from these paper type settings:

Width x Height			
Name	FAP units	Millimeters	Inches (approximate)
US letter	20400 x 26400	216 x 279	8½ x 11
US legal	20400 x 33600	216 x 356	8½ x 14
US executive	17400 x 25200	190 x 254	7¼ 10½
US ledger	40800 x 26400	432 x 279	17 x 11
US tabloid	26400 x 40800	279 x 432	11 x 17
US statement	13200 x 20400	140 x 216	5½ x 8½
US folio	20400 x 31200	216 x 330	8½ x 13
US fanfold	35700 x 26400	378 x 279	147/ 8 x 11
Custom	any x any	any x any	any x any
ISO A0	79464 x 112345	841 x 1189	33¾ 8 x 46¼
ISO A1	56125 x 79464	594 x 841	23¾ 8 x 33¾ 8
ISO A2	39685 x 56125	420 x 594	16½ x 23¾ 8
ISO A3	28063 x 39685	297 x 420	11¾ x 16½
ISO A4	19842 x 28063	210 x 297	8¼ x 11¾
ISO A5	13984 x 19842	148 x 210	57/ 8 x 8¼
ISO A6	9921 x 13984	105 x 148	4¾ 8 x 57/ 8
ISO A7	6992 x 9921	74 x 105	27/ 8 x 4¾ 8
ISO A8	4913 x 6992	52 x 74	2 x 27/ 8
ISO A9	3496 x 4913	37 x 52	1½ x 2

Name	Width x Height		
	FAP units	Millimeters	Inches (approximate)
ISO A10	2457 x 3496	26 x 37	1 x 1½
ISO 2A	112345 x 158927	1189 x 1682	46¾ x 66¼
ISO 4A	158927 x 224690	1682 x 2378	66¼ x 93⅝
ISO B0	94487 x 133605	1000 x 1414	39⅞ x 55⅞
ISO B1	66802 x 94487	707 x 1000	27⅞ x 39⅞
ISO B2	47244 x 66802	500 x 707	19⅝ x 27⅞
ISO B3	33354 x 47244	353 x 500	13⅞ x 19⅝
ISO B4	23622 x 33354	250 x 353	9⅞ x 13⅞
ISO B5	16630 x 23622	176 x 250	7 x 9⅞
ISO B6	11811 x 16630	125 x 176	5 x 7
ISO B7	8315 x 11811	88 x 125	3½ x 5
ISO B8	5858 x 8315	62 x 88	2½ x 3½
ISO B9	4157 x 5858	44 x 62	1¾ x 2½
ISO B10	2929 x 4157	31 x 44	1¼ x 1¾
ISO 2B	133605 x 188974	1414 x 2000	55¾ x 78¾
ISO 4B	188974 x 267209	2000 x 2828	78¾ x 111¼
ISO C0	86645 x 122550	917 x 1297	36⅞ x 51
ISO C1	61228 x 86645	648 x 917	25½ x 36
ISO C2	43275 x 61228	458 x 648	18 x 25½
ISO C3	30614 x 43275	324 x 458	12¾ x 18
ISO C4	21638 x 30614	229 x 324	9 x 12¾
ISO C5	15307 x 21638	162 x 229	6⅜ x 9
ISO C6	10772 x 15307	114 x 162	4½ x 6⅜
ISO C7	7653 x 10772	81 x 114	3¼ x 4½
ISO C8	5386 x 7653	57 x 81	2¼ x 3¼

Name	Width x Height		
	FAP units	Millimeters	Inches (approximate)
ISO C9	3779 x 5386	40 x 57	1 ⁵ / ₈ x 2 ¹ / ₄
ISO C10	2646 x 3779	28 x 40	1 ¹ / ₈ x 1 ⁵ / ₈
ISO DL	10394 x 20787	110 x 220	4 ¹ / ₃ x 8 ² / ₃
JIS B0	97322 x 137573	1030 x 1456	40 ¹ / ₂ x 57 ¹ / ₄
JIS B1	68787 x 97322	728 x 1030	28 ³ / ₄ x 40 ¹ / ₂
JIS B2	48661 x 68787	515 x 728	20 ¹ / ₄ x 28 ³ / ₄
JIS B3	34393 x 48661	364 x 515	14 ¹ / ₄ x 20 ¹ / ₄
JIS B4	24283 x 34393	257 x 364	10 ¹ / ₈ x 14 ¹ / ₄
JIS B5	17197 x 24283	182 x 257	7 ¹ / ₄ x 10 ¹ / ₈
JIS B6	12094 x 17197	128 x 182	5 x 7 ¹ / ₄
JIS B7	8598 x 12094	91 x 128	3 ¹ / ₂ x 5
JIS B8	6047 x 8598	64 x 91	2 ¹ / ₂ x 3 ¹ / ₂
JIS B	4252 x 6047	45 x 64	1 ³ / ₄ x 2 ¹ / ₂
JIS B10	3024 x 4252	32 x 45	1 ¹ / ₄ x 1 ³ / ₄

SETTING DEFAULT ZOOM PROPERTIES

Use the Zoom tab to set default setting for how the system displays your images. You can later zoom in or out as necessary using the options on the View menu or the tool bar. This table explains your options:

Click this option	To display
Actual size	Your image as it will print on the page.
Fit to window	The entire image in the window.
Fit to width	The full width of the image in the window. Depending on the screen resolution you use, you may have to down to see the full length of the image.
Custom percent	The image at the percentage you select in the Custom Zoom field.

SETTING SAVE OPTIONS

Use the Save tab to tell the system what to do when you select the File, Save option. This table explains your options:

Click this option	To have the system
Prompt for image information	Prompts you for image information when you close an image.
Automatic save every xx minute	Automatically save your work at specified intervals. Autosave saves to a file with the same name as the FAP file, but with an extension of <i>FA~</i> . When you close the image, the system deletes the autosave file. When you open an image, the system looks for a corresponding autosave file. If one is found, the system lets you choose between the autosave file or the FAP file. If you choose to open the autosave file, the system renames it with a <i>FAP</i> extension. An autosave file is only found if the file was closed improperly.
Update 7.x files	Save your files for use in the FormMaker version 7.x system. The FormMaker 7.x directory is defined using the File, Library Setup option. If you do not specify a directory, these files are saved in the DLL directory. If you create a multi-page image that you want to use in FormMaker version 7.0 or 7.5, the system saves each page as a separate file to identify the pages. Example: FormMaker 5.0 file: CGDEC.FAP Version 7.x Page 1 CGDEC.FAP Version 7.x Page 2 CGDECo2.FAP Version 7.x Page 3 CGDECo3.FAP
Spell check on save	Prompt you to check spelling each time you save.
Automatically update DDT	Automatically update the .DDT file with any changes you have made upon saving.

SETTING CONFIRMATION OPTIONS

Use the Confirm tab to turn on or off confirmation messages. For example, when you delete an object, the system displays a message asking if you are sure you want to delete that object. This table explains your options:

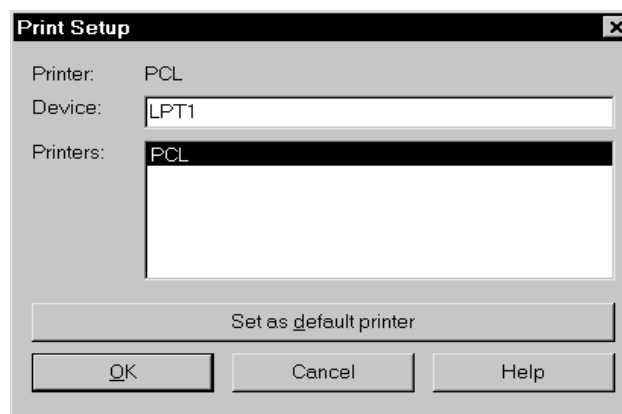
Click this option	To display a confirmation message before you
Object delete	Delete an object
Undo action	Undo your last action
Application exit	Exit the application, such as the Image Editor
Form exit	Close an image
Save changes	Close an image without first saving your changes

SELECTING YOUR PRINTER

The File, Print Setup option lets you specify the printer you will print to and how that printer is connected to your computer. Setting up printers is handled through your operating system and you should refer to your operating system's documentation for more information.

NOTE: If you are running the system on a network, your system administrator has probably already set up the network printers and how you will access those printers. Talk to your system administrator to determine what you need to do on your computer to have access to the printers you need.

- 1 To set up a printer, choose File, Print Setup. This window appears:



- 2 Enter the name of the communications port you will print to in the Default field. For example, if you are printing to a print connected directly to your computer, you will typically enter LPT1.
- 3 In the Device field, select the type of printer you will print to. For example, if you are printing to a PCL printer, select PCL.
- 4 Click Set as Default Printer to make this printer your default printer.
- 5 Click Ok.

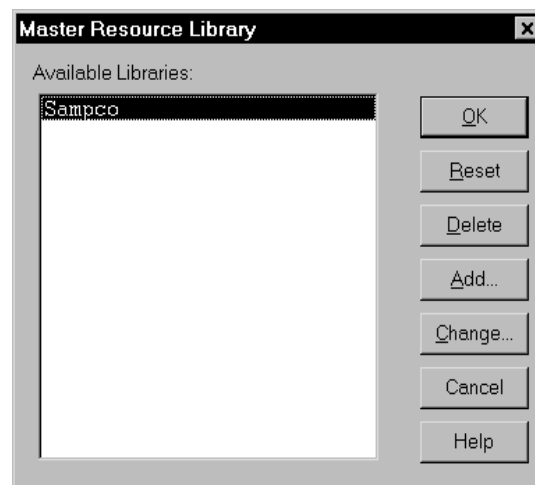
The printer you selected is now the default printer for your current and future work sessions.

SELECTING A MASTER RESOURCE LIBRARY

The File, Library Setup option lets you select the master resource library you want to work with. This information tells the system where its resources, such as fonts and image files, are stored. For example, you may have one master resource library for insurance forms and another for health care or banking forms. The system records this information in your FAPCOMP.INI file.

NOTE: This option also lets you add, change, or delete information for your master resource library settings. Since the setup of your master resource libraries is typically handled by your system administrator, you should not make changes to the setup without understanding the paths and directories created for your installation. Talk to your system administrator and refer to [Managing Resources Using Libraries on page 387](#), for more information about changing these settings.

To select a master resource library, first close the image you are working on then choose File, Library Setup. The Master Resource Library window appears.



All available master resource libraries display in the window. Click the library you want to work with and then, click Ok.

The information contained in a master resource library includes the following, which you can view if you click Add or Change.

Field	Contains the
CompLib	Directory path of your compressed FAP and FXR files
DDTFile	Name of the data definition table file (DDT)
DDTLib	Directory where your DDT files are located. Can be the same directory as DefLib.
DefLib	Directory path of the library fonts and definition library, which contains your formset trigger file, form def file, dictionary file and fieldbase file. Depending on your system customization, your fonts may be alternately located in the FontLib directory.

Field	Contains the
DictionaryFile	Name of the dictionary file.
FieldBaseFile	Name of the variable field database file.
FntFile	Name of the downloadable font file (FNT).
FontLib	Directory path of the specific font set. Depending on your system customization, your fonts may be located in the DefLib directory.
Form7x	Directory path for 7.x FormMaker files.
FormDef	Name of the form set definition table file (FORM.DAT)
FormFile	Name of the FAP/Form File (LBY)
FormLib	Directory path of the forms
FormsetTrigger	Name of the transaction trigger table file. Used only by the Rules Processor—does not affect image creation.
HelpLib	Directory path of the form related help information
LbyLib	Directory path of the library file (LBY)
LogoFile	Name of the logo file (LBY)
TableLib	Directory path of the form related table information
XrfFile	Name of the font cross-reference file (FXR)

Resource library
options for storing
compiled FAP files and
DDT files

Resource Library

Library:

CompLib	=
DDTFile	=
DDTLib	=
DefLib	= ..\mstres\sampco\deflib\
DictionaryFile	= XDB.DBF
FieldBaseFile	= FDB.DBF
FntFile	=
FontLib	= ..\mstres\fmres\deflib\
Form7x	=
FormDef	= FORM.DAT
FormFile	=
FormLib	= ..\mstres\sampco\forms\

CUSTOMIZING YOUR WORK AREA

This topic discusses how you can tailor your work area to better suit your working habits. Furthermore, you'll typically change some of these settings as you work on an image so you can zoom in to make detail changes, zoom out to view the entire image, freeze certain objects so you cannot move them by accident and so on. You can set these options after you use the File, Open option to open an image.

NOTE: After you customize your screen, choose View, Refresh (or press F5) to see your changes.

SIZING THE IMAGE

The sizing options appear at the top of the View menu or you can select the option from the Tool Bar. These options control the size and magnification of the image. This table discusses your options:

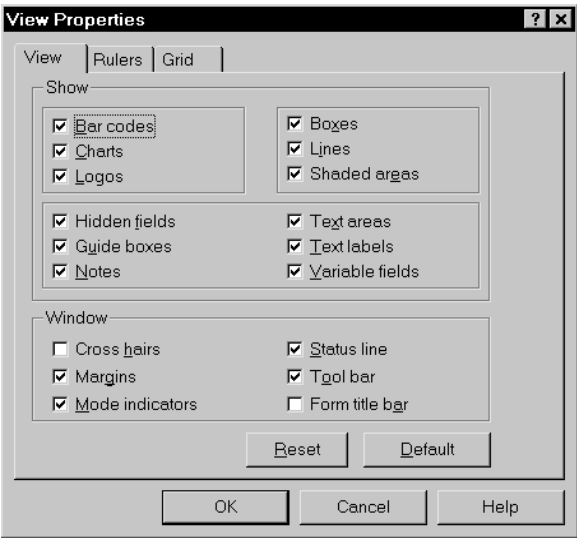
To...	Then...
Display the entire image in the window	Choose View, Fit to Window.
Display the full width of the image in the window	Choose View, Fit to Width
Display the image at its actual, printed size	Choose View, Actual Size.
Zoom in or out by a specific percentage	Choose View, Zoom and click on the percentage you want. You can also use the mouse to move the slider to define the zoom factor. You can define a zoom of up to 8100%.
Zoom an area of the image	Choose View, Zoom Rectangle. Then rubber band the area you want to zoom in on. The system fills the entire display area with the area you rubber banded.

SETTING VIEW OPTIONS

Choose View, Options to turn on and turn off the display of individual objects, tool bars, rulers, cross hairs, and other design aids. These options let you determine what objects appear and also let you control the size of your working area.

When you select View, Options, the View Properties window appears. This window has three tabs:

- View
- Rulers
- Grid



USING THE VIEW OPTIONS

This tab lets you turn on or turn off the display of each type of object. You can also turn on or off other features such as the tool bar or status line from this tab.

If you have a large number of graphics and objects in your image, you may want to hide some of them since the fewer graphical images the computer has to display, the better your system performance. To display an object normally, click the box until a black check mark appears. To hide the object, click the box again to remove the check mark.

Bar Codes, Charts, Logos, and Text Areas

For bar codes, charts, logos, and text areas, you can display the object normally, display a place holder for the object, or hide the object. For example, you may want to display a logo normally to make sure it is the correct logo and you have it in the correct position. Once you have done this, you can change this option to only display place holders for logos.

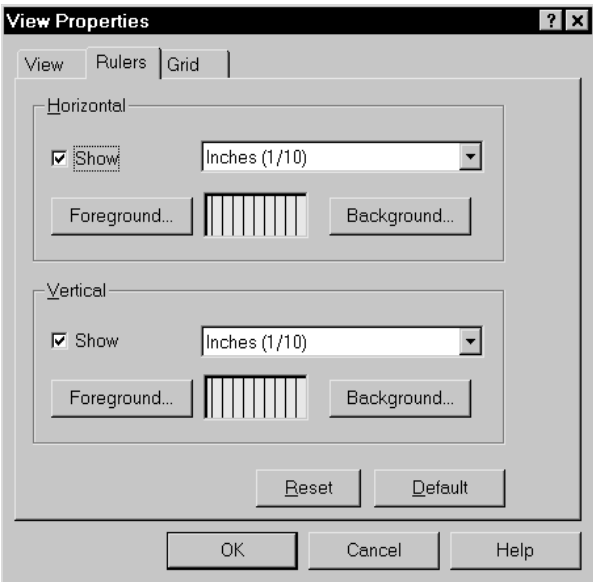
To display a bar code, chart, logo, or text area, click the box until a black check mark appears. To display only a place holder, click the box until a gray check mark appears. To hide the object, click the box until there is no check mark.

To...	Then...
Display an object (bar codes, boxes, hidden fields, guide boxes, lines, charts, logos, notes, shaded areas, text areas, text labels, variable fields)	Click the appropriate field to place a black check mark in the box. Click Hidden Fields to display an <i>H</i> to indicate where hidden variable fields are located. Guide boxes help you align objects. Notes are comments attached to your image which do not print on the form.
Hide an object	Click the appropriate field to remove the check mark

To...	Then...
Display a place holder for bar codes, logos, and chart and text areas	Click the appropriate box to place a gray check mark in the box
Display Cross Hairs	Click the Cross Hairs field. Cross hairs are intersecting lines which indicate the exact position of your mouse and help you align objects.
Display Margins	Click the Display Margins field. If you choose this option the system displays a dark red line which indicates your page margins.
Display Mode Indicators	Click the Mode Indicators field. If you choose this option, the mouse changes shape based on the type of object you are creating.
Display the Status Line	Click the Status Line field to place a check mark in it. The Status Line appears at the bottom of your screen and provides information about your mouse position, current mode, and so on.
Display the Tool Bar	Click the Tool Bar field to place a check mark in it. The Tool Bar includes buttons for the most commonly-used options.
Display Form Title Bar	Click the Form Title Bar field. If you check this option, the Form Title Bar for the form displays at the top of the form.
Go back to the previous ruler settings	Click the Reset button.
Go back to the default settings	Click the Default button.

USING THE RULERS TAB

Click this tab to turn on or off the display of horizontal and vertical rulers and determine how the rulers appear on your screen. Rulers can help you accurately position objects on your screen. Rulers also take up space, so you may want to turn them off occasionally to have a bigger display area.

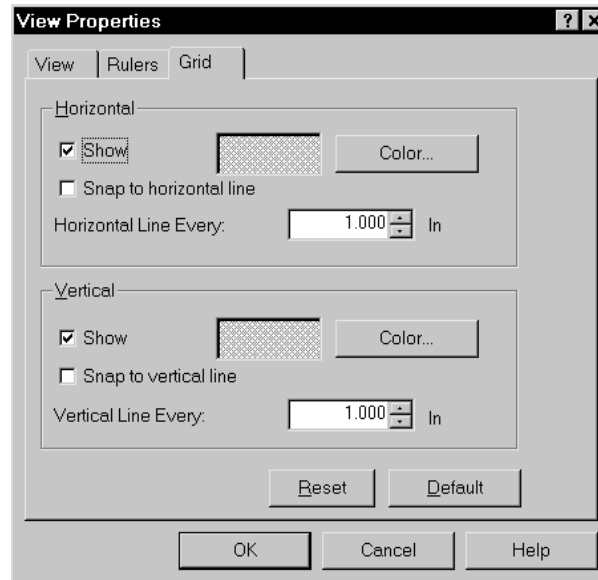


USING THE GRID TAB

You have these options on the Grid tab:

To...	Then...
Display the horizontal or vertical ruler or both	Click the appropriate Show fields.
Set the spacing increment on the ruler	Click the drop-down button beside the Show field and choose the increment you want. You can choose from FAP units (1/2400 of an inch), points, picas, centimeters, and various inch settings. Ruler setting will also affect the properties dialog for each object.
Set the color of the rulers	Click the appropriate Color button. The Color Selection window appears. Click in the Default field to remove the check mark and then select the color you want.
Go back to the previous settings	Click the Reset button.
Go back to the default settings	Click the Default button.

Click this tab to control the display of the horizontal and vertical grid. The grid provides a background upon which you can position the objects you create. The system does not print the grid lines.



To...	Then...
Display the horizontal or vertical grid or both	Click the appropriate Show fields.
Have the system place objects onto the nearest grid line	Click the Snap to fields. For example, if you click Snap to horizontal line, the system moves any object you create to the nearest horizontal grid line.
Set the spacing of the grid	Enter the measurement in the Horizontal Line Every or Vertical Line Every fields. The unit of measure is based on the unit you selected for the rulers.
Set the color of the grid lines	Click the appropriate Color button. The Color Selection window appears. Click in the Default field to remove the check mark and then select the color you want.
Go back to the previous grid settings	Click the Reset button.
Go back to the default settings	Click the Default button.

LEARNING MORE

The Docucreate User Guide is designed to serve as a reference as you learn and use the system. This manual is made up of two parts:

- Creating Images
- Advanced Tools and Topics

The [Docucreate Supervisor Guide](#) provides information on how to set up the system, customize the way it runs, and how to maintain the system.

Documaker Workstation also comes with two manuals. The [Documaker Workstation User Guide](#) tells you how to use that system. The [Documaker Workstation Supervisor Guide](#) is designed to tell you how to set up, customize, and manage that system. Other, more technical, information is available from Skywire Software, depending on the provisions of your license agreement.

For information about the Rules Processor, refer to the [Rules Processor System Guide](#).

USING HELP

All Docucreate modules contain Help. From the Help menu, you can choose from Contents, How To, Shortcuts, Glossary, or product information. You can also display Help while working in the system by pressing F1 or clicking the Help button on the various windows.

TRAINING

The Education Services Group provides a complete selection of educational training classes. These classes provide you with hands-on training led by a qualified expert. The course offerings fall into these categories:

- Technical Development Education classes are designed for business analysts and programmers responsible for customizing system configuration based on unique implementation needs.
- Resource Development Education classes focus on the development and maintenance of the Master Resource Library and its relationship with the other components of the system.
- User Education classes are intended for the end users of the system.

For more information, contact Skywire Software's Education Services (www.skywiresoftware.com).

CHAPTER 4

Creating Images

This chapter discusses the basic steps involved in creating an image and provides information on how you can set up defaults that apply to that image.

During stage one you made design decisions. Now you create or modify the image, which includes setting page and image properties, adding pages and saving the image.

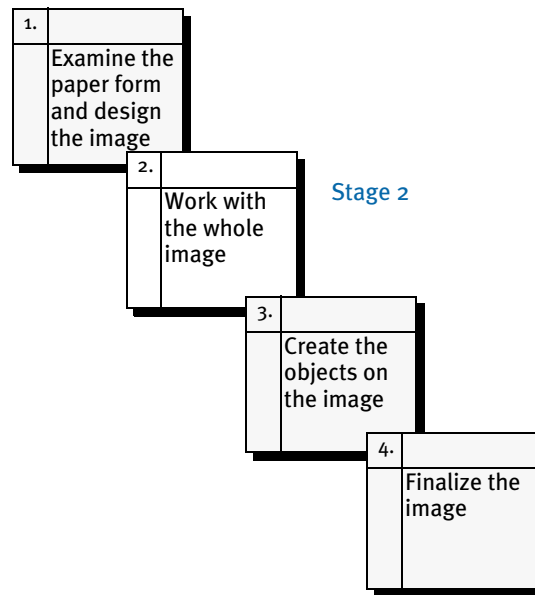
This chapter covers these topics:

- [Creating an Image on page 82](#)
- [Opening and Closing Images on page 83](#)
- [Viewing an Image on page 88](#)
- [Setting Page Properties on page 90](#)
- [Setting Image Properties on page 94](#)
- [Setting Up Help Messages on page 96](#)
- [Inserting and Deleting Pages on page 102](#)
- [Closing Images on page 104](#)

When you finish, you can begin adding objects and text to complete the image. When you finish adding objects, you test and complete the image. Adding objects, inserting text, and completing the image are discussed in the following chapters.

CREATING AN IMAGE

While the system lets you work in the manner most comfortable to you, most users follow a similar pattern as they create images. This pattern, first discussed in Chapter 1 is shown again below.



When you create an image, you can save time by first setting the properties that define the page layout and serve as defaults for the objects you create. We suggest you follow this sequence:

- Open a new image
- Define the page properties
- Define the image properties
- Define the fonts you want to use in the image
- Define the default object properties
- Create objects
- Save your image
- Print your image to review it on paper
- Compile your image

NOTE: This chapter discusses the first three tasks listed above and also tells you how to insert or delete page and close your image. You will find information on the additional tasks in the chapters that follow. For information on customizing your screen, such as defining settings for rulers, grids, and cross hairs, refer to [Getting Started on page 25](#).

OPENING AND CLOSING IMAGES

The first task is to open your image. This topic discusses the various ways you can open and image and how you can close the image when you are finished working on it. The system offers several ways to open an image and the table below briefly explains when to use each option. The following pages discuss the tasks you perform with each option in more detail.

To...	Use...
Create a new image	File, New
Open an existing image	File, Open
Open an RTF, PCL or CFA file	File, Open
Work with normalized AFP or Metacode files	Working with Normalized Files on page 534
View an image, but not make changes to it (Only if it has been checked into the library.)	File, View
Close the image you are working on	File, Close
Check out an image which has been checked in	File Check Out
Check in an image you have checked out, or check in an image for the first time	File, Check In
Remove a “lock” from an image which was not properly checked in For example, if you close an image you checked out or if the power goes out while you are working on an image you checked out, use File, Unlock to remove the “lock”. Also used if you ‘close’ a file verses checking it in.	File, Unlock

Typically, you will use the File, Open and Close options as you create an image. Once you feel the image is ready for others to review or to work on, you can switch to the File, Check In and Check Out options. Those options provide version control features not offered by File, Open and Close.

If, however, you are working on a very complicated image and you want to make sure no one accidentally changes or corrupts your image, you may want to use the Check In and Check Out options from the beginning.

NOTE: If you open a file which has been checked in to a resource library, you can view the file but you cannot make changes to it. It is just like using the File, View option, except the system does not display the View Image window.

CREATING AN IMAGE

Use File, New to create an image. The system displays a blank work area you can use to create your image.

If you are displaying the form title bar (View, Options), you'll see *unnamed* as the title of the image. This name also appears on the list of open windows on the Window menu.

OPENING A FILE

The system lets you open these types of files:

- DAP III files (FAP)
- FormMaker II files (FM2)
- Rich Text Format files (RTF)
- PCL files (PCL)
- DAP Compiled (CFA)
- Normalized AFP or Metacode

To open a file choose File, Open. The system displays the Open File window. If you want to open a FormMaker II, Rich Text Format, Word, or ASCII file, use the List files of type field to select the type of file you want. Select the file you want and click Ok. Use the Drives and Folder fields if the file is in a different directory.

When you open a FormMaker III or II file, the system retains all formatting aspects of the file. For the other file types, you may lose some formatting as the system opens the file and converts it to a FAP file. The following tables explain what will and what will not convert to a FAP file.

For more information on working with normalized AFP or Metacode files, see [Working with Normalized Files on page 534](#).

NOTE: While these tables will help you understand what will and will not convert, there can be subtle differences in how different applications create RTF files. Furthermore, there are often many ways to format text within an application, so it is possible that your results may differ slightly. We recommend you review these tables and then try it. After you see how the document converts you can determine whether it is faster to change the formatting of the file you are importing or import the file and modify the text using the Image Editor's tools.

In an ASCII file...	Comments
Text	Converted as straight text in a single text area. You can then format the text to meet your needs.

In a Word or RTF file... Comments

Font and point sizes	Fonts and font sizes are converted as long as you have the same fonts set up in Docucreate. If you do not have the same fonts, the system substitutes its fonts and matches the point sizes as closely as possible. For example, a serif font will be converted into Times while a sans serif font is converted into Univers. These choices are controlled through your INI file settings. Talk to your system administrator if you need to make changes. Unicode support includes paragraphs containing mixed single-byte and multi-byte characters.
Bold	Converted, as long as there is a corresponding bold font.
Italics	Converted, as long as there is a corresponding italic font.
Underline	Converted.
Superscript	Converted to normal text.
Subscript	Converted to normal text.
Strikethrough	Converted to normal text
All caps	Capital letters are converted. All caps as an attribute is retained when you use the RTF Print Driver to open a Microsoft Word DOC file, an RTF file or an ASCII file.
Small caps	Converted as upper- and lowercase letters
Hidden text	Not converted
Hyphenation	Hyphenation settings are converted.
Drop caps	If within the margin, the system retains the font attributes as long as there is a corresponding font available. The text that follows the drop cap is placed in a new paragraph If outside the margin, the drop cap is not converted. The text that follows the drop cap is converted into a paragraph.
Tables	Each cell is converted into a box and the cell borders become the box borders. The system places the text in the cell into a text area.
Footers	Converted as a text area in the same position on the page
Headers	Converted as a text area in the same position on the page
Pictures and drawings	You can import polyline or vector drawings. You can also convert bitmaps in the original document into external Documaker logo (LOG) references.
Margins	Converted. The system tries to compensate for borders defined outside paragraph margins.

In a Word or RTF file... **Comments**

Graphics	The conversion can import most PNG formats in RTF files. If it cannot convert the graphic, it creates an empty logo. The Image Editor then prompts you for the name of the logo when you first open the file. The system can load the Windows Metafile (WMF) format of bitmaps. This feature primarily affects RTF conversions, where the system will automatically convert WMF format graphics into a format it can use. Although it would be unusual to have an external WMF file, the Logo Manager can load it if you specify that file type on the Open window.
FILLIN fields	The system tries to clean up FILLIN field names, retaining the format comments. These comments are stored in the Field Prompt.
Line spacing	Converted, but may change if the system substitutes fonts.
Paragraphs	Converted as paragraphs within a text area. Formatting may be affected depending on the fonts you have available and the attributes, such as bold or strikethrough, assigned to those fonts. Objects anchored to a paragraph are positioned correctly.
Columns	Converted as columns within a text area.
Page settings	Page dimensions are converted and if they exceed the image dimensions, the system warns you that objects are out of bounds. If this happens, modify the text area properties and, if necessary, use the Text Editor to change the formatting of the text so it fits within the boundaries of the image.

NOTE: If the system finds fields in an RTF file, it creates a hidden field with the same name. The system embeds the hidden field in the text area it created.

You can set the FieldMerge option in the RTF control group in the FAPCOMP.INI file to re-import RTF files into a FAP file without losing any fields added to the FAP file since the original RTF file was opened. Set the FieldMerge option to Yes to have the system retain any added fields. You may have to adjust the positions of fields after you re-import the file.

Keep in mind that when you are importing RTF files using Image Editor, the system uses the FXR file you currently have loaded. No output file is created until you save the FAP file. One multi-page FAP file is created rather than a FAP file for each page.

Here are some limitations to the RTF importer:

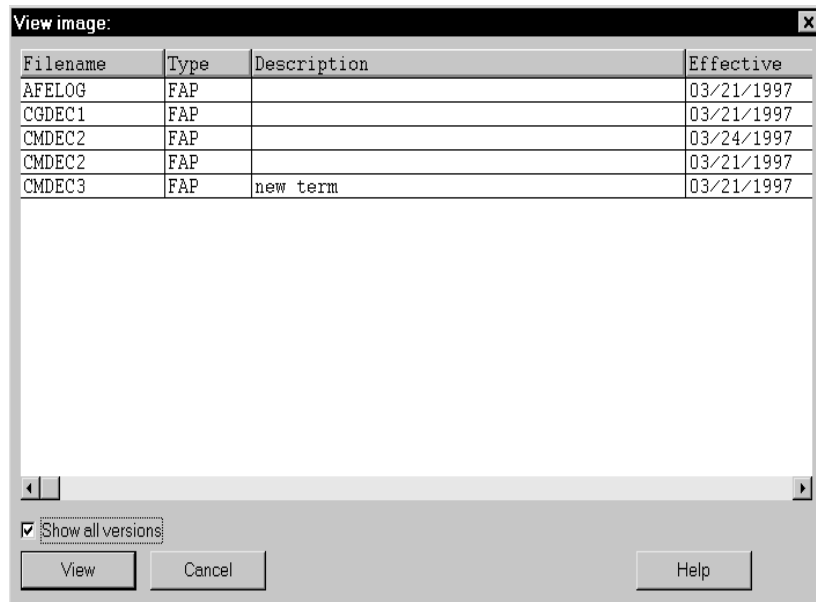
- If an bitmap image does not specify a resolution, the system defaults to 300 DPI. This may result in logos being sized incorrectly. The system tries to calculate a resolution based on the output size specified by the RTF file, but this may not work in every instance.

- The *linkstyles* control word causes Microsoft Word to alter a document (fonts) according to user-specific styles held in the Normal.dot template. Since the software cannot interpret the Normal.dot file — as it would vary according to the user — the *linkstyles* control word cannot be supported. If the imported FAP file has fonts that are significantly different from those in the original RTF file, this may be the cause.
- Docucorp software does not support z-ordering, the layering of objects one over the other. Documents which rely on z-ordering appear differently when imported.
- The *charscalex* and *charscaley* control words cause individual characters to be scaled horizontally or vertically, respectively. The system does not support such functionality, so these control words are not supported.
- Document layout is heavily dependent on choice of fonts. The system tries to match the fonts in the source document, but substitution can affect the layout. The best way to avoid layout changes is to include all used fonts in your font cross-reference (FXR) file. Be aware of font copyright restrictions when doing so.
- When you use the RTF import feature to convert rich text pasted into a FAP text area, the system has no information about the margins in the FAP file. This can cause some objects to shift.
- Skywire Software applications do not include a table object, so RTF tables are converted to columnar data. If, however, the table is embedded in a column, this results in nested columns (columns within a column), which is not supported.
- Merged table cells are not supported.

VIEWING AN IMAGE

To look at an image without making changes to it, use the File, View option. This option lets you display an image or logo file which has been checked into a resource library. Logo files must be viewed from the Logo Manager. Other users can view the file at the same time. Follow these steps to view an image:

- 1 Choose File, View. This window appears:



NOTE: If you have checked the image in and you choose the File, Open option to open the image, you can view the image but not change it. It works just like the File, View option except the system does not display the View Image window.

- 2 This table describes each column in the View window. Use the scroll bars to display additional rows and columns. Use your mouse to resize the columns if necessary. To view a file, click on the file you want and then click View.

Column	Description
Filename	Name of file in the library
Type	File extension (FAP or LOG)
Description	Description entered when the file was checked in
Effective	Effective date entered when the file was checked in
Modified	Last time the file was modified
Version	Version number of the file
Revision	Revision number for a specific file version number
Status	Status appears in this column if the file is locked

Column	Description
User ID	User who locked the file or who created the revision

NOTE: If you do not see the file you want, click the Show all versions field to display every version of every file that has been checked into the library.

CHECKING OUT IMAGES

Like the File, Open option, Check Out lets you open an image or logo. Unlike the Open option, when you use Check Out, the system *locks* the file so no other user can check out the file until you check it back in. Other users can, however, use the File, View option (or File, Open) to view the image.

Typically, you will use the Check In and Check Out options once you feel your image is ready for others to review or to work on. Until that point, most users simply use the File, Open and Close options. Remember that if you use the Check Out option, you must use the File, Check In option, instead of File, Close, to place the file back in the library. Otherwise, the file remains locked.

NOTE: If you try to check out a file and no files were checked into the library (the library is empty) the system tells you that no files are available in the library. If this message appears, check your library setup (File, Library Setup) to make sure your paths are set up correctly or contact your system supervisor.

Follow these steps to check out an image:

- 1 Choose File, Check Out. The Check Out Image window appears. The columns in the Check Out window are identical to those in the View Image window. Refer to that topic for more information.
- 2 Select the file you want to check out and click Check Out.

UNLOCKING IMAGES

Use the File, Unlock option if you check out a file and do not check it in properly. After you unlock a file, other users can retrieve it from the library.

NOTE: If another user wants to make a copy of the image you are working on, you do not have to unlock the image or interrupt your work to check in the image. The other user can simply use the File, View option to open the image and then use the File, Save As option to rename it.

To unlock a file choose File, Unlock. The system warns you that by unlocking the file, you may lose your changes.

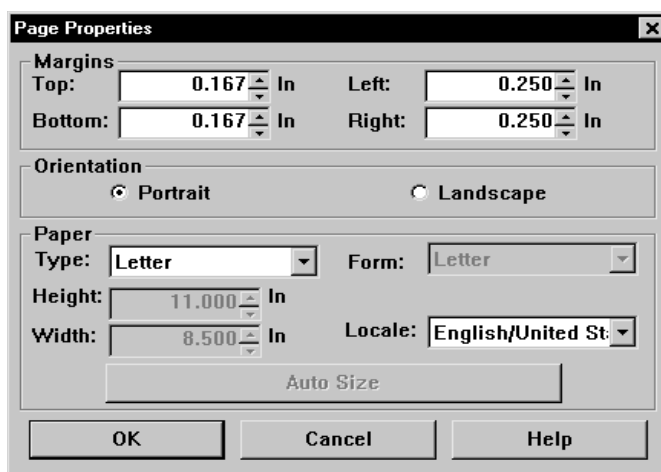
SETTING PAGE PROPERTIES

The Format, Page Properties option lets you set up the page layout for your image. The page layout includes settings for margins, type of paper, and page orientation.

NOTE: Use the Options, Editor Properties option to set these properties for the Image Editor. Use the Format, Page Properties option to change the properties for a specific image.

To set page properties, follow these steps:

- 1 Choose Format, Page Properties. This window appears:



- 2 Enter the margins (Top, Bottom, Left and Right) in the margin fields. Increase or decrease the margin using the up and down arrows to the right of the field.
- 3 The default margin for the left and right margins is .25 inch or its equivalent in the ruler's current units of measure. The default margin for the top and bottom margins is .167 inch or its equivalent in the ruler's current units of measure. To choose the units of measure, select View, Options and click on the Rulers tab.

NOTE: If you have an HP laser printer, use margins of at least 1/6 inch on the top and bottom, and 1/4 inch on the sides. You cannot print to the edge of the paper on a laser printer because the printer must be able to grab the paper to pull it through the printer. Images or ink that prints to the edge of the page is called a *bleed*.

- 4 Select the type of paper. Note that height and width display on the window when you select a type. With version 11.0 and higher, you can choose from these paper type settings:

Name	Width x Height		
	FAP units	Millimeters	Inches (approximate)
US letter	20400 x 26400	216 x 279	8½ x 11
US legal	20400 x 33600	216 x 356	8½ x 14
US executive	17400 x 25200	190 x 254	7¼ x 10½
US ledger	40800 x 26400	432 x 279	17 x 11
US tabloid	26400 x 40800	279 x 432	11 x 17
US statement	13200 x 20400	140 x 216	5½ x 8½
US folio	20400 x 31200	216 x 330	8½ x 13
US fanfold	35700 x 26400	378 x 279	147/8 x 11
Custom	any x any	any x any	any x any
ISO A0	79464 x 112345	841 x 1189	33½ x 46¼
ISO A1	56125 x 79464	594 x 841	23¾ x 33½
ISO A2	39685 x 56125	420 x 594	16½ x 23¾
ISO A3	28063 x 39685	297 x 420	11¾ x 16½
ISO A4	19842 x 28063	210 x 297	8¼ x 11¾
ISO A5	13984 x 19842	148 x 210	57/8 x 8¼
ISO A6	9921 x 13984	105 x 148	41/8 x 57/8
ISO A7	6992 x 9921	74 x 105	27/8 x 41/8
ISO A8	4913 x 6992	52 x 74	2 x 27/8
ISO A9	3496 x 4913	37 x 52	1½ x 2
ISO A10	2457 x 3496	26 x 37	1 x 1½
ISO 2A	112345 x 158927	1189 x 1682	46¾ x 66¼
ISO 4A	158927 x 224690	1682 x 2378	66¼ x 935/8
ISO B0	94487 x 133605	1000 x 1414	39½ x 55½

Name	Width x Height		
	FAP units	Millimeters	Inches (approximate)
ISO B1	66802 x 94487	707 x 1000	27 ⁷ / ₈ x 39 ¹ / ₈
ISO B2	47244 x 66802	500 x 707	19 ⁵ / ₈ x 27 ⁷ / ₈
ISO B3	33354 x 47244	353 x 500	13 ⁷ / ₈ x 19 ⁵ / ₈
ISO B4	23622 x 33354	250 x 353	9 ⁷ / ₈ x 13 ⁷ / ₈
ISO B5	16630 x 23622	176 x 250	7 x 9 ⁷ / ₈
ISO B6	11811 x 16630	125 x 176	5 x 7
ISO B7	8315 x 11811	88 x 125	3 ¹ / ₂ x 5
ISO B8	5858 x 8315	62 x 88	2 ¹ / ₂ x 3 ¹ / ₂
ISO B9	4157 x 5858	44 x 62	1 ³ / ₄ x 2 ¹ / ₂
ISO B10	2929 x 4157	31 x 44	1 ¹ / ₄ x 1 ³ / ₄
ISO 2B	133605 x 188974	1414 x 2000	55 ³ / ₄ x 78 ³ / ₄
ISO 4B	188974 x 267209	2000 x 2828	78 ³ / ₄ x 111 ¹ / ₄
ISO Co	86645 x 122550	917 x 1297	36 ¹ / ₈ x 51
ISO C1	61228 x 86645	648 x 917	25 ¹ / ₂ x 36
ISO C2	43275 x 61228	458 x 648	18 x 25 ¹ / ₂
ISO C3	30614 x 43275	324 x 458	12 ³ / ₄ x 18
ISO C4	21638 x 30614	229 x 324	9 x 12 ³ / ₄
ISO C5	15307 x 21638	162 x 229	6 ³ / ₈ x 9
ISO C6	10772 x 15307	114 x 162	4 ¹ / ₂ x 6 ³ / ₈
ISO C7	7653 x 10772	81 x 114	3 ¹ / ₄ x 4 ¹ / ₂
ISO C8	5386 x 7653	57 x 81	2 ¹ / ₄ x 3 ¹ / ₄
ISO C9	3779 x 5386	40 x 57	1 ⁵ / ₈ x 2 ¹ / ₄
ISO C10	2646 x 3779	28 x 40	1 ¹ / ₈ x 1 ⁵ / ₈
ISO DL	10394 x 20787	110 x 220	4 ¹ / ₃ x 8 ² / ₃
JIS Bo	97322 x 137573	1030 x 1456	40 ¹ / ₂ x 57 ¹ / ₄

Name	Width x Height		
	FAP units	Millimeters	Inches (approximate)
JIS B1	68787 x 97322	728 x 1030	28 ³ / ₄ x 40 ¹ / ₂
JIS B2	48661 x 68787	515 x 728	20 ¹ / ₄ x 28 ³ / ₄
JIS B3	34393 x 48661	364 x 515	14 ¹ / ₄ x 20 ¹ / ₄
JIS B4	24283 x 34393	257 x 364	10 ¹ / ₈ x 14 ¹ / ₄
JIS B5	17197 x 24283	182 x 257	7 ¹ / ₄ x 10 ¹ / ₈
JIS B6	12094 x 17197	128 x 182	5 x 7 ¹ / ₄
JIS B7	8598 x 12094	91 x 128	3 ¹ / ₂ x 5
JIS B8	6047 x 8598	64 x 91	2 ¹ / ₂ x 3 ¹ / ₂
JIS B	4252 x 6047	45 x 64	1 ³ / ₄ x 2 ¹ / ₂
JIS B10	3024 x 4252	32 x 45	1 ¹ / ₄ x 1 ³ / ₄

NOTE: If you choose Custom, the Form field becomes available. Use this field to identify what type of paper to use when you print the custom image. For example, if you set to your custom image to 12x14, the system would need to know the paper size to use when test printing the image. The default is the size of paper that contains the custom image size, but since it does not know what paper is available on your printer, you have to tell the system what size to use. For images that are small enough to fit on letter size, the system defaults to letter and does not try to automatically select the smaller paper sizes it supports.

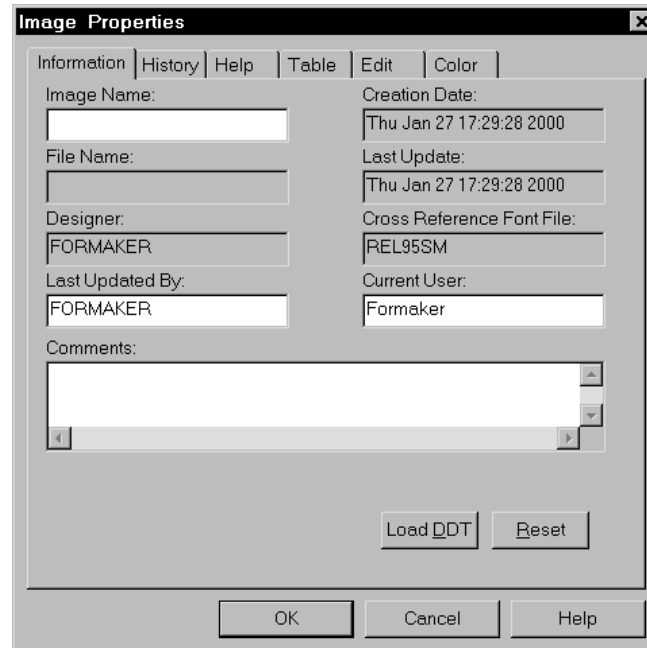
If you select Custom, Auto Size also becomes available. Click Auto Size if you want Image Editor to automatically size your image. You should only use this option after you have added all of the objects. Autosizing is based on the bottom right corner of the last object on the image. The top left corner remains the same. The lower right corner increases or decreases to fit all objects within the image.

- 5 Select either Portrait or Landscape for page orientation and click Ok. Your page layout options now apply to your current image.

SETTING IMAGE PROPERTIES

Using the Format, Image Properties option, you assign various properties to the image. These properties define history information about the image and procedures which apply during the entry stage. You select table and help information available during entry and during pre-edit and post-edit functions for the entry stage.

To set the image attributes, choose Format, Image Properties. This window appears:



The Image Properties window has several tabs to let you set properties for the following:

- Information
- History
- Help
- Table
- Edit
- Color
- Image rules

ENTERING GENERAL INFORMATION ABOUT THE IMAGE

The Information tab shows you the image's creation date, file name, last update, cross reference font file, last updated by, image name, and current user.

To enter image information, follow these steps:

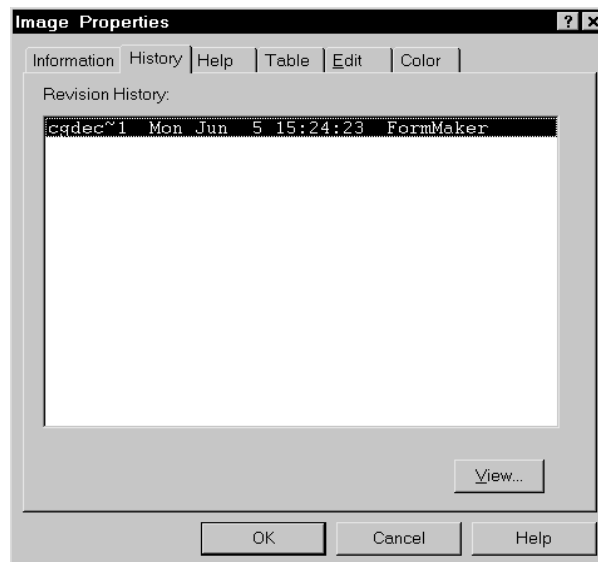
- 1 Click the Information tab. Enter the image name, designer name and other comments in the appropriate fields.

- 2 Click Ok to return to the image or select another tab to continue assigning image properties.

ENTERING HISTORICAL INFORMATION ABOUT THE IMAGE

The History tab provides a list of all revisions. You can check this list to see the dates and persons responsible for an image's changes. You cannot enter information onto this tab, you can only review the information the system tracks and the comments you add when you save the file.

- 1 Click the History tab to review the changes made to the image.



- 2 Click View to review comments you entered for that particular version of the image.
- 3 Click Ok to return to your image.

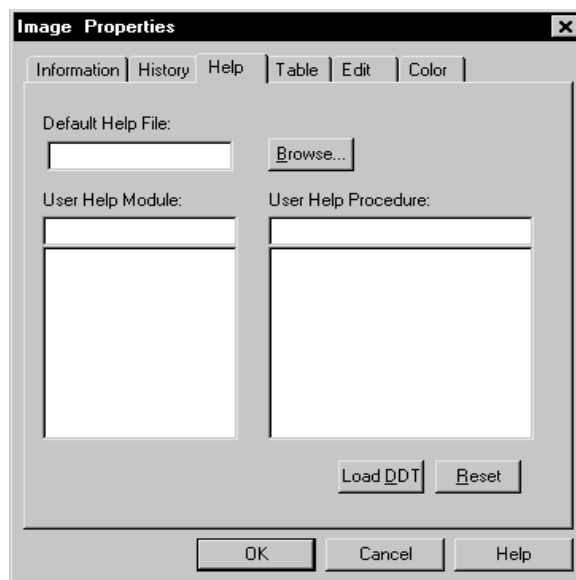
SETTING UP HELP MESSAGES

Adding Help lets you display short messages that tell the data entry operator what to enter on the form. For example, if the form has a field in which the data entry operator should enter the name of the person who approves the form, you can add Help to that field which tells the entry operator how to determine that person.

The information you enter on the Help tab provides defaults when you actually enter the Help information for a field on the Field Properties window. You can also use the Help Editor to enter or modify Help information.

Furthermore, you can attach your own Help system to the image. Steps 3 and 4 tell you how to specify a user-built Help system.

- 1 To assign image help defaults, click the Help tab.



- 2 Select a help file in the Default Help File field. Click Browse to choose from a list of available help files.
- 3 If applicable, select a user help module in the User Help Module field. You can use this field and the User Help Procedure field to attach your own Help system to the image. The module is the name of a dynamic link library (DLL) which contains the procedure you want the system to execute when a data entry operator selects Help for this field.
- 4 If applicable, select a user help procedure in the User Help Procedure field. For example, if you are attaching your own Help system to this image, here you would enter the name of the procedure or function you want the system to execute when the data entry operator selects Help for this field. If you enter a procedure here, you must also enter the name of the DLL in which the procedure exists in the User Help Module field.
- 5 Click Ok.

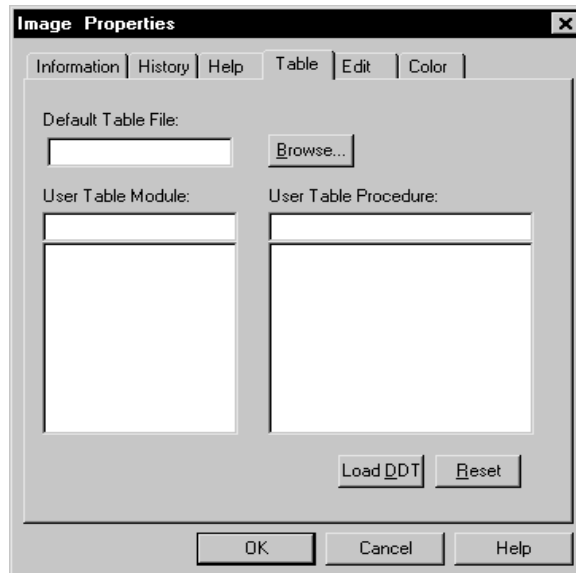
NOTE: For more information about the Help Editor, see [Adding Help Information on page 285](#).

SETTING UP LOOKUP TABLES

Use tables to provide the data entry operator with a list of options to choose from. You define the options. The information you enter on the Table tab provides defaults which appear when you create lookup tables on the Field Properties window. You can also use the Table Editor to enter or modify lookup tables information for an image.

Furthermore, you can display your own lookup tables to the image. Steps 3 and 4 tell you how to specify user-built lookup tables.

- 1 To assign image tables, click the Table tab.



- 2 Select the default table file in the Default Table File field. Click Browse to choose from a list of table files.
- 3 If applicable, select a user table module in the User Table Module field. You can use this field and the User Table Procedure field to attach your own lookup tables to the image. The module is the name of a dynamic link library (DLL) which contains the procedure you want the system to execute when a data entry operator clicks the Table button on the entry screen.
- 4 If applicable, select a user table procedure in the User Table Procedure field. For example, if you are attaching your own lookup tables to this image, here you would enter the name of the procedure or function you want the system to execute when the data entry operator clicks the Table button for this field. If you enter a procedure here, you must also enter the name of the DLL in which the procedure exists in the User Table Module field.
- 5 Click Ok.

NOTE: For more information about the Table Editor, see [Adding Tables on page 295](#).

SETTING UP EDIT FUNCTIONS

By including edit features in your image, you can tell the system to execute specific procedures to the image before or after information is entered onto the form. Pre-edit procedures are applied at the start of the entry stage. For example, you can assign a pre-edit procedure that inserts default data in multiple fields.

Post-edit procedures are applied at the end of the entry stage. For example, you might add a post-edit procedure that inserts four additional schedules or forms if certain information is entered.

The system includes procedures for executing DAL scripts and substituting field data.

- 1 To enter image edit functions, click the Edit tab.

The screenshot shows the 'Image Properties' dialog box with the 'Edit' tab selected. The dialog has tabs for Information, History, Help, Table, Edit, and Color. It is divided into two main sections: 'Pre-Edit' and 'Post-Edit'. Each section contains three fields: 'Module:' (a dropdown menu), 'Procedure:' (a dropdown menu), and 'Data:' (a text area with up/down arrows). At the bottom of the dialog are buttons for 'Load DDT', 'Reset', 'OK', 'Cancel', and 'Help'.

- 2 Select the module in the Module field. The module is the name of the DLL where the pre and post-edit procedure resides.

Select	To
DALW32	Execute a DAL script.
TERSW32	Substitute field data.

- 3 In the Procedure field select the desired pre or post procedure associated with the module selected.

Select	To
DALExecMsgScript	Execute the DAL script defined in the Data field.
TerSubImage	Scan each text area on the image and substitute field data in to the text. This function provides a type of mail merge capability. When you use this function, it scans each text area on the image and substitutes field data into the text. This is not the same as embedded fields, because the field data must exist prior to execution. The system looks through the text for field tokens in the form of <code>\FIELDNAME\</code> where the name between the slashes is a field name in your form set. When it finds this, the field's data is inserted into the text, not as a reference. Keep in mind that if the field's values change, the text area is not updated.

- 4 Enter any data required to run the procedure in the Data field and click Ok.

If you selected DALExecMsgScript in the Procedure field, you can enter up to 40 characters of script in the Data field. Separate script statements using semicolons (;). If your script contains more than 40 characters, call an external DAL script or use a DAL sub-routine library call. Here are some examples

```
Call ("Process.DAL")
Put( )
```

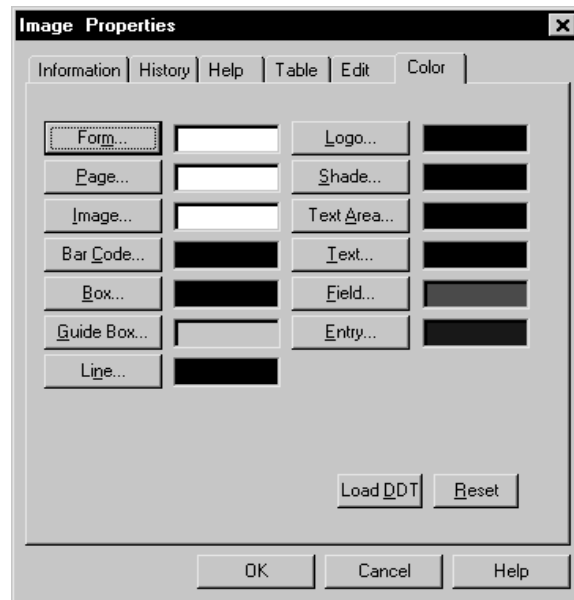
You can learn more about DAL scripts and functions in the [DAL Reference](#).

CHOOSING COLORS FOR OBJECTS

You can set display colors for all applicable objects from the Format, Image Properties option. These properties set the default colors for this image. You can change the color for a specific object, such as a box, when you create the object.

To set default colors for your objects, follow these steps:

- 1 Click the Color tab.



- 2 Click the object for which you want to specify the display color. The Color Selection window appears.
- 3 Click the Default field to remove the check mark then select the color you want. If you want to choose or define a custom color, click Custom.

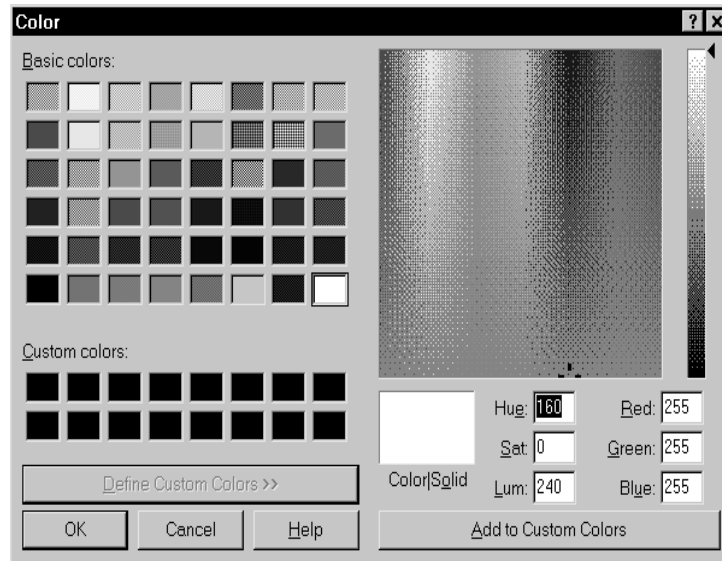
NOTE: These settings do not affect printing unless you click in the Print in color field on the Color Selection window. If you click this field and you have a color printer, the object will print in color.

- 4 Click Ok when you finish.

TO SELECT OR CREATE A CUSTOM COLOR

For Windows 9x or Windows NT, follow these steps to select or create a custom color:

- 1 On the Color Selection window, click Custom. The Color window appears.
- 2 To select a custom color already defined, click on the custom color you want and then click Ok. The system returns to the Color Selection window. To define a color, click on an undefined custom color (usually black) and then click Define Custom Color. The Color window changes, as shown below:



- 3 Use your mouse to select the custom color from the color palette or enter the numbers that define the color in the Hue, Sat, Lum, Red, Green, and Blue fields. Once you have the color defined as you want it, click Add To Custom Colors.
- 4 Click on the custom color you added and click Ok. You return to the Color Selection window and the system adds the numbers that identify the amount of Red, Green, and Blue to that window as a definition of the custom color.

TO REMOVE A CUSTOM COLOR

To remove a custom color you defined, click on the color to select it and then click Remove.

INSERTING AND DELETING PAGES

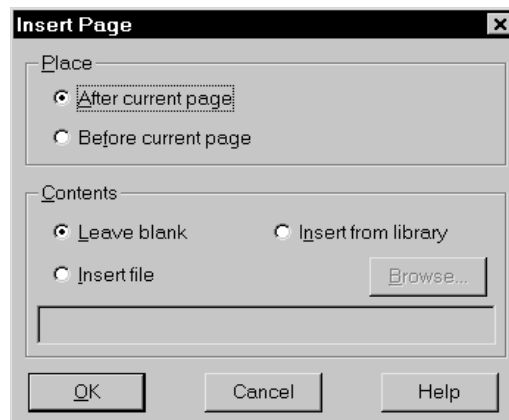
There are several options you can use to insert or delete pages in your image. To insert a page choose Insert, Page. This option lets you insert a page before or after the current page. You can also tell the system to insert another image (FAP file).

NOTE: To insert another type of file, such as an RTF file, use the File, Open option to open the RTF file. Once opened, you can make changes and then save that file as a FAP file. After you have saved the file as a FAP file, return to your current file and use the Insert, Page option to insert your new FAP file. See [Opening a File on page 84](#) for more information.

INSERTING A PAGE

To insert a page, follow these steps:

- 1 Use the View, Page option to go to the page immediately before or after the place where you want to insert a page. For example, if your image consists of five pages, to insert a page between page three and four, go to page three or four.
- 2 Select the Insert, Page option. The Insert Page window appears.



- 3 Click the appropriate options in the Place and Contents fields. If you choose to insert a file, click Browse to select the file or enter the file name and path.
- 4 Click Ok when you finish. The system inserts the page.

DELETING A PAGE

To delete a page, use the View, Page option to move to the page you want to and then select the Edit, Delete Page option. The system lets you confirm your choice if you have Delete object checked under Options, Editor Properties, Confirm tab.

NOTE: The Edit, Undo option will not restore a page you just deleted. If you delete a page by accident, exit the image without saving it and then reopen the image. You will lose all changes you have made since the last time you saved the image unless you are using the autosave feature.

CLOSING IMAGES

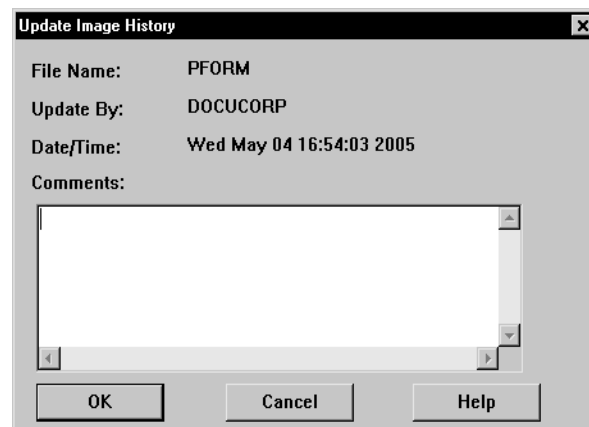
Conclude your work by saving and storing the image. You can also protect or lock your image in its current state. This section discusses the following options:

- Saving your image
- Checking your image into a resource library
- Closing your image
- Protecting the layout of your image
- Printing your image
- Renaming your image
- Compiling your image
- Exiting the system

SAVING YOUR IMAGE

The Options, Editor Properties option provides an automatic save option which defaults to saving your image at defined time intervals. You can change this setting and you can use the File, Save option to save your image any time you have made a significant number of changes. The more often you save your file, the less you will have to redo if the system fails.

When the system saves an image, using either the automatic save option or the File, Save option, it displays the Update Image History window if you have elected to use the Prompt for Image Information option on the Editor Properties, Save window.



You can enter comments to note the changes you have made. If several people are working together to create the image, adding comments is a good way to track who did what. When you finish adding comments, click Ok.

NOTE: Like most software, the system prompts you to name the image the first time you save it and warns you that you are about to overwrite a file if one exists with that name. If you use a file name that is greater than eight characters, the system truncates the file name to eight characters. In some cases the Entry module will be run in an environment that does not support long file names and many older file backup systems do not support long file names.

To save the file	Use this extension
As an ASCII file in pre-7.0 format	ASC
In version 7.0 format	FAP Be sure to first choose the Update 7.x files option on the Save tab under Options, Editor Properties and to specify the directory in which you want the version 7.0 files saved.
Fonts	FAP This lets you send the FAP file to another user who has a different set up. As long as that user has the same fonts, he or she can print the FAP file.
In the current version format	FAP

If you turn on the autosave option, the system saves your image in an autosave file. This autosave file has the same name as your image, but with the extension: *FA~*. If you close the image normally, the system deletes the autosave file. If you exit the image abnormally, such as if the power goes out, the system has no chance to delete the autosave file.

Each time you open an image, the system looks for a corresponding autosave file. If it finds one, the system displays a message which lets you open the last normally saved version of the file (FAP) or the autosaved file (FA~).

If you choose to open the autosave file, the system renames it with the FAP extension. If you choose not to open the autosave file, the system deletes it. The autosaved file is overwritten the next time you save the image.

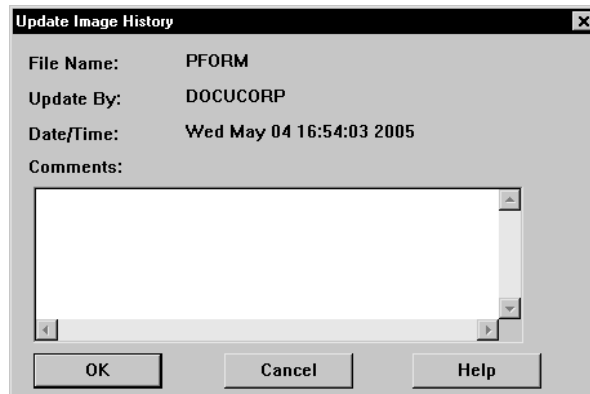
CHECKING AN IMAGE INTO A RESOURCE LIBRARY

If you used the File, Check Out option to retrieve the image or logo, you will probably want to use the File, Check In option to return the a file to the library. When you use Check Out to retrieve a file, the file is locked. Other users can not retrieve the until you check it in. Other users can, however, use File, View or File, Open to view the image. The system automatically saves the file when you check it in.

To check in a file, follow these steps:

- 1 Choose File, Check In. The Update Image History window appears.

NOTE: You must have the Prompt for Image Information option turned on in Options, Editor Properties for the Update Image History window to appear.

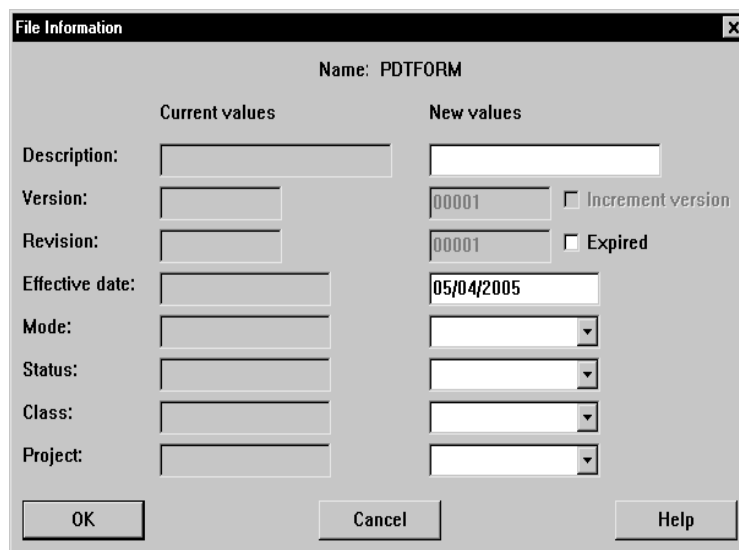


The 'Update Image History' dialog box contains the following information:

File Name:	PFORM
Update By:	DOCUCORP
Date/Time:	Wed May 04 16:54:03 2005
Comments:	

At the bottom are three buttons: OK, Cancel, and Help.

- 2 Enter any comments in the Comments field. Click Ok. The File Information window appears.



The 'File Information' dialog box displays the following fields and options:

	Current values	New values
Name:	PDIFORM	
Description:		
Version:		00001 ☐ Increment version
Revision:		00001 ☐ Expired
Effective date:		05/04/2005
Mode:		
Status:		
Class:		
Project:		

At the bottom are three buttons: OK, Cancel, and Help.

- 3 Enter a description in the Description field. Enter an effective date for this image in the Effective Date field. The Expired field lets you mark an image which will no longer be used.

NOTE: The system offers the current date as the default effective date. The format of the date is based on the entry in Locale INI option. See the [Docucreate Supervisor Guide](#) for more information about this option.

For US users, you would typically enter the date in one of these formats: *MM/DD/YY*, *MM.DD.YY*, or *MM-DD-YY*. You can enter the year as either two or four digits. *Do not* spell out the name of the month.

For other users, enter the date in the appropriate format as indicated your Locale option. For instance, if your locale is set to BEF (Belgium), the date format will be *DD\MM\YYYY*.

- 4 Select the appropriate options from the Mode, Status, Class, and Project fields.

Field	Description
Mode	This field indicates the mode of the resource. For instance, you could set up modes to denote milestones in the development process such as Development, Testing, and Production.
Status	This field indicates the status of the resource. For instance, you could have codes like Pass or Fail.
Class	This field indicates the class of the resource. You can use classes to group resources by product lines or by geographical regions, such as GA, TX, or MD.
Project	This field indicates the project code that last modified this resource.

- 5 Click the Increment Version field if you want the system to assign a new version number to this image. For example, assume you are working on the first version of an image. If you click Increment Version, the system creates a version 2, revision 1 image. Typically, you will only do this when you have completed major changes to an image.
- 6 Click Ok. The image is checked in to the library.

NOTE: For more information on resource libraries, see [Managing Resources Using Libraries on page 387](#).

CLOSING YOUR IMAGE

Use the File, Close option to exit the image, but not the Image Editor. If you have made changes to the image since the last save, the system asks if you want to save your changes. This only happens if you have saved changes turned on under Options, Editor Properties, Confirm tab.

Typically, you will use the File, Open and Close options as you create an image. Once you feel the image is ready for others to review or to work on, you can switch to the File, Check In and Check Out options. Those options provide version control features not offered by File, Open and Close.

NOTE: If you close an image you originally checked out, the image remains locked and no other users can check it out until it is unlocked.

To close an image, choose File, Close or double click on the X in the top, left corner of the rulers (under the File menu).

PROTECTING AN IMAGE'S LAYOUT

Use the Options, Protect Layout option to freeze the image in its current state. With this option checked, you cannot add, change or move objects such as lines and boxes. You can, however, add or change variable fields.

Most users find that the most efficient way to create an image is to first create the background boxes, lines, shaded areas, logos, and other objects. Then, once those objects are in place, users add variable fields and text labels and areas. To keep from accidentally moving the background objects, use this option. You can always turn off this option if you need to make changes.

To protect an image, choose Options, Protect Layout. A check mark appears next to the option. Choose it again to turn off this option.

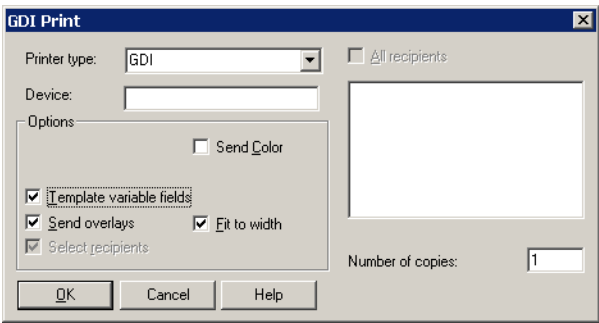
PRINTING YOUR IMAGE

Use the File, Print option to print your image. It is always a good idea to review a printed copy of your form to look for mistakes which you might not notice on screen. Follow these steps to print an image or the current page of an image:

NOTE: Setting up a printer is discussed in the previous chapter. If you have problems printing, check your printer setup and make sure your computer can access the printer you are trying to print to. If you are printing to a network printer, make sure your network connection is working, Contact your system administrator for more information on how your printers and your system work together.

- 1 Choose File, Print and select whether you want to print the entire image or the current page. A window similar to the one shown below appears:

NOTE: The options on this window are controlled by settings in the FAPCOMP.INI file.



- 2 Select the Printer type in the Printer Type field. The system displays the associated printer port in the Device field. Change the printer port, if necessary. Depending on your configuration, the system displays the following options on the print window. Change these options as necessary:

To...	Click...
Download your fonts onto the printer.	Download fonts
Display X's instead of variable field data. If you are printing to PDF format, choosing this option will tell the system to show information about the field when you place your mouse pointer over the field in the resulting PDF file. This includes the field name, type, length, scope, and so on.	Template variable fields
First compile images into printer-specific print files via Tools/Compile. Usually, this option is automatically selected because it speeds the print process.	Send overlays
Select recipients	Select recipients

NOTE: Fonts remain in the printer's memory until another job sends fonts to the printer. So, if you are using a local PCL printer to print several images or pages which use the same font set, you only have to download the fonts each time you turn on the printer. If, however, you are using a network printer, download fonts each time you print an image or page.

- 3 Select the number of copies to print in the Number of Copies field and click Ok to print.

RENAMING YOUR IMAGE

Save As lets you save an image under a new name. By saving the image under a new name you can use the new image as a template for other images. You can also use this option to copy a file to a diskette or to another drive.

To copy and save as a new image, follow these steps:

- 1 Choose File, Save As. The Save As window appears.
- 2 Enter the new name in the File name field. If you want to place the image in another folder or on another drive, make the appropriate changes in the Folders and Drives fields.

COMPILING YOUR IMAGE

Use the Tools, Compile option to compile your image file for a PCL, AFP, or Metacode printer. To compile an image, follow these steps:

- 1 Choose Tools, Compile. The Compile As window appears. Type a name in the File name field. You can enter up to eight characters.
- 2 Select the file type in the Compile File As Type field. Your options are:

To compile...	Choose...
Font files into a single font file specific to your printer environment.	PCL FNT File (*.FNT) PST FNT File (*.FNT)
A FormMaker II image for a PCL printer	OVL/DSK/TRN (*.OVL)
Your image for a PCL printer	PCL Overlay (*.OVL)
Your image for a Metacode printer	Metacode Overlay (*.MET)
Your image for PostScript printer	PST Overlay (*.OVL)
Your image for an AFP printer	AFP Overlay (*.OVL)

- 3 If you want to save the compiled image on another drive or folder (directory), use the Drives and Folders fields to select the appropriate drive and folder.

NOTE: If you enter a file name longer than eight characters, the system truncates the file name so it is only eight characters long. In some cases, the Entry module will be run in an environment that does not support long file names. Furthermore, many older file backup systems do not support long files names. Also resources on a Metacode printer can not exceed six characters. If the FAP file you are compiling contains multiple pages, the system will create one file for each page. For example, DEC.FAP may turn into DEC.MET and DEC02.MET.

- 4 Click Save. The system compiles the current image or font files.

EXITING THE IMAGE EDITOR

Use the File, Exit option to close the system and return to your operating system. If you have made any changes to your current image since the last save, the system asks if you want to save your changes.

The Options, Editor Properties option lets you determine what prompts appear when you choose File, Exit. To set these options, choose Options, Editor Properties and click the Save tab.

NOTE: If you choose not to see a message, the system still autosaves any changes made to the image. The autosave file will have the same name as the image file, but the extension will be *FA~*.

To exit Image Editor, choose File, Exit.

CHAPTER 5

Working with Fonts

A font is a collection of letters, symbols, and numbers which share a particular design. The system provides a tool, called Font Manager, which lets you organize sets of fonts for image creation and printing needs.

This chapter provides general information on font concepts and types and moves into the specifics of setting up fonts and using Font Manager.

Topics included are as follows:

- [Understanding Font Concepts on page 114](#)
- [Using Code Pages on page 120](#)
- [Types of Fonts on page 129](#)
- [Using System Fonts on page 132](#)
- [Using Font Cross-Reference Files on page 138](#)
- [International Language Support on page 142](#)
- [Setting Up PostScript Fonts on page 146](#)
- [Font Naming Conventions on page 150](#)
- [Using Font Manager on page 151](#)
- [Generating Files using Font Manager on page 180](#)
- [Mapping Fonts for File Conversions on page 184](#)

NOTE: The system also includes several utilities you can use to work with fonts. These utilities are mentioned where appropriate throughout this chapter and are discussed in detail in the [Docutoolbox Reference](#).

UNDERSTANDING FONT CONCEPTS

FONT TERMINOLOGY

The following is a glossary of some common typographic terms you may encounter when working with fonts.

Typography is the art and technique of selecting and arranging type styles, point sizes, line lengths, line spacing, character spacing, and word spacing for typeset applications.

A *typeface* is a unique design of upper- and lower-case characters, numerals, and special symbols. Times-Roman, Arial-Italic, Courier-Bold are examples of typefaces.

A *font* is the implementation, for a specific device, of one typeface. A font contains a group of characters (letters, numbers, punctuation, and so on) which have a specific form and size. As you can see below, a Courier font is one which is designed to look like it was produced by a typewriter.

Courier fonts look like text produced by a typewriter.

A *font family* is family of related font typefaces. Times-Roman, Times-Bold, Times-Italic, and Times-BoldItalic are typefaces which belong to the Times font family.

Font size refers to the vertical point size of a font, where a point is about 1/72 of an inch.

There are several other terms used to describe the characteristics of a font, including:

- Ascender
- Baseline
- Descender

The *ascender* is the portion of a lowercase character that extends above its main body, as in the vertical stem of the character *b*.

_____ ascender
bcxy

The *baseline* is an imaginary line upon which the characters in a line of type rest.

bcxy — — — baseline

The *descender* is the portion of a lowercase character that extends below the baseline, as in *y* or *g*.

bcxy_____ descender

Kerning is the process of decreasing space between two characters for improved readability, such as tucking a lowercase *o* under an uppercase *T*. A variation of kerning, called *tracking*, involves decreasing the amount of space between all characters by a specified percentage.

Leading is the amount of vertical space between lines of text. Leading (pronounced *led-ding*) is measured from baseline to baseline. On old hot-type printing presses, this was done by inserting strips of lead between the cast type.

Fonts are measured in *points*. A point is a typographical unit of measure which equals about 1/72 of an inch. For example, this is a **16 point font** while the rest of the line uses a 10 point font.

A *pica* is another typographical unit of measurement equal to 12 points. There are about 6 picas in one inch.

A *twip* is yet another typographical unit of measurement equal to 1/20th of a point. There are 1440 twips to one inch, 567 twips to one centimeter.

Pitch refers to the amount of horizontal space used for each character of fixed-width fonts. This is often specified in characters-per-inch (CPI). Typically, 10-pitch equals 12 point, 12-pitch equals 10 point, and 15-pitch equals 8 point type, but some fonts use other equivalencies.

Sans serif means without serifs and refers to a character (or typeface) that lacks serifs, such as Arial or Helvetica.

A *serif* is an ornamental aspect of a character. A serif typeface is one whose characters contain serifs (such as Times Roman or Courier).

Spacing can either be fixed or proportional. In a fixed font, such as Courier, every character occupies the same amount of space. In a proportional font, such as Arial or Times, characters have different widths.

Stroke weight refers to the heaviness of the stroke for a specific font. This is usually indicated in font names by including words such as Light, Regular, Book, Demi, Heavy, Black, and Extra Bold.

The *style* of a font is whether it is plain, bold, or italic.

National language terminology

Here are some additional terms you may encounter when working with fonts and supporting international languages.

National character handling is dependent on both the language used, and on the country. In many cases, the language is used only in one country (such as Japanese in Japan). In other cases, there is a national variant of the language (such as Canadian French).

A *code page* is a table which defines the mapping in a computer of each of these characters to a unique hexadecimal number, called a code point. There are three families of code pages: EBCDIC, ASCII, and ISO.

A *character set* defines which characters must be supported for a specific language.

Single byte character sets (SBCS) are character sets which can be defined using a single byte code point (code points range from 0 to 255). Most languages can be defined using an SBCS.

Double byte character sets (DBCS) are character sets which contain so many characters that they require two bytes to define the valid code point range. Languages which require a DBCS are Japanese (Kanji), Korean, and Chinese (both Traditional and Simplified). For example, the Kanji character set uses approximately 6,700 characters out of a total of 65,000 valid code points provided by a DBCS code page.

Multiple byte character sets (MBCS) use both single and double byte code points. This is also referred as a *Combined Code Page*. For example, the combined Japanese code page 932 consists of a SBCS code page 897 and a DBCS code page 301. These code pages use the Shift JIS encoding defined by the Japanese Industry Standard Association, and contains Kanji, Hiragana, and Katakana characters.

Unicode is a character coding system designed to support the interchange, processing, and display of the written texts of the diverse languages of the modern world. In its current version (3.2), the Unicode standard contains over 95,000 distinct coded characters derived from dozens of supported scripts. These characters cover the principal written languages of the Americas, Europe, the Middle East, Africa, India, Asia, and Pacifica. Support for Unicode is growing among operating systems, such as Windows XP, and programming languages, such as Java.

NOTE: Beginning in version 10.2, the system includes support for Unicode. Specific information on how to use Unicode is available in a separate document, entitled *Using Unicode*. To receive this document, contact Skywire Software Support.

Bi-directional (BIDI) languages or *Extended SBCS* languages are languages which display text in a right-to-left manner and numbers in a left-to-right manner. Hebrew and Arabic are BIDI languages.

ANSI is an acronym for the American National Standards Institute. The Windows ANSI character set is based on code page ISO 8859-x plus additional characters based on an ANSI draft standard.

ASCII is an acronym for the American Standard Code for Information Interchange. ASCII is a 7-bit code that is a US national variant of ISO 646.

Program Integrated Information (PII) includes all text in messages, menus, and reports which is displayed to the user. To provide national language support, all PII text must be isolated for easy translation.

Enabled is a term used to indicate an application that has been altered to handle input, display, and editing of double byte languages (such as Japanese) and bi-directional languages (such as Arabic).

Translated is a term used to indicate an application which has been enabled and has had its Program Integrated Information translated into the national language. A translated application must also support various country settings, such as time, date, currency, and sorting.

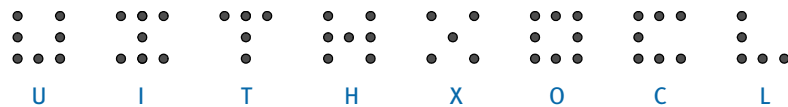
AFM is an extension used with Adobe® PostScript® font files. It stands for Adobe Font Metrics. AFM files are text files that describe a PostScript font.

HOW CHARACTERS ARE REPRESENTED

Fonts can use different methods of internally representing characters. Two categories of representing characters in fonts are known as bitmap fonts and scalable fonts.

Bitmap Fonts

Bitmap fonts describe each character as a pattern of black dots. Bitmap fonts were originally used for printer and screen devices because these devices were only capable of drawing dots. Below is crude representation of how the certain letters could be drawn as a series of dots in a 3x3 grid.



Essentially, this is what happens when a character is drawn to the screen or printed on paper. Fortunately, screen and printer fonts use a whole lot more dots per inch so that the distance between the dots becomes nearly invisible to the naked eye. By the way, this is also the reason why printed text looks better than text on the screen. Printed text often uses 300 or 600 dots per inch while your screen's resolution might be 96 dots per inch.

A different font file is required for each point size and different font files are required for different device resolutions (VGA vs. Super-VGA monitors, 300 dpi vs. 600 dpi printers).

Bitmap fonts are used primarily by printers. Bitmap fonts used by printers cannot be used for displaying text on screens because there are different internal formats and different resolutions. Printers which use bitmap fonts include HP® laser printers, IBM® AFP printers, and Xerox® Metacode printers.

Scalable Fonts

A scalable font can be scaled to any size needed. Characters of scalable fonts are internally represented as outlines (a series of straight lines and curves). These outlines can be scaled to allow characters to be rendered at different resolutions and point sizes. For example, the letter *O* may be represented as outer and inner circular lines whose interior is filled.

Outlines



Final Character



Two types of scalable fonts are TrueType and PostScript fonts.

TrueType TrueType was designed and developed by Apple Computer and Microsoft for use on the Macintosh computer and PCs running Microsoft Windows. TrueType provides a number of advantages over bitmap fonts. TrueType is WYSIWYG (what you see is what you get). The same font can be used with printers and video displays. Typically, TrueType font files have a file extension of TTF.

PostScript PostScript fonts were designed and developed by Adobe Systems Incorporated. PostScript fonts are a special implementation of a PostScript language program. PostScript fonts are scalable fonts. PostScript fonts describe each character as a series of straight-line and curved-line segments. These segments (also known as an outline) along with a flexible coordinate structure allow PostScript fonts to be scaled easily and used on different devices (video monitors and printers). PostScript printers support the PostScript language and fonts. There are several types of PostScript fonts:

- **PostScript Type 1**
When someone refers to a PostScript font, this is the type of font most often referred to. Typically, Type 1 font files have a file extension of PFB.
- **PostScript Type 3**
A Type 3 font is one whose behavior is determined entirely by the PostScript language procedures built into the font. These fonts are typically larger files than Type 1 fonts and do not take advantage of special algorithms built into the PostScript interpreter for rendering characters. This usually results in inferior output at small sizes and low resolution.
- **PostScript Type 0**
A Type 0 (zero) font is a composite font program that can contain several thousand characters, accessed by multi-byte codes. They can be used for non-Roman scripts, such as Japanese kanji.
- **PostScript Multiple Master**
Multiple master font programs are an extension of the Type 1 font format. Multiple master font programs contain a wide variety of typeface variations, such as multiple weights, character widths, and so on.

HOW COMPUTERS AND PRINTERS USE FONTS

What happens to make the letter *A* show up on the screen or print on a printer?

The key to remember is that computers and printers are not very smart. They really don't know anything about letters or punctuation characters.

When you press the letter *A* on the keyboard, the keyboard sends a number to computer. On a PC, this number is usually 65 for the letter *A*. The computer uses this number to produce the letter *A*. For simplicity, let's assume you have a bitmap screen font.

As stated before, bitmap fonts describe each character as a pattern of black dots. Let's assume these patterns are stored in the font as a series of slots where slot 0 is followed by slot 1 which is followed by slot 2, and so on. For the number 65 (letter *A*), the computer simply draws the pattern of dots stored in slot 65. When the bitmap is drawn on the screen, we see what looks like the letter *A*.

If you print the letter *A* with a bitmap font, the concept is essentially the same. The printer receives the number 65 and prints the series of dots stored in slot 65 of the printer font.

The numbers which the computer uses to represent characters are called *code points*.

USING CODE PAGES

A code page is a table which defines the mapping in a computer of each of these characters to a unique hexadecimal number, called a code point. There are three families of code pages: EBCDIC, ASCII, and ISO.

A code page is a table that defines how the characters in a language or group of languages are encoded. A specific value is given to each character in the code page. For example, in code page 850 the letter ñ (lowercase) is encoded as hex A4 (decimal 164), and the letter Ñ (uppercase) is encoded as hex A5 (decimal 165). Of particular interest are these code pages:

- Code Page 850

Code Page 850 is also called the Latin-1, multilingual code page. This code page supports the alphabetic characters of the Latin-1-based languages.

- Code Page 437

Code Page 437 is the standard personal computer code page. The lower 128 characters are based on the 7-bit ASCII code. The upper 128 characters contain characters from several European languages (including part of the Greek alphabet) and various graphic characters. However, some of the accented characters, such as those used in the Nordic countries, are not represented. The missing characters are available in other code pages (code page 850 will usually contain the desired characters). It contains characters required by 13 languages used in approximately 40 countries.

- Code Page 1004

Code Page 1004 is the equivalent of the Windows ANSI code page. It contains more international characters than the multilingual code page 850. This character set contains all characters necessary to type all major (West) European languages. This encoding is also the preferred encoding on the Internet.

ISO 8859-x character sets use code points 128 through 255 to represent national characters, while the characters in the 32 to 127 range are those used in the US-ASCII (ISO 646) character set. Thus, ASCII text is a proper subset of all ISO 8859-X character sets.

The code points 128 through 159 are typically used as extended control characters, and are not used for encoding characters. These characters are not currently used to specify anything. This character set is also used by AmigaDOS, Windows, VMS (DEC MCS is practically equivalent to ISO 8859-1) and (practically all) UNIX implementations. MS-DOS normally uses a different character set and is not compatible with this character set.

ASCII Code Pages

ASCII is an acronym for the American Standard Code for Information Interchange. ASCII code pages are used on the PC platform. Code points below 32 for ASCII code pages are considered control characters for internal uses. These code points are usually not displayable characters. Code points from 32 to 127 are usually the same in ASCII code pages and are used for English letters, numbers, and punctuation.

Where ASCII code pages differ is in the characters assigned to code points 128-255. Code points 128-255 are used for international characters, math symbols, and so on. The characters for these code points vary in other code pages.

The characters used in code points below 128 use the English letters, numbers, and punctuation commonly found in ASCII code pages. The upper 128 code points are used for characters from several European languages (including part of the Greek alphabet) and various graphic characters. However, some of the accented characters, such as those used in the Nordic countries, are not represented.

Code page 437 is known as the standard personal computer code page. These characters were originally used in the original IBM PC. This code page is still used today in U.S. English versions of DOS and Windows. The primary code page used for these platforms is also known as the OEM code page.

Code page 850 is also called the multilingual code page. This code page supports many of the characters of the Latin-based alphabet.

The following table shows code page 850. To determine the code point associated with a character, use the numbers in the first row and column in the following table. For example, the letter *A* has a code point of 65 ($64 + 1$) and the space character has a code point of 32 ($32 + 0$).

Code Page 850

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0																
16																
32		!	“	#	\$	%	&	‘	(	)	*	+	,	-	.	/
48	o	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
64	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
80	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
96	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
112	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
128	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å
144	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ø	£	Ø	×	f

160	á	í	ó	ú	ñ	Ñ	ä	ö	¿	®	¬	½	¼	ì	«	»
176						Á	Â	À	©					¢	¥	
192							ã	Ã								¤
208	ð	Ð	Ê	Ë	È		Í	Î	Ï					Ì	Î	
224	Ó	ß	Ô	Ò	õ	Õ	µ	þ	Þ	Ú	Û	Ü	Ý	Ý	-	´
240	—	±		¾	¶	§	÷	,	°	™	•	¹	²	³		

There are many more ASCII code pages which are targeted for a specific country and or language. For example, code page 863 is used for Canadian French.

Code page 1004 is the IBM equivalent of the Windows ANSI code page. It contains more international characters than the multilingual code page 850. It contains characters required by 13 languages used in approximately 40 countries. Windows uses the ANSI code page to support most of the languages used in the Western Hemisphere and Western Europe. Keystrokes are translated by Windows from the primary (OEM) code page into the ANSI code page.

The following page shows the Windows ANSI Code Page. To determine the code point associated with a character, use the numbers in the first row and column in the following table. For example, the letter A has a code point of 65 (64 + 1) and the space character has a code point of 32 (32 + 0).

Code Page 1004 (ANSI Code Page)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0																
16																
32		!	“	#	\$	%	&	‘	(	)	*	+	,	-	.	/
48	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
64	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
80	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
96	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
112	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
128			,	f	„	…	†	ç	^	‰	Š	‹	Œ			
144		‘	’	“	”	•	—	—	~	™	š	›	œ			ÿ
160		ì	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	-	®	¯

176	°	±	²	³	´	μ	¶	·	,	¹	º	»	¼	½	¾	¿
192	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
208	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
224	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
240	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

EBCDIC CODE PAGES

EBCDIC is an acronym for the Extended Binary Coded Decimal Interchange Code. EBCDIC code pages are used on mainframe (z/OS) and mini computers (AS400). There are many EBCDIC code pages. EBCDIC code pages usually share the same code points for English letters, numbers, and punctuation characters. However, EBCDIC code pages use different code points than ASCII code pages for the same English letters, numbers, and punctuation characters. Code points below 64 for EBCDIC code pages are considered control characters for internal uses. These code points are usually not displayable characters.

Code page 37 is an EBCDIC code page used on many z/OS and AS400 systems. Although the code points are completely different, code page 37 shares most of the same characters as code page 1004 (ANSI). The characters associated with code points 128-159 in the ANSI code page are not defined in code page 37.

NOTE: The system uses some undefined code points (below 64) in code page 37 to try represent these characters. For maximum portability, avoid using code points 128-159 of the ANSI code page when composing forms.

The following page shows a table of code page 37. To determine the code point associated with a character, use the numbers in the first row and column in the following table. For example, the letter *A* has a code point of 193 (192 + 1) and the space character has a code point of 64 (64 + 0).

Code Page 37

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0																
16																
32																
48																
64			â	ä	à	á	ã	å	ç	ñ	¢	.	<	(	+	

80	&	é	ê	ë	è	í	î	ï	ì	ß	!	\$	*	)	;	¬
96	-	/	Â	Ä	À	Á	Ã	Å	Ç	Ñ		,	%	_	>	?
112	ø	É	Ê	Ë	È	Í	Î	Ï	Ì	˘	:	#	@	'	=	“
128	Ø	a	b	c	d	e	f	g	h	l	«	»	ð	ý	þ	±
144	°	j	k	l	m	n	o	p	q	r	ª	º	æ	,	Æ	¤
160	µ	~	s	t	u	v	w	x	y	z	ı	ı	Đ	Ÿ	ƒ	®
176	^	£	¥	•	©	§	¶	¼	½	¾	[	]	-	..	ˆ	×
192	{	A	B	C	D	E	F	G	H	I	-	ô	ö	ò	ó	õ
208	}	J	K	L	M	N	O	P	Q	R	¹	û	ü	ù	ú	ÿ
224	\	÷	S	T	U	V	W	X	Y	Z	²	Ô	Ö	Ò	Ó	Õ
240	o	1	2	3	4	5	6	7	8	9	³	Û	Ü	Ù	Ú	

CHARACTER SETS

You may have noticed that the largest code point shown in the earlier code page tables is 255 (240 + 15). The reason for this is that 255 is the largest value which can fit into a byte of memory. Code pages like this are said to have a single byte character set (SBCS). Some Asian languages, like Japanese and Chinese, contain so many characters that they must be represented by a double byte character set (DBCS) or a multiple byte character set (MBCS).

NOTE: Prior to version 10.2, the system only supported SBCS code pages. Version 10.2 added support for many additional languages using Unicode.

Determining Characters Used in a Printer Font

The simplest way to determine what characters are contained in a printer font is to use Image Editor to print a FAP file which contains all possible code points. The system includes a FAP file you can use for this purpose. This FAP file looks very similar to the code page tables shown earlier in this chapter.

To print this FAP file, follow the steps below:

- 1 Start Image Editor.
- 2 Choose File, Open and select the Q1CDPG.FAP file, which is located in the RPEX1\FORMS directory.
- 3 Choose Tools, Font Manager and highlight the font 11016 (this FAP file only uses one font ID, 11016).

- 4 Click the Edit button. The Font Properties window appears. Click the Printers tab.
- 5 Change the AFP, PCL, or Xerox font file name to the font file name you want to test and click Ok. Then click Close to exit Font Manager and save your changes.
- 6 Select File, Print. Print the FAP file using the printer driver which corresponds to the printer font you are testing.

NOTE: Be sure to download fonts if you are testing a PCL font.

CODE PAGE NAMES

One confusing thing about code pages is that different organizations have different names for the same code pages. IBM, Microsoft, and the International Organization for Standardization (ISO) all use different names for essentially the same code page. You may hear a code page referred to by its IBM, Microsoft, or ISO name. For example, the ANSI code page is the same as IBM code page 1004, Microsoft code page 1252, and ISO code page 8859-1.

The following table shows a list of commonly used code pages. For more information, see these books:

- Developing International Software, Second Edition - Microsoft Press
- National Language Design Guide Volume 2 - IBM

Language	Country	Code Pages		
		Windows	OEM	z/OS
U.S. English	USA	1252 (ANSI)	437, 850	037

Western Hemisphere and Western Europe SBCS Code Pages

U.K. English	UK	1252 (ANSI)	850, 437	?
Brazilian Portuguese	Brazil	1252 (ANSI)	850, 437	?
Canadian French	Canada	1252 (ANSI)	850, 863	?
Danish	Denmark	1252 (ANSI)	850	?
Dutch	Netherlands	1252 (ANSI)	850, 437	?
Finnish	Finland	1252 (ANSI)	850, 437	?
French	France	1252 (ANSI)	850, 437	?
German	Germany	1252 (ANSI)	850, 437	?
Italian	Italy	1252 (ANSI)	850, 437	?
Norwegian	Norway	1252 (ANSI)	850	?
Portuguese	Portugal	1252 (ANSI)	850, 860	?
Spanish	Spain	1252 (ANSI)	850, 437	?
Swedish	Sweden	1252 (ANSI)	850, 437	?

Eastern Europe SBCS Code Pages

Russian	Russia	1251 (Cyrillic)	866, 850	?

Language	Country	Code Pages		
		Windows	OEM	z/OS
Bosnian	Bosnia	?	852, 850	?
Croatian	Croatia	1250 (Eastern Europe)	852, 850	?
Czech	Czech	1250 (E.E.)	852, 850	?
Estonian	Estonia	1257 (Baltic)	?	?
Greek	Greece	1253 (Greek)	?	?
Hungarian	Hungary	1250 (E.E.)	852, 850	?
Latvian	Latvia	1257 (Baltic)	?	?
Lithuanian	Lithuania	1257 (Baltic)	?	?
Polish	Poland	1250 (E.E.)	852, 850	?
Romanian	Romania	1250 (E.E.)	852, 850	?
Serbian-Latin	Serbia	1250 (E.E.)	852, 850	?
Slovak	Slovak	1250 (E.E.)	852, 850	?
Slovenian	Slovenia	1250 (E.E.)	852, 850	?
Turkish	Turkey	1254 (Turkish)	857, 850	?

Extended SBCS Code Pages

Arabic	Arabic speaking	1256 (Arabic)	864, 850, 437	?
Hebrew	Israel	1255 (Hebrew)	862, 850, 437	?
Thai	Thailand	874	874, 437	?

Asian DBCS Code Pages

Japanese	Japan	932	932, 942, 437, 850	?
Korean	Korea	949	949, 850, 437	?
Simplified Chinese	PRC, Singapore	936	1381, 437, 850	?

Language	Country	Code Pages		
		Windows	OEM	z/OS
Traditional Chinese	Taiwan, Hong Kong	950	938, 948, 437, 850 950, 437, 850	? ?

TYPES OF FONTS

The system uses screen and printer fonts for displaying and printing text on forms. The Family field in the FXR contains the name of the screen font to use for displaying text under Windows.

The Font File fields in the FXR contain the names of the printer fonts to use when printing text. The FXR file provides attributes of the fonts and cross references the various font file names and parameters for different printers. The FXR does not contain any printer or screen fonts, only information about printer and screen fonts. FXR files are referred to in this section but are discussed in detail in the section, [Using Font Cross-Reference Files on page 138](#).

USING SCREEN FONTS

Font Substitution in Windows

If the system cannot find a matching screen font using the information in the FXR, it will attempt to substitute a different Windows font. For Windows, the system will automatically try to substitute the following fonts for these missing fonts:

If this font is missing...	The system will substitute this font...
Courier	Courier New
Helv	Arial
Letter Gothic	Courier New
MICR	Courier New (fixed pitch) or Arial (proportional)
OCR A	Courier New (fixed pitch) or Arial (proportional)
OCR B	Courier New (fixed pitch) or Arial (proportional)
Times	Times New Roman
Times Roman	Times New Roman
Tms Rms	Times New Roman
Univers	Arial

Separate INI file control groups are used for Windows 3.1x (16-bit) and Windows 32-bit platforms for defining substitute font names. These control groups are named WINDOWSUBS and WINDOW32SUBS, respectively. Here is an example of the WINDOW32SUBS control group, which shows the defaults settings:

```
< Window32Subs >
  Univers      = Arial
  Helv         = Arial
  Letter Gothic = Courier New
  Courier       = Courier New
  Tms Rms      = Times New Roman
```

```
Times Roman    = Times New Roman
Times          = Times New Roman
```

In this example, the system substitutes the native Windows 32-bit font, Times New Roman, if the Times family font is not found. Likewise, it substitutes Courier New for Letter Gothic and Arial for Univers. If you do not have a font installed which matches the original or substituted fonts, a default font will be used instead (usually Courier).

Installing Screen Fonts in Windows

To avoid these font substitutions, you can install fonts into Windows using the Fonts folder (usually located in the Control Panel). After opening the Fonts folder, select the File, Install New Font option. The Add Fonts window appears and asks for the drive and directory in which the new TrueType font files are located. When you finish selecting the fonts you want to install, click Ok to install them.

For the system to correctly match the fonts installed under Windows, the family and face name must be spelled exactly the same as they appear on the Names tab of the Properties window for the font. Use FXR settings for FAP height, FAP width, and so on, to customize the display of a font. For information on choosing one of these Windows display fonts to match a printer font, see [Choosing Screen Fonts on page 178](#).

USING PRINTER FONTS

The system supports printer fonts for AFP, Xerox Metacode, PCL, and PostScript printers. Here is some background information you should know about each of these print platforms.

AFP

AFP fonts are designed solely for IBM's AFP printers. In AFP terminology, a font is described by three components:

- Coded fonts** A coded font file contains references to specific character set and specific code page. Coded font files always begin with the letter *X*, such as *XoDATIN8*.
- Code pages** In IBM AFP terminology, a code page file maps code points to an AFP character name in a character set file. Code page files always begin with the letter *T*, such as *T1DOCo37*.
- Character sets** A character set file contains the bitmap image of each character in the character set. Character set files always begin with the letter *C*, such as *CoFATIN8.240* or *CoFATIN8.300*. The character set file name extension (240 or 300) indicates whether the bitmap images are drawn at 240 or 300 dots per inch. Each character is given a eight letter AFP character name. For example, the letter *A* has an AFP character name of *LA020000*.

Metacode

Metacode fonts are designed solely for Xerox Metacode printers. Metacode fonts are bitmap fonts. Typically, Metacode font files have a file extension of *FNT*, such as *FXTIN8.FNT*. Characters are accessed by code points.

PCL

PCL is the Printer Control Language developed by Hewlett Packard for its LaserJet (and compatible) printers. PCL bitmap fonts are used by the system. PCL bitmap fonts can have any file name extension. The system provides PCL fonts with an extension of PCL, such as FPTIN8.PCL. Like Metacode fonts, PCL characters are accessed by code points.

PostScript Fonts

PostScript fonts were designed and developed by Adobe Systems Incorporated. PostScript fonts are actually a special implementation of a PostScript language program. PostScript fonts are scalable fonts and there are several types of PostScript fonts, PostScript Type 1 fonts are most common and are the only type supported by the system. Typically, Type 1 font files have a file extension of PFB, such as COURIER.PFB.

Each character in a PostScript font has a PostScript character name. When used as a screen font, the operating system associates code points in a code page with the appropriate PostScript character names.

NOTE: The system uses the CODEPAGE.INI file to associate code points with the appropriate PostScript characters.

TrueType Fonts

TrueType is a scalable font designed and developed by Apple Computer and Microsoft for use on the Macintosh computer and on PCs running Microsoft Windows. TrueType is WYSIWYG (what you see is what you get). The same font can be used with printers and video displays. Typically, TrueType font files have a file extension of TTF.

Adding Printer Fonts to a Font Cross-reference File

Fonts are added to an FXR file using the system's Font Manager. You can insert TrueType, PCL, AFP, Xerox Metacode, certain FormMaker II files, and other FXR files into a font cross-reference file. Font Manager is discussed in [Using Font Manager on page 151](#). For specific instructions on inserting a font into an FXR file, see [Inserting Fonts on page 172](#).

USING SYSTEM FONTS

Skywire Software has licensed for use and distribution with the system the following Postscript and TrueType fonts from Monotype Imaging, Inc. (formerly Agfa):

- Albany
- Arial Black
- Arial Narrow
- Courier
- Letter Gothic
- Times
- Univers
- Univers Condensed
- DocuDings
- MICR
- OCRA
- OCRB
- ZIPCODE

Albany (an Arial clone), Arial Narrow, Arial Black, and DocuDings (a Wingdings clone) are clones of commonly-used Windows fonts. The fonts are similar in appearance to the corresponding Windows fonts and have the same character width attributes. In addition, you can now use PCL, PostScript, AFP, and Metacode versions of these fonts for printing.

NOTE: Although DocuDings is very similar to Wingdings, there are some differences. For instance, code point 255 in Wingdings is the flying Windows symbol (✈). The DocuDings font displays a blank space for code point 255. The other code points (characters) are very similar in appearance but are not exact duplicates to the Wingdings font.

The Monotype font sets include the Euro character (€).

From these fonts, Skywire Software has created fonts to use with AFP, PCL, and Xerox printers. These fonts let you print nearly identical forms on any supported printer. Skywire Software uses the following file naming convention for AFP, PCL, and Xerox printer fonts:

F T F₁ F₁ S P

For example, a 10 point bold Courier Xerox font would be named *FXCOBo.FNT*.

F	Standard Skywire Software system font
T	Printer type where A = AFP, P = PCL, X = Xerox 0 degree, 9 = Xerox 90 degree, 1 = Xerox 180 degree, 2 = Xerox 270 degree
F ₁	Two-character family name where AB = Albany, AL = Arial Black, AN = Arial Narrow, CO = Courier, HV = Helvetica, LG = Letter Gothic, TI = Times, UN = Univers, UC = Univers Condensed, DD = DocuDings, MI = MICR, OA = OCRA, OB = OCRB, ZP = ZIP code
S	Style where B = Bold, I = Italic, O = Bold Italic, N = Normal/Medium
P	Point size where 1 - 9 = point sizes 1-9 and o = point size 10 A - Z = point sizes 11-36

Font Cross-reference Files for Monotype Fonts

HPINTL.FXR,
HPINTLSM.FXR

These FXRs provide support for Hewlett Packard (PCL) internal fonts using ANSI code page character sets instead using Monotype-based PCL downloadable fonts. The HPINTLSM.FXR file is a subset of the font information contained in the HPINTL.FXR file—*SM* indicates *small*.

REL95.FXR, REL95SM.FXR

Use these FXRs if you intend to print on an AFP printer using Monotype fonts. These FXRs specify new Monotype AFP coded fonts which use a new code page file. The system uses code page 37 for EBCDIC platforms. These AFP fonts are based on this standard. The REL95SM.FXR file is a subset of the font information contained in the REL95.FXR file—*SM* indicates *small*.

REL102.FXR,
REL102SM.FXR

These FXRs are similar to the REL95 FXRs but also include these fonts: Univers Condensed, MICR, OCRA, and OCRB.

REL103.FXR,
REL103SM.FXR

These FXRs are similar to the REL102 FXRs but also include these fonts: Albany, Arial Black, Arial Narrow, and DocuDings. Be aware that the REL103SM.FXR file does not include DocuDings or all of the point sizes of the Albany group (including bold and italic), the Arial Narrow group (including bold and italic), and the Arial Black group (including italic).

You can identify these fonts via their names. For example *18o10* indicates a 10-point Albany font. The initial *1* indicates Monotype, the *8* indicates Albany, the *o* indicates normal type, and *10* is the point size.

Arial Black fonts are indicated with a nine (9) and Arial Narrow fonts are indicated with a zero (0). DocuDings are indicated with a 34. You can find detailed information on font naming conventions in the Working with Fonts chapter of the [Docucreate User Guide](#).

Below are the PostScript and TrueType fonts included in REL103SM.FXR:

PostScript Font	PostScript Font Name
ALBB____.PFB	Albany-Bold
ALBBI____.PFB	Albany-BoldItalic
ALBIT____.PFB	Albany-Italic
ALBR____.PFB	Albany-Regular
AN____.PFB	ArialNarrowMT
ANB____.PFB	ArialNarrowMT-Bold
ANBI____.PFB	ArialNarrowMT-BoldItalic
ANI____.PFB	ArialNarrowMT-Italic
ARBLI____.PFB	ArialMT-BlackItalic
ARIBL____.PFB	ArialMT-Black
DOCUD____.PFB	DocuDings

TrueType Font	TrueType Font Name
ALB.TTF	Albany AMT
ALBB.TTF	Albany AMT Bold
ALBBI.TTF	Albany AMT Bold Italic
ALBI.TTF	Albany AMT Italic
ARBL.TTF	Arial Black
ARBLIT.TTF	Arial Black Italic
ARIALN.TTF	Arial Narrow
ARIALNB.TTF	Arial Narrow Bold
ARIALNBI.TTF	Arial Narrow Bold Italic
ARIALNI.TTF	Arial Narrow Italic
DOCUDING.TTF	DocuDings

USING CUSTOM FONTS

To the system, custom fonts are simply fonts which are not based on the ANSI code page. This means that the font contains characters which have different code points or which do not exist in the ANSI code page. If you cannot use the system's Monotype fonts (or at least ANSI code page based fonts), you will need to consider these possible issues:

- Viewing Forms

Viewing forms may be the first problem since the characters in the original printer font do not match the characters used in displaying text on the screen. This problem will be seen during forms composition. This will also be a problem if the you have licensed the Entry or Archive Retrieval modules. Keyboard entry becomes a training issue as well. Under Windows, you must use 4-digit ALT key sequences to prevent code point translation.

If possible, you should convert any custom fonts to TrueType fonts for Windows and install the fonts into your operating system. If the font cross-reference file is properly modified to specify these screen fonts, the system will display your forms correctly. However, these characters may not display properly in Docucreate and Documaker Workstation.

NOTE: The Xerox Font Center will convert a Xerox Metacode font into a PostScript or TrueType font for a fee. They may convert AFP fonts as well. You can reach them at 1-800-445-3668.

- PDF Incompatibility

In addition to the Entry and Archive module problem, PDF or Acrobat files created for Internet archive retrieval use the ANSI code page for displaying forms. Therefore, archived forms based on custom fonts may not display correctly when retrieved through Skywire Software's Docupresentment.

- **Printing Forms**

Another problem concerns using custom fonts on multiple (ASCII and EBCDIC) platforms. The system performs ASCII/EBCDIC translation based on the assumption that the ASCII code page is the ANSI code page and that the EBCDIC code page is Code Page 37. The system also assumes that PCL, PostScript, and Metacode printers use ASCII (hence ANSI) fonts. The system assumes AFP printers use EBCDIC fonts. The following table shows when the system will translate text (from FAP files) and variable data (from extract files) when printed under different platforms and printers.

Platform / Printer	ASCII (Windows 32-bit) ASCII FAP files and Extract data	EBCDIC (z/OS, AS400) EBCDIC FAP files and Extract data
AFP	ASCII to EBCDIC translation	No translation
PCL	No translation	EBCDIC to ASCII translation
PostScript	No translation	EBCDIC to ASCII translation
Xerox Metacode	No translation	EBCDIC to ASCII translation

On AFP printers

On a PC, text will be translated when printing to an AFP printer. Therefore, the code points used in text or variable data on forms are very important. After these code points are translated to the EBCDIC (code page 37), they must match the code points associated with the desired characters in the AFP code page which will be used.

On EBCDIC platforms, such as z/OS, AS400, text is assumed to be EBCDIC and will not be translated when you print to an AFP printer. The key to correct printing is to make sure the text (FAP files) and variable data (extract files) use the code points associated with the desired characters in the AFP code page you will use. Since FAP files are created as ASCII files on a PC, they will need to be transferred to the EBCDIC platform. Since you are using custom fonts, it is quite likely the file transfer software will not perform the proper code point translation. In this case, you may need to upload the files without translation and use the CPCNV utility to translate the files. This may require defining a special code page in the CODEPAGE.INI file for the CPCNV utility to use to do the proper translation.

See [Determining Characters Used in a Printer Font on page 124](#) for help in determining how code points will be associated with font characters.

On Xerox Metacode printers

On a PC, text (code points) will not be translated when printing to a Metacode printer.

On EBCDIC platforms (z/OS, AS400), text is assumed to be EBCDIC and will be translated to ASCII (ANSI code page) when printing to a Metacode printer. Therefore, the EBCDIC code points used in text or variable data on forms are very important. Since the FAP files are ASCII files created on a PC, they will need to be transferred to the EBCDIC platform. Since you are using custom fonts, it is quite likely that the file transfer software will not perform the proper code point translation. In this case, you may need to upload the files without translation and use the CPCNV utility to translate the files. This may require defining a special code page in the CODEPAGE.INI file for the CPCNV utility to use to do the proper translation.

See [Determining Characters Used in a Printer Font on page 124](#) for help in determining how code points will be associated with font characters.

On PCL printers

On a PC, text (code points) will not be translated when printing to a PCL printer. On EBCDIC platforms (z/OS, AS400), PCL print is not currently supported.

On PostScript printers

On a PC, text (code points) will not be translated when printing to a PostScript printer. On EBCDIC platforms (z/OS, AS400), PostScript print is not currently supported.

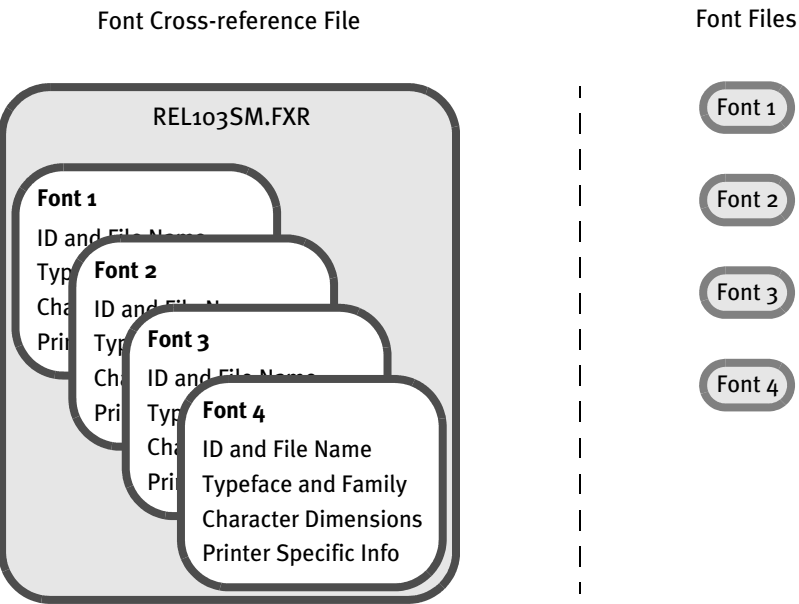
USING FONT CROSS-REFERENCE FILES

The font cross-reference file lets you organize the fonts you use for display and printing. The FXR provides the system with all the necessary font information. It does not contain the actual font files; rather, it contains information about the font attributes. Font attribute information includes formatting styles (bold, italic, and so on), point size (10 point, 14 point, and so on), and font stroke weight (heavy, light, and so on).

Understanding the System

Storing the cross-reference information separately from the physical fonts affords greater flexibility in printer and font usage. You can convert virtually any font for your individual printer environment, provided you obtain appropriate license agreements for the fonts.

Let's examine the organization of the font cross-reference file and the font files. The illustration below depicts a font cross-reference file named REL103SM.FXR. This file contains a single font set. It includes all the crucial information for each font in the font set. The actual font files are physically separate from the font cross-reference file.



As shown above, the font files are distinct from the font cross-reference file. When you work with the font cross-reference file you affect the stored font information. You do not affect the separate and independent font files. The number of available fonts is limited only by your needs and storage space. If you keep this organizational structure in mind you can easily work with the font cross-reference file.

The font cross-reference file provides the names of your independent font files, but it is more than a simple listing of fonts. The file contains crucial font attribute information along with information specific to your printer types. The printer information is crucial because images are compiled based on your printer environment.

The font cross-reference file ends in the extension *FXR* (for font cross-reference). The system includes these font cross-reference files:

FAP\MSTRRES\FMRES\DEFLIB\HPINTL.FXR

FAP\MSTRRES\FMRES\DEFLIB\HPINTLSM.FXR

FAP\MSTRRES\FMRES\DEFLIB\REL103.FXR

FAP\MSTRRES\FMRES\DEFLIB\REL103SM.FXR

REL103SM.FXR - References Times (Roman), Courier, Univers and Univers Condensed fonts for PostScript, AFP, Metacode, and PCL printers. This FXR file is pre-installed in your system.

Additional PostScript fonts are also included in the REL103.FXR file. This FXR file references standard and supplemental PostScript fonts and all font attributes. You can use the supplemental installation disks to add fonts to your font set, and use the REL103.FXR file as your font reference file, as your system's disk space allows.

Keep in mind these points concerning the FXR file:

- Contains one font set

The font set is the specific group of fonts you choose to include in your font cross-reference file. Each font cross-reference file contains a single font set. You assign each font cross-reference file and font set a unique name. For example, you might organize a font set for creating and printing accounting forms in a font cross-reference file called ACCOUNT.FXR.
- Contains information on multiple fonts

A font set contains numerous fonts. For example, a font set might contain Times New Roman fonts and Gothic fonts of multiple point sizes with bold and italic attributes. A second font set might contain Courier fonts and Helvetica fonts, also of multiple point sizes with bold, italic and regular attributes.
- Independent of your font files

The font cross-reference file works with the printer and window font files. Remember that the font files are separate files from the font cross-reference file.

HOW FXR SETTINGS AFFECT DISPLAY AND PRINT QUALITY

Certain attributes in the FXR file affect how the system displays text. For example, when the system displays text, it uses scalable font technology which exists in Adobe Type 1 Postscript fonts and TrueType fonts. All versions of Windows support TrueType fonts. Windows 2000 also supports PostScript fonts.

These fonts are selected via the family name specified in our FXR, and scaled according to point size, height and width parameters in the FXR. The fonts are spaced according to the character widths specified in the FXR.

Once the font is selected, then it can be zoomed in and out, or additionally scaled as required. Bitmap fonts do not have this scaling ability, which is why scalable fonts are used for display purposes, rather than bitmap fonts.

This means that when the system displays text on the screen, it attempts to mirror how it will look on paper. To achieve the same look on the screen as on paper, the parameters in the FXR are critical. The more accurate the FXR is, the more likely the display will mirror the printed document. The printed document is the standard for the screen display.

Since the system includes Monotype TrueType and PostScript fonts which match its printer fonts, if you install these Monotype fonts on a Windows system, what you see on your screen will more closely match what you print out. The keys are to closely match the printer's fonts and to have the best possible information in the FXR file.

Creating a font cross-reference file is usually done by importing a printer font file using Font Manager. Since the font cross-reference file is a representation of information contained in the printer font file, modification of its fields usually does not affect the printed output. However, modifying these FXR fields can improve the system's ability to display forms. See [Choosing Screen Fonts on page 178](#) for help in selecting a screen font similar to the printer font.

MAINTAINING FXR FILES

Use Font Manager to maintain FXR files. You can start this tool from Docucreate (choose Resources, Fonts) or from Image Editor (choose Tools, Font Manager). Font Manager makes it easy to insert, edit, copy or delete font information in the FXR file. Instructions for using Font Manager can be found in [Using Font Manager on page 151](#).

Choosing a Font Cross-reference File

During library setup, you must choose either REL103.FXR or REL103SM.FXR as the font cross-reference file for an AFP printer. You should also specify the PCL download font file named REL103SM.FNT in the FntFile option of the Resource Library window.

If you have older versions of the AFP coded font and code page files installed in PSF or PSF/2, you can use these versions to print to the same AFP printer. If you do not keep the older AFP coded font and code page files installed, you must recompile AFP page overlays for the current version using REL103.FXR or REL103SM.FXR.

Understanding the System

This example shows you how the HPINTL.FXR and HPINTLSM.FXR files use PCL escape sequences in the Setup Data field (on the Font Properties window) to use internal fonts on a PCL printer. If you use Font Manager to edit a font in the HPINTL(sm).FXR file, you will see the PCL escape sequence in this field.

For example, if you look at the Setup Data field for font ID 11036 (Times Roman Normal 36 point), you will see:

~(19U~(s1p36vosob5T

Where	Represents

~	an escape character which must always start a PCL escape sequence
(19U	the primary symbol set or code page (Windows 3.1 Latin 1 in this case)
~	the start of a second PCL escape sequence
(s1p	the spacing of the font (proportional in this case)
36v	the height of the font in point size (36 point in this case)
os	the style of the font (normal in this case)

Where Represents

ob	the stroke weight of the font (medium in this case)
5T	the typeface family of the font (Times Roman in this case)

There are other values you can use for each of these sequences. For example, the character or symbol set values used in HPINTL.FXR are:

19U for Windows 3.1 Latin 1

This symbol set matches the Windows ANSI code page and IBM code page 1004. You can find a list of character set values in the HP manual entitled, *PCL 5 Comparison Guide*.

Spacing values are (*s1p* for proportional fonts and (*sop* for fixed pitch fonts.

- Point size values are placed before the *v*
- Font styles are *os* for normal, *1s* for italic
- Font stroke weights are *ob* for medium, *3b* for bold

The typeface family values used in HPINTL.FXR are:

- *5T* for Times Roman
 - *3T* for Courier
 - *6T* for Letter Gothic
 - *52T* for Univers
-

INTERNATIONAL LANGUAGE SUPPORT

Skywire Software's goal for international language support is to support the languages you are most likely to need. At the present, Skywire Software considers these languages to be those used in the Western Hemisphere and Western Europe.

If you need support for Far Eastern languages like Chinese, Japanese, or Korean or if you need support for Eastern European languages, you must use version 10.2 or higher. Contact Skywire Software Support to receive a copy of the document, *Using Unicode*, for more information.

USING THE ANSI CODE PAGE FOR PC PLATFORMS

The Windows operating environment supports languages in these countries via a code page known as the *ANSI code page*. Windows supports different keyboard mappings for these countries by translating the key codes into ANSI code points. Therefore, even though a keystroke for an international character generates different *key codes* on English, Spanish, and French keyboards, a Windows application receives the same *ANSI code point*.

Understanding the System

Skywire Software adopted these standards:

- The ANSI code page is the standard code page for all data files. The text contained in FAP files is stored using the ANSI code page.
- The ANSI code page is the standard for the Monotype fonts included with the system.

See [Using International Characters on page 144](#) for more information.

By adopting these standards, you receive these benefits:

- Support for 13 languages used in approximately 40 countries
- Improved platform resource compatibility (Windows, UNIX, and z/OS).
- You only need one set of Monotype fonts—no need to create separate fonts for each language
- Improved support of other Windows products, such as dictionaries, databases, and so on.

The ANSI code page is used by the World Wide Web and UNIX computers, as well as the Windows operating environment.

There are a few drawbacks to this approach. For instance, although all international alphabetic characters in the Latin character set are supported in the ANSI code page, certain symbols available in other code pages are not supported. These symbols include mathematical, scientific, and line drawing symbols. Greek, Cyrillic, and Asian characters are not supported either. And, in some cases, data files may have to be converted to ANSI code page characters.

USING CODE PAGE 37 FOR EBCDIC PLATFORMS

To support of international languages on EBCDIC platforms, such as z/OS and AS400, Skywire Software uses EBCDIC code page 37 as the standard EBCDIC code page. Code Page 37 is the native code page for many z/OS and AS400 systems. By using code page 37, you receive these benefits:

- Code page 37 supports languages used in Europe and North and South America, such as French, Spanish, Italian, German, Portuguese, and Danish.
- This reduces or eliminates the need to convert extract files containing international characters on z/OS and AS400 platforms.
- This helps reduce or eliminate the need to convert resources before uploading to EBCDIC platforms from Windows.
- Using code page 37 for EBCDIC platforms creates compatibility problems with resources created in earlier versions. This only affects resources created in an earlier version which contain international or desktop publishing characters.
- All characters defined in code page 37 are also contained in code page 1004, the standard ASCII code page. There are, however, characters in Code Page 1004 which are not in code page 37 — mainly desktop publishing characters from code point 128 to 159. To support these characters, we use undefined code points in code page 37 (code points below 64). For maximum portability, *avoid* using characters not defined in code page 37.

AFP print output and resource files normally use EBCDIC characters. The other supported printers, such as Metacode, PCL, and PostScript, normally use ASCII characters.

NOTE: The current AFP code page file is called T1DOC037, the AFP code page for prior versions was called T100ASC4. The current AFP coded font files are called XoDA????FNT, the AFP coded font files for prior releases were called XoFA????FNT. The AFP character set files are unchanged and can be used by all versions.

USING INTERNATIONAL CHARACTERS

One method for entering international characters is to install a country/language specific version of Windows. These language-specific versions of Windows map characters from the keyboard differently so that it is easier to enter characters common to that language. In the simplest case, a single keystroke will generate an international character.

For example, if you have a Canadian French version of Windows, pressing the slash character (/) on a U.S. keyboard produces an e-acute letter (é). Many international characters require a two-character keystroke combination. Again using the Canadian French keyboard setup, you must press the left square bracket ([) followed by the letter e to generate an e-circumflex letter (ê).

Having to install a special version of Windows would be difficult for those in the U.S. who are trying to compose forms with French characters. Fortunately, there is a simpler solution.

Using the numeric keypad on the right side of your keyboard, you can hold down the ALT key and enter a three-digit number to enter an international character. For example, if your primary (OEM) code page is 437 or 850, you can enter the letter ñ (lowercase) by pressing the ALT key while you type 164 on the numeric keypad. When you release the ALT key, the code point 164 will be generated by the keyboard, which Windows will display as the letter ñ.

NOTE: If you look at the Code Page 1004 table you will see that on the ANSI code page code point 164 is not the letter ñ. So why is the letter ñ being displayed? Windows recognizes that a code point of 164 has been generated by the keyboard and it is associated with the OEM code page (437 or 850). For this code page, code point 164 maps to the letter ñ. In Windows, the code point from the keyboard is translated from 164 to 241. A Windows program will actually receive a keystroke code point of 241 instead and that code point will display as the desired letter ñ.

You can also use the numeric keypad to enter ANSI code points directly. Using the numeric keypad on the right side of your keyboard, you can press the ALT key and type a four-digit number to key in an international character. For example, you can enter in the letter ñ by pressing the ALT key and typing 0241 on the numeric keypad. Entering a four-digit number beginning with a zero tells Windows you are entering a code point for the ANSI code page. Therefore, Windows does not need to translate the code point and passes the keystroke code point directly to the Windows application.

By standardizing on the ANSI code page, a document containing several languages can be read and written by a number of people from different countries. The keystroke code point translation lets Windows support many OEM code pages and keyboard settings.

NOTE: You can use any Windows text editor, such as Notepad, to edit resource files since Windows also uses the ANSI code page.

CONVERTING TEXT FILES FROM ONE CODE PAGE TO ANOTHER

There are two situations where you may need to convert text files from one code page to another.

- If the customer's data (extract) file is not in the ANSI code page and the file contains international characters, you will need to convert the customer data file to use the ANSI code page.
- If you need to upload system resource files, such as FAP, INI, and menu resource (MEN.RES) files, which contain international characters to an EBCDIC platform, such as z/OS or AS400, and the file transfer software cannot convert ANSI code page file to EBCDIC Code Page 37.

To convert a file from one code page to another, you can use the CPCNV code page conversion utility. For more information, see the [Docutoolbox Reference](#).

SETTING UP POSTSCRIPT FONTS

The system includes a standard font set with PostScript fonts. These fonts reside in the FAP\MSTRRES\FMRES\DEFLIB\ directory with the sample forms included with Docucreate. Skywire Software devised naming conventions for the bitmap printer fonts that are created from the PostScript fonts supported by the system. PostScript fonts are easily converted to Xerox, AFP, and PCL formats.

NOTE: When you create bitmap printer fonts from PostScript fonts, follow the naming convention outlined in the table below. This will make it easier to track and identify those fonts.

A standard font has a six-character name. Each character indicates a specific piece of data that describes the font. For example, you may take a PostScript font such as Times (Roman), Bold (**TIB____.PFB**), convert the font to Metacode format, and change the name to the standard FSI bitmap font name (**FXTIOM**). The font name characters designate the following:

Character	Definition
1	Converted PostScript fonts always begin with the letter F, indicating a system supported font.
2	Indicates the printer platform associated with the converted font: X = Xerox, A = AFP, P = PCL
3 and 4	Indicate the font family, such as Times Roman, Courier, and so on. AB = Albany AL = Arial Black AN = Arial Narrow CO = Courier DD = DocuDings UC = Univers Condensed LG = Letter Gothic MI = MICR TI = Times (Roman) OA = OCRA UN = Univers(al) OB = OCRB ZP = ZIP code
5	Indicates the style of the font: N = Normal (no attributes), B = Bold, I = Italic, O = Bold, Italic
6	Indicates the point size of the font. Use numbers 1 through 9 for point sizes 1 through 9. o (zero) = 10 point A = 11 point B = 12 point C = 13 point--through-- Z = 36 point

This table lists PostScript fonts and their file names. The list shows the font names before you create and name the fonts using the conventions in the previous table. Point sizes are omitted in the names below. Use the table on the previous page to determine the remaining font file name value for each corresponding font size.

Font	File Name
Albany	ALBR____. PFB
Arial Black	ARIBL____. PFB
Arial Narrow	AN_____. PFB
Courier	CO_____. PFB
Courier Bold	COB_____. PFB
Courier Bold Italic	COBI_____. PFB
Courier Italic	COI_____. PFB
DocuDings	DOCUD____. PFB
Letter Gothic	LG_____. PFB
Letter Gothic Bold	LGB_____. PFB
Letter Gothic Bold Italic	LGBSL____. PFB
Letter Gothic Italic	LGSL_____. PFB
MICR MT	MICR_____. PFB
OCRA MT	OCRA_____. PFB
OCRB MT	OCRBMT____. PFB
Times Roman	TIR_____. PFB
Times Roman Bold	TIB_____. PFB
Times Roman Bold Italic	TIBI_____. PFB
Times Roman Italic	TII_____. PFB
Univers	UNM_____. PFB
Univers Bold	UNB_____. PFB
Univers Bold Italic	UNBI_____. PFB
Univers Italic	UNMI_____. PFB
Univers-Condensed Bold	UNCB_____. PFB
Univers-Condensed Medium	UNCM_____. PFB

Font	File Name
Univers-Condensed Medium Italic	UNCM1____.PFB
ZIPcode Barcode-Regular	ZIPCODE_.PFB

Remember that PostScript fonts are scaleable. You complete font file name by adding the point size values when you convert the font. Here is an example:

CSBD____.PFB = CS Bookman Bold (any point size)

NOTE: AFM files are Adobe Font Metrics files which describe a PostScript font. These files are used when you install PostScript fonts using Adobe Type Manager.

PostScript fonts reference code pages to define window and print characters. In turn, the code page maps to specific characters in the character set. The PostScript fonts included with Docucreate reference code page 1004, W1 and are pictured below.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0																
16																
32		!	"	#	\$	%	&	¢	(	)	*	+	,	-	.	/
48	o	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
64	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
80	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
96	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
112	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
128			,		„	º	†	‡	^	‰	Š	‹	Œ			
144		‘	’	“	”	•	—	—	~	™	š	›	œ			ÿ
160		ı	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	-	®	¯
176	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
192	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
208	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
224	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
240	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

Bitmap fonts are a specific set of symbols or characters. The maximum number of characters a set of bitmap fonts can reference is 256. Scaleable fonts, such as PostScript fonts, may have more than 256 characters, but only 256 can be used at one time. The system's font structure is designed to use the standard code page 1004, W1. Code pages are predefined in your system, and reside in the CODEPAGE.INI file in your DEFLIB directory. The path is FAP\MSTRRES\FMRES\DEFLIB.

The characters in the code page include foreign language characters and mathematical function characters. When you convert PostScript fonts using Font Manager, you always select this code page (1004). You may, however, notice that the PostScript fonts themselves support multiple code pages.

NOTE: If you want to use the internal printer fonts and you will print international characters, your printer must have the character or symbol set named Windows Latin 1 (also known as ANSI code page) on your printer. Be aware that not all PCL printers support this character set.

FONTS FOR PDF FILES

When you are creating PDF files, keep in mind that the following PostScript fonts are included with Adobe Acrobat Reader and do not have to be embedded.

Fixed Pitch Fonts	Proportional Fonts
Courier	Helvetica
Courier-Bold	Helvetica-Bold
Courier-Oblique	Helvetica-Oblique
Courier-BoldOblique	Helvetica-BoldOblique
	Times-Roman
	Times-Bold
	Times-Italic
	Times-BoldItalic
	Symbol
	ZapfDingbats

FONT NAMING CONVENTIONS

When adding fonts to a font set, or when installing new fonts, you must give each font a unique ID. Use this 5-digit naming convention:

The...	Indicates...
First digit	the font provider: 1= Monotype 2= Adobe
Second digit The standard FXR file (REL103SM) defines only Times (Roman), Courier, and Univers. If you add other fonts to your FXR, use these font code naming conventions. (DocuDings is included in 3)	the font type or font family: 1 = Times (Roman) 2 = Courier 3 = OCRA, OCRB, MICR, and ZIPcode* 5 = Letter Gothic 6 = Univers 7 = Univers Condensed 8=Albany 9=Arial Black 0=Arial Narrow
Third digit	the font attributes 0= normal 1= bold 2= <i>italic</i> 3= bold, italic
Fourth and fifth digits	the point size of the font, such as 09 point, 12 point, and so on.

* The OCRA, OCRB, MICR, and ZIPcode fonts do not have bold or italic styles so the second and third digits identify these fonts: 30 = OCRA, 31 = OCRB, 32 = MICR, 33 = ZIPcode, and 34 = DocuDings.

For example, 11010 indicates Times (Roman) Regular 10 point, 11214 indicates Times (Roman) Italic 14 point, and 16110 indicates Universal Bold 10 point.

NOTE: You may only use a font ID from 00001 to 32767 and the font ID must be numeric not alphanumeric.

USING FONT MANAGER

Font Manager provides an easy method for working with your font sets. You can start Font Manager from either Docucreate or from Image Editor.

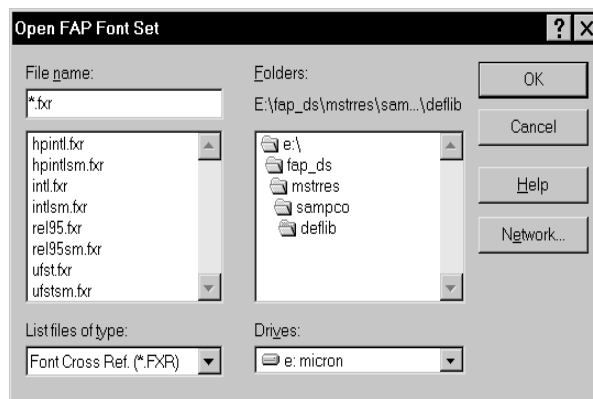
STARTING FONT MANAGER

From Image Editor

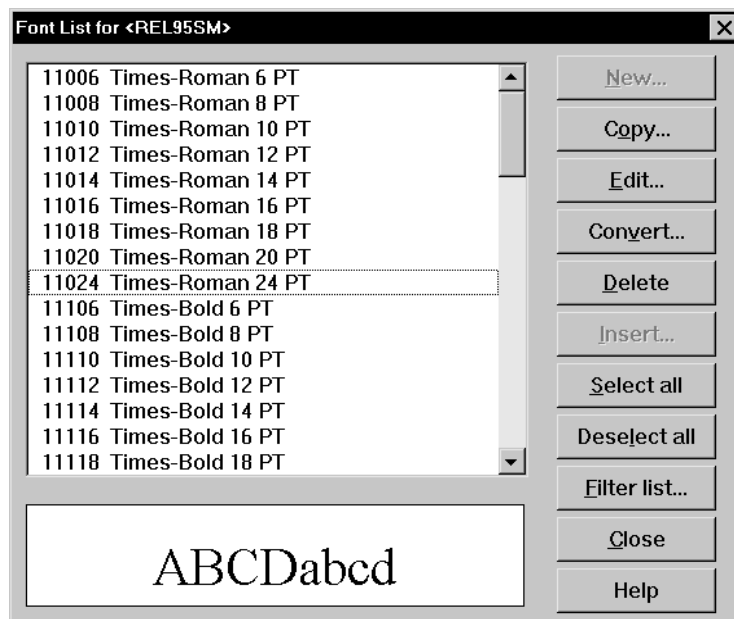
Select Tools, Font Manager. The Font List appears. This window lists the fonts in the font cross-reference file designated for the current library during library setup.

From Docucreate

- 1 Select the Resources menu, then select Fonts; or, click the Resources icon, then click the Fonts icon on your desktop. The Open FAP Font Set window appears, listing all the FXR files in the current library.



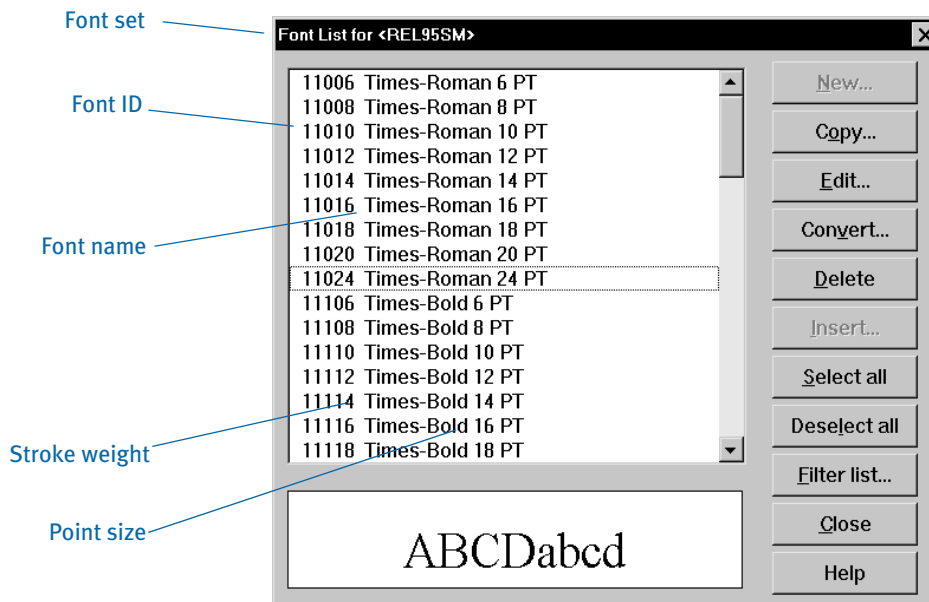
- 2 Highlight the FXR file you want to work with and click Ok. The Font List for the selected FXR appears.



WORKING WITH THE FONT LIST

The Font List gives you important information about your font set. The name of the current font set is displayed in the window's title bar. The Font List provides the names, ID numbers, stroke weights, and point sizes of all the fonts currently in the font set. You can view your fonts in the bottom of the Font List window.

To open the Font List from Image Editor, choose Tools, Font Manager. The Font List window appears:



This window shows you fonts contained in the FXR file, as defined in your resource library setup.

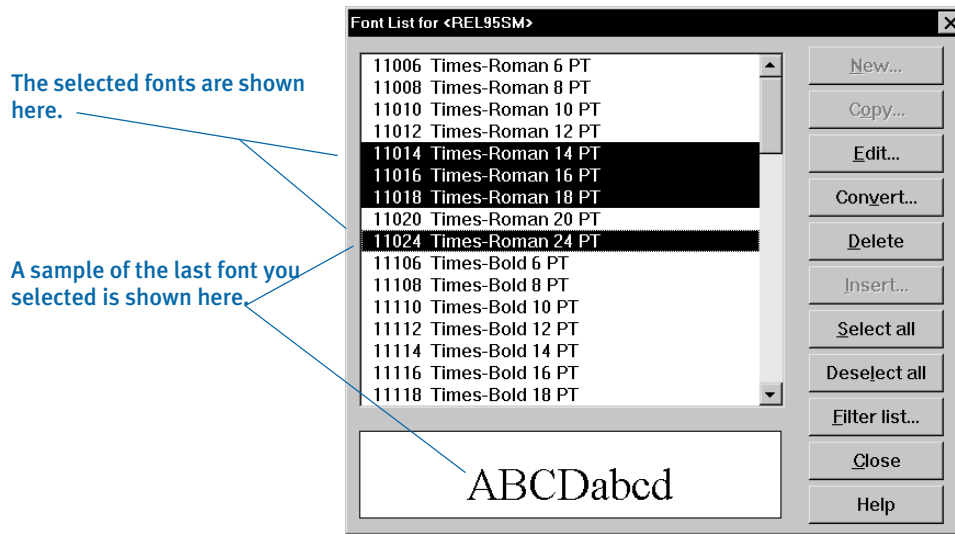
In addition to viewing the fonts, the Font List window gives you additional options for organizing the font set. From the Font List window you insert, copy, delete, edit, and convert fonts. When you select New, Copy or Edit, the Font List opens the Font Properties window.

NOTE: The Description tab of the Font Properties window is the source of the individual font information provided in the Font List.

Selecting Fonts

The Font List lets you select individual, multiple, or all of the fonts in your font list for editing purposes.

- 1 To select a font, click on the desired font to highlight it. The font you select displays in reverse video. Also, a sample of the font displays in the bottom window.



- 2 Continue highlighting fonts in this manner. You can select as many fonts as you want. When you select multiple fonts, your last font selection displays at the bottom of the window.
- 3 To select all fonts in the font list, click Select All.

Deselecting Fonts

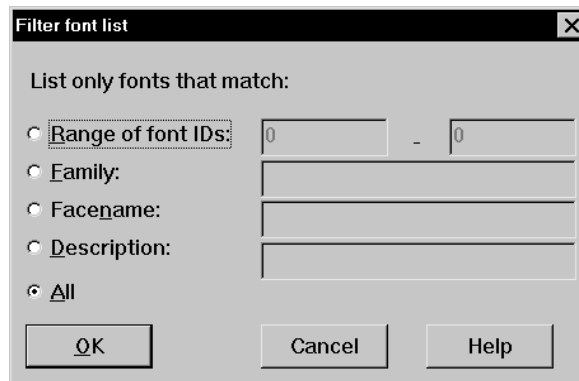
If, after selecting a font, you change your mind, just click it again to deselect it.

You can also use the Deselect All button to deselect all the selected fonts on the Font List. This is particularly useful if you need to activate the New or Insert buttons. The New and Insert buttons are not active if a font is selected. The Deselect All button prevents you from having to scroll through the list of fonts to find a highlighted or selected font near the bottom of the list.

Filtering the List of Fonts

The Filter List option lets you select fonts from the list based on specific criteria. The more focused your font selection scope, the more efficiently you can work with the fonts.

- 1 From the Font List window, click Filter List. The system displays the Filter Font List window.



- 2 Select one option to define your font selection filter criteria. See the following table for a detailed description of the Filter Font List options and related entry descriptions.

To filter by Then

Range of font IDs	In the entry fields, type the first and last font ID in the font range you want to display. The font IDs you enter in the fields are included in the range. For example, if you enter IDs 16010-16016, those two fonts, plus all fonts in between the range IDs appear in the Font list.
Family	Type the font family name you want to display, such as Universal or Times. The system displays all fonts in the font family.
Face name	Type the face name or font family name you want to. Font Manager does not distinguish between font family and facename. Type the same data in both the Family field, and the Facename field.
Description	Type the font description as shown in the Font Properties window. Here are some examples: Universal Medium or Courier Bold. The selection list displays all point sizes for that font.
All	Click All to see all fonts in the FXR file.

- 3 Click Ok in the Filter Font List window. The font list displays the selected fonts based on your filter criteria.

Adding Fonts to a Font Set

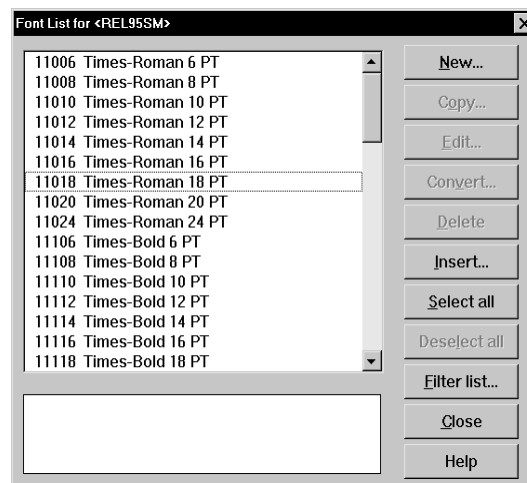
Use the New button to add new fonts to the font set. The New button does not create a font; rather, it just lets you add the font to the font set. If you add a font supplied by another vendor, the vendor provides information about the font name and characteristics.

NOTE: Use New to manually add fonts to your font set. Use Insert to cross-reference your collateral font information, and to add a font if you also have the printer font file).

When you add a font, you must enter font description and dimension information, whereas the Insert option automatically adds this information based on the type of font you insert. You seldom use the New option unless you decide to add new fonts to your font set.

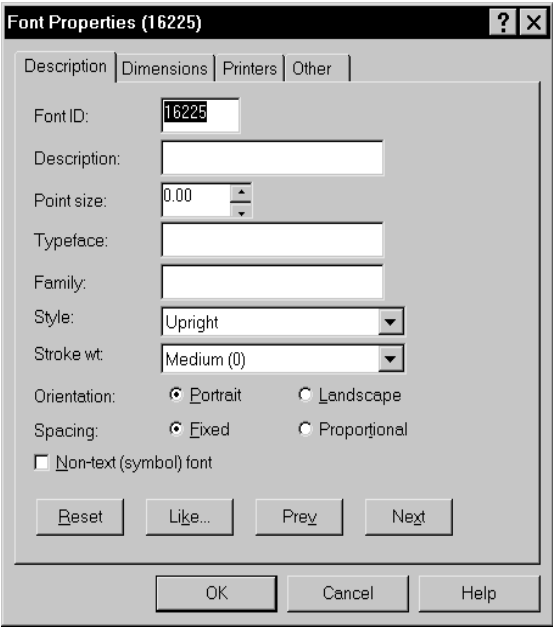
To add a font to the current font set, the font must exist in your master resource library font directory. From the Font Properties window, you specify the description, dimensions and printer specific information for every font.

- 1 Start Font Manager by selecting the Font Manager icon from the system folder, or by selecting Font Manager from the Image Editor Tools menu.
- 2 Select the appropriate font set. The Font List appears.



- 3 Click New. The Font Properties window appears.

NOTE: You cannot select the New button unless there are no fonts selected. Click Deselect All to activate the New button.

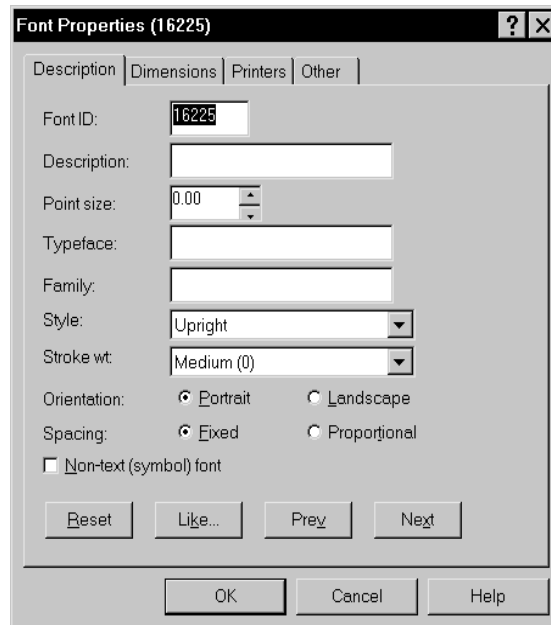


These options are available from each tab of the Font Properties window:

Option	Description
Reset	Reset reverts your most recent (unsaved) changes to their prior status. Your changes are reset for that particular page without having to exit the property window.
Like	Like lets you select a Windows display font that most closely resembles an available printer font. See Choosing Screen Fonts on page 178 for information on this option.
Prev	Prev displays the previous Prev font in the font list, and related information. If you select Prev while the first font is displayed, you scroll to the last font in the list.
Next	Next displays the next font in the font list, and related information. If you select Next while the last font is displayed, you scroll to the first font in the list.

Description tab

The Description tab contains general description information about the font. You specify the typeface, family and other necessary information required for each font.



Here is a discussion of the fields on this tab:

Field	Description
Font ID	When a font is imported into the FXR, it is assigned a unique font ID. The system uses font IDs to track font usage. In addition, some printers require that you refer to a font by its ID number instead of its name. This value is generated when the printer font is imported into the FXR but may be changed if needed. If you change this field, you may need to change the Setup Data field for PCL Print to use the same font ID.
Description	Used in the font selection window in Font Manager.
Point Size	A point is a typographical vertical measurement, 72 points are equal to approximately 1 inch. Point size is used similarly in PostScript printing. It does not affect PCL, AFP, or Metacode printing.
Typeface	A specific member of a typeface family, such as Times-Roman or Times-Bold. The typeface name helps determine the screen font to use for display purposes.
Family	A group of typefaces that share basic design characteristics and encompass many size and style variations such as Courier or Times. The family name helps determine the screen font used for displaying text when running under Windows.
Style	Upright or Italic The style helps determine the screen font used for displaying text when running under Windows.

Field	Description
Stroke Wt.	The lightness or darkness of the printed typeface, -7 = lightest, 0 = medium, 7 = darkest. The stroke weight helps determine the screen font used for displaying text when running under Windows.
Orientation	Portrait or Landscape. This field is not currently used.
Spacing	Fixed or Proportional The spacing helps determine the screen font used for displaying text when running under Windows.

Remember, the Description tab provides information about the font file, and should match the characteristics of the font. If you enter information which does not match the font file, the font window display changes but the actual font characteristics in the font file and the font print characteristics *do not* change. Only when you change the PostScript font description do your changes affect both the window and print fonts since you use a single font file for both window display and print.

To enter font description information follow these steps:

- 1 Enter the font ID in the Font ID field. The ID must be a unique one to five digit ID (between 00001 and 32767). You must assign a unique ID to every font in the font set. Notice that the title of the window displays the current font ID. The system creates default IDs when you insert a font, based on the next available ID. See [Font Naming Conventions on page 150](#) for help in assigning a font ID.
- 2 Enter a description in the Description field. The description is the information that the image creator sees when selecting a font from a Font List. The description should inform the image developer about the font type selection.
- 3 Select the desired point size in the Point Size field. The point size is the height of the font. One point is equal to approximately 1/72 inch.
- 4 Type a typeface name in the Typeface field. Font Manager selects fonts using the typeface name.

NOTE: Valid entries include the standard window display fonts of Courier, Helvetica, and Times (Roman). Type these entries as **Courier**, **Helv**, or **Tms Rmn**. To use a different font type, install the font from your operating system disks, or from your font provider disk. The font name is a valid entry after you install it.

- 5 Type a family name in the Family field. A family name gives the broadest category for the font, and is used to group fonts that are variations of a single design. Family names include Courier, Times (Roman), and Helvetica.

NOTE: The family name, style, and stroke weight fields control which screen font is displayed under Windows.

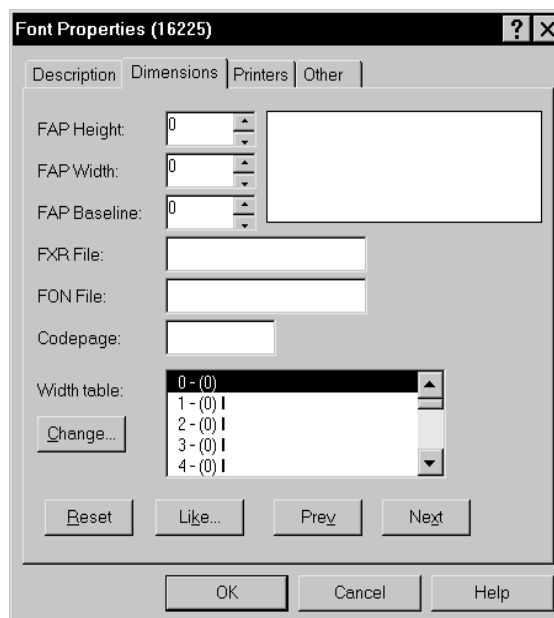
- 6 Select the style in the Style field. Style is either upright or italic. Click the arrow to the right of the field to see the available selections.
- 7 Select the stroke weight in the Stroke Wt field. Stroke weights range from Light to Lightest (-1 through -7), Medium (0) and Bold to Boldest (+1 through +7). Click the arrow to the right of the field to see the available font weight selections and compare the thickness of the font characters.
- 8 Select either Portrait or Landscape Orientation.
- 9 Select either Fixed or Proportional Spacing. Fixed spacing means all the characters have the same width. Proportional spacing means the character widths vary according to the character design.
- 10 Select the Non-Text (Symbol) font field if the font you define is not alphanumeric. This selection lets you read non-text fonts such as MICR fonts. MICR fonts are symbol fonts such as those appearing on the bottom of your bank checks. The MICR font format allows scanners to read the data and translate symbols into alphanumeric characters. Here is an example:



NOTE: Remember, changes made in these steps change only the window display of bitmap fonts. These changes do not alter the way the font prints.

Dimensions tab

The Dimensions tab lets you enter dimensions for the font. You identify the exact character cell dimensions for the font, including height, width, and baseline. When you use Copy or Insert, these dimensions are filled in for you from the font file.



Here is a discussion of the fields on the Dimensions tab:

Field	Description
FAP Height	largest font character height (in FAP units, 2400 dots/inch) The font height affects the size of text displayed when running under Windows.
FAP Width	largest font character width (in FAP units) The font width affects the width of text displayed when running under Windows.
FAP Baseline	largest font character base line (in FAP units) The baseline is measured from the top of the largest character to the imaginary line that the character appears to rest on. The font baseline affects the positioning of text displayed when running under Windows.
FXR File	In the DOS/PC environment, the font file name has the extension <i>FNT</i> . This field is not currently used.
FON File	In the DOS/PC environment, the font width table file name has the extension <i>FON</i> . This field is not currently used.
Code Page	Under Windows, the system uses the ANSI code page. Normally, this field is set to 1004 or is left blank.
Width Table	The width table is calculated from the printer font file and is used to determine character spacing when displaying text. Fixed pitch fonts use the same width for each character. The width is measured in FAP units (2400 to an inch).

Remember, the Dimensions tab provides information about the font file. Information on this window should match the characteristics in the font file. If you enter dimension information which does not match the actual font file, only the bitmap font window display changes. The actual dimensions of the font in the font file do not change, nor do print dimensions of the font change.

- 1 To enter font dimensions information, click Dimensions. Enter the height in the FAP Height field.

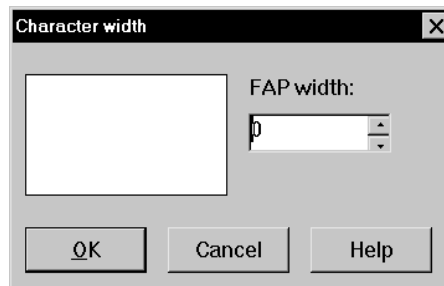
NOTE: Enter character height in FAP units. A FAP unit is equal to 1/2400 of an inch. Therefore, if the character height is one inch, you enter 2400.

- 2 Enter the width in the FAP Width field.
- 3 Enter the baseline in the FAP Baseline field. The baseline is the bottom position of the characters (excluding the tail), in relation to the lines of text above and below it.

Baseline position

Baseline Tail

- 4 Enter the name of the FXR file in the FXR File field. The FXR file is the file used by the font.
- 5 Enter an FON file in the FON File field. The FON file is a window font used by an earlier version of the system called *FormMaker II*. The FON file is the font width table. This table defines the character widths and character sets for each bitmap font. Use this option only for bitmap fonts.
- 6 If you want to change the window display width of a character, highlight the character in the Width Table and click Change. This window appears:



- 7 Select a new width for the character and click Ok. You return to the Font Properties window. Click Ok in the Font Properties window. You return to the Font List window.

NOTE: Remember, changes made in these steps change only the window display of bitmap fonts. These changes do not alter the way the font prints.

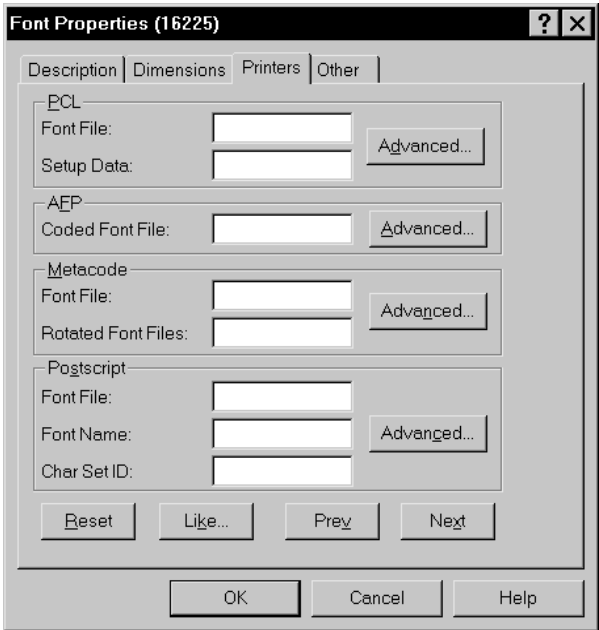
Printers tab

The Printers tab lets you enter printer-specific information for PCL, AFP, Metacode, and PostScript printers. The Other tab lets you enter the same kind of information for printers other than those mentioned above. Here are short descriptions of PCL, AFP, Metacode, and PostScript:

Printer	Description
PCL	Print Control Language (PCL), designed and developed by Hewlett Packard, incorporates commands in compact escape sequence codes that are embedded in the print data stream.
AFP	Advanced Function Printing (AFP), developed by IBM for its Print Services Facility (PSF), is a print server language that generates data streams of objects. The data streams merge with print controls and system commands, to generate IPDS (Intelligent Printer Data Stream). The IPDS is then sent to an IPDS-compatible printer.

Printer	Description
Metacode	Metacode, developed by Xerox, is the native language of its Centralized Printing Systems. Metacode contains code that defines printing functions to the hardware. Metacode lets you position data via page addressing and to specify multiple fonts and data orientations.
PostScript	PostScript, developed by Adobe Systems, is a page description language that translates or describes a document from a computer composition system to a raster output printing system. PostScript describes pages at a high level as a series of abstract graphic objects.

- 1 To enter printer-specific information for PCL, AFP, Metacode, or Postscript printers, click Printers.



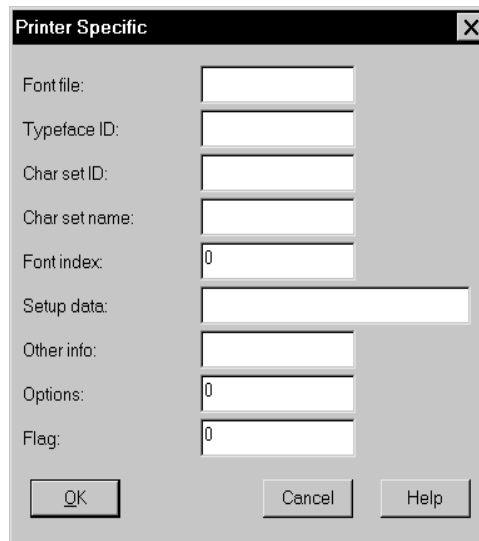
- 2 You only need to make entries into the fields for the printer you use.

Type	Field	Enter the...
PCL		

Type	Field	Enter the...
	Font File	Font file name, including the .PCL extension. For printing to PCL printers, this PCL bitmap font must be located in the FONTLIB master resource directory so that it may be downloaded to the printer if requested. For printing to PostScript printers, this PostScript Type 1 font must be located in the FONTLIB master resource directory so that it may be downloaded to the printer if requested. For printing to AFP printers, this file name must be the name of an AFP coded font file installed on the printer. For printing to Metacode printers, this file name must be the name of a Xerox font installed on the printer.
	Setup Data	Actual PCL printer sequence required to select a font. Normally, the setup data must appear in this format: ~ (11018X where 11018 is the Font ID. The font ID must match the font ID you defined on the Description tab. The X must be uppercase. Your setup data may differ if you are using internal printer fonts. Check your printer manual and the online Help for the proper setup data sequence for internal printer fonts.
AFP		
	Coded Font File	Font file name. AFP font file names do not have an extension.
Metacode		
	Font File	Font file name (limited to six characters for Metacode printers). No extension.
	Rotated Font Files	File names or 90, 180 and 220 degree fonts separated by semicolons, such as <i>FNT90;FNT180;FNT270</i>
Postscript		

Type	Field	Enter the...												
	Font Name	Font file name, including the .PFB extension.												
	Font Name	Name of the font, such as Times-Roman. Font Manager fills this field when you insert a PostScript font. The font name also appears in the font .AFM file. All type 1 PostScript fonts require two files for each font family name: .AFM and .PFB. For more specific information about these files, talk with your support representative.												
	Char Set ID	A character set (also known as a symbol set) identifies the set of symbols provided by the font. Some printers require that you refer to a character set by its ID number instead of its name. Used by PostScript printing to build an internal code page. Use W1 for the ANSI code page. This value should match the character set ID specified in the CODEPAGE.INI file. For instance, if you enter 1004 as the code page on the Printers tab, enter W1 here. <table><tr><th>Codepage</th><th>Char Set ID</th></tr><tr><td>1004</td><td>W1</td></tr><tr><td>863</td><td>CF</td></tr><tr><td>850</td><td>PM</td></tr><tr><td>437</td><td>PC</td></tr><tr><td>37</td><td>Z1</td></tr></table>	Codepage	Char Set ID	1004	W1	863	CF	850	PM	437	PC	37	Z1
Codepage	Char Set ID													
1004	W1													
863	CF													
850	PM													
437	PC													
37	Z1													

- 3 Beside each type of printer listed on the Printers tab is an Advanced button you can use to enter additional information. Click the Advanced button to display the Printer Specific window.



The 'Printer Specific' dialog box contains the following fields and controls:

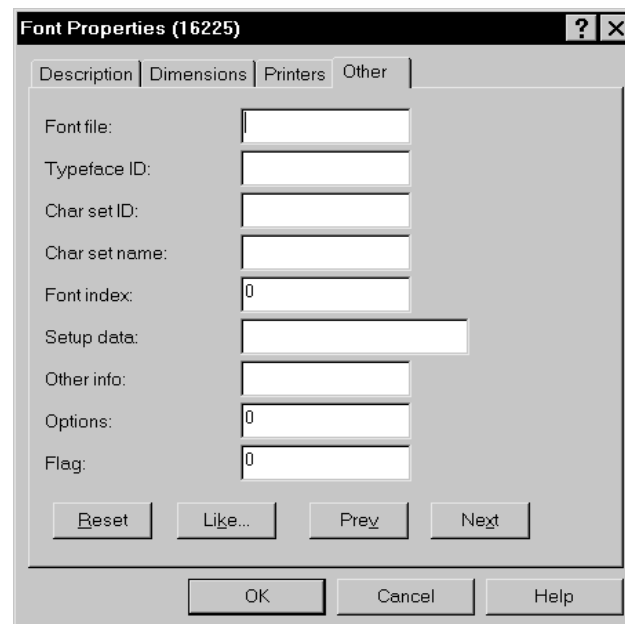
- Font file: [Text Field]
- Typeface ID: [Text Field]
- Char set ID: [Text Field]
- Char set name: [Text Field]
- Font index: [Text Field] (value: 0)
- Setup data: [Text Field]
- Other info: [Text Field]
- Options: [Text Field] (value: 0)
- Flag: [Text Field] (value: 0)
- Buttons: OK, Cancel, Help

- 4 Enter the Font File and Setup Data information. Most of the other fields (Typeface ID, Char Set Name, Font Index, Other, Options, and Flag) are not used in the base system. The Char Set ID field is used for PostScript fonts. Click Ok.

NOTE: The HPINTL.FXR and HPINTLSM.FXR files use PCL escape sequences in the Setup Data field to use internal fonts on a PCL printer. If you use Font Manager to edit a font in the HPINTL(sm).FXR file, you will see the PCL escape sequence in this field.

Other tab

The Other tab can be used for custom implementations of printers other than PCL, AFP, Metacode, or PostScript. You do not need to enter information in these fields.



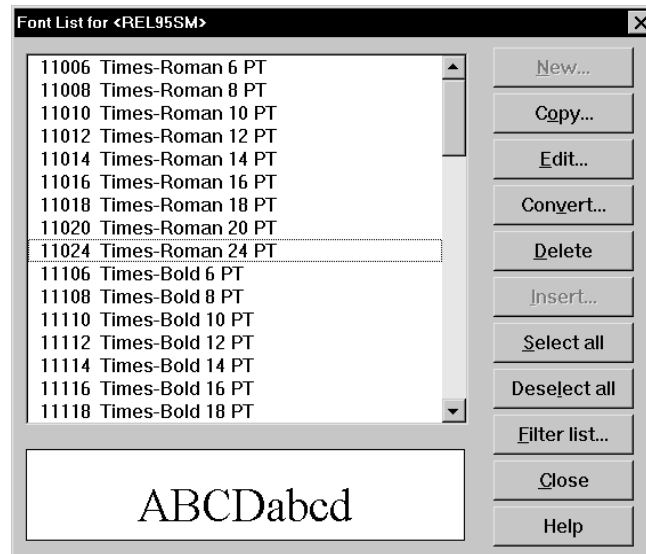
Copying Font Information

The Copy button lets you copy a font and assign a new font identification number or other necessary information. Copy duplicates a font that is in your current font set. You can then open the Font Properties window and change the ID number or other descriptive information associated with the copied font.

NOTE: Image Editor gives you a quick way to change all the fonts in an image. For example, suppose you have an image designed with Helvetica Regular 10 point (font ID 16010) and you want to change all text using this font to Times (Roman) 10 point (font ID 17010). You can quickly do this by selecting the Edit, Font Change option.

To copy a font, follow these steps:

- 1 Start Font Manager by selecting Font Manager from the system folder, or by selecting Font Manager from the Image Editor Tools menu.
- 2 Select the appropriate font set. The Font List appears.

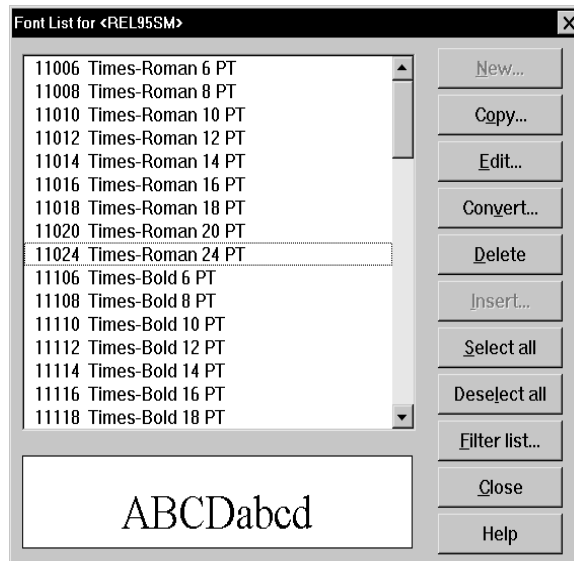


- 3 Click on the font you want to copy to highlight it and click Copy. The Font Properties window appears.
- 4 The system automatically assigns the next number in the list. To change the number to a different font ID, click on the newly added font, then click the Edit button.
- 5 Edit any other font information as necessary. When finished, click Ok.

Editing Font Information

The Edit button gives you a way to edit the information about fonts and printers.

- 1 Start Font Manager by selecting Font Manager from the system folder, or by selecting Font Manager from the Image Editor Tools menu.
- 2 Select the appropriate font set. The Font List appears.



- 3 Highlight the font you want to edit information for and click Edit. The Font Properties window appears.
- 4 Edit any font information as necessary and click Ok.

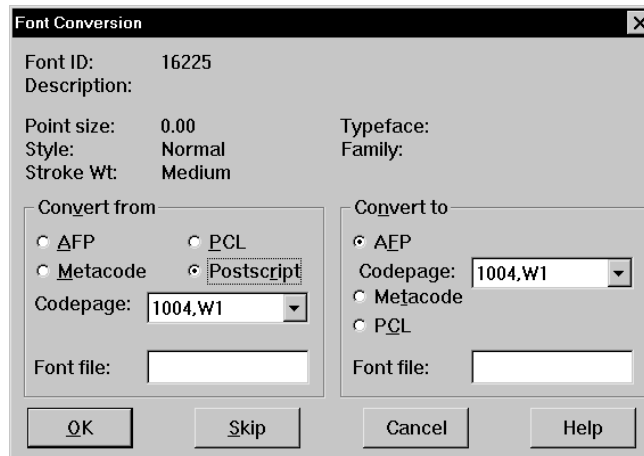
Converting Fonts

Converting fonts lets you modify fonts so you can use the same font for different types of printers. If you want to use the fonts on AFP, PCL, and Xerox printers, you can convert the standard fonts that are included with the system. The standard fonts are PostScript fonts supported only by PostScript printers in pre-converted format. You can also convert fonts for your different printers.

Before you convert fonts, make sure the font files reside in your master resource library. PostScript fonts are loaded in the FAP\MSTRES\FMRES\DEFLIB directory of your system. If you want to convert other fonts, make sure you load the font files into your font directory. Check with your system supervisor for assistance.

Follow these steps to convert a font:

- 1 From the Font List window, select the font you want to convert, and click Convert. The Font Conversion window appears.



- 2 The window shows information about the current font, such as font ID, description, point size, and so on. This information also appears on the Description tab of the Font Properties window.
- 3 In the Convert From field, click the option associated with the font type you want to convert.
- 4 If you are converting a PostScript font, enter 1004 or an appropriate code page in the Codepage field.

NOTE: If a font file appears in the Convert To field, the font may already be converted. Click Skip to display the next font in the list. By selecting Skip or Cancel, you will not overwrite the converted font.

- 5 In the Convert From field, accept or type the font file name in the Font File field. Remember that you use the pre-converted font file name.
- 6 In the Convert To field, click the option for the font type to which you want to convert. If you convert to an AFP font, enter 1004 in the Codepage field.

NOTE: If you are converting to an AFP font, your font file name has to have an extension of 300. Also files entered in convert from and convert to should have a file extension.

- 7 In the Convert To field, enter the new font file name in the Font File field.
- 8 Click Ok to convert the font, or click Skip to stop the conversion. When you select Ok, the system creates a copy of the font in your font directory, and retains a copy of the original pre-converted font.

NOTE: If you selected multiple fonts to convert, information pertaining to the next font displays when you select Skip.

Converting fonts from other vendors

If you purchase additional fonts from a third party vendor, you must convert the fonts for use on your printers. You must also install the fonts onto your computer and printers. Copying the new, converted fonts onto your hard drive lets the system display them accurately on screen.

NOTE: Your resource library setup tells Image Editor where your font files and your cross-reference files reside.

There are several legal issues to be aware of before converting fonts from other vendors. Font vendors generally copyright the fonts they create. You can legally convert fonts only if the font vendor grants permission.

The converted font is bound by the same copyright restrictions that apply to the original font. For example, if your license does not permit you to use the font on more than one computer at a time, then you are not permitted to use the converted font on more than one computer at a time. In addition, it may be a copyright violation to copy converted fonts to other platforms running on the same computer.

Here is a list of some TrueType and PostScript font vendors:

Vendor	Phone	Web site
BitStream	1.800.522.3668	www.bitstream.com
COPI	1.888.999.COPI	www.888999copi.com
Xerox Font Center	1.800.275.9376	www.xerox.com
Bigelow & Holmes Inc.	1.310.260.8580	
Carter & Cone Type Inc.	1.800.952.2129	
URW++ Design & Development	1.603.882.7445	http://urwpp.de
Monotype Imaging, Inc.	+44 (0)1737 765959 1.800.424.8973	www.monotype.com www.agfamonotype.com

Working with multiple printers

If you are working in a multi-printer environment, your combination of printers and specific printing needs dictates your options and entries. You may also need to run the font conversion utility to convert fonts to various printer platforms. You should convert the fonts you want to use for each printer, then define the font on the appropriate printer Font Properties window.

The system includes several font cross-reference files. The REL103SM.FXR file contains all information for Courier, Univers, and Times (Roman) fonts for PCL, AFP, Metacode and PostScript printers.

The DESKJET.FXR provides font information for HP Deskjet printers. Unless you use only Deskjet printers at your company, your system uses the REL103SM.FXR file. The following tables list the font file names used in the standard font cross-reference file.

If you are working in a multiple printer environment, follow these steps:

- 1 Load the font files into the system.

- 2 If the fonts are from a specific printer, copy the font files to the master resource library where you store your fonts, such as FAP\MSTRRES\FMRES\DEFLIB\.
- 3 Select the font to convert; then select Convert. The Font Conversion window appears.
- 4 Convert the font to a specific printer platform, following the conversion steps outlined in [Converting Fonts on page 167](#).
- 5 Copy the converted font to your printer.
- 6 Compare the font names with the printer font names.

Repeat these steps for each font you select for use by multiple printers.

Description	PCL font file	Metacode font file	AFP font file
Courier			
7 pt	COM_7_X.SFP	COM7X	Xo42107C
8 pt	COM_8_X.SFP	COM8X	Xo42108C
10 pt	COM_10X.SFP	COM10X	Xo421001
12 pt	COM_12X.SFP	COM12X	Xo4210BC
Courier Bold			
7 pt	COB_7_X.SFP	COB7X	Xo44107C
8 pt	COB_8_X.SFP	COB8X	Xo44108C
10 pt	COB_10X.SFP	COB10X	Xo44100C
12 pt	COB_12X.SFP	COB12X	Xo4410BC
Courier Italic			
7 pt	COO_7_X.SFP	COO7X	Xo43107C
8 pt	COO_8_X.SFP	COO8X	Xo43108C
10 pt	COO_10X.SFP	COO10X	Xo43100C
12 pt	COO_12X.SFP	COO12X	Xo4310BC
Courier Bold Italic			
7 pt	COBO_7_X.SFP	COBO7X	Xo45107C
8 pt	COBO_8_X.SFP	COBO8X	Xo45108C
10 pt	COBO_10X.SFP	COBO10X	Xo45100C
Helvetica			
6 pt	HV_6_X.SFP	HV6X	XoH2106

Description	PCL font file	Metacode font file	AFP font file
7 pt	HV___7_X.SFP	HV7X	XoH21o7C
12 pt	HV___12X.SFP	HV12X	XoH21oBC
14 pt	HV___14X.SFP	HV14X	XoH21oDC
16 pt	HV___16X.SFP	HV16X	XoH21oFC
24 pt	HV___24X.SFP	HV24X	XoH21oNC
Helvetica Bold			
6 pt	HVB__6_X.SFP	HVB6X	XoH41o6C
12 pt	HVB__12X.SFP	HVB12X	XoH41oBC
14 pt	HVB__14X.SFP	HVB14X	XoH41oDC
16 pt	HVB__16X.SFP	HVB16X	XoH41oFC
18 pt	HVB__18X.SFP	HVB18X	XoH41oHC
Helvetica Italic			
6 pt	HVO__6_X.SFP	HVO6X	XoH31o6C
12 pt	HVO__12X.SFP	HVO12X	XoH31oBC
14 pt	HVO__14X.SFP	HVO14X	XoH31oDC
16 pt	HVO__16X.SFP	HVO16X	XoH31oFC
Helvetica Bold Italic			
6 pt	HVBO_6_X.SFP	HVBO6X	XoH51o6C
12 pt	HVBO_12X.SFP	HVBO12X	XoH51oBC
14 pt	HVBO_14X.SFP	HVBO14X	XoH51oDC
16 pt	HVBO_16X.SFP	HVBO16X	XoH51oFC
Helvetica Symbol			
Symbol 10 pt.	SY___10X.SFP	SY10X	Not available

Here is an example which shows how to convert and add a single font (Times (Roman), Normal, 18 point) from the PostScript font set, for an AFP, PCL, and Metacode printer.

Let's assume this is the font name (found in the FAP font directory): (TIR____.PFB).

- 1 Insert the PostScript font into your FXR file.

- 2 Open the Font Conversion utility within the Font List window. Then convert the font to AFP, PCL, and Metacode format in this sequence. See [Converting Fonts on page 167](#) for specific conversion steps. Refer to each respective printer manual for font file naming convention guidelines.
- 3 Copy the appropriate converted font file to the associated printer.

Deleting Fonts

The Delete option lets you exclude a font from your font set. If you delete a font, it is not deleted from the system. The font is simply no longer available in the font set.

NOTE: If you compose an image with a font which is later deleted from the font set, you must revise the image. You can verify that all the fonts within an image are valid fonts in the current font set by using the Font Check tool, available from the Image Editor Tool menu.

Follow these steps to delete a font:

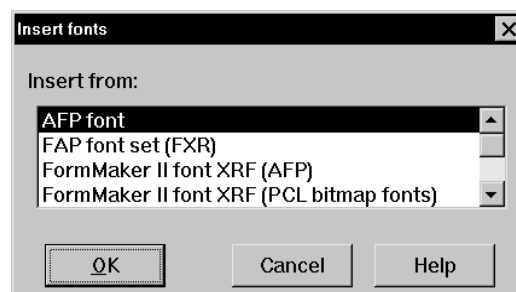
- 1 From the Font List, highlight the font or fonts you want to delete.
- 2 Click Delete. A confirmation message appears.
- 3 Click Yes to confirm or No to cancel.

Inserting Fonts

Use Insert to quickly add font information to your font set files. Insert lets you add multiple font information or individual font information to the font set or FXR file. If necessary, you can edit font information to change the font ID, typeface, family, and printer specific information. (Use New to manually add fonts to your font set; use Insert to automatically add font information.) You can also use Insert to add fonts to your font set. Using Insert is quicker and more efficient since you do not have to manually enter the specific characteristics of each font as you do with the New option.

To insert fonts, click Insert in the Font List window to display the Insert Fonts window.

NOTE: Insert is active only if no font is selected. If the Insert button is not active, click the Deselect All button to make sure no fonts are selected. This will activate the Insert button.

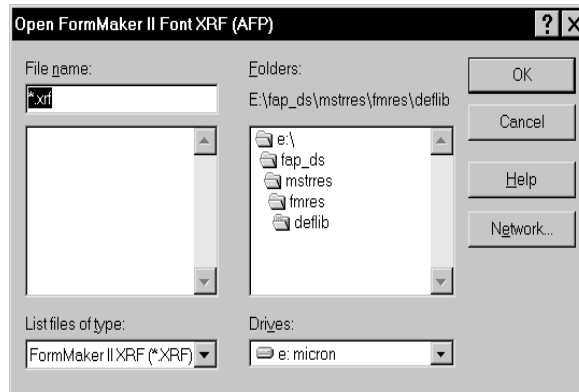


- 1 Click the font type or the fonts you want to insert. You can insert multiple fonts. The following is a brief description of the several font types that are available:

Font Type	Description
AFP font	This option lets you select an AFP coded file to import. AFP character set files begin with the letter X, such as XoDATIN8.FNT. A coded font file contains references to a specific character set and a specific code page. The corresponding character set and code page files must be in the same directory as the coded font file to import it. The font information imported from the AFP font is assigned a font ID which is one greater than the largest font ID contained in the font cross-reference file (FXR).
FAP font set (FXR)	Inserts font information stored in another system font set. Cross-reference files usually end with an FXR file extension. Once you select an import FXR file, you will see a list of the fonts referenced in the file. You can import any or all of the fonts contained in the file.
FormMaker II font XRF* (AFP)	Inserts a FormMaker II cross-reference file and the associated AFP bitmap fonts into the cross-reference file (FXR) you are currently using.
FormMaker II font XRF* (PCL bitmap fonts)	Inserts a FormMaker II PCL cross-reference file and the associated PCL bitmap fonts into the cross-reference file (FXR) you are currently using. You retain the original FormMaker II PCL cross-reference file.
FormMaker II screen font def.* (FON)	Inserts a single FormMaker II window font. Use this option only when a printer font is not available.
PCL bitmap font	Inserts a PCL bitmap font. The font information imported from the PCL font will be assigned a font ID which is one greater than the largest font ID contained in the font cross-reference file (FXR).
PostScript font	Inserts a PostScript scaleable font.
TrueType font	Inserts a TrueType scaleable font.
Xerox Metacode fonts	Inserts a Xerox bitmap font. The font information imported from the Metacode font will be assigned a font ID starting at one greater than the largest font ID contained in the font cross-reference file (FXR).

*These font file formats are from FormMaker II DOS System.

- 2 Click Ok. Depending on the fonts or font type you selected, either an open fonts or load font window will appear:



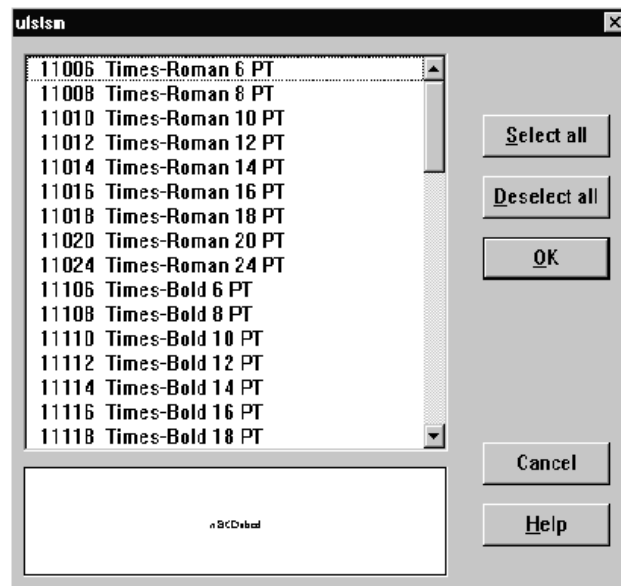
- 3 Select the file you want to open or load. If the file is in a different directory or folder, use the Drives and Folders fields to find the file. Click Ok.

NOTE: There is a Windows Network button available in this window; use it to map network drives.

- 4 To continue with inserting bitmap fonts and FXR files, follow the instructions below. To finish inserting PostScript and TrueType fonts, see [Inserting PostScript and TrueType Fonts on page 175](#).

Inserting bitmap fonts and FXR files

Once you open a FormMaker II XRF file (AFP or PCL) or an FXR file, the Font List window appears.



Here is a summary of your options:

To	Click
Choose all fonts in the FXR or XRF file	Select All
Deselect all fonts currently selected	Deselect All
Choose specific fonts in the FXR or XRF file	The specific fonts
Insert selected fonts into your font set	Ok

Keep in mind...

- If you select a font ID already present in your font cross-reference file, the system will give you the option of replacing the existing font, or assigning the imported font an ID at the end of the font list.
- The font information imported is assigned a font ID which is one greater than the largest font ID contained in the font cross-reference file.
- You may need to modify the font ID, typeface, family, and printer specific information for the bitmap fonts after they have been inserted into your current FXR.
- If you install fonts supplied by an outside vendor, you may need to copy those font files to the proper directory in your resource library, such as:

C:\FAP\MSTRES\FMRES\DEFLIB\

Remember, the master resource setup tells Image Editor the directory location of your fonts and your FXR file.

Inserting PostScript and TrueType Fonts

To insert PostScript and TrueType fonts into an FXR file, you must have these files and INI options:

File name	Description
IFW32.DLL	Intellifont Runtime DLL Postscript, TrueType font reader You must store this file in the system's DLL directory.
IF.FNT	Intellifont Typeface Index file Store this file in the directory specified in the DEFLib option in the FMRes control group. See below for more information.
UIF.SS	Intellifont Symbol Set file Store this file in the directory specified in the DEFLib option in the FMRes control group. See below for more information.
UMT.SS	MicroType Symbol Set file Store this file in the directory specified in the DEFLib option in the FMRes control group. See below for more information.
UTT.SS	TrueType Symbol Set file Store this file in the directory specified in the DEFLib option in the FMRes control group. See below for more information.

File name	Description
PLUGIN.TYQ	Intellifont Plugin and Typeface Library file Store this file in the directory specified in the DEFLib option in the FMRes control group. See below for more information.
PLUGIN.TTF	TrueType Plugin and Typeface Library file Store this file in the directory specified in the DEFLib option in the FMRes control group. See below for more information.
CODEPAGE.INI	List of code pages Store this file in the directory specified in the DEFLib option in the FMRes control group. See below for more information.

For example, if your INI file contained this option:

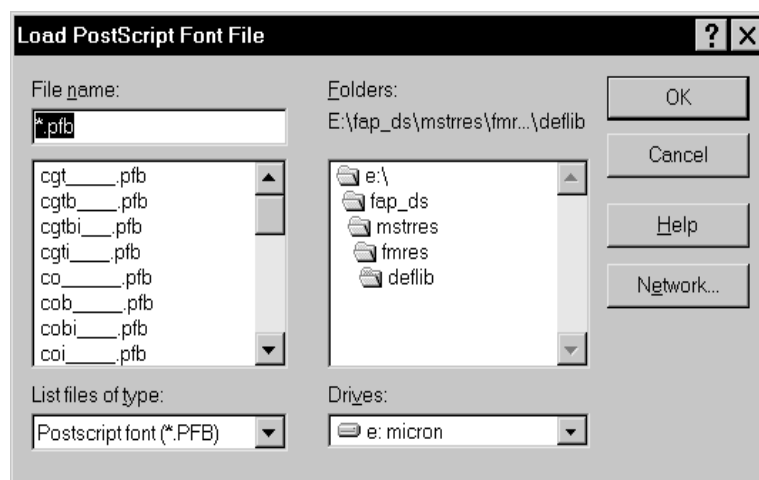
```
< FMRes >  
  DEFLib = c:\fap\fonts
```

the system would look for these files (IF.FNT, UIF.SS, UMT.SS, UTT.SS, and so on) in the C:\FAP\FONTS directory. If you omit the DEFLib option, the system looks for these files in the ..\MSTRRES\FMRES\DEFLIB\ directory.

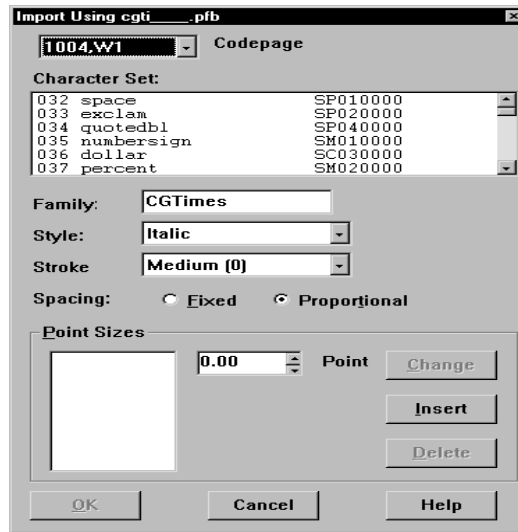
Follow these steps to insert PostScript and TrueType fonts:

- 1 Open your font cross-reference file and click Insert. Select the font type in the Insert Fonts window. The system shows you the appropriate Load Font File window. If you select a PostScript font from the Insert Fonts window, the Load PostScript Font File window appears.

NOTE: The insertion procedure is the same for both font types.



- 2 Select the file you want to insert and click Ok. The Import Using [font name] window appears.



Because PostScript and TrueType fonts are scalable fonts, you can select the point sizes you want to import. See [Font Terminology on page 114](#) for help understanding this window's fields.

- 3 Select 1004 in the Codepage field. The system displays the characters associated with the code page in the Character Set field. See [Using Code Pages on page 120](#) for information about various code pages.
- 4 Click the font you want to insert.
- 5 Select any changes you want to make in the Style, Stroke, and Spacing fields.
- 6 In the Point field, use the scroll arrows to select the font point size you want to include in the font set and click Insert. The font point size appears to the left of the Point Sizes field. Repeat this step for each point size you want to include in your font set.

NOTE: To select the point size, enter -1 in the point field of the Import Using (font name) window. Then click Insert. The system tells you that you have entered an illegal character in a numeric only field and asks you to correct the entry before continuing. Click Ok in the message. The system will then fill in the point values in the Point Sizes field for you.

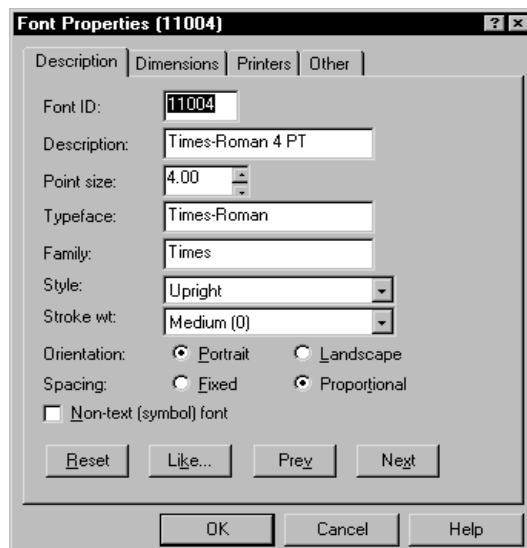
- 7 Click Ok to include the various font point sizes in your font set. The font information imported from the PostScript or TrueType font is assigned a font ID starting at one greater than the largest font ID contained in the font cross-reference file (FXR).
- 8 Image Editor redisplay the Font List. You can insert additional fonts in your font set if necessary.

CHOOSING SCREEN FONTS

After inserting fonts into the FXR, or if your company uses fonts other than those distributed with the system, you can use the Like button in the Font Properties window to select screen fonts which more closely resemble the printer fonts.

Follow these steps to choose a screen font:

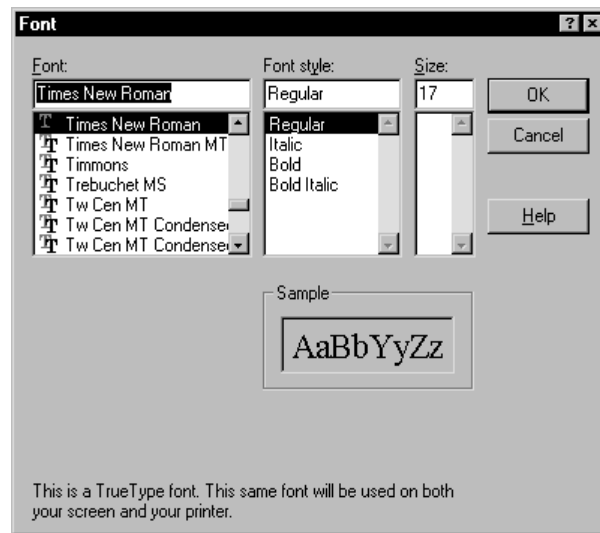
- 1 Open the FAP font set in Font Manager to display the Font List window.
- 2 Select a font in the font list and click Edit. The system displays the Font Properties window.



The FXR file contains the names of the screen and printer fonts to use. When you insert fonts into the FXR, the Font File fields on the Printers tab display the names of the printer fonts to use. The Family field on the Description tab contains the name of the Windows screen font to use based on the printer font file you inserted into the FXR. This means the Family field may not contain the name of a valid Windows screen font.

- 3 Click Like to display the Font window.

NOTE: Using the Like option can affect GDI printing which creates output based on what appears on the screen.



The Font window lists the Windows screen fonts installed on your computer.

- 4 Select the Windows display font that most closely resembles the printer font and make any necessary adjustments to the style and size. Click Ok to return to the Font Properties window. The screen font you selected will be displayed in the Family field and the style and size will be set for the font. This affects any object to which you can assign a font ID.
- 5 Click Ok in the Font Properties window to apply these changes and close the window. You can elect to save the changes to your FXR file when you select Close in the Font List window.

Understanding the System

If you plan to use your modified FXR file to create FAP files, be sure to make the FXR file available to anyone working with the FAP files. Keep in mind that those users will also need the same fonts installed on their systems.

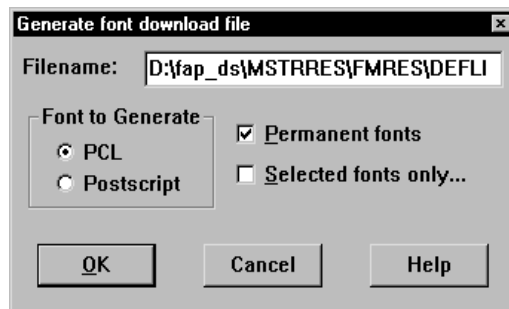
GENERATING FILES USING FONT MANAGER

Use Font Manager's File, Generate menu option to quickly generate FNT, XRF, and PFM files. FNT files are used to download fonts to a PCL or PostScript printer. XRF files are FormMaker II font cross-reference files. PFM files are Docuflex font format files.

GENERATING AN FNT FILE

The Generate FNT File option lets you automatically generate an FNT file for downloading fonts to a PCL or PostScript printer. Follow these steps to generate an FNT file:

- 1 Select the Resources, Fonts option from the system menu or click on the Fonts icon. The Open FAP Font Set window appears.
- 2 Select the font set you want to generate an FNT file for and click Ok. The Font List window appears.
- 3 Drag the screen to the right to display the Font Manager window. Then select File, Generate, FNT File. The Generate Font Download File window appears.



- 4 Check the name in the File name field. The system defaults to the name of the font cross-reference file with the *FNT* extension. Make any necessary changes.
- 5 Select either PCL or Postscript for the type of font to generate.
- 6 Select Permanent fonts or Selected fonts as necessary. This does not apply to Postscript fonts.

Your permanent, selected, and temporary font choices are defined in this table:

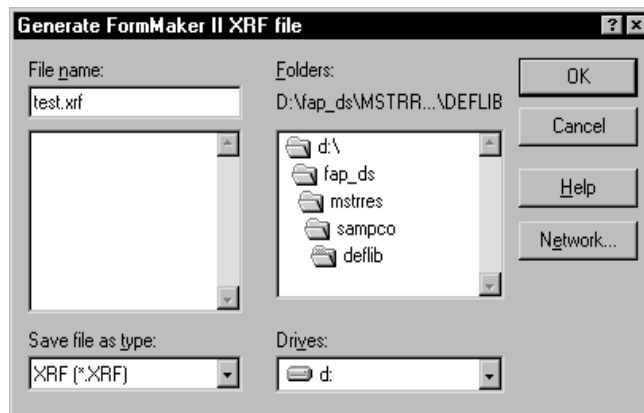
Fonts	Description
Temporary fonts	Downloaded PCL fonts that are deleted during a printer reset. A printer can be reset via a command in a PCL print stream or from the console. Temporary fonts are deleted from memory when the printer is reset or turned off. This field has no effect on PostScript fonts.
Permanent fonts	Downloaded PCL fonts that remain in the system during a printer reset. Permanent fonts are deleted from memory when the printer is turned off. Permanent fonts are not deleted during a printer reset. This field has no effect on PostScript fonts.
Selected fonts	Selected fonts lets you select specific font IDs to build the FNT file. If you leave this field unchecked, the system includes all font IDs in the FXR file.

- 7 Click Ok.

GENERATING AN XRF FILE

With Font Manager you can use a FAP font set to generate a FormMaker II XRF file. To begin, open Font Manager by selecting Resources, Font. The Open FAP Font Set window appears.

- 1 Select the font set you want to work with and click Ok. The system displays the Font List window.
- 2 Drag the screen to the right to display the Font Manager window; then select File, Generate, XRF File. The Generate FormMaker II XRF File window appears.



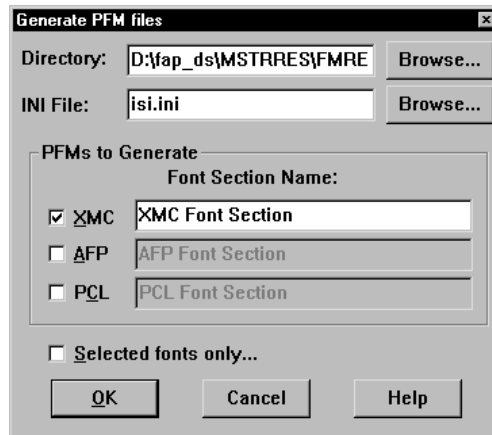
- 3 Enter a name for the XRF file in the File Name field; be sure you have the file path set to the library you want. You can use the Windows Network button if you need to map a drive path. Click Ok to generate the XRF file.
- 4 The system displays a confirmation message stating that the XRF file generated successfully.

GENERATING PFM FILES FROM AN FXR FILE

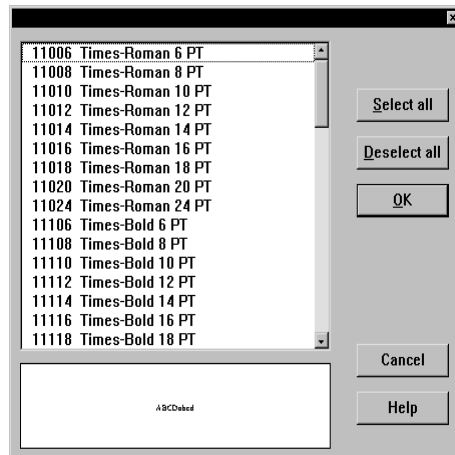
Font Manager can generate Docuflex font format files, known as PFM files. These files are listed in the font section of Docuflex INI files and are used when converting a document from one format to another.

To create a PFM file, select Resources, Fonts to start Font Manager. The system displays the Open FAP Font Set window.

- 1 Select a font cross reference file (FXR) and click Ok. The Font List window appears.
- 2 Drag the screen to the right to display the Font Manager window; then select File, Generate, PFM Files. The following window appears.



- 3 Enter the destination directory for the PFM files in the Directory field. Use the Browse button to change the destination directory.
- 4 Enter the name of the INI file in the INI File field, or use the Browse button to select an INI file.
- 5 In the PFMs to Generate field, select which type of PFM files for which printer type to generate.
- 6 If you want to use all the fonts in the FXR file, leave the Selected Fonts Only field unchecked and click Ok. Font Manager generates the PFM files.
- 7 If you only want to generate PFM files for specific fonts, click the Selected Fonts Only field then click Ok. The system displays a list of the fonts in the FXR file:



- 8 Select the fonts and click Ok. The system displays a message confirming that the PFM files were successfully generated.

A PFM file is generated for a particular printer type and information for that font goes in the font record. For example, in the REL95SM.FXR file there are 68 fonts, but there is only setup data for all 68 fonts for the AFP printer. There is XMC and PCL information for only 64 of the fonts, so there could be a maximum of 64 PFM files of the XMC and PCL printer types for that FXR file.

The name of each PFM file is determined from the setup data in the font record for each printer type. For example, in REL95SM.FXR for font number 11012, the XMC font is FXTINB.PFM, the AFP font is XoDATINB.PFM, and the PCL font is FPTINB.PFM.

When Font Manager generates the PFM files, it also creates an extract file which is, by default, called *ISI.INI*. You can insert the contents of this file into your Docuflex INI files as one of the FontSection control groups. The extract files are placed in the same directory as the generated PFM files.

NOTE: If the ISI.INI file exists, the system appends the font section information in the existing file. If you do not include a path for the ISI.INI file, the system creates or updates the file in the directory from which you ran Font Manager, such as *..\FAP\DLL*.

Here's a sample ISI.INI file:

```
[XMC Font Section] Fonts=64 FontThreshold=70000
Font1=E:\LIBRS\FMRES\DEFLIB\FXTIN6.pfm; 11006 Times-Roman 6 point
Font2=E:\LIBRS\FMRES\DEFLIB\FXTIN8.pfm; 11008 Times-Roman 8 point
Font3=E:\LIBRS\FMRES\DEFLIB\FXTIN0.pfm; 11010 Times-Roman 10 point
Font4=E:\LIBRS\FMRES\DEFLIB\FXTINB.pfm; 11012 Times-Roman 12 point
Font5=E:\LIBRS\FMRES\DEFLIB\FXTIND.pfm; 11014 Times-Roman 14 point
```

When you use these PFMs to read or write FAP files in the Docuflex system, be sure to use the accompanying extract files in the FontSection control groups in the Docuflex INI files. The numbers after the semicolons are used by the system to identify font numbers in FAP records.

MAPPING FONTS FOR FILE CONVERSIONS

When converting a file from one format to another, you may need to convert the fonts used in the document. You can use INI control groups and options to map fonts in a source document to the fonts you want to use in the destination document. For instance, if you are converting an RTF file into a FAP file, you can use the following control group:

```
< RTFFontMAP >  
    Arial = Swiss
```

This tells the system to convert all Arial fonts into Swiss fonts. Use this control group when converting DCD files into FAP files:

```
< FontFamilyMatching >  
    Arial = Swiss
```

Place these control groups and options in the FAPCOMP.INI file.

RTF and DCD files contain font information about the generic font families used. For example, Arial and Univers, both sans serif proportional fonts, belong to a generic font family called *Swiss*.

The RTF and DCD converters in the system use the RTFFontMap and FontFamilyMatching control groups to assign a font when other means of mapping fonts from the RTF or DCD file fails.

In Windows environments, there are several generic font families, as shown in this table:

Family	Description
Decorative	Specifies a novelty font, such as Old English.
Dontcare	Specifies a generic family name. This name is used when information about a font does not exist or does not matter. The default font is used.
Modern	Specifies a monospace font with or without serifs. Monospace fonts are usually modern fonts, such as Pica, Elite, and Courier New.
Roman	Specifies a proportional font with serifs, such as Times New Roman.
Script	Specifies a font that is designed to look like handwriting, such as Script and Cursive.
Swiss	Specifies a proportional font without serifs, such as Arial.

CHAPTER 6

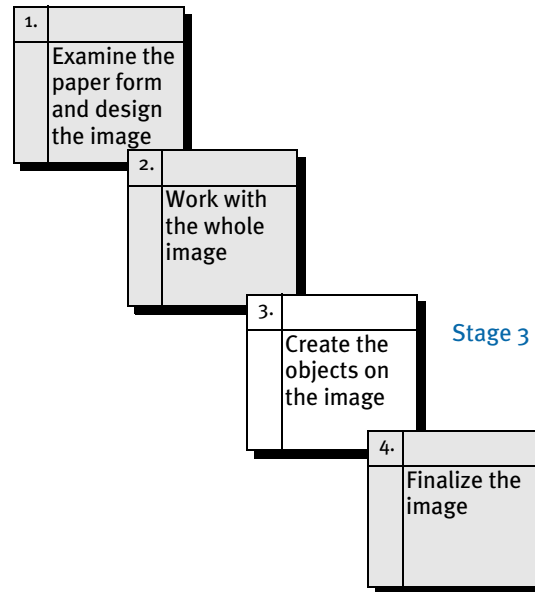
Working with Objects

This chapter discusses working with objects in your image. Objects are the building blocks for your image. Here you learn about the Image Editor options which let you create and edit objects and assign attributes to them.

This chapter provides information on the following topics...

- [Creating Objects on page 187](#)
- [Inserting a Bookmark on page 193](#)
- [Inserting a Bar Code on page 188](#)
- [Inserting a Box on page 194](#)
- [Inserting a Chart on page 196](#)
- [Inserting a Guide Box on page 200](#)
- [Inserting Indexes and Tables of Contents on page 202](#)
- [Inserting a Line on page 204](#)
- [Inserting a Logo on page 206](#)
- [Inserting a Note on page 208](#)
- [Inserting a Shaded Area on page 210](#)
- [Inserting a Text Area on page 212](#)
- [Inserting a Text Label on page 215](#)
- [Inserting a Variable Field on page 218](#)
- [Inserting a Vector Object on page 248](#)
- [Using the Paragraph Assembly Option on page 250](#)
- [Using Autocreate on page 251](#)
- [Assigning Attributes to Objects on page 252](#)

This chapter discusses the third stage of the composition flow. While Chapter 4 discusses working with options and attributes which apply to an entire image, this chapter discusses building the actual image by creating the objects that comprise the image.



You create and position a variety of objects based on your form and document needs. The Image Editor lets you precisely place objects in the image. Assigning specific attributes to individual objects lets you further refine your image.

When starting a new image you save time if you carefully design the entire image before you begin creating it. You should consider the types of objects needed for your image, the positioning of objects, and the features you want to assign to various objects.

We suggest you follow this sequence as you arrange objects in an image:

- Set default object properties
- Create the objects in your image
- Define your objects
- Verify the position and dimensions of each object
- Edit object properties

Based on how you might work with objects, we have grouped the user tasks within this chapter into the following sections:

- Creating Objects

This topic discusses initial creation and placement of objects within the image.

- Assigning Attributes to Objects

This topic tells you how to define the properties for your objects, such as color and position.

CREATING OBJECTS

You create and organize objects to compose an image. The Image Editor lets you create a wide variety of objects and manipulate the objects in any manner you want. You can easily integrate graphics, text, and other object types into a detailed and precise image. You can also mark areas into which the system will merge text and graphics stored separately from the image. For example, to insert a bar code you designate an area into which the system merges a bar code at runtime.

This section of the chapter tells you how to create these objects:

- Bar codes
- Boxes
- Charts (2-dimensional and 3-dimensional)
- Guide boxes
- Lines (Vertical and Horizontal)
- Logos
- Notes
- Shaded Areas
- Text areas
- Text labels
- Variable fields

WAYS TO CREATE OBJECTS

While the following topics show you how to create each type of object, the process is basically the same for all objects. There are two ways to create any object. You can follow the steps below to create and define a single object or you can use the Options, Autocreate option to create multiple objects of the same type, such as a series of lines.

- 1** Click the icon for the object or choose Insert and select the object from the Insert menu.
- 2** Move your mouse pointer to the top left position for the object. The status line displays the pointer's coordinates to help you place the object if you have this option turned on using the View, Options option.
- 3** Click the left mouse button; drag the mouse to draw the boundaries of the object; then, release the mouse button. The system displays a properties window which lets you set an exact position, set dimensions, and other properties.

If you select the Options, Autocreate option, the properties window does not appear. Instead, you can insert another object of that type, with the same default properties.

When you finish inserting all of the objects you need of that type, then you can switch to another type of object or turn off the Autocreate option and make any necessary changes to the properties of those objects.

In each object properties window, Next and Prev buttons let you assign properties to the next or previous object of the same type in the image. This lets you quickly change properties for multiple objects, with the exception of charts and text areas.

INSERTING A BAR CODE

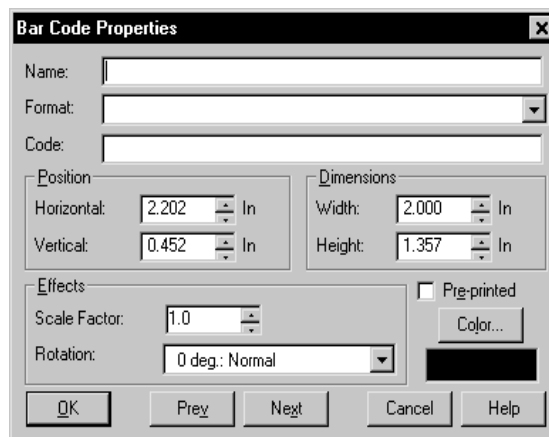
Use the Insert, Bar Code option to draw and position an area for one of the many bar code formats supported by the system. You determine the bar code format when you create the image. All bar codes are designated as either static or dynamic.

A static bar code's value, type and properties, which you set up when you create the image, do not change. A static bar code becomes a fixed object associated with the document image.

A dynamic bar code's type and properties are set up when you create a variable field and designate it as a bar code field type in the Field Properties window. The system inserts the bar code at runtime or allows you to enter data into it during entry.

NOTE: If you are inserting several bar codes with the same basic properties, you can simplify the task by entering the information for the bar code format, scale factor, and rotation on the Default Properties window. Select Options, Default Properties, and choose the Bar Code tab to enter these properties. Each bar code you create will have these properties, and you will not have to enter them in the Bar Code Properties window. This is especially effective if you are using the Autocreate option.

- 1 To create a bar code, choose Insert, Bar Code. After you position the bar code the Bar Code Properties window appears:



- 2 If you want, type a name for the bar code in the Name field. This lets you later reference the bar code for editing purposes. You can enter up to 32 characters. You cannot include semicolons, backslashes, or quotation marks in the name.

NOTE: If you enter a name such as *Bar code*, the system will automatically increment the bar code objects name to *Bar code #002*, *Bar code #003* when you copy and paste or duplicate the bar code object.

3 Choose from these formats in the Format field:

- Code 39 1:1:3:3
- Code 39 1:1:2:2
- Code 39 1:2:4:5
- Code 39 3:1 Mod 43 Check Digit
- Code 93
- Code 128 Start Code A
- Code 128 Start Code B
- Code 128 Start Code C
- Code 128 Automatic Add-On
- Codabar Standard
- Codabar Compressed
- EAN-8 Digit
- EAN-13 Digit
- Interleaved 2 of 5 1:1:3:3
- Interleaved 2 of 5 Mod 10
- UPC-A 1:2:3:4 11 Digit
- UPC-EO Zero Suppress 10 Digit
- UPC-EO 6 Digit
- UPC-EI 6 Digit
- UPC 2 Digit Add-On
- UPC 5-Digit Add-On
- MSI no Check Digit
- MSI Mod 10 Check Digits
- MSI Mod 10/10 Check Digits
- MSI Mod 11/10 Check Digits
- ZIP codes (can be 5, 9, or 11 digits)
- PLANET Code® bar codes. See [Inserting PLANET Code Bar Codes on page 190](#) for more information.
- USPS Intelligent Mail Bar Code (4-State Customer Bar Code) See [Generating the USPS Intelligent Mail Barcode \(4-State Customer Bar Code\) on page 191](#) for more information.

4 Type the code in the Code field. Change the placement and size of the bar code in the Position and Dimensions fields, if necessary.

- 5 Select a scale factor from 0.5 to 5.0. The scale factor affects the bar code width. For example, a scale factor of 2 doubles the width of the bar code but maintains the same ratio of bars and spaces.
- 6 Select a rotation in the Rotation field. The rotation options are: 0 degrees: Normal; 90 degrees: Downward; 180 degrees: Upside down; and 270 degrees: Upward. The system rotates the bar code clockwise.
- 7 Click the Pre-printed option to tell the system *not* to print this object when you print the image.

NOTE: Using a preprinted flag on an object can be useful during forms creation or when test printing your forms. You may be using letterhead or special paper that has the company name or logo already embossed on the paper. Inserting a text label or logo on your form in the same location as the company name or logo helps to make sure the space isn't inadvertently written over by other objects. These objects would reserve that space on the form. You may wish to include pre-printed objects when test printing the form to compare against your special paper to make sure that there is enough space on the special paper for the non pre-printed objects.

By default, the Print window does not display a Pre-printed option. Any objects flagged as Pre-printed will not print on the form.

- 8 Click Color to display the Color window. Click the color you want; then click Ok. Image Editor returns you to the Bar Code Properties window. Click Ok to save your entries and exit the window.

NOTE: If you want the bar code to print on the form in the color you have selected, you must check the Print in Color field on the Color window.

INSERTING PLANET CODE BAR CODES

You can add PLANET Code® bar codes to your forms. These bar codes, along with the Confirm® service offered by the United States Postal Service (USPS), let you track your mail electronically.

You uniquely identify and track your mail by placing the PLANET Code bar code on the front of the mail piece. As the mail piece moves through the postal system, USPS sorting equipment notes the processing facility, operation number, and processing date and time. This information is returned to you in the form of a response file.

For more information, see the PLANET Codes web site:

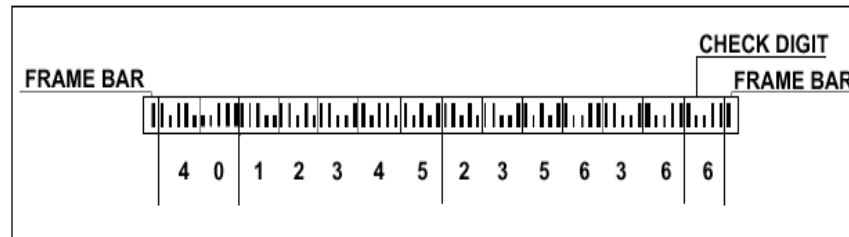
www.planetcodes.com

The PLANET Code is essentially an inverse image of the POSTNET bar code and is defined as follows:

Like POSTNET Codes, PLANET Codes have 14 digits and consist of tall and short bars. PLANET symbology is the inverse of POSTNET because each POSTNET digit has a combination of two tall and three short bars and each PLANET digit had three tall and two short bars.

All PLANET bar codes include a five-bar checksum digit or correction character. This digit is always the number which, when added to the sum of the other digits in the bar code, results in a total that is a multiple of 10.

Here is an example of the PLANET Code bar code:



You can download a true type font from the USPS at:

www.planetcodes.com/confirm/common/planetFonts.ttf

In addition:

- The first two digits comprise an ID Confirm Service number, such as 4 which indicates First-Class Mail Letters.
- The next five digits comprise a Subscriber ID assigned by a post office.
- The next 6 digits comprise the Mailing ID which is assigned by Skywire Software and identifies each mail piece in a batch cycle.
- The last digit is a Check Digit which is calculated based on the sum of the previous 13 digits. For example, if the sum of the previous 13 digits is 44, the Check Digit would be 6 ($44 + 6 = 50$ which is divisible by 10).

GENERATING THE USPS INTELLIGENT MAIL BARCODE (4-STATE CUSTOMER BAR CODE)

You can generate the Intelligent Mail® bar code, formerly referred to as the *4-State Customer bar code* on your forms. The Intelligent Mail® bar code is a height-modulated bar code using four distinct vertical bar types.

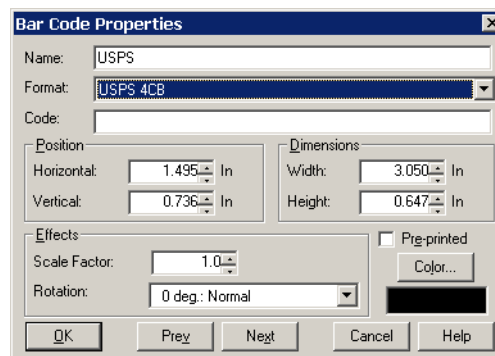
It encodes a 20, 25, 29, or 31-digit string into 65 vertical bars, each representing one of four possible states: full bar, ascender, tracker, and descender. Intelligent Mail bar code expands the ability to track individual mail pieces and provide its customers with greater visibility in the mail stream.

Type	Field	Digits
Tracking Code	Bar Code ID	2 (The 2nd digit must 0-4)
	Service Type ID	3
	Customer ID	6
	Sequence Number	9
Routing Code	Delivery Point ZIP Code	0, 5, 9, or 11
Total		31 maximum

Here is an example of the 4CB bar code:



In Image Editor, you would select the USPS 4CB option in the Format field. Here is an example:

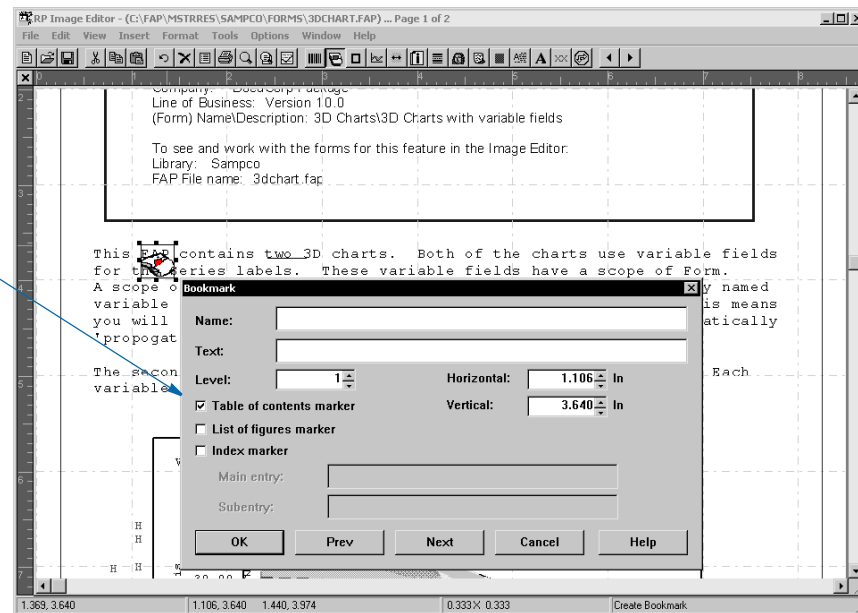


INSERTING A BOOKMARK

You can add tables of contents, lists of figures, or indexes to your form sets to make it easier for users to navigate through the various forms. To do this, you must add bookmarks to the FAP files that comprise the form set. These bookmarks define the text you want to print in the table of contents. You can define a level number which determines the formatting to use (like ToC1, ToC2, and so on). Before proceeding, you may want to review [Inserting Indexes and Tables of Contents on page 202](#).

Use the Insert, Bookmark option in Image Editor to add bookmarks. The Bookmark window appears.

You specify whether the bookmark is used by a table of contents, list of figures, or an index.



An index marker lets you add a main entry and subentry which can be sorted in alphabetical order. Indexes are sorted by main, sub, text, page number, and coordinate. Other types of markers are sorted by page number and coordinate.

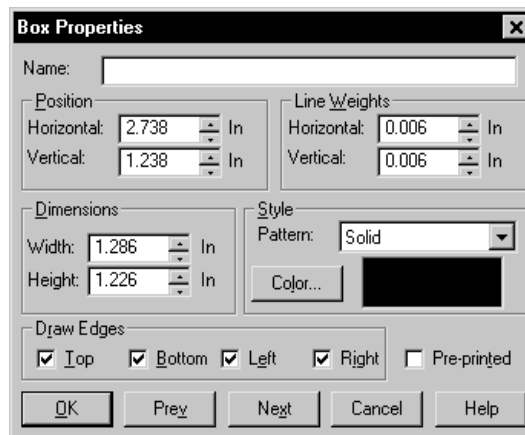
The coordinates define where the marker is generated. You must size the table based on how large you want it to be. The system will create additional pages when necessary, but the table will not flow dynamically.

INSERTING A BOX

Boxes can segment or emphasize a particular portion of the image. You control the weight of the box lines, patterns and colors within the box, as well as the dimensions of the box.

NOTE: If you are inserting several boxes with the same basic properties, you can simplify the task by entering the information for the box line weights, style, and draw edges in the Default Properties window. Select Options, Default Properties, and choose the Box tab to enter these properties. Each box you create will have these properties, and you will not have to enter them in the Box Properties window. This is especially effective if you are using the Autocreate option.

- 1 To create a box, choose Insert, Box. After you position the box this window appears:



- 2 If you want, type a name for the box in the Name field. This lets you later reference the box for editing purposes. You can enter up to 32 characters. You cannot include semicolons, backslashes, or quotation marks in the name.

NOTE: If you enter a name such as *Box*, the system will automatically increment the box objects name to *Box #002*, *Box #003* when you copy and paste or duplicate the Box object.

- 3 Change the placement and size of the box in the Position and Dimensions fields, if necessary.
- 4 Specify the horizontal and vertical line weights in the Line Weights field.
- 5 Select the fill pattern in the Pattern field.
- 6 In the Draw Edges field, click the edges you want drawn around the box. You can choose to draw a line on the top, bottom, left and right sides.
- 7 Click the Pre-printed option to tell the system *not* to print this object when you print the image.

NOTE: Using a preprinted flag on an object can be useful during forms creation or when test printing your forms. You may be using letterhead or special paper that has the company name or logo already embossed on the paper. Inserting a text label or logo on your form in the same location as the company name or logo helps to make sure the space is not inadvertently written over by other objects. These objects would *reserve* that space on the form. You may wish to include pre-printed objects when test printing the form to compare against your special paper to make sure that there is enough space on the special paper for the non pre-printed objects.

By default, the Print window does not display a Pre-printed option. Any objects flagged as Pre-printed will not print on the form.

- 8 Click Color to display the Color window. Click the color you want and click Ok. Image Editor returns you to the Box Properties window. Click Ok to save your entries and exit the window.
-

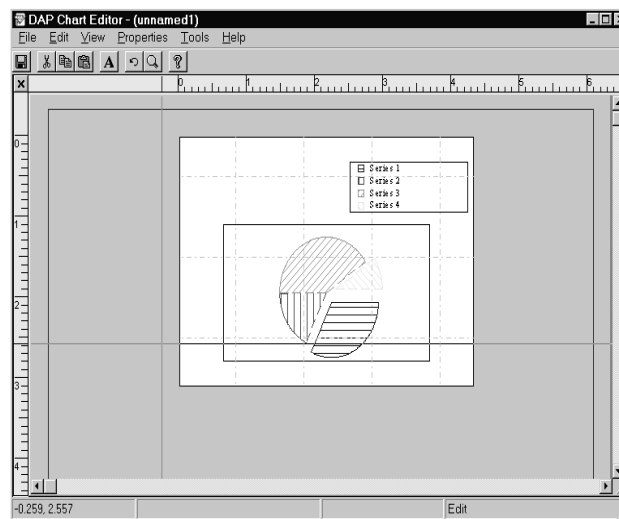
NOTE: If you want the box to print on the form in the color you have selected, you must check the Print in Color field on the Color window.

INSERTING A CHART

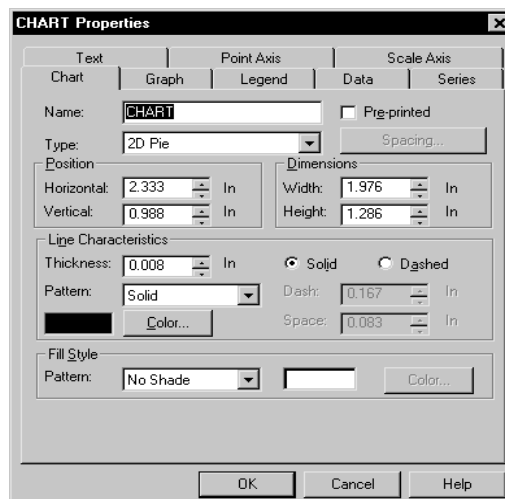
The Chart option lets you display information graphically, in one of several pie or bar chart formats.

NOTE: If you are inserting several charts with the same basic properties, you can simplify the task by entering the information for the chart type, font, title and subtitle, and X and Y axis in the Default Properties window. Select Options, Default Properties, and choose the Chart tab to enter these properties. Each chart you create will have these properties, and you will not have to enter them in the Chart Properties window. This is especially effective if you are using the Autocreate option.

- 1 To create a chart, choose Insert, Chart. After you position the chart the Chart Editor appears:



- 2 Select Properties, Chart or right-mouse click the chart to display the Chart Properties window. For a detailed explanation of how to work with the Chart Editor, see [Adding Charts on page 311](#).



- 3 Select File, Exit to exit the Chart Editor and save your entries.

NOTE: If you enter a name such as *Chart*, the system will automatically increment the Chart objects name to *Chart #002*, *Chart #003* when you copy and paste or duplicate the Chart object.

Assigning Variables in Series Text

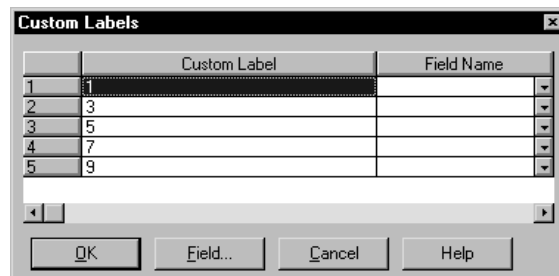
You can assign variable values for series names. To do this, select the Properties, Series option while in the Chart Editor. If the field is grayed out this indicates your form doesn't currently contain any variable fields. Click the Field button to create a variable field. You can create multiple variable fields while in Chart Editor. This activates the Field entry field on the Series window. Click the down arrow to display the list of available variable fields. Select the desired field at entry time.

Understanding the System

Data entered in the Field entry field displays in the chart legend for the corresponding series. If the referenced variable has no text defined, the system uses the last text assigned to the series. This is necessary because the system requires a series to have a name so it can associate the data with the series.

Assigning Variables in Point Axis Text

You can assign variable values to the labels on the Point Axis. On the Point Axis tab, select Custom in the Format field. Then click the Custom button. The Custom Labels window appears:

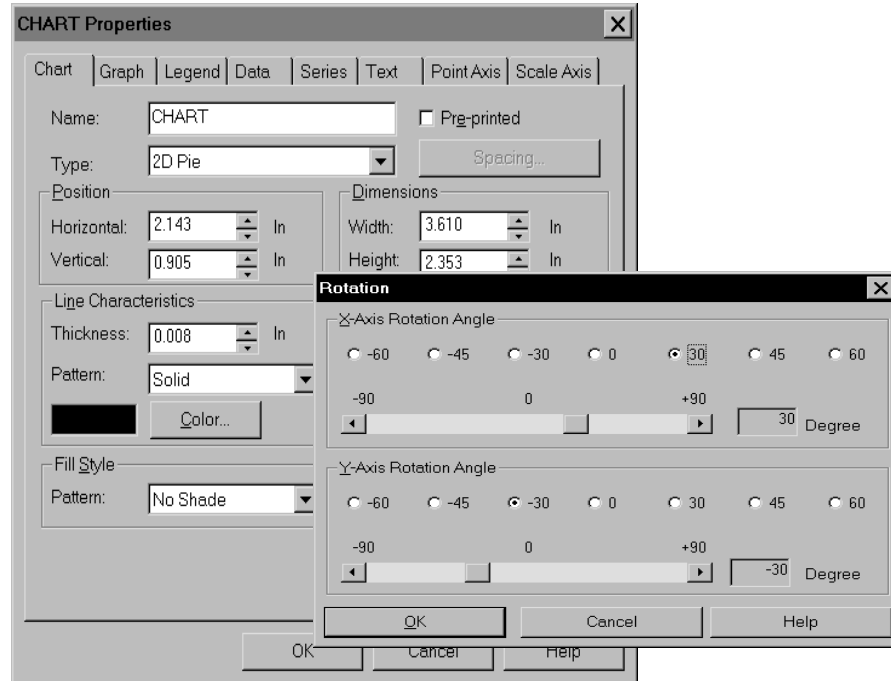


Select the field you want to associate with that label. If your form does not contain any variable fields, you may create them on this window by clicking the field button. If you elect to leave Field Name empty, you can alternately enter text in the custom label field. The system will use this for your point axis label. Unlike the series names, you can leave these labels blank. If you leave the field blank, the label will also be blank.

NOTE: If you use variable fields to custom format a label, the system uses the rotation assigned to the variable fields when those fields are used for the point axis in a chart. To keep text from writing onto the chart, either use a 90 degree rotation or use labels with only one or two characters.

Using 3-dimensional Charts

The system includes support for 3-dimensional (3D) charts.



The 3D charts supported fall into these categories:

- Pie
- Charts split in series—split vertical bar, horizontal bar.
- Other—vertical/horizontal bar, on-top vertical/horizontal bar, percentage vertical/horizontal bar, regular area, percentage area charts, and ribbon.

The 3D pie chart only allows zero (0) degree to -90 degree rotation on X direction. No Y rotation is allowed. If you choose zero degrees, the result looks like a 2D pie chart. Negative 90 (-90) degrees looks like a flat line.

Rotating the Axis

The rotation follows the *right hand* rule with the X axis pointing to the right and the Y axis pointing up. When both the X and Y rotations are set to zero (0) degrees, the 3D chart looks like a 2D chart. To understand the system of 3-dimensional rotation, imagine that you are holding a book in front of you such that you can only see the front cover. This is equivalent to 2-D or zero (0) degree axis rotation.

If you tip the book backwards, you begin to see the bottom of the book. This is negative X axis rotation. If you continue until you can only see the bottom of the book, that would be a -90 degree rotation of the X axis.

Return the book to vertical (0 degrees). If you begin tipping forwards, you begin to see the top of the book. This is positive X axis rotation. If you continue until you can only see the top of the book, that would be a +90 degree rotation of the X axis.

Now return the book to vertical again. If you begin turning the book counter-clockwise, you will see the *bound* side of the book. This is positive Y axis rotation.

Conversely, if you turned clockwise, you would begin to see the *pages* side of the book. This is negative Y axis rotation.

Continuing until you could only see the bound or pages side of the book, would be plus or minus 90 degrees rotation of the Y axis.

The split type of charts allow -90 to 90 degree rotation in both X and Y directions. The rotation is done by first applying X rotation then applying Y rotation on the rotated Y axis.

The remaining 3D charts also allow -90 to 90 degree rotation in both X and Y directions. The two rotations are, however, independent of each other. The chart's Y axis will be drawn at the left hand side for negative Y rotation and drawn at the right hand side for positive Y rotation. For X rotation, positive degree is more common. You will see the bottom surface (X axis) if you have a negative X rotation (because you are looking the chart from under its bottom).

Setting the Depth

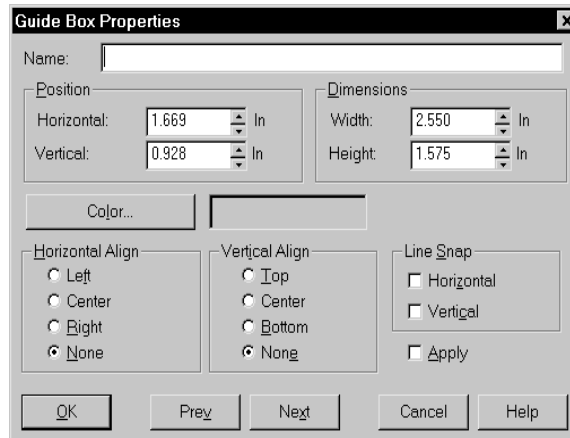
The *depth* refers to the thickness of the 3D object to be drawn. The thickness determines the size of the profile revealed during rotation of the X- or Y-axis. Returning to the book analogy, this would be how many pages the book contains.

INSERTING A GUIDE BOX

Guide boxes help you position other objects. Guide boxes only appear on your window; they do not print on images. You place other objects inside the guide box to precisely position objects in relation to each other. You can quickly position and move objects based on your various alignment choices.

NOTE: If you are inserting several guide boxes with the same basic properties, you can simplify the task by entering the information for the guide box horizontal and vertical alignment and line snap in the Default Properties window. Select Options, Default Properties, and choose the Guide Box tab to enter these properties. Each guide box you create will have these properties, and you will not have to enter them in the Guide Box Properties window.

- 1 To create a guide box, choose Insert, Guide Box. After you position the Guide Box Properties window appears:



- 2 Type a name for the box in the Name field. This is optional, however, it lets you later reference the box for editing purposes. You can enter up to 32 characters and use these characters semi-colons, backslashes, and quotation marks in the name.

NOTE: If you enter a name such as *Guide Box*, the system will automatically increment the box objects name to *Guide Box #002*, *Guide Box #003* when you copy and paste or duplicate the object.

- 3 Change the placement and size of the box in the Position and Dimensions fields, as needed.
- 4 Click Color to display the Color window. Click the color you want and click Ok. Image Editor returns you to the Guide Box Properties window.
- 5 Select horizontal and vertical alignment options for objects placed in the guide box.
- 6 Click Horizontal or Vertical in the Line Snap field to select a line snap alignment option for objects placed in the guide box.

- 7 Click Apply if you want to apply new alignment options to previously created objects in the guide box. Click Ok to save your entries and exit the window.

Select one of these options to horizontally align the guide box:

Selection	Description
Left	moves objects to the far left border of the guide box. The object will retain its original vertical position, only the horizontal position changes.
Center	centers the object horizontally within the guide box. The object's vertical position remains the same.
Right	moves objects to the far right border of the guide box. The object will retain its original vertical position, only the horizontal position changes.
None	the object remains where it is place in the guide box.

Select one of these options to vertically align the guide box:

Selection	Description
Top	moves the object to the top of the guide box. The object retains its original horizontal position, only the vertical position changes.
Center	centers the object vertically within the guide box. The object's horizontal position remains the same.
Bottom	moves the object to the bottom of the guide box. The bottom-most part of the object(s) rest on the bottom of the guide box. The object retains it original horizontal position, only the vertical position changes.

Select one, both, or none of these line snap options:

Selection	Description
Horizontal	snaps object to the width of the guide box. Doesn't apply to charts, logos, notes, bar codes, vertical lines, variable fields and text labels.
Vertical	snaps the object to the length of the guide box. Does not apply to charts, logos, notes, bar codes, horizontal lines, variable fields and text labels.

You must check Apply after you make changes to the Vertical Align, Horizontal Align and Line Snap options to record those changes. If you leave Apply unchecked, your choices are applied only to the newly inserted objects within the guide box.

The check mark does not stay in the Apply field once you close the Guide Box window. It only applies the selections made at that particular time. Subsequent changes to settings will need to have Apply checked again to have those revisions take effect.

INSERTING INDEXES AND TABLES OF CONTENTS

With the Insert, Index and Tables option, you can add tables of contents, lists of figures or indexes to your form sets. This makes it easier for users to navigate through the various forms. There are three steps to using this feature:

- 1 Add a table of contents (or list of figures or index) object to your form set using the Insert, Index and Tables option. You can place this object on a new form or wherever you want the system to create the table of contents.
- 2 Add bookmarks to the FAP files that comprise the form set. These bookmarks define the text you want to print in the table of contents. For information on adding bookmarks, see [Inserting a Bookmark on page 193](#).
- 3 Set the PrintPageNumbers option to Yes to turn on page numbering.

NOTE: If you have print only forms, also use the LoadPrintOnly option to make sure those pages are included in the numbering. Here is an example:

```
< Control >  
LoadPrintOnly = Yes
```

This makes sure all forms are loaded, not just ones which require data entry. This INI option primarily affects Documaker Workstation, but it is used in the Form Set Manager's data entry check as well.

To add the table of contents or index, choose Insert, Index and Tables. The Index and Tables window appears:

The screenshot shows the 'Index and Tables' dialog box with the following settings:

- Name:** (empty text field)
- Type:** Table of contents (dropdown menu)
- Horizontal:** 2.428 In (spin box)
- Width:** 0.403 In (spin box)
- Vertical:** 3.769 In (spin box)
- Height:** 0.019 In (spin box)
- Levels:** A list box containing levels 1 through 9, with level 1 selected.
- Font...:** 11010 Times-Roman 10 PT (PCL AFP XER PS) (dropdown menu)
- Page number:** FORMSET PAGE NUM (dropdown menu)
- Right align:** ☒ (checkbox)
- Tab Leader:** None (dropdown menu)
- Paragraph...:** Indent: left 0.000 In right 0.000 In, Align: Left Normal, Spacing: Single (text area)
- Buttons:** OK, Prev, Next, Cancel, Help

Levels are paragraph formats you can use to control appearance. For a table of contents, the system matches the level number of the bookmark to the level paragraph format. For Indexes, it uses the first three formats defined for the index. For a list of figures, it uses the first format defined for the figure.

When you create a list of figures, you can define the prefix text to display and print. For a list of figures, the system generates prefix text, figure number, and a colon, before the text and page number. Here is an example:

Chart 1: Current Utility usage
Chart 2: Average usage

When you choose index, you can set the number of columns and the gap between columns. Additionally, you can specify the language locale for sorting purposes. This feature supports Unicode text.

NOTE: To use this feature, all images must be loaded *before* the print operation executes. Otherwise, the system will not have all the content available and will not be able to create a complete table of contents, list of figures, or index. Since some print drivers do not force the loading of all images until necessary, this means you may have to include an additional INI option.

For Documaker Workstation, you would include this option:

```
< Control >  
LoadPrintOnly = Yes
```

For Documaker Server (GenPrint), you would include this option:

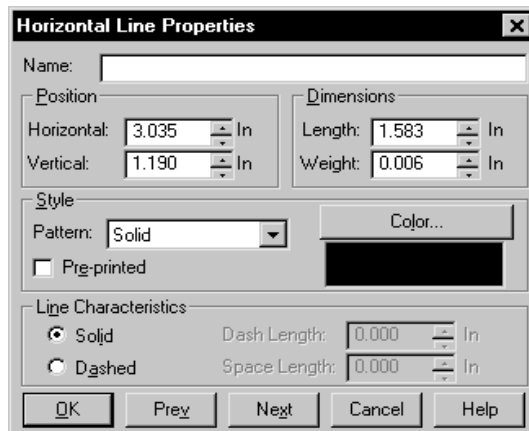
```
< RunMode >  
DownloadFAP = Yes
```

INSERTING A LINE

You can use lines to divide boxes into smaller areas or to show totals or places for signatures. You control the type (solid or dotted), length, weight, pattern, and color of the line. Lines are either horizontal or vertical.

NOTE: If you are inserting several lines with the same basic properties, you can simplify the task by entering the information for the line thickness, style, and characteristics in the Default Properties window. Select Options, Default Properties, and choose the Line tab to enter these properties. Each line you create will have these properties, and you will not have to enter them in the Line Properties window. This is especially effective if you are using the Autocreate option.

- 1 To create a line, choose Insert, Line. After you position a horizontal line the Horizontal Line Properties window appears:



- 2 Type a name for the line in the Name field. This step is optional, but it lets you later reference the line for editing purposes. You can enter up to 32 alphanumeric characters. The name cannot contain semi-colons, backslashes, or quotation marks.

If you enter a name such as *Line*, the system automatically increments the line objects name to *Line #002*, *Line #003* when you copy and paste or duplicate the line object.

- 3 Change the placement and size of the line in the Position and Dimensions fields, if necessary.
- 4 Select the pattern in the Pattern field.
- 5 Click the Pre-printed option to tell the system *not* to print this object when you print the image.

NOTE: Using a preprinted flag on an object can be useful during forms creation or when test printing your forms. You may be using letterhead or special paper that has the company name or logo already embossed on the paper. Inserting a text label or logo on your form in the same location as the company name or logo helps to ensure that that space is not inadvertently written over by other objects. These objects would 'reserve' that space on the form. You may wish to include pre-printed objects when test printing the form to compare against your special paper to make sure that there is enough space on the special paper for the non pre-printed objects.

By default, the Print window does not display a Pre-printed option. Any objects flagged as Pre-printed will not print on the form.

- 6 Click Color to display the Color window. Click the color you want, and click Ok. You return to the line window.

NOTE: If you want the line to print on the form in the color you have selected, you must check the Print in Color field on the Color window. Click Solid or Dashed in the Line Characteristics field.

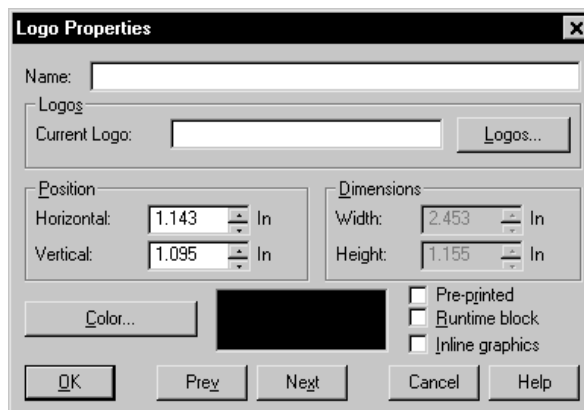
If you select Dashed, enter the dash length in the Dash Length field and the space between dashes in the Space Length field. Click Ok to save your entries and exit the window.

INSERTING A LOGO

The Logo option lets you place a graphic, logo, picture, or signature in your image. You can determine the logo or graphic format when you create the image. You insert graphics from a FAP bitmap file, which ends in an .LOG extension.

NOTE: If you use the same logo consistently, you can select a default logo in the Logo Default Properties window. Here, you can enter a default logo, or simply check the box for the Runtime Block or Inline Graphics fields. Select Options, Default Properties, and choose the Logo tab to enter these properties. Each logo you create will have these properties, and you will not have to enter them in the Logo Properties window.

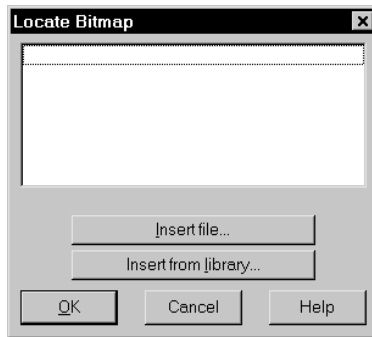
- 1 To create a logo, choose Insert, Logo. After you position your logo the Logo Properties window appears:



- 2 Enter a name for this logo if you like. Entering a name will help you locate this logo if you later use the View, Lists option. The name cannot contain semicolons, backslashes, or quotation marks. You can enter up to 32 alphanumeric characters.

NOTE: If you enter a name such as *Logo*, the system will automatically increment the Logo objects name to *Logo #002*, *Logo #003* when you copy and paste or duplicate the Logo object.

- 3 Click Logos to select the logo you want to insert. The Locate Bitmap window appears. If you have set up a default logo, that logo appears in the Logo list. Otherwise, click Insert file to select a logo file to insert, or click Insert from Library to insert a logo from the current library.



- 4 Use the Position and Dimensions fields to adjust the placement of the logo.
- 5 Click Color to select a different color for the logo.

NOTE: If you want the logo to print on the form in the color you have selected, you must check the Print in Color field on the Color window.

- 6 Click the Pre-printed option to tell the system *not* to print this object when you print the image.

NOTE: Using a preprinted flag can be helpful during forms creation or when test printing forms. You may be using letterhead or special paper that has a logo already embossed on the paper. Inserting a text label or logo on your form in the same location as the company name or logo helps you make sure the space is not covered by other objects. These objects reserve that space on the form. You may want to include pre-printed objects when you test print the form to compare against your special paper. This lets you make sure there is enough space on the special paper for the non pre-printed objects.

By default, the Print window does not display a Pre-printed option. Any objects flagged with Pre-printed do not print on the form.

- 7 Check the Runtime Block field to prevent the logo from being merged with the image when the form is processed by the Rules Processor. By blocking the logo, you can prevent someone from cutting the logo from the form and pasting it into another document. If your forms include signatures for approvals, you may need to use this feature.
- 8 Check the Inline Graphics field to prevent the logo from being downloaded to the printer. With it checked, you can only print the logo through print screen selection. If the form includes signatures for approval, you may need to use this feature.
- 9 Click Ok when you finish.

Checking for Empty Logos

When a file is opened, the Image Editor scans for empty logos. If an empty logo is found, the logo is selected and the bitmap window is displayed to prompt for current logo information. The logo name is an optional name assigned to the logo.

INSERTING A NOTE

Notes are text or comments attached to your image. The image creator or user can attach notes to objects or to the image in general. Notes generally provide additional information during the image creation.

Two types of notes are available. A memo style note has a particular recipient as a reader. A sticky pad note is usually general information similar to paper clipping or attaching a sticky note to the image.

NOTE: If you are inserting several notes with the same basic properties, you can simplify the task by entering the information for the note including memo or sticky pad, and who the note is from in the Default Properties window. Select Options, Default Properties, and choose the Note tab to enter these properties. Each note you create will have these properties, and you will not have to enter them in the Note Properties window.

- 1 To create a note, choose Insert, Note.

- 2 In the Style field, select either Sticky Pad or Memo. If you select sticky pad, the date, to, from and subject will be grayed out.
- 3 Type or select the horizontal and vertical position in the Position field.

NOTE: The note's current position displays on window. Do not change these coordinates unless you want to reposition the note.

- 4 If you choose a Memo-style note, type the date in the Date field. Today's date defaults.
- 5 If you choose a Memo-style note, type the name of the recipient in the To field.

- 6 Type the name of the sender in the From field. The system defaults the logon name in this field. You may modify this as needed. The field is only available if you selected Memo in the Style field.
- 7 Type the subject of the note in the Subject field. This field is only available if you selected Memo in the Style field.
- 8 Type the text of the note. Click Ok. The note is placed in the image.

USING NOTES AS FORM HELP

You can use sticky notes to provide information about a field on a form. You simply add the note to the image and position it next to the field.

In Entry or when using the Data Entry Check option in the Image Editor, when you position your cursor over the sticky note icon, the system displays the contents of the note in a tooltip-style window. When you move the cursor again, the note disappears.

To enable this option in the Entry module, add the ShowNotes option to your FSISYS.INI file:

```
< Control >
    ShowNotes = Yes
```

The default is No.

In Documaker Workstation, you can turn on or off the display of notes from a menu. To add this option to your menu, add the Show Notes line to your MEN.RES file:

```
...
MENUITEM "Show &Notes" 1086 "NULL" "NULL"
...
```

1086 is the reserved menu ID for the Show Notes option. The menu option is automatically available when you use the Data Entry Check option in the Image Editor.

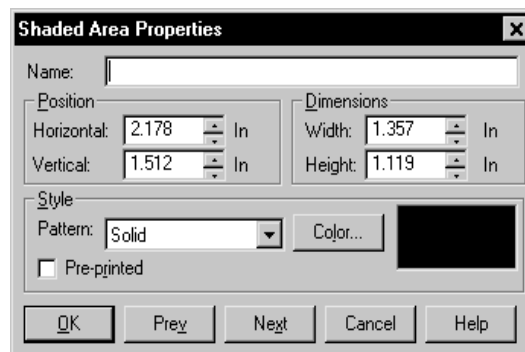
NOTE: You cannot embed note objects within text area objects for use with paragraph assembly. TERSUB only imports information stored in the first text area in the image. Objects defined outside the text area are ignored.

INSERTING A SHADED AREA

A shaded area lets you segment or emphasize image sections. Several patterns and halftones are available. Patterns include horizontal, vertical, diagonal and hatch; halftones range from very dark to very light. You control the color and dimensions of the shaded area.

NOTE: If you are inserting several shaded areas with the same basic properties, you can simplify the task by entering the information for the shaded area pattern in the Default Properties window. Select Options, Default Properties, and then choose the Shaded Area tab to enter the pattern for all the shaded areas you create. Each shaded area you create will have these properties, and you will not have to enter them in the Shaded Area Properties window. This is especially effective if you are using the Autocreate option.

- 1 To create a shaded area, choose Insert, Shaded Area.
- 2 After you position your shaded area the Shaded Area Properties window appears:



- 3 Type the name of the shaded area in the Name field. Assign a unique name to facilitate future reference to the shaded area for editing or other purposes. You can enter up to 32 characters. You cannot include semicolons, backslashes, or quotation marks in the name.

NOTE: If you enter a name such as *Shaded Area*, the system will automatically increment the Shaded Area objects name to *Shaded Area #002*, *Shaded Area #003* when you copy and paste or duplicate the Shaded Area object.

- 4 Type or select the horizontal and vertical position in the Position field if you need to change the position of the shaded area.
- 5 Type or select the width and height dimensions in the Dimensions field if you need to change these settings.
- 6 Click the down arrow to select the pattern in the Pattern field. You can choose from a variety of patterns. Patterns include horizontal, vertical, diagonal and hatch lines. Patterns also include varying degrees of shading from light to dark.
- 7 Click Color to display the Color window. Click the color, and click Ok. Image Editor returns you to the Shaded Area window.

NOTE: If you want the shaded area to print on the form in the color you have selected, you must check the Print in Color field on the Color window.

- 8 Click the Pre-printed option to tell the system *not* to print this object when you print the image.

NOTE: Using a preprinted flag on an object can be useful during forms creation or when test printing your forms. You may be using letterhead or special paper that has the company name or logo already embossed on the paper. Inserting a text label or logo on your form in the same location as the company name or logo helps make sure space is not inadvertently overwritten by other objects.

These objects would reserve that space on the form. You may wish to include pre-printed objects when test printing the form to compare against your special paper to make sure that there is enough space on the special paper for the non pre-printed objects.

By default, the Print window does not display a Pre-printed option. Any objects flagged as Pre-printed will not print on the form.

- 9 Click Ok.

INSERTING A TEXT AREA

A text area gives you the mechanism for entering several lines of text without having to create multiple text labels for each line. You can also apply paragraph settings, including spacing and tab stops, that are not available with text labels. Additionally, you can use different fonts within the text area; a text label can only use one font.

A text area accommodates any amount of text. You may prefer to use text labels when you have a minimum of text to enter. For example, using a text label to put a title on a form makes more sense than creating a text area for that same title.

There are two ways to create a text area. You can either create the text area by selecting Insert, Text Area or by selecting Insert, Text Area Special. The first method involves creating the text area and then typing the desired text. The second method involves importing an ASCII or FAP II file. Refer to [Using the Text Area Special Option on page 265](#) for additional information on the Text Area Special feature.

The Insert, Text Area option lets you create an area for text entry. You can use options such as word-wrap, spell check, bold, italics and underlining. You determine the text area type based on the source of the text. You can select either static or dynamic text area types.

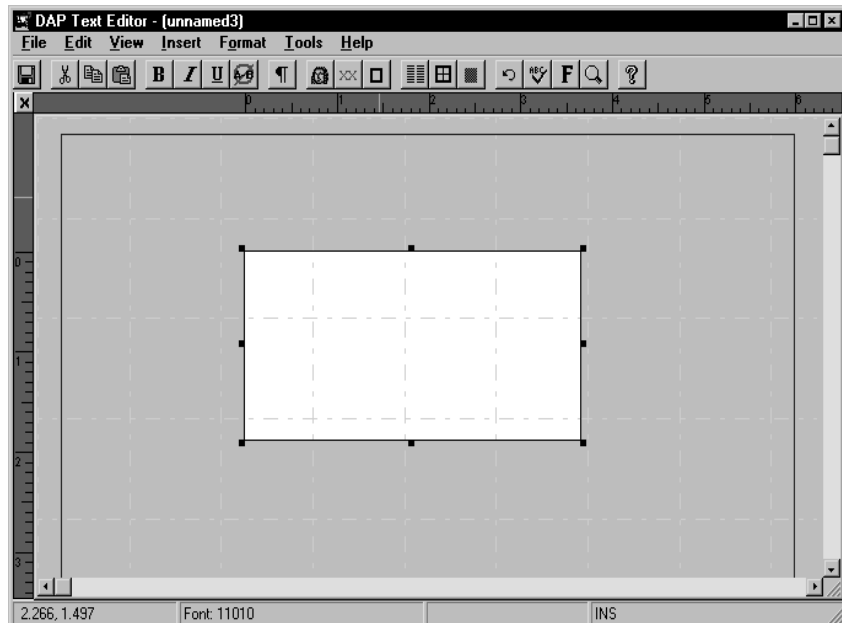
A static text area's value, type, and attributes are set up when you create the image and do not change. Static text areas become fixed objects associated with the document image.

For a dynamic text area, create a variable field with the type of multi-line text. You can select Shrink and Grow and Can Span Pages on the Attributes tab of the Field Properties window. An end user of the image enters data in the multi-line text field during form entry. In addition, the end user can use the paragraph assembly feature for multi-line text fields. With paragraph assembly, the user chooses from previously written paragraphs, inserts the paragraphs in the multi-line field. See [Using the Paragraph Assembly Option on page 250](#) for more information. The text area also accepts data merged from an external database at runtime, or at the time the Rules Processor processes the form.

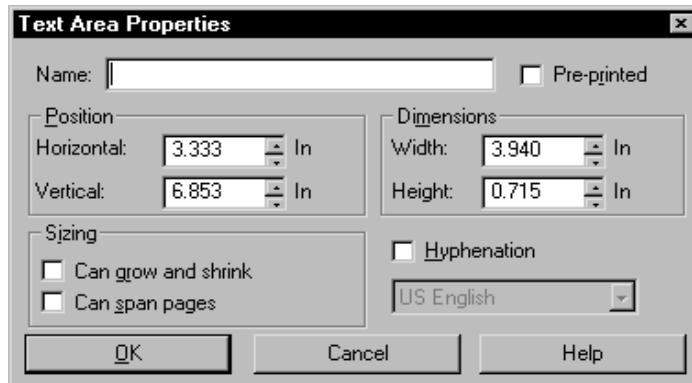
NOTE: If you are inserting text areas with the same basic properties, you can simplify the task by entering the information for the text area font, tab stops, spacing, and attributes for whether the area can shrink and grow and span pages in the Default Properties window. Select Options, Default Properties, and then choose the Text Area tab to enter these properties. Each text area you create will have these properties, and you will not have to enter them in the Text Area Properties window. This is especially effective if you are using the Autocreate option.

Creating a Text Area

- 1 To create a text area, choose Insert, Text Area. After you position your text area, the Text Editor window appears:



- 2 Select File, Properties to display the Text Area Properties window:



- 3 Type the name for the text area in the Name field. Assign a unique name to facilitate future reference to the text area for editing or other purposes. You can enter up to 32 characters. This is a required field if you select the Can span pages option. You cannot include semicolons, backslashes, or quotation marks in the name.
- 4 Type or select the horizontal and vertical position in the Position field.
- 5 Type or select the width and height dimensions in the Dimensions field.
- 6 Check the Can Grow and Shrink field if you want the text area's size to increase and decrease as you enter or remove text.
- 7 Check the Can Span Pages field if you want the text area to extend from one page to the next.

- 8 Check the Hyphenation field if you want the system to hyphenate words split by the end of the text line. Checking the Hyphenation field activates the Language/Locale field below it.

NOTE: If you create a text area that spans multiple pages, select ALT+PAGEUP or ALT+PAGEDOWN to move from page to page.

- 9 Click the Pre-printed option to tell the system *not* to print this object when you print the image.

NOTE: Using a preprinted flag on an object can be useful during forms creation or when test printing your forms. You may be using letterhead or special paper that has the company name or logo already embossed on the paper. Inserting a text label or logo on your form in the same location as the company name or logo helps to make sure the space is not inadvertently written over by other objects. These objects would reserve that space on the form. You may wish to include pre-printed objects when test printing the form to compare against your special paper to make sure that there is enough space on the special paper for the non pre-printed objects.

By default, the Print window does not display a Pre-printed option. Any objects flagged as Pre-printed will not print on the form.

- 10 Click Ok. You return to the Text Editor window. Type the text in the text area. For a detailed explanation of the text editor menus, see [Adding Text on page 259](#). Choose File, Exit to close the Text Editor window and return to Image Editor.

INSERTING A TEXT LABEL

A text label is a short block of text in your image. Create a text label object when you want to write and place a minimal amount of text such as field labels or section headings. Text Label accommodates a maximum of one line of text. You should use a text area object if you need to position a longer amount of text and apply word processing features to your text.

NOTE: If you are inserting several text labels with the same basic properties, you can simplify the task by entering the information for the text label font, rotation, underline, and strike-out in the Default Properties window. Select Options, Default Properties, and choose the Text Label tab to enter these properties.

Each text label you create will have these properties, and you will not have to enter them in the Text Label Properties window. This is especially effective if you are using the Autocreate option.

To create a text label, choose Insert, Text Label. After you position your text label the Text Label Properties window appears:

- 1 Type a name for the text label in the Name field. Assign a unique name to facilitate future reference to the text label for editing or other purposes. You can enter up to 32 characters. You cannot include semicolons, backslashes, or quotation marks in the name.

NOTE: If you enter a name such as *Text Label*, the system will automatically increment the Text Label objects name to *Text Label #002*, *Text Label #003* when you copy and paste or duplicate the Text Label object.

- 2 Type the text in the Text field.

NOTE: If you do not enter text, the system displays *Blank Text Label* in the image to show the location of the text label. The special characters that you use depend on the available code page. For example, ALT+0128 inserts Ç from French code page 863. When you close the window, the special characters appear in the image.

- 3 Click Fonts to display the Select Font window. Click the font and click Ok. Image Editor returns you to the text label window. For more information on the Select Font window, see [Assigning Fonts on page 255](#).
- 4 Type or select the horizontal and vertical position in the Position field.
- 5 Verify the width and height dimensions in the Dimensions field. The width is controlled by the font used. The width is 0.00 when you 1st insert a text label.
- 6 Click Rotation to alter the orientation of the text label. Choose from these rotation options:
 - Normal (zero degrees)
 - Downward (90 degrees)
 - Upside down (180 degrees)
 - Upward (270 degrees)
- 7 Click Underline and Strike-Out to add those features to your text label. You can use underline for emphasis and strikeout for editing purposes.
- 8 Click the Pre-printed option to tell the system *not* to print this object when you print the image.

NOTE: Using a preprinted flag on an object can be useful during forms creation or when test printing your forms. You may be using letterhead or special paper that has the company name or logo already embossed on the paper. Inserting a text label or logo on your form in the same location as the company name or logo helps to make sure the space is not inadvertently written over by other objects. These objects would reserve that space on the form. You may wish to include pre-printed objects when test printing the form to compare against your special paper to make sure that there is enough space on the special paper for the non pre-printed objects.

By default, the Print window does not display a Pre-printed option. Any objects flagged as Pre-printed will not print on the form.

- 9 Click Color to display the Color window. Click the color and click Ok. You return to the Text Label window. See [Choosing Color on page 254](#) for more information on the Color window.

NOTE: If you want the text label to print on the form in the color you have selected, you must check the Print in Color field on the Color window.

- 10 Click Create New Label if you want to position a new label directly below the one you have just created. This option lets you easily position another text label on the image. Click Ok to close the Text Label Properties window.

INSERTING A VARIABLE FIELD

A variable field is one of the most important objects in an image. A variable field is a blank field in your image in which you, or the image's end user, enter data. The variable data is manually entered during the entry stage, or it is merged during runtime.

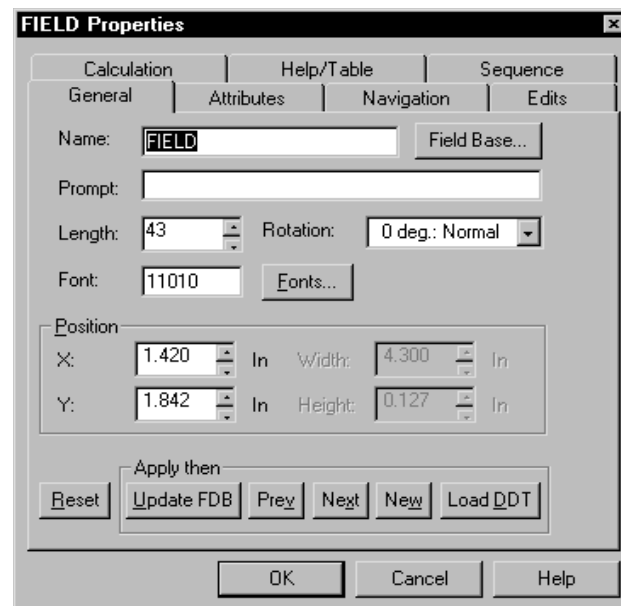
You can create several different types of variable fields. Each accepts a different type of data. You can also use a paragraph assembly feature with a multi-line text variable field. When you assign the paragraph assembly function to a variable field, the end user selects pre-written, standardized paragraphs for the field.

You create the paragraphs as separate images. Each separate image becomes a selection or entry in a table. Paragraph assembly is a time-saving feature if the end user frequently uses standard paragraphs or text. (See [Adding Tables on page 295](#) and [Using the Paragraph Assembly Option on page 250](#), for more information.)

After you create and position a variable field, the system displays the Field Properties window. Field is the default name assigned to the first variable field created on a form. From this property window you assign attributes to the variable field.

NOTE: If you are inserting several variable fields with the same basic properties, you can simplify the task by entering the information for the variable field type, format, scope, font, and rotation in the Default Properties window. Select Options, Default Properties, and choose the Field tab to enter these properties. Each variable field you create will have these properties, and you will not have to enter them in the Field Properties window. This is especially effective if you are using the Autocreate option.

To create a variable field, choose Insert, Variable Field. After you position your variable field, the Field Properties window appears:



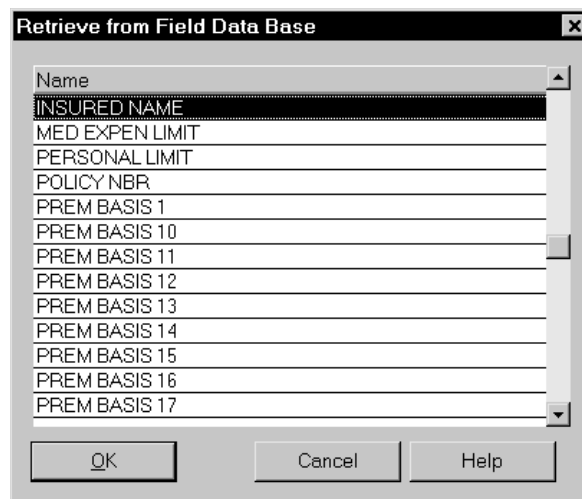
ENTERING INFORMATION ON THE GENERAL TAB

The General tab records basic information about the variable field such as field name, dimensions, and position. The following table lists the General tab field names and indicates which fields must have values entered.

Field	The value is
Name	Required
Prompt	Optional
Length	Required;o is for multi-line variable fields
Rotation	Required
Font	Required
X	Required
Y	Required

To complete the General tab:

- 1 Enter the name of the variable field in the Name field. You cannot include semicolons (;), backslashes (\), or quotation marks (") in the name. You can enter up to 64 alphanumeric characters.
- 2 If you want to import a field from the Field Database List, click the Field Base button to display the Retrieve from Field Data Base window. This window contains a list of commonly-used variable fields.



- 3 Select a variable field in the list to use the attributes of that variable field and then click Ok. All of the attributes of the selected field are imported to your current image.

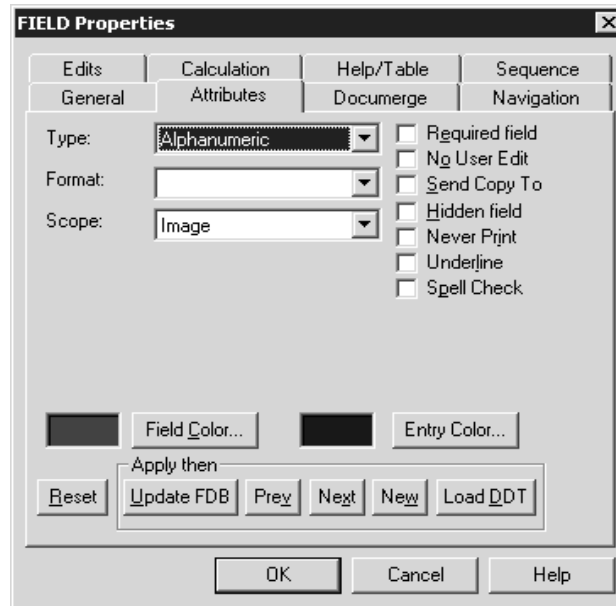
- 4 Type or select the X and Y positions in the Position field. The variable field's current position displays on the window. Do not change these coordinates unless you want to move the variable field.
- 5 Accept the default width and height dimensions in the Dimensions field. The width and height fields are grayed out for all variable field types except multi-line text. You can change the dimensions only for variable fields designated multi-line text fields. These settings are on the General tab.
- 6 Enter the length of the field in the Field Length field. The system automatically calculates the field length based on the size of the area drawn for the variable field; however, you can enter a different length if necessary.
- 7 Select the rotation degree in the Rotation field. You can rotate your variable field clockwise in 90 degree increments. Rotation options include:

Select	And the text reads
0 deg normal	Left to right horizontally
90 deg downward	Top to bottom vertically
180 deg upside down	Right to left horizontally (upside down)
270 deg upward	Bottom to top vertically

- 8 Click Fonts to display the Select Font window. Select the font you want to use and click Ok. See [Assigning Fonts on page 255](#) for more information about this window.
- 9 Type the prompt in the Prompt field. A prompt informs or prompts the user during the entry stage. For example, you could enter *Type applicant's last name* in this field. Prompts are optional.
- 10 To update the common field database with these settings, click Update FDB. If the field already exists in the common field database, the system displays a prompt stating that the name xxx already exists and asking if you want to update this record with the newly supplied data. Click Yes to replace the existing data with the new information. If the record does not already exist in the common field database, the system notifies you that the field database has been updated.
- 11 Use the Load DDT button to add rules to the variable field. For information on adding rules to a variable field, see [Adding Rules on page 374](#).
- 12 Next, click the Attributes tab to enter the variable field attributes.

ENTERING INFORMATION ON THE ATTRIBUTES TAB

Use the Attributes tab to select the variable field type and classify data entry into this field as mandatory or optional. You can also assign color to your variable field from this tab.



- 1 Specify the type of variable field you are adding in the Type field. You will see the Attributes window change for some of the available variable field types. For example, if you select Date in the Type field, you will need to enter a date format in fields that appear on this tab. This table shows your field type options:

Field Type	Description
Custom	Accepts data based on field type. A systems integrator customizes the Field type.
Alphanumeric	Accepts a combination of alphabetic letters and numbers including International characters.
Int'l Alphanumeric	Accepts a combination of alphabetic letters and numbers.
Alphabetic	Accepts only alphabetic letters
Int'l Alphabetic	Accepts alphabetic letters including International characters.
Uppercase Alphanumeric	Accepts a combination of alphabetic letters and numbers (defaults text to all upper case).
Int'l Uppercase Alphanumeric	Accepts a combination of alphabetic letters and numbers (defaults to all upper case) including International characters.
Uppercase Alphabetic	Accepts only upper or lower case letters (defaults text to all upper case).
Int'l Uppercase Alphabetic	Accepts only upper or lower case International letters (defaults text to all upper case) including International characters.
Numeric	Accepts only numbers.

Field Type	Description
(Y)es or (N)o	Accepts (Y) for Yes or (N) for No.
X or space	Accepts an X or blank space.
Date format	Accepts dates in the format indicated. The lowest valid year is 1800 and the highest valid year is 3000.
Table only	Accepts only table selections. You cannot enter data.
Multi-line text	Accepts multiple lines of text entered by the end user. Accepts pre-written paragraphs selected from a table, if the paragraph assembly function is active. Word processing may be applied to both text types.
Bar code	Displays bar coded information.
Time Formats	Accepts times in the specified formats.

Four variable field types (numeric, date, bar code and time) have specific formats associated with them. If you selected one of these types, you must enter the additional information in the fields that display. Shown below are tables for each of these formats, and descriptions of the valid entries you can choose from.

NOTE: If you later change a variable field's type, remember to make any necessary changes in the Format field.

Numeric Format	Input	Output
Use a nine (9) to accept any number (0-9) in the specified position of the field.		
Examples: 999999	123	000123
999999	12345	012345
Use a comma (,) to automatically insert a comma in the specified position(s) of the field.		
Examples: 99,999	12345	12,345
99,999	123456	Not accepted - invalid entry because the input value is too large. In this example, you can only enter 5 numbers.

Use a decimal point (.) to accept only a decimal point in the specified position.

Numeric Format	Input	Output
Examples: 9,999.99	1234.56	1,234.56
9,999.99	1.23456	0,001.23
9,999.99	12345	Not accepted - invalid entry

Use a z to automatically suppress leading zeros in the specified position(s) of the field.

Examples: zz,zzz.zz	1234.5	1234.5
z,zzz.99	1	1.00

Use a \$ to automatically insert a dollar sign in the specified position of the field. The dollar sign may be used in a drifting manner or dollar fill. A single dollar sign specifies that a currency symbol will always appear in the rightmost position before the first non-zero number. A dollar fill is specified by 2 dollar signs in the field format. A dollar fill specifies that leading zeros will be suppressed and replaced by the \$ symbol.

Examples: \$9,999.99	1.23	\$0,001.23
\$z,zzz.99	1.23	\$1.23
\$\$zzz.99	1.23	\$\$\$1.23
\$\$zzz.99	123	\$123.00
\$\$999.99	123	\$123.00

Date formats are listed in the table below:

Format	Description
MM/DD/YY	Month-Day-Year with leading zeros (02/17/2007)
DD/MM/YY	Day-Month-Year with leading zeros (17/02/2007)
YY/MM/DD	Year-Month-Day with leading zeros (2007/02/17)
Month D, Yr	Month name-Day-Year with no leading zeros (February 17, 2007)
bM/bD/YY	Month-Day-Year with spaces instead of leading zeros (2/17/2007)
D/M/YY	Day-Month-Year with no leading zeros (17/2/2007)

Format	Description
YY/M/D	Year-Month-Day with no leading zeros (2007/2/17)
M/D/YY	Month-Day-Year with no leading zeros (2/17/2007)
bD/bM/YY	Day-Month-Year with spaces instead of leading zeros (17/ 2/2007)
YY/bM/bD	Year-Month-Day with spaces instead of leading zeros (2007/ 2/17)
MMDDYY	Month-Day-Year with no separators (02172007)
DDMMYY	Day-Month-Year with no separators (17022007)
YYMMDD	Year-Month-Day with no separators (20070217)
MonDDYY	Month abbreviation-Day-Year with leading zeros (Feb172007)
DDMonYY	Day-Month abbreviation-Year with leading zeros (17Feb2007)
YYMonDD	Year-Month abbreviation-Day with leading zeros (2007Feb17)
day/YY	Day of year (counting consecutively from January 1)-Year (48/2007)
YY/day	Year-Day of Year (counting consecutively from January 1—often called the Julian date format) (2007/48)
D Month, Yr	Day-Month name-Year (17 February, 2007)
Yr, Month D	Year-Month name-Day (2007, February 17)
Mon-DD-YYYY	Month abbreviation, Day with leading zeros, Year
DD-Mon-YYYY	Day with leading zeros, Month abbreviation, Year
YYYYY-Mon-DD	Year, Month abbreviation, Day with leading zeros

Bar code formats

Bar code formats are shown in the following table:

Bar Code Formats

Code 39 1:1:3:3
Code 39 1:1:2:2
Code 39 1:2:4:5
Code 39 3:1 Mod 43 Check Digit
Code 93
Code 128 Start Code A

Bar Code Formats

Code 128 Start Code B
Code 128 Start Code C
Code 128 Automatic Add-On
Codabar Standard
Codabar Compressed
EAN-8 Digit
EAN-13 Digit
Interleaved 2 of 5 1:1:3:3
Interleaved 2 of 5 Mod 10
UPC-A 1:2:3:4 11 Digit
UPC-E0 Zero Suppress 10 Digit
UPC-E0 6 Digit
UPC-E1 6 Digit
UPC 2 Digit Add-On
UPC 5-Digit Add-On
MSI no Check Digit
MSI Mod 10 Check Digits
MSI Mod 10/10 Check Digits
MSI Mod 11/10 Check Digits
Planet
ZIP code

Time formats

Time formats are shown in the following table:

Time Formats

HH:MM:SS
HH:MM:SS XM
HH:MM
HH:MM XM

- 2 Enter the scope of the variable field. The scope controls the distribution or propagation of data to variable fields with the same name.

Field Scope	Description
Image	Writes data only to the variable field within a single image.
Form	Writes data to all identically named variable fields in all images in a form.
Global	Writes data to all identically named variable fields in all images and forms in a form set.

- 3 Check any or all of the following options:

Select	If
Required Field	The entry operator must complete this field during entry. You must also add the following option to the operator's FSISYS.INI file: <pre>< Control > RequiredFields = Yes</pre>
No User Edit	The field should only display data. The entry operator cannot enter data.
Send Copy To	The recipient's name is to be printed when the image is printed from Documaker Workstation.
Hidden Field	The field itself does not display entered data in the Entry module. In the Image Editor, you will see a single <i>H</i> in the field. The system prompts entry operators to enter data in the hidden field. The data propagates to other fields with identical names, depending on their scope.
Never Print	The system displays data but does not print it.
Underline	You want the system to underline the data the entry operator enters.
Spell Check	Select this option to have the system automatically spell check a variable field when the entry operator finishes entering data and tabs to the next field. If this option is inactive for a variable field, spell checking will not work during entry unless the entry operator has had a spell check menu option added to their menu. Information on adding a spell check menu option to Documaker Workstation is found in the Documaker Workstation Supervisor's Guide .

- 4 If you selected Date in the Type field, make the following selections.

Select	To
Separator	Choose the separator between the day, month and year within the date. Available separators include forward slashes (10/10/99), dashes (10-10-99), periods (10.10.99), commas (10,10,99) and spaces (10 10 99).
Year Size	Choose the length of the year. Available year sizes are: Default - the variable field will accept either a two-digit or a four-digit entry 2 - the variable field accepts a four-digit entry and converts it into a two-digit year 4 - the variable field accepts a two-digit entry and converts it into a four-digit year 2-exact - the variable field only accepts a two-digit year 4-exact - the variable field only accepts a four-digit year

NOTE: The date separator field is deactivated when it is not applicable for a selected date format. Any date format in the selection list that doesn't have punctuation, such as MMDDYY or DDMMYY, will gray out the separator field. Date formats with punctuation will not gray out the separator field.

- 5 If you selected Multi-line Text in the Type field, make the following selections.

Select	To
Can Grow	Allow the multi-line text field to expand as text is entered.
Can Span	Allow the multi-line text field to extend from one page to the next.
Tab Stops	Select the length of tab stops in the multi-line text field. Default tab stops cannot exceed text area width defined during the initial setup.
Paragraph	Display the Paragraph window where you can set indentation, justification, line spacing, hyphenation, and language for the multi-line text field.

Specifying localities

For variable field types of Date, Numeric and (Y)es or (N)o you can also specify a locality. The locale includes the country and language. Based on your locale selection, the system will then format the entered data.

For date fields, the system will translate the month to the specified locale language. For example, an input of 1/1/2007 using a format of *Month D, Yr* and a locale of French\Canada will result in *janvier 1, 2007*. You can choose from these locales:

Language	Country
Neutral	
Danish	Denmark
Dutch	Belgium
Dutch	Netherlands
English	Australia
English	Canada
English	Ireland
English	New Zealand
English	South Africa
English	United Kingdom
English	United States
Finnish	Finland
French	Belgium
French	Canada
French	France
French	Luxembourg
French	Switzerland
German	Austria
German	Germany
German	Liechtenstein
German	Luxembourg
German	Switzerland
Icelandic	Iceland
Indonesian	Indonesia
Italian	Italy
Italian	Switzerland
Norwegian	Norway
Portuguese	Brazil

Language	Country
Portuguese	Portugal
Spanish	Argentina
Spanish	Bolivia
Spanish	Chile
Spanish	Columbia
Spanish	Ecuador
Spanish	Guatemala
Spanish	Mexico
Spanish	Panama
Spanish	Paraguay
Spanish	Peru
Spanish	Spain
Spanish	Uruguay
Spanish	Venezuela
Swedish	Finland
Swedish	Sweden

- 6 If you selected bar code in the Type field, select the scale factor in the Scale Factor field. For an explanation of the scale factor, see [Inserting a Bar Code on page 188](#).
- 7 Click Field Color to change the current variable field's color. Click the color in the Color Selection window and click Ok. You return to the Attributes tab. For an explanation of the Color Selection window, see [Choosing Color on page 254](#).
- 8 Click Entry Color to change the color of all variable fields during entry and Data Entry Check. After the Color Selection window appears, click the color. Then click Ok. You return to the Attributes tab.
- 9 Click the Navigation tab to enter the variable field navigation properties.

ENTERING INFORMATION ON THE NAVIGATION TAB

Use the Navigation tab to control the order in which data is entered in variable fields. You can vary a navigation sequence based on whether a variable field contains data (If not blank go to) or whether the field contains no data (If blank go to).

From the Navigation tab you also designate a field as the beginning field in an image section. Create different image sections if you want to group logical units of information. Sections provide the user a quick way to move around in the image during data entry. For example, in a homeowner's policy you might create a section for the home description and a separate section for the policy limits.

To set up field navigation, click the Navigation tab.

1 Select the navigation options:

Option:	Action:
If Blank Go To:	Cursor moves to the selected entry field if this field is blank. If you leave the field blank the navigation sequence moves to the next sequential field.
If Not Blank Go To:	Cursor moves to the selected entry field if the field contains data. If you leave this field blank the navigation sequence moves to the next sequential field.

- 2** Click the Begin Section field if you want the field to begin an image section.
- 3** Type the section description in the Description field. Section descriptions are displayed during data entry.
- 4** Click Update FDB. The system applies your navigation entries to the variable field. Next, click the Edits tab to enter any edits for the variable field.

ENTERING INFORMATION ON THE EDITS TAB

By assigning edit functions to a variable field, you can have the system execute specific functions before (pre-edit) or after (post-edit) an entry operator enters data into the field, exits the field, or both.

Pre-Edit functions

When you assign a pre-edit function to a variable field, the system executes that function before the entry operator enters information in the field. For example, you can assign a pre-edit procedure that inserts default information into the field.

The system includes procedures for handling custom fields, executing DAL scripts, or using paragraph assembly. The paragraph assembly function for multi-line text lets entry operators choose standard, pre-written paragraphs from a table. After the user selects a paragraph, he or she can then change the text as necessary. Each paragraph is a separate image and each image is shown as a table entry. To have the system call a DAL script, you choose a different function.

Post-Edit functions

The system applies post-edit functions after the entry operator finishes entering data in the field. For example, you might assign a post-edit procedure that tells the system to create a cover letter using the name and address entered into the variable field.

You enter pre- and post-edit functions from the Edits tab.

The screenshot shows the 'FIELD #003 Properties' dialog box with the 'Edits' tab selected. The dialog has a title bar with a close button. Below the title bar are four tabs: 'Calculation', 'Help/Table', 'Sequence', and 'Edits'. The 'Edits' tab is active, showing two sections: 'Pre-Edit' and 'Post-Edit'. Each section contains three fields: 'Module:' (a dropdown menu), 'Procedure:' (a dropdown menu), and 'Data:' (a text input field). At the bottom of the dialog, there is a group box labeled 'Apply then' containing buttons for 'Reset', 'Update FDB', 'Prev', 'Next', 'New', and 'Load DDT'. At the very bottom are 'OK', 'Cancel', and 'Help' buttons.

Entering Pre-Edit Procedures

- 1 Select the module in the Module field. The module is the name of the DLL which contains the pre-edit procedure. For Pre-Edit modules:

Select	To...
CSTW32	Fill a blank variable field with a character you specify. Also select this module to have the entry system open Microsoft Word for data entry in Documaker Workstation. See CSTRunWord on page 232 for more information on using this pre-edit function.
DALW32	Have the system run a DAL script.
TERSW32	Use paragraph assembly. Paragraph assembly is available only for multi-line text variable fields.

- 2 Select the procedure name in the Procedure field. For pre-edit procedures:

Select	To...
CSTFillField	Fill a blank variable field with a character you specify. See CSTFillField on page 234 for information on using this procedure.
CSTRunWord	Have the entry system open Microsoft Word for data entry. See the following topic, CSTRunWord, for a detailed explanation of this pre-edit procedure.
DALExecMsgScript	Have the system execute a DAL script.
TerSubstitute	Use paragraph assembly. Paragraph assembly is available only for multi-line text variable fields. See Additional Paragraph Assembly (TerSub) Options on page 236 for more information on this procedure.

- 3 Enter any data required to run the procedure in the Data field. Separate DAL script statements with semicolons (;).

NOTE: If the text of the script will not fit in the field, create the script as an external text file and then use *CALL* or *CHAIN* to tell the system to run your script. For more information, see the [DAL Reference](#).

- 4 Click Ok.

CSTRunWord

Use this procedure to have the entry system open Microsoft Word for data entry in the variable field. The field cannot be a multi-line text or a bar code field. You may want to hide this field since it will not contain any information. Click Hidden field on the Attributes tab of the Properties window to hide the field.

If the field remains visible, keep in mind that its position on the page may move relative to the document information that is imported back from Word and that the text contained in the field is not imported into Word.

NOTE: Images declared on the form that are not headers or footers and not the image which contains the Pre-Edit field, are lost the first time Word is used.

On the field's Edits tab, enter the following as a Pre-Edit:

In this field	Enter
Module	CSTW32
Function	CSTRunWord

The form which contains the field with the Pre-Edit does not have to be blank. You can have as many fields on this form as you want. These fields would typically be global scope fields that are filled in from somewhere else in the form set. The data in these fields is imported into Word when the user begins editing; however, the field definitions are lost when the user imports the changed document back into the form set.

This means you can pass information already entered on the form set, like name, address, city, account numbers, and descriptions, to Word and then work with this information in Word. Just remember that when the user returns from Word, all of the objects on the original form (not just the image) will be gone *except* for the field that starts Word and any header or footer Images declared on the form.

The data which was contained in these removed objects before Word started still appears unless the user deleted that data while in Word. After the user closes Word and imports the document back into the form set, those objects will no longer exist. So, the only way to change that data is by editing it in Word again.

NOTE: There are a few ways to customize what happens. For more information, see the online API technical documentation (www.skywiresoftware.com\doss) for CSTRunWord in CSTLIB.

Entering Post-Edit Procedures

- 1 Select the module in the Module field. The module is the name of the DLL where the post-edit procedure resides. For post-edit modules:

Select	To...
CSTW32	Fill a blank variable field with a character you specify.
DALW32	Have the system run a DAL script.
TERSW32	Use paragraph assembly. Paragraph assembly is available only for multi-line text variable fields.

- 2 Select the procedure name in the Procedure field. For post-edit procedures:

Select...	To...
DAExecMsgScript	Have the system run a DAL script.
CSTFillField	Fill a blank variable field with a character you specify. See CSTFillField on page 234 for more information on this procedure.
CSTParseJustify	Control the justification of variable fields in the entry system. See CSTParseJustify on page 235 for more information on this procedure.
TerPropagate	Propagate data between multi-line text variable fields that are named the same. See TerPropagate on page 235 for more information on this procedure.

- 3 Enter any data required to run the procedure in the Data field. Separate DAL script statements with semicolons (;).
- 4 Click Ok.

CSTFillField

Use the CSTFillField procedure to fill a blank variable field with a character you specify. This procedure works in either or both pre-edit and post-edit modes. To use this procedure, make the following entries on the Edits tab of the field's Properties window in the Image Editor:

Enter	In this field
CSTW32	Module field
CSTFillField	Procedure field
Num;Char	Data field

Where *Num* is equal to the number of instances of the fill character and *Char* is equal to the fill character. If you omit *Num*, the system uses the full field length. If you omit *Char*, the system uses an underline character.

As a pre-edit procedure, this function checks to see if the entry field matches the data specification from the post-edit. If it does, the system clears the field so the user can begin a clean entry. The entry length is then set to the value in the pre-edit data field of the Edits tab. If the fill data is longer than the field length, the pre-edit data must contain the field length to reset it from the longer fill data. For example, if the field length is 10 and you want 20 Xs, the data would be:

```
Pre-edit data: 10
Post-edit data: 20;X
```

When used as a post-edit procedure, this procedure checks the entry field to see if it is empty. If it is, the system fills the field with *Num* instances of the *Char*. For example, *20;_* tells the system to insert 20 underline characters in the field and *10;X* tells it to insert 10 Xs. If the fill data is longer than the field length, the post-edit data must contain the field length (*Num*) to increase the variable field's length.

CSTParseJustify

This function's effects can be seen in either Data Entry Check (Image Editor) or the Entry system.

CSTParseJustify is set up in the Edits tab of the Properties window. The module is CSTW32, the procedure is CSTParseJustify. The data can contain up to three parameters. The data is comma delimited, meaning that you will need to put a comma between each parameter should you specify more than one parameter.

Parameter	Description
Justification mode	The first parameter specifies the Justification mode. Justification mode tells the system how you want to align or justify the data in the variable field. Valid settings for the Justification mode are: L = left, R = right, and C = center. To align a column of numbers, use R (right).
X coordinate	This parameter positions the data. Enter this parameter in FAP units (2400 FAP units equal one inch). If no X coordinate is given, the system uses a default value of 0 (zero). The default assumes the left field coordinate (of the variable field itself) if your justification mode is left; the right field coordinate (of the variable field) is used if the justification mode is right and the midpoint of left and right (of the variable field) is used for a justification mode of center.
Justification character	This parameter is the justification character. This lets you center data on a specified character such as a period (.). This might be useful when you want to line up a series of numbers.

The effect of the CSTParseJustify feature is most noticeable at print time. To see the effects in data entry check (Image Editor) or in the Entry system, turn on the Options, Fixed Edits option. The system moves the position of the variable field relative to its original position, length, and the data information you gave it.

This feature does not work for bar code and multi-line text fields.

CSTParseJustify does not work on fields that rely upon DAL to return a value. You must make DAL justify your field using DAL functions.

NOTE: PCL print will show the effects of CSTParseJustify, GDI will not.

TerPropagate

Select TerPropagate to propagate data between multi-line text variable fields with the same name. This data can be entered either manually or by using the Paragraph Assembly feature, also known as *TerSub*. To propagate data between multi-line text variable fields, those fields must have a scope of global. Additionally, the first occurrence of the multi-line text variable field must have a Post-Edit module of TERSW32 and Post-Edit procedure of TerPropagate.

NOTE: The TerPropagate procedure does not support propagation between multi-line fields (with the same name) on the same form. This includes having the same named multi-line variable field on different pages of the same form. The reason is that multi-line fields on the same form with the same name are considered *associated* with each other—one is a continuation of the other. Therefore, propagation within the same form in this manner would cause a recursive loop.

TerSubImage

This function provides a type of mail merge capability. When you use it on an image, the function scans each text area on the image and substitutes field data into the text. This is not the same as embedded fields, because the field data must exist prior to execution.

Using the TerSubImage function, the system looks through the text for field tokens in the form of `\FIELDNAME\` where the name between the slashes is a field name in your form set. When it finds this, the field's data is inserted directly into the text, not as a reference. If the field changes values later, the text area is not updated.

Additional Paragraph Assembly (TerSub) Options

Paragraph Assembly (TerSub) is a Pre- and Post-edit function which selects and assembles pre-written, standardized paragraphs as a time-saving feature for end users.

In the Data field of the Pre-Edit tab you can specify the next field and a number of options. Separate the options with semi-colons, as shown here:

```
NextField;Option;Option;Option:...
```

The NextField parameter serves two purposes:

- It indicates where to insert the embedded fields that are created when importing the paragraphs you select.
- It tells the system to remove the fields found between the multi-line text TerSub field and the NextField when replacing the paragraphs.

Keep in mind that the field you designate as the NextField must exist on the same image as the TerSub field. If you omit the NextField parameter, any fields created by the system are inserted at the end of the known field list and those fields will remain, even if you replace the paragraphs associated with them. Also, if you omit the NextField parameter, be sure to place a semicolon before any of the following TerSub options, as shown here:

```
;Option;Option;Option:...
```

This table describes the additional TerSub options:

Option	Name	Description
V	View Options	Controls which columns appear on the Paragraph Selection. See View options on page 237 for more information.
ZS	Zero Selection	Lets you click the Replace button even if no paragraphs have been selected. See Accept without selections (Zero Selections) on page 238 for more information.
SO	Select Only One	Limits paragraph selection to only one paragraph. See Limit to one item (Select One Item) on page 238 for more information.
OE	Only Empty	Only displays the Paragraph Selection window if the field is empty. See Enable only when the field is empty (Only Empty) on page 238 for more information.
PF	Protect Field	Protects the field from user entry after the Paragraph Selection window is completed. See Protect the field after the TerSub selection on page 239 for more information.
ST	Smart Tab	Moves the cursor to the next field. See Moving to the next field on page 239 for more information.
NE	No Editing	Prevents the user from editing the field. See No field editing without TerSub (No Editing) on page 239 for more information.
HA	Hide Append	Hides the Append button on the Paragraph Selection window. See Hiding buttons on the TerSub window on page 240 for more information.
HR	Hide Replace	Hides the Replace button on the Paragraph Selection window. See Hiding buttons on the TerSub window on page 240 for more information.
K	Keep Selections	Stores the paragraph IDs selected by the user in another field. See Keeping selections on page 240 for more information.
R	Special Recipient	Builds the list of paragraphs based on the name of a recipient. See Presenting options based on the recipient on page 240 for more information.

View options

This TerSubstitute function lets you specify different views of the Paragraph Selection window for entry operators. You can select from these display options:

To view the	Enter this parameter
Key and description	V=K+D
Key	V=K
Description	V=D
Description and key	V=D+K

To specify the *V=view* option, make the following entries in the Pre-Edit area of the Edits tab on the field's Properties window in the Image Editor:

```
Module:      TERSW32
Function:    TerSubstitute
Data:       NextField;V=D
```

Where *NextField* is the insertion field point (an old parameter) and the display option shows only the description of the paragraph. Precede all token flags with a semicolon. The string can contain a series of flags. Text occurring before the first flag is treated as an insertion field point.

NOTE: *NextField*, as listed in this and the following options, represents any optional data specified. It is not required.

Accept without selections (Zero Selections)

This option lets you accept the Paragraph Selection window by clicking either the Replace Existing Paragraphs or Append to Existing Paragraphs button without selecting a paragraph. Clicking the Replace Existing Paragraphs button without making any selections would blank any existing text in the multi-line text variable field and leave the field empty. Clicking the Append to Existing Paragraphs button without making a selection simply closes the Paragraph Selection window and leaves any existing text unaltered.

To use this function enter the token flag of ;ZS in the data field of the Edits tab of the Properties window for the multi-line text variable field. Here is an example:

```
Module:      TERSW32
Function:    TerSubstitute
Data:       NextField;ZS
```

Where *NextField* indicates the insertion field point (an old parameter) and now the ZS additionally requests that the user be allowed to accept the window with no paragraphs selected.

All token flags must be preceded with a semicolon. The Data field may contain multiple token flags in a series, such as ;ZS;NE.

Any text occurring before the first flag should be assumed to be the old parameter supporting an insertion field point.

Limit to one item (Select One Item)

The TerSubstitute function lets you limit paragraph selection to one item only. This function is a pre-/post-edit function to the fields. To turn on the SO (select only one) option, make the following entries in the Pre-Edit area of the Edits tab on the field's Properties window in the Image Editor:

```
Module:      TERSW32
Function:    TerSubstitute
Data:       NextField;SO
```

Where *NextField* indicates the insertion field point (an old parameter); the SO parameter requires users to select only one item from the Paragraph Selection window. Precede all token flags with a semicolon. The string can contain multiple flags in a series. Any text before the first flag is treated as an insertion field point.

Enable only when the field is empty (Only Empty)

This option lets you display the Paragraph Selection window only when the text area is empty. Once the system detects that the multi-line text variable field contains data, it no longer displays the Paragraph Selection window.

To use this function enter the token flag of ;*OE* in the data field of the Edits tab of the Properties window for the multi-line text variable field. Here is an example:

```
Module:    TERSW32
Function:  TerSubstitute
Data:      NextField;OE
```

Begin all token flags with a semicolon. The Data field may contain multiple token flags in a series, such as ;*ZS;NE*. Any text occurring before the first flag should be assumed to be the old parameter supporting an insertion field point.

Protect the field after the TerSub selection

This option lets you prevent the user from changing the paragraphs or executing TerSub again after the initial selection. To turn on the PF (protect field) option, make the following entries in the Pre-Edit area of the Edits tab on the field's Properties window in the Image Editor:

```
Module:    TERSOS2
Function:  TerSubstitute
Data:      NextField;PF
```

Where NextField is the field you want to protect — basically giving the user one chance to get it right. All token flags should be preceded with a semicolon and the string can contain multiple flags in a series.

Moving to the next field

This option tells the system to go to the next field in the navigation sequence after the Paragraph Selection window is completed. To turn on the ST (smart tab) option, make the following entries in the Pre-Edit area of the Edits tab on the field's Properties window in the Image Editor:

```
Module:    TERSOS2
Function:  TerSubstitute
Data:      NextField;ST
```

Where NextField is the field you want to leave before going to the next field in the navigation sequence. For more information on specifying the tab sequence, see [Entering Information on the Navigation Tab on page 229](#).

All token flags should be preceded with a semicolon and the string can contain multiple flags in a series.

No field editing without TerSub (No Editing)

This option lets you display the Paragraph Selection window, but not allow the field to be edited using the Text Editor—canceling the window still moves you to the next field.

To use this function, enter the token flag of ;*NE* in the data field of the Edits tab of the Properties window for the affected multi-line text variable field. Here is an example:

```
Module:    TERSW32
Function:  TerSubstitute
Data:      NextField;NE
```

All token flags must be preceded with a semicolon. The data field may contain multiple token flags in a series, such as ;*ZS;NE*. Any text occurring before the first flag is assumed to be the *old* parameter supporting an insertion field point

NOTE: With this function the only way to get text into the multi-line text variable field is by selecting one or more items from the Paragraph Selection window.

Hiding buttons on the TerSub window

This option lets you hide either the Replace Existing Paragraphs or the Append to Existing Paragraphs button.

To use this function, enter the token flag of either ;*HA* or ;*HR* in the data field of the Edits tab of the Properties window for the affected multi-line text variable field.

HA = Hide Append to Existing Paragraphs button
HR = Hide Replace Existing Paragraphs button

NOTE: If you specify both options, the system ignores the latter.

Here is an example:

```
Module:    TERSW32
Function:  TerSubstitute
Data:      NextField;HA
```

All token flags must be preceded with a semicolon. The Data field may contain multiple token flags in a series, such as ;*ZS;NE*. Any text occurring before the first flag should be assumed to be the old parameter supporting an insertion field point.

Keeping selections

This option lets you return to the TerSub window and see the list of paragraphs that were selected. Set the data token as shown here:

```
Module:    TERSW32
Function:  TerSubstitute
Data:      NextField;K= xxx
```

Where *xxx* represents a variable field you must add to your form. This variable field must be alphanumeric and be marked as *Hidden* and *No User Edit* to prevent it from displaying or printing on your form. This field should have a length of 1024. The system uses this field to store the items selected from the Paragraph Selection window. This field should follow the multi-line text variable field on your form. Here is an example:

```
;K=Selections
```

where *Selections* is the name of a second variable field on your form that has a length of 1024, is alphanumeric, is marked Hidden and No User Edit.

When you tab off the multi-line text variable field and then back tab into it, the Paragraph Selection window will show whatever items you selected previously in the Selected Paragraphs section of the Paragraph Selection window.

All token flags must be preceded with a semicolon. The Data field may contain multiple token flags in a series, such as ;*ZS;NE*.

Any text occurring before the first flag should be assumed to be the old parameter supporting an insertion field point.

Presenting options based on the recipient

You can set up the TerSubstitute function to present images for selection based on the presence of a recipient in the FORM.DAT file. This eliminates the table requirement and makes it easier to update forms since you do not have to update a table each time you add or remove an image. To specify images based on a recipient, you...

- 1 Create the paragraph images you want the user to select from.
- 2 Add a text label named DESCRIPTION to those images. In the text label, include the image description you want to appear in the Entry system's table.

- 3 Set up the TERSUB option for the field which specifies the dummy recipient. To specify the *R=recipient* option, make the following entries in the Pre-Edit area of the Edits tab on the field's Properties window in the Image Editor.

Enter	In this field
TERSW32	Module
TerSubstitute	Function
NextField; R=CUSRECIP	Data

Where NextField is the insertion field (an old parameter) and the recipient name to search for is *CUSRECIP*.

Precede all token flags with a semicolon. The string can contain a series of flags. Text occurring before the first flag is treated as an insertion field point.

If you do not want to see the recipient used for this feature on the Forms Selection window, add this option to your INI file:

```
< FormSelection >
  HideRecipXXX = Yes
```

where *XXX* represents the recipient name as referenced in the Data setup string:

```
Data: NextField;R=CUSRECIP
```

Here is an example:

```
Data: NextField;R=CUSTOM
< FormSelection >
  HideRecipCustom = Yes
```

- 4 Use the Form Set Manager to add the images to the form set and to assign dummy recipients with a zero copy count.

When entry operators access the field, the system shows a list of images based on the dummy recipient you specified. Users can then select the image to insert into the field.

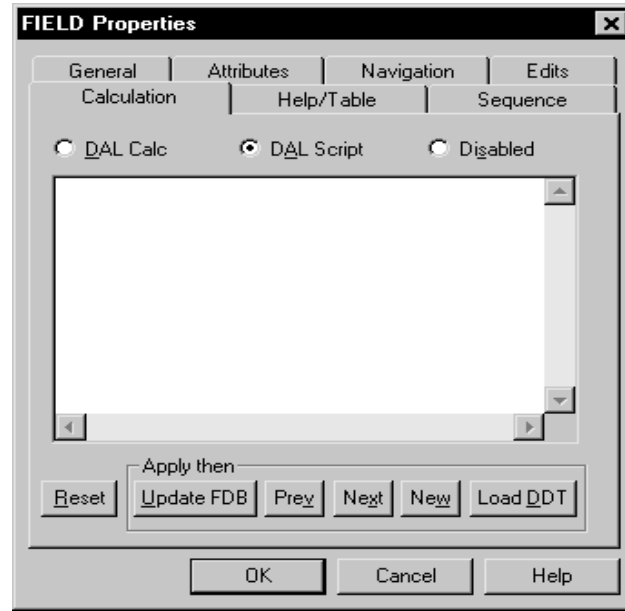
NOTE: The method used to create the form determines which images are available in the TERSUB window. When you use the Form Selection window in the Entry system, you get all available images. If the transaction originated in the Documaker Server, you only get those images which were triggered by the form in Documaker Server. Keep in mind you can use DAL or a hook function to further modify image availability for the Entry system.

ENTERING INFORMATION ON THE CALCULATIONS TAB

Use the Calculations tab to assign DAL scripts to your variable fields. For example, you might want to add the numbers from three variable fields to calculate a total. The totaled amount is then entered in a fourth variable field.

You can enter calculation functions directly onto the Calculation tab on the Field Properties window or you can use calculations stored in an external script file. You can also disable calculation functions if necessary.

To enter variable field calculations, click the Calculations tab.



- 1 Click one of these options:

Choose: To:

DAL Calc	Recalculate field each time you tab to a new field in the image. This is the default.
DAL Script	Recalculate only if you tab out of this field.
Disabled	Select if you do not want to run calculations during an image check

- 2 Enter the DAL function. Here are some examples:

Function	Result
Return @("Prem Basis1") * @("Prem/Ops Rate1")/100)	Takes the value of a variable field named Prem Basis1 multiplies it by the value of a variable field named Prem/Ops Rate1, divides the product by 100 and places the result in the variable field.
Return (Call ("TestCalc"))	Calls a calculation from an external file named TestCalc. You may want to use calculations from external script files if your calculations are long or if you want to use calculations for multiple variable fields.

NOTE: See the [DAL Reference](#) for more information about DAL functions.

3 Click Ok.

ASSIGNING HELP AND TABLES

Assigning Help and Tables to variable fields assists the entry operator by providing help information and lookup tables during the entry process.

Adding Help

You may want to add Help to your images if it's unclear what to enter into a variable field. For example, a Help message could instruct the user to enter the first three letters of the applicant's last name.

You create Help messages with the Help Editor (built-in Help). Open the Help Editor from within the Image Editor or from Docucreate. You can also create Help messages with files and applications independent of the Image Editor (user Help).

Adding tables

By assigning tables to variable fields, entry operators can select data from a table. Normally, you add tables if a user should select from a list of options. For example, the table might contain a list of state and province abbreviations.

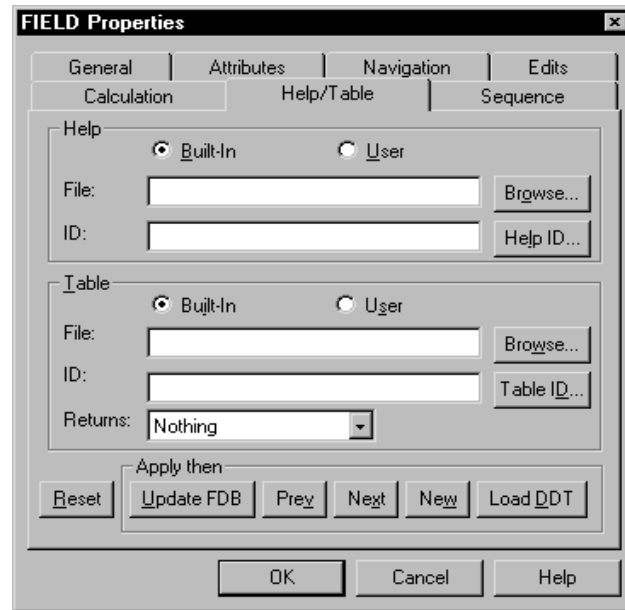
You typically create tables with the Table Editor (built-in tables). You can start the Table Editor from within the Image Editor or from Docucreate. You can also create tables with files and applications independent of the Image Editor (user tables).

The Table Returns option controls the data returned from the table to the variable field. The Table Return options are a table key, a description, both, or nothing. For example, in a table with state abbreviations you can choose to have only a table key (such as CA) return and display in the field or you can choose to have the full description (such as California) return and display. You can also have both the key and the description return and display (such as CA, California), or you can choose to return and display nothing. Be sure your variable field is long enough to display key and description information if you select that option.

NOTE: The Tables feature lets you enter up to 248 characters in the description. For larger sections of text, use the Paragraph Assembly feature. The maximum number of characters for the key is 40.

For additional information on creating Help messages and Tables, see [Adding Help Information on page 285](#) and [Adding Tables on page 295](#).

To work with help and table, click the Help/Table tab on the field's Properties window.



Attaching Help to a field

- 1 Enter the name of the help file in the File Name field; or, click Browse to select from a list of available help files.

NOTE: If you select a default help file in the Image Properties window, it is not necessary to enter a file name. See Image Properties for more information.

- 2 Click Built-in or User to indicate the source of the help file. You can create built-in help files with the Help Editor or with your own applications.

NOTE: If you want to create help files with your own applications, contact Skywire Software for more information on the appropriate procedures.

- 3 Type the Help ID name in the Help ID field. The Help ID name is the name of an individual help message in the help file. Click the Help ID button to select from a list of available help IDs.

Attaching a table to a field

- 1 Enter the name of the table file in the File Name field; or, click Browse to select from a list of available table files.
- 2 Click Built-in or User to indicate the source of the table file. You create Built-in table files with the Table Editor. You create User table files with your own applications.
- 3 Type the table ID name in the Table ID field. The table name is the name of an individual table in the table file. Click Table ID to select from a list of available table IDs.
- 4 Select the table returns option in the Table Returns field. The default is nothing.

NOTE: To make sure entry operators make a selection from the table rather than enter data directly into the field, add this option to your INI file:

```
< Control >
ForceTableOnlySelection = Yes
```

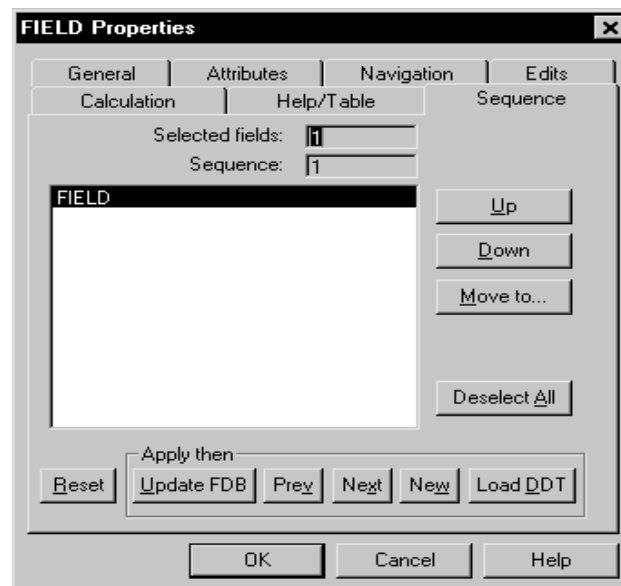
This prevents users from typing information in a table only field.

- 5 Click the Sequence tab to enter the sequence information.

SETTING UP THE ENTRY SEQUENCE

Use the Sequence tab to control the entry order of the variable fields. For example, the fifth variable field is usually sequence number five. This marks it as the fifth spot for data entry. The variable field normally accepts data in the same sequence the field appears on the image.

The Sequence tab lets you view the current sequence order assigned to variable fields. The variable fields display in a column in the assigned sequence order. You can quickly change the sequence order for a single field or for multiple fields.



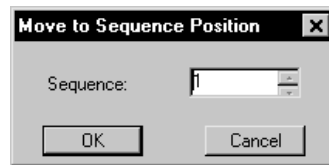
- 1 Click the variable fields in the list whose sequence you want to change.

NOTE: The selected fields reflects the number of currently selected variable fields. The sequence number of the field which you last clicked on (whether to select it or deselect it) also displays at the top of the tab.

- 2 Click Up to move the selected fields up one sequence number. For example, if you select the field in sequence #2 and click Up, the field moves to sequence #1.

- 3 Click Down to move the selected fields down one sequence number. For example, if you select the field in sequence #3 and click Down, the field moves to sequence #4.
- 4 Click Move To if you want to move a field up or down more than one sequence position at a time. The Move To Sequence Position window appears.

NOTE: You can not move several fields simultaneously. You can only move one field at a time.



- 5 Type or select the sequence position. Click Ok. You return to the Sequence tab.
- 6 Click Deselect All if you do not want any fields selected.

NOTE: FDB does not store sequence information.

- 7 When you finish entering all the variable field information, click Ok.

STARTING A NEW PARAGRAPH

When mapping data into a multi-line text field, you can now indicate where you want to start a new paragraph by inserting the characters, `\n`, in the data. Here is an example:

```
message = "Simply call 1-800-123-SAVE (7283)\n\nBe sure to have the\nfollowing:\n- Your ID number.\n- Your Transaction #"
```

The result would be:

```
Simply call 1-800-123-SAVE (7283)\n\nBe sure to have the following:\n- Your ID number.\n- Your Transaction #.
```

This only works if the destination field is a text area and will not work with data in embedded fields within a text areas. This should not affect existing implementations.

Overriding the escape sequence

You can use the NewlineEscape INI option to override the normal escape sequence (`\n`) to indicate a new line (new paragraph) in data mapped to a multi-line text field.

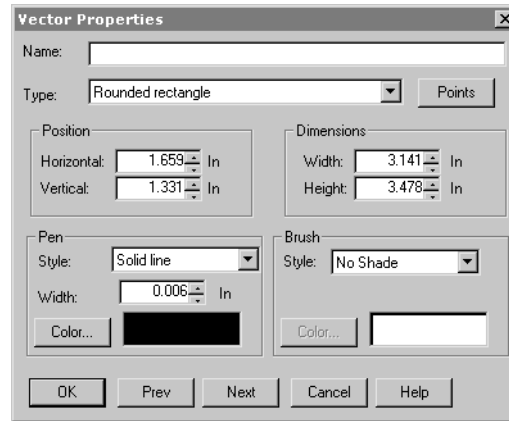
```
< Control >\nNewlineEscape = \\n
```

You can enter up to 30 characters. To include the escape sequence in the data without translation, it must begin with a backslash. For instance, `\\n` is required to include the text `\n` in the resulting data.

Keep in mind that if you make the escape sequence too common (such as a single letter), you may end up with incorrectly formatted data.

INSERTING A VECTOR OBJECT

Use the Insert, Vector option to create vector drawings in your images. When you choose this option, the following window appears:



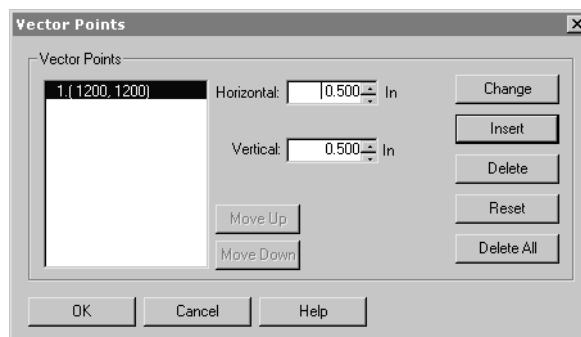
The default vector type is a rounded rectangle, but you can also add these other types of vector objects:

- ellipses
- circles
- pie slices
- arcs
- chords
- polylines
- alternate polygons
- winding polygons

NOTE: To create a rectangle with square corners, see [Inserting a Box on page 194](#).

Starting points

All objects except ellipses and circles are given default points to start with. The points are based as either 1/4 the length or width of the object or 1/2 inch, whichever is smaller. Click Points to change the initial point. Only one point is allowed on rounded rectangles.



You can have multiple points on polylines and polygons.

Arcs, chords, and pie slices have two points. An arc draws an arc given the starting and ending points. The first point entered is the starting point and the second is the ending point. A chord is part of an ellipse drawn from one endpoint of a line around to the other endpoint of the line — half of the ellipse. The pie slice is just that, a slice of a pie as in a pie chart.

Polylines draw from point to point. Polygons also draw from point to point, but connect the last point to the first point, making it a closed object.

Drawing circles

When you draw a circle, the size is automatically set to be symmetrical, taking the larger of the height or width. Neither circles nor ellipses have points.

USING THE PARAGRAPH ASSEMBLY OPTION

The paragraph assembly option is used in conjunction with multi-line text variable fields. When you assign the paragraph assembly function to a variable field, the entry operator selects pre-written, standardized paragraphs for the field. You create the paragraphs as separate images. Each separate image becomes an entry in a table. Paragraph assembly is an excellent time-saving function for entry operators who frequently use standard paragraphs or text.

NOTE: This option differs from the Table feature in that you are not limited in the amount of text you can have. With tables, you can only enter 248 characters.

- 1 To use the paragraph assembly option, you must first create your paragraphs for import into the variable field. To do this, open a new file in Image Editor and insert a text area. Enter the text using the Text Editor. To format the text, choose Format, Paragraph. If you want to prevent users from editing the paragraphs after they have been imported, select the Protect From User Edits When Imported field in the Paragraph window. Entry operators will be unable to edit the paragraphs, but they will still be able to enter information into any variable fields embedded in the paragraph. More information about formatting text appears in Chapter 7, [Adding Text on page 259](#).
- 2 Save your paragraph using a file name with a FAP extension and close the file. You must create an individual FAP file for each paragraph you want to include in Paragraph Assembly. The name of each FAP file is the key you enter when creating the table file.
- 3 Using the Table Editor, either create a new table file (DBF file), or add your paragraphs to an existing DBF file. For information on using the Table Editor, see [Adding Tables on page 295](#).
- 4 To use paragraph assembly in your image, insert a variable field. Click the Attributes tab and select Multi-line text as the variable field type.
- 5 Select the Help/Table tab and click Built-in as the source of the table file.
- 6 Enter the name of the file which contains the table in the Table File field or click Browse to see a list of available table files. Enter the table ID name in the Table ID field or click Table ID to see a list of the tables contained in the table file. The table ID name is the name of the table that contains your standard paragraphs (FAP files).
- 7 Click the Edits tab and select *TERSW32* as the pre-edit module in the Pre-Edit Module field.
- 8 Select *TerSubstitute* as the pre-edit procedure name in the Pre-Edit Procedure field.
- 9 Click Ok. The paragraph assembly feature now applies to your variable field. For more information on paragraph assembly options, see [Additional Paragraph Assembly \(TerSub\) Options on page 236](#).

Editing a form with
Paragraph Assembly

When editing a form with a multi-line text field that contains a paragraph with embedded fields, you can click directly on the embedded field to activate it for editing.

USING AUTOCREATE

The Autocreate option lets you continuously duplicate your most recently created object. Autocreate creates objects with the same attributes in a new position of your choice. Use Autocreate if you need several identical objects.

Autocreate lets you continuously create particular object types while bypassing the object's properties window. Autocreate retains those object attributes applicable to the next object created.

To turn on Autocreate, choose Options, Autocreate. The system displays a check mark beside the Autocreate option when it is activated. To turn off this option, select it again to remove the check mark.

ASSIGNING ATTRIBUTES TO OBJECTS

After you create your objects, you may want to assign additional attributes or change the original attributes. In addition to the position and dimensions of an object, you can assign colors and patterns. You can also select from a wide range of fonts when assigning fonts to text objects. These attributes are important to the appearance of your image.

You have the flexibility to experiment with attribute assignments. As you assign various attributes you can see the effect on the window. You can also print the images to see the result of your attribute assignments.

This section of the chapter discusses the following object attribute options:

- [Setting Current Object Properties on page 252](#)
- [Using the Object Lists Option on page 252](#)
- [Choosing Color on page 254](#)
- [Choosing Fill Patterns on page 255](#)
- [Assigning Fonts on page 255](#)
- [Positioning an Object on page 256](#)
- [Setting Dimensions on page 257](#)

Attributes are assigned to an object through its Properties window. There are two basic methods to assign attributes to objects after you create them. You can select a single object and open its Properties window, or you can use an image's object list to get to the object's Properties window.

SETTING CURRENT OBJECT PROPERTIES

To assign attributes to a specific object, double click the object to display its Properties window or single click the object and choose Format, Object Properties. Additionally, you can right-mouse click a selected object and choose Object Properties from the local menu.

USING THE OBJECT LISTS OPTION

The View, Lists option displays a list of all object types in an image. From the Object Lists window, you can click a specific object type to see a list of those objects in the image. You select an individual object from the second list and click the Properties button if you want to change its attributes.

- 1 Choose View, Lists to display the Object Lists window:



NOTE: If an object is selected in the Image Editor window, the Object Lists window will not display. Instead, choosing the View, Lists option will display a list of all objects of the selected object's type (as shown below). Additionally, once you choose an object type from the Object Lists window, the system selects the first occurrence of that type in the Image Editor window and you must deselect it to display the Object Lists window again.

- 2 Click an object type to see a list of those objects in the image. For example, after clicking on List of Variable Fields, you see a window such as this:



- 3 Highlight an object and click Properties to see the Properties window for that object.

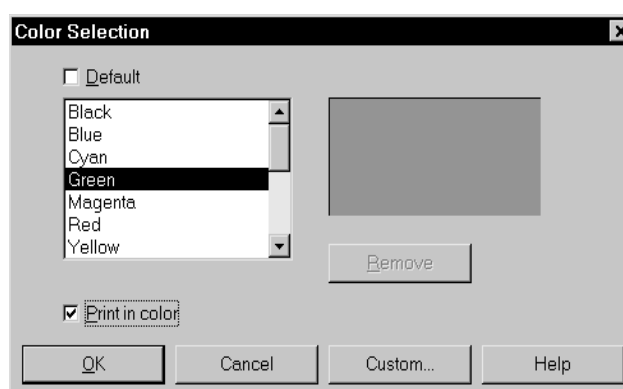
NOTE: If you use the Name field in object windows, the name you assign displays in the list along with the object's coordinates. Assigning unique names to objects makes them easier to identify in the list.

- 4 Edit the properties as necessary, then click Ok to return to the image.

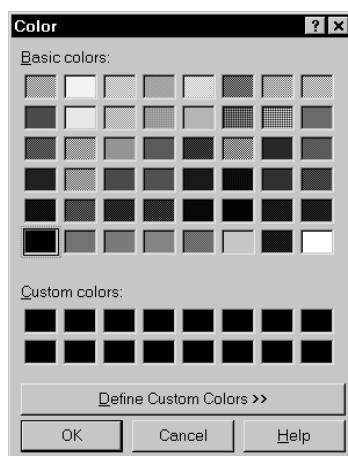
CHOOSING COLOR

You can assign colors to any object. To display the Color window select the Color button from any object's Properties window. For variable fields, color selection is available on the Attributes tab. From the Color window you choose from 16 default palette colors or you create your own custom color. You can create up to 48 additional colors and add them to the palette. You can remove and replace colors you create. The 16 original colors cannot be removed or replaced.

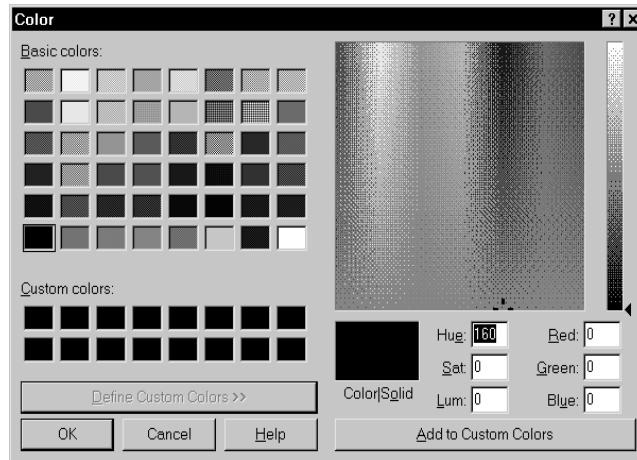
- 1 To add color to an object, double click the object to display the Properties window or click the object and then choose Edit, Color. The Color Selection window appears.



- 2 To change a color, click on the Default field to remove the check mark. This activates the list of available colors.
- 3 Select a color from the list and click Ok. The color is applied to the selected object. To choose a custom color, click Custom. This window appears.



- 4 If you want a color that is not displayed, click Define Custom Colors. The window extends to a palette where you can create any color you want.



- 5 Select a color from the Basic Colors field and adjust it using the slide bar at the side of the color palette; or, click within the color palette and drag your cursor through the palette to achieve the color mix you want. The custom color is displayed in the Color/Solid field. You can add more than one color to the custom colors list by clicking Add to Custom Colors.
- 6 Click Ok to apply the custom color to your object.

NOTE: The display and print of colors are affected by your monitor settings and individual color printers.

CHOOSING FILL PATTERNS

You can assign distinctive patterns to boxes, lines and shaded areas. You assign a pattern from the object's Properties window. You can choose from several pattern options. Patterns include horizontal, vertical, diagonal, and hatch; halftones range from very dark to very light.

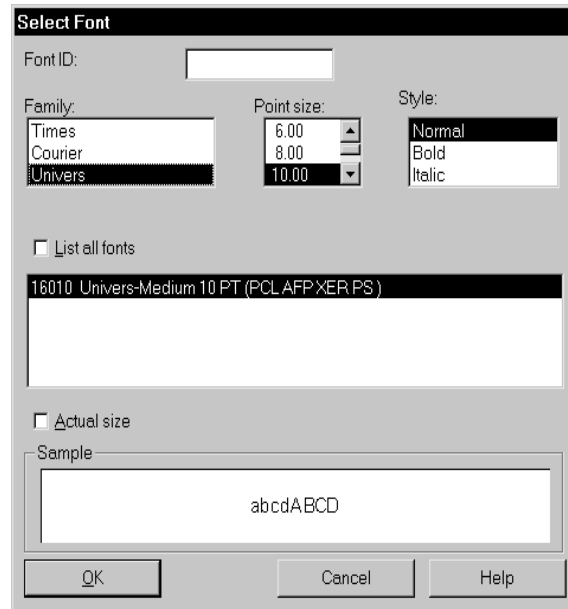
- 1 To assign pattern to an object, double click the object, or click the object and then choose Format, Object Properties or View, Lists.
- 2 After you display the object's Properties window, click Pattern and make your selection from the list. Click Ok to apply the pattern to your object.

ASSIGNING FONTS

You can assign a font to any object which contains text (text areas, text labels, charts, and variable fields). You assign a font from the object's Properties window. The font setup for your individual library determines which fonts are available for use. You can verify which font set your library uses by selecting Tools, Font Manager. If you want to change the font set to be used, you can do this using the File, Library Setup or Tools, Font Setup options.

The Tools, Font Setup option does not change the font set for the library. Whatever font set you select is valid only for that current session of Image Editor. Once you exit Image Editor and then reopen it, the system uses the font set from the library setup.

- 1 To assign fonts to a text object, double click the object, or click the object and then choose Format, Object Properties or View, Lists.
- 2 Select Fonts in the object's Properties window. The Select Font window appears:



- 3 Type the font ID in the Font ID field, or click the List all Fonts field to display a list of all the available fonts.
- 4 Select a font from the list and click Ok. You return to the object's property window.

NOTE: See [Working with Fonts on page 113](#), for more information on using and setting up font sets.

POSITIONING AN OBJECT

You can change the position of an object at any time. Each object's Properties window shows its position coordinates. To display the Properties window, click the object to select it, then right click and choose Object Properties from the local menu.

You can also view the position coordinates of an object by clicking on it. When you select the object, the coordinates appear on the status line of the Image Editor window.

- 1 To assign position to an object, double click the object, or click the object and then choose Format, Object Properties or View, Lists.

NOTE: You can also change an object's position by clicking it and dragging it with the mouse.

- 2 After you display the object's property window, use the horizontal and vertical position coordinates to change the position of the object.

SETTING DIMENSIONS

You can change the dimensions of an object at any time. Each object's property window shows its dimensions. You can also view the object's dimensions by clicking it with the mouse. When you select the object, the dimensions appear on the status line.

NOTE: You can change an object's dimensions by selecting it and expanding or reducing the sides with the mouse.

To change an object's dimensions from the Properties window:

- 1 Double click the object, or click the object and then choose Format, Object Properties or View, Lists.
- 2 In the Properties window, use the width and height coordinates to change the dimensions of the object.

CHAPTER 7

Adding Text

This chapter discusses how to add text to your image using the Text Editor. The system displays the Text Editor window after you create a text area, when you double-click on a text area or when you enter a multi-line text variable field during entry. Normally, you create a text area when you want to add text that is larger than a sentence. If the amount of text is short, like a title, heading, or column heading, you may prefer to use a text label instead.

The Text Editor window provides word processing features that let you format the text, find and replace text, check spelling, and insert text from another file. Some of these options are also found on the Image Editor menus, others are unique to the Text Editor. These topics are discussed on the following pages:

- [Using the Text Editor Window on page 260](#)
- [Creating a Text Area on page 264](#)
- [Choosing a Font on page 266](#)
- [Entering Text on page 267](#)
- [Editing Your Text on page 271](#)
- [Editing Your User Dictionary on page 278](#)
- [Formatting the Text on page 279](#)
- [Exiting the Text Editor on page 281](#)
- [Customizing Text Editor Menus and Toolbar on page 282](#)

USING THE TEXT EDITOR WINDOW

The Text Editor window has its own menu bar which provides options for entering and formatting text. Many of these options are the same as those found on the Image Editor menu bar, however, the scope and functionality may be different. If desired, the menus and the toolbar can be customized (see [Customizing Text Editor Menus and Toolbar on page 282](#)). This manual describes the standard Text Editor menus and toolbar. If your menus and toolbar differ, contact your system supervisor.

The following tables describe the Text Editor menu options.

File Menu Options

This option...	Lets you...
Save	Save the FAP file you are working with.
Properties	Enter a name for the text area, set the dimensions and position of the text area, and determine whether the text area can grow, shrink, and span pages.
Exit	Closes out of Text Editor to return to the image.

Edit Menu Options

This option...	Lets you...
Undo	Cancel or reverse your last action or choice.
Copy	Make a copy of the highlighted section and place it on the clipboard. Use Paste to insert the selection.
Cut	Remove the highlighted selection and place it on the clipboard. Use Paste to insert the selection.
Paste	Insert the contents of the clipboard.
Paste RTF	Insert clipboard contents saved in Rich Text Format.
Delete	Delete highlighted text.
Select	Select and deselect a single character, word, line, paragraph, column, or all text. Click character, word, line, paragraph, column, or all to highlight the appropriate text or click deselect to remove highlighting from selected text.
Bold	Bold selected text.
Italic	<i>Italicize</i> selected text.
Underline	<u>Underline</u> selected text.
Strike-out	~~Strike-out~~ selected text

This option...	Lets you...
Do Not Hyphenate	Prevents hyphenation of text.
Do Not Break	Prevents paragraphs, text labels and embedded variable fields within text areas, and multi-line variable fields, from being broken by page breaks.
Color	Change the color of the selected text. Highlight the text, then choose this option.

NOTE: If your current font set does not contain a corresponding Bold or Italic font, the system will not be able to bold or italicize the text.

View Menu Options

This option...	Lets you...
Zoom	Zoom in or out.
Status Line	Display or hide the status line in the Text Editor.
Nonprinting Tokens	Display or hide formatting symbols such as paragraph markers and tab markers.
Rulers	Display or hide rulers in the Text Editor.
Title Bar	Display or hide the title bar In the Text Editor.
Toolbar	Display or hide the toolbar in the Text Editor.
Refresh	Repaints the window.
Reformat	Reformat the text. Use after you have made significant formatting changes
Level Columns	Balance the text in columns. You must first check the Automatic Column Leveling field in the Columns window (Format, Columns) to use this option.

Insert Menu Options

This option...	Lets you...
Break	Insert a line, page, or column in the text area. After you create columns, you can use the column break option to move to the next column.
File	Insert a file into the text area. File types include ASCII, FAPII and RTF.
Logo	Add a logo, picture, or signature to the text area.
Field	Add a variable field to the text area. Press NEW to create a variable field from within Text Editor.
Box	Draw a box in the text area.

Format Menu Options

This option...	Lets you...
Font	Select or change fonts.
Paragraph	Set indentations, spacing and justification for paragraphs.
Tab Stops	Set tab stops and select the type of tab leaders you want to use, such as periods, dashes, or underscores.
Border	Place a border around the selected paragraphs.
Shade	Place a shaded background behind the paragraphs.
Bullets and Numbering	Insert a bulleted or numbered list.
Columns	Split the text into newspaper style columns.

Tools Menu Options

This option...	Lets you...
Spell Check	Check spelling in the text area and add words to your user dictionary.
Spelling Options	Set spell check options such as language, whether or not to ignore capital letters, and so on.
Find/Replace	Locate words, phrases, or character strings in the text area and, if necessary, replace the text.

This option...	Lets you...
Grammar Check	Check grammar and for commonly misused words.
Grammar Options	Specify what you want the system to check for, such as syntax errors, misused words, cliches, and so on.
Language	Select the appropriate language for the spell checker. The grammar checker only works for US English.

CREATING A TEXT AREA

There are two ways to create a text area:

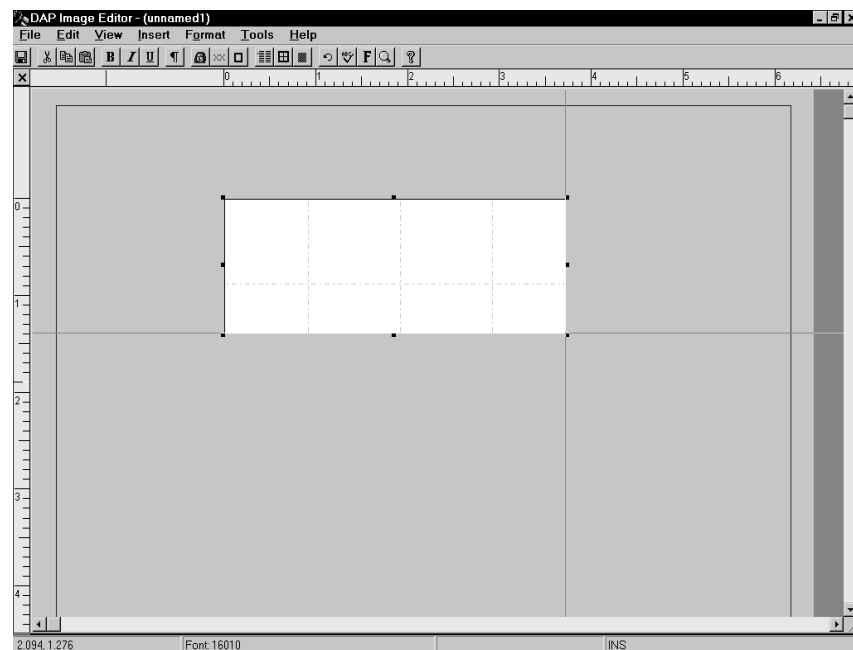
- Create the text area and then enter the text into it by typing the text or inserting an ASCII, RTF, or FAP II file. In this approach you use the Insert, Text Area option.
- Create the text area and insert text from the clipboard or from an ASCII, RTF, or FAP II file in one step. In this approach you use the Insert, Text Area Special option.

NOTE: You can use Microsoft Word to create FAP files by using the File, Save As option and selecting RTF as the file type. You can also insert a rich text format (RTF) file into your text area, using the Image Editor's File, Open option to open the file. The system automatically converts RTF files to FAP files when you use that option. Next, make any formatting or editing changes necessary and save the new image. Then use the File, Copy option to save the text to the clipboard. Once you have saved the text to the clipboard, you can close that image, open another image and use the Insert, Text Area Special option. Refer to [Opening a File on page 84](#) for more information.

You can use Word to add text areas, text, and images to a FAP file. You cannot use Word to add charts, bar codes, lines, boxes, shaded areas, or fields.

USING THE TEXT AREA OPTION

To create a text area choose Insert, Text Area or click on the Text Area icon on the tool bar. Then, draw the boundaries for the text area. The system displays the Text Editor window.



The white area in the window is the text area, based on the dimensions of the area you drew on the image. You can begin entering text into the area. You can change the size of the text area as needed by using the File, Properties option in Text Editor. If you want the text area to expand vertically while you enter text, click the Can Shrink and Grow and the Can Span Pages options in the Properties window.

USING THE TEXT AREA SPECIAL OPTION

To insert a file and create a text area in one step, choose Insert, Text Area Special. The system shows you two options:

- From File
- From Clipboard

Inserting from a File

If you are inserting from a file, select From File. The Text Editor icon appears. Click and drag the mouse to size the area in which you want to place the file; then, release the mouse button. The Insert File window appears.

To insert a file from the current directory, select a file from the list and click Ok. To insert a file from a different drive and directory, select the drive and directory. Then choose the file from the list and click Ok.

NOTE: The system inserts the ASCII file information including all settings and text. The system will not format the text.

Inserting from the Clipboard

If you are inserting from the clipboard, select From Clipboard. The Text Editor icon appears. Click and drag the mouse to size the area in which you want to place the text; then, release the mouse button.

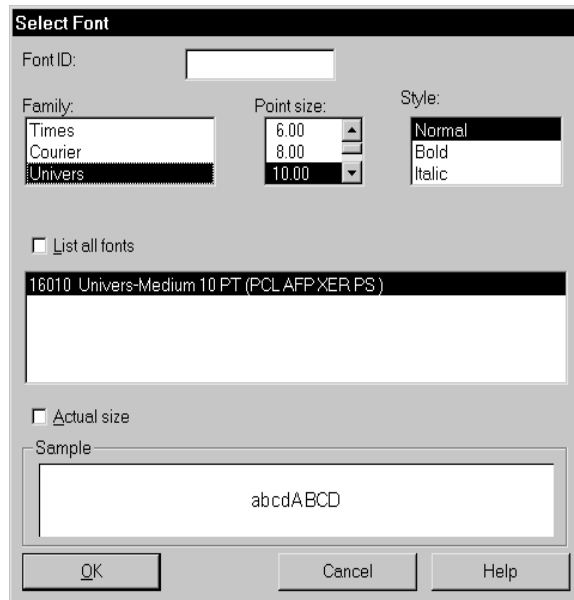
The system places the text from the clipboard in the Text Area Entry window. You can then edit the text as necessary.

NOTE: You can expand the size of the area if necessary using the File, Properties option while in the Text Editor.

CHOOSING A FONT

Follow these instructions to choose a font for the text you will enter. If you have already entered the text and you want to change the font, select the text and follow these instructions.

- 1 Select Format, Font. The Select Font window appears.



- 2 Select the font you want to use. You can select a font several ways:
 - Enter the font ID in the Font ID field
 - Select the font family in the Family field and then select the size and style in the Point Size and Style fields.
 - Click on the font you want in the list of fonts. Click the List all fonts field to see all available fonts.

The system shows you a sample of the font in the Sample field.

- 3 Once you select the font you want, click Ok. The system changes the selected text to use the newly selected font ID. You return to the Text Editor window.

ENTERING TEXT

You can enter text into the text area by typing it in or by inserting the text from another file. You can also use Microsoft Word to create FAP files using the File, Save As option and choosing RTF as the file type. To insert text from a FAP, RTF, or ASCII text file, follow these steps:

- 1 Choose Insert, File. The Insert File window appears.
- 2 Select the file you want to insert. If the file is in another directory or on another drive, use the Drives and Folders fields to locate the file.
- 3 Click Ok to insert the file.

INSERTING TEXT

From the Text Editor window you can use the Insert, File option to insert the following types of files:

- FM2 (FormMaker II) text file
- ASCII text file
- Rich Text Format

When you insert these types of files, you get straight text, with no formatting. Once you have the text in the text area, you can edit and format the text as necessary.

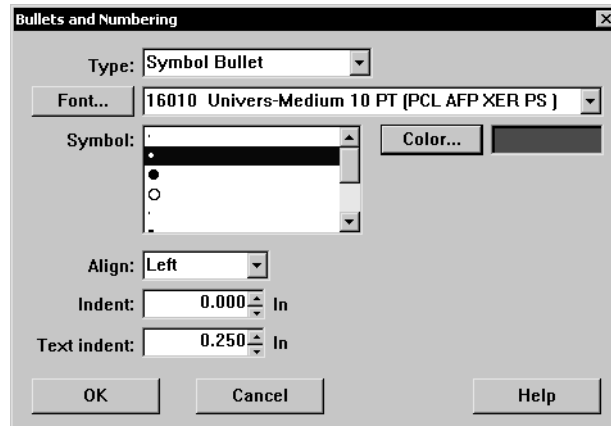
NOTE: You can also insert a rich text format (RTF) file into your text area, using the Image Editor's File, Open option to open the file. The system automatically converts RTF files into FAP files when you use that option. Next, make any formatting or editing changes necessary and save the new image. Then use the File, Copy option to save the text to the clipboard. Once you have saved the text to the clipboard, you can close that image, open another image and use the Insert, Text Area Special option. Refer to [Opening a File on page 84](#) for more information.

When importing RTF files, any bitmaps the system can import are embedded into the resulting FAP file. The system checks for duplicate bitmaps and, if found, embeds the first occurrence of the bitmap and references other occurrences to it.

CREATING A BULLETED LIST

To create a bulleted list, follow these steps:

- 1 Place the cursor where you want the bulleted list to begin, then choose the Format, Bullets and Numbering option. The Bullets and Numbering window appears.



- 2 Select the type of bullet you want. You can choose from these bullet options:

To use a	Choose
Specific character in a font as the bullet	Font bullet
Symbol character as the bullet	Symbol bullet
Bitmap logo as the bullet	Logo

NOTE: There are two other options: None and Number. Creating numbered lists is discussed in the following topic.

If you chose a symbol or font bullet, make the appropriate selection in the Character or Font field, respectively. If you chose logo, click the Logo button to specify the logo you want to use.

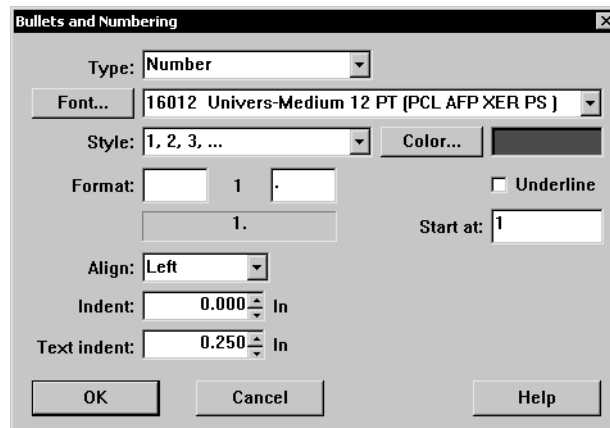
- 3 Click Color to select the color you want.
- 4 Use the Align field to specify how to position the bullet along the left margin.
- 5 Use the Indent field to specify how much the system should indent the bullet from the left margin.
- 6 In the Text Indent field, specify the distance between the bullet and the text. Your entry here must exceed your entry in the Indent field. When finished, click Ok.
- 7 Type the text you want for the first item in the list and press ENTER. Continue until you complete the list.

To end the bulleted list, press ENTER after the last bulleted item, choose the Format, Bullets and Numbering option, select None in the Type field, and click Ok.

CREATING A NUMBERED LIST

To create a numbered list, follow these steps:

- 1 Place the cursor where you want the numbered list to begin, then choose the Format, Bullets and Numbering option. The Bullets and Numbering window appears.



- 2 In the Type field, choose the Number option. Then choose the font you want in the Font field.
- 3 In the Style field, select the numbering style. You can choose from these options:
 - 1, 2, 3
 - A, B, C
 - I, II, III
 - a, b, c
 - i, ii, iii
- 4 Click Color to select the color you want.
- 5 In the Format field, you can specify a character to precede the number and a character to follow the number (or letter if you chose that style). For instance, to use a style such as

A.1.

A.2.

you would enter:



Click here to underline the numbers

- 6 Use the Align field to specify how you want the number positioned along the left margin. This field is typically used when you are using Roman numerals. For instance, this demonstrates left alignment:

- I. Text...
- II. Text...
- III. Text...

If you right align the same paragraphs, this would be the result:

- I. Text...
- II. Text...
- III. Text...

- 7 Use the Indent field to specify how much the system should indent the number from the left margin.
- 8 In the Text Indent field, specify the distance between the number and the character that follows it, if applicable, and the text. Your entry here must exceed your entry in the Indent field. When finished, click Ok.
- 9 Type the text you want for the first item in the list and press ENTER. Continue until you complete the numbered list.

To end the numbered list, press enter after the last numbered item, choose the Format, Bullets and Numbering option, then select None in the Type field, and click Ok.

EDITING YOUR TEXT

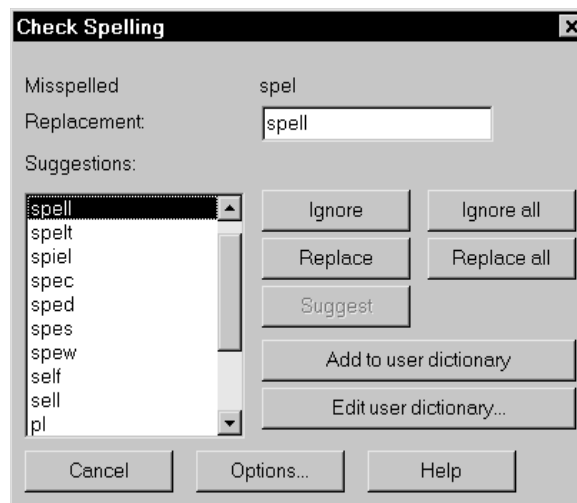
After you enter your text, read over it to make sure it says what you want it to say. The best way to proofread your text is to print the page and review it on paper. To print, first exit the Text Editor, then choose File, Print.

CHECKING SPELLING

Use the Tools, Spell option to check spelling. If you find terms or phrases you want to change, you can use the Tools, Find/Replace option to quickly search and replace text.

To check spelling, follow these steps:

- 1 Choose Tools, Spell. If the system finds a misspelled word, the Check Spelling window appears:



- 2 To correct the spelling of a word, select the correct spelling from the Suggestions field or click in the Replacement field and type in your own spelling. You have these other options:

To:	Select:
Skip this word and continue	Ignore
Skip every occurrence of this word	Ignore All
Replace this occurrence of the misspelled word	Replace
Replace every occurrence of the misspelled word	Replace All
Add this word to your custom user dictionary	Add to User Dictionary
Edit your custom user dictionary	Edit User Dictionary
Set spell check options	Options
Return to the Text Editor window	Cancel
Get suggestions for the misspelled word	Suggest

SETTING SPELL CHECK OPTIONS

From the Check Spelling window, click Options. The Spell-check Options window appears. Click any or all of the following:

To:	Select:
Select the language	Your language in the Language field
Skip capitalized words during spell checks.	Ignore Capitalized Words
Skip words containing numbers during spell checks. For example, the word “SeazLand” is skipped when this option is active.	Ignore Words with Numbers
Skip words with both upper- and lowercase during spell checks.	Ignore Words with Mixed Case
Locate words with both upper- and lowercase letters during spell checks.	Report Words with Mixed Case
Check letters on both sides of an apostrophe as single words during spell checks	Treat Apostrophe as Word Separator
Check letters on both sides of a hyphen as separate words.	Treat Hyphen as Word Separator
Check for improper capitalization.	Case Sensitive
Accept compound words (mainly useful if you are checking German text).	Accept Compound Words
Make suggestions on how to split compound words.	Suggest Splitting Compound Words
Make suggestions based on how the misspelled word sounds when spoken.	Phonetic Suggestions
Make suggestions based on how the word is typed.	Typographical Suggestions
Receive suggestions for each misspelled word during spell checks.	Always Suggest

USING THE GRAMMAR CHECKER

When entering or editing text using the Text Editor, you can use the Tools, Grammar Check option to check for common grammatical errors.

NOTE: Because of the complexity of the English language, no grammar checker can find every possible problem or even agree on what is or is not a problem. This tool can help you spot potential errors, but you should always carefully review the text you add to your forms.

The Grammar Check option only applies to U.S. English.

To customize what types of errors the system looks for, select Tools, Grammar Options. Use this window to specify the types of problems you want the Grammar Check option to look for:

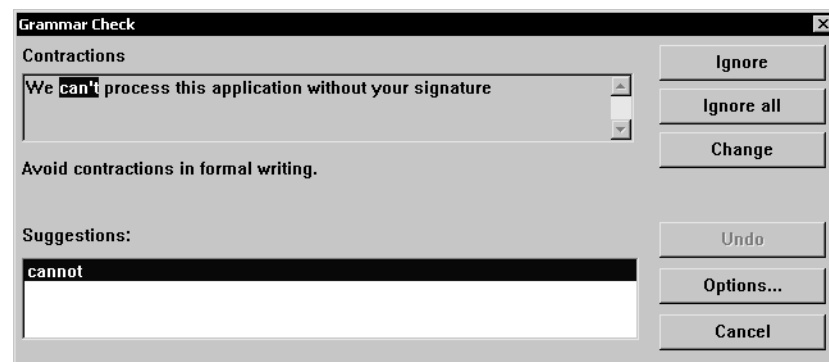
Grammar options	
☒ Syntax errors	☒ Wordy phrases
☒ Misused words	☒ Redundant phrases
☒ Number agreement	☒ Archaic words
☒ Subject-Verb agreement	☒ Stilted words
☒ Verb tense	☒ Awkward usage
☒ Possessives	☒ Vague modifiers
☒ Capitalization	☒ Jargon
☒ Abbreviation form	☒ Cliches
☒ Number form	☒ Gender-specific terms
☒ Unbalanced punctuation	☒ Confusing terms
☒ Unusual word combination	☒ Commonly confused words
☒ Classified singulars	☒ Contractions
☒ Qualified absolutes	☐ Punctuation inside quotes
☒ Double comparisons	☒ Punctuation outside quotes
☒ Double negatives	
OK Cancel Help Select all Deselect all Reset	

Usage	Description
Syntax errors	Errors in the combination of words that may be caused by missing or extra words, use of the wrong word, or words out of sequence.
Misused words	Problems where a word has been used incorrectly, probably because it has been confused with another word. This includes words such as <i>your</i> and <i>you're</i> ; <i>it's</i> and <i>its</i> ; and <i>there</i> and <i>their</i> .
Number agreement	Conflicts between the number of items and the modifiers which refer to them, such as <i>these apple</i> or <i>a dogs</i> .
Subject-verb agreement	Conflicts between the number (plurality) of a subject and the verb which it acts on, such as <i>the employees wants longer lunch breaks</i> .
Verb tense	Conflicts with the tense of a verb and surrounding auxiliary verbs, such as <i>I have get my raincoat</i> . This category also includes mixed verb tenses.
Possessives	Potentially incorrect use of a possessive form, such as <i>girls's</i> instead of <i>girls'</i> , or incorrectly using a possessive form in place of a plural.
Capitalization	Failure to capitalize certain words or failure to capitalize the first word of a sentence.

Usage	Description
Abbreviation form	Missing or unnecessary punctuation in abbreviations.
Number form	Problems with the form or style of numbers, such as spelling out large numbers or using numerals for small numbers.
Unbalanced punctuation	Finds missing punctuation, such as “(“ without a corresponding “)”.
Classified singulars	Phrases that turn a single object into a class of objects, such as <i>this kind of a car is the one I'm looking for</i> .
Qualified absolutes	Absolute adjectives and adverbs that are modified with comparative or superlative adverbs, such as <i>more perfect</i> or <i>very unique</i> .
Double comparisons	Comparative and superlative adjectives and adverbs that are modified with comparative adverbs, such as <i>more quicker</i> and <i>most fastest</i> .
Double negatives	Negative adjectives joined with a negative modifier, such as <i>not uncommon</i> , which can be expressed more clearly in a positive form.
Wordy phrases	Phrases containing superfluous words that can be rewritten more concisely, such as <i>in a large number of cases</i> .
Redundant phrases	Where the meaning of one word implies the meaning of another word, such as <i>connect together</i> or <i>repeat again</i> .
Archaic words	Words that are no longer in common use, such as <i>betwixt</i> and <i>perchance</i> .
Stilted words	Long, overblown words and phrases that can be expressed in simpler terms for clarity.
Awkward usage	Words and phrases that are too informal or do not read well, such as <i>ain't</i> and <i>that there</i> .
Vague modifiers	Use of adjectives and adverbs that convey little meaning, such as <i>nice</i> and <i>very</i> .
Jargon	Words with a technical meaning applied in non-technical writing.
Cliches	Overworked phrases that can be rewritten to avoid triteness.
Gender-specific terms	Terms which some consider sexist, such as <i>chairman</i> or <i>waitress</i> .
Confusing terms	Terms which may confuse the reader because several possible interpretations exists or because the word's form suggests an alternate meaning.
Commonly confused words	Words people often mistakenly use in place of correct words, usually because the words look or sound similar, such as <i>accept</i> and <i>except</i> , <i>allusion</i> and <i>illusion</i> .
Contractions	Contracted words such as <i>can't</i> and <i>should've</i> that should be expanded in formal writing.

Usage	Description
Punctuation inside quotes	Terminal punctuation placed inside quotation marks (<i>"This is the end," she said</i>) is the preferred form in North America. The system will report instances of punctuation inside quotation marks.
Punctuation outside quotes	Terminal punctuation placed outside quotation marks (<i>"This is the end", she said</i>) is generally considered incorrect in North America. The system reports instances of punctuation outside quotation marks.
Unusual word combinations	A pattern of words that seems unusual and may indicate a problem such as a missing, extra, or out of sequence word.

If the system finds an error, it presents suggestions in the Grammar Check window:



You can choose to ignore this suggestion, ignore all similar suggestions, or make the change. You can also go to the Grammar Options window or cancel the grammar check.

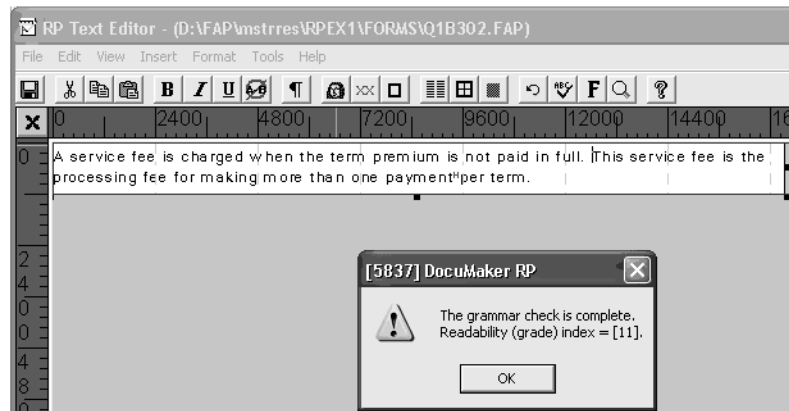
Checking Readability

The Grammar Check option includes a Fog Index readability grade which displays after running the grammar check.

The Fog Index uses the average number of words per sentence plus the percentage of difficult words in the sample to compute the approximate number of years of education needed to understand the text.

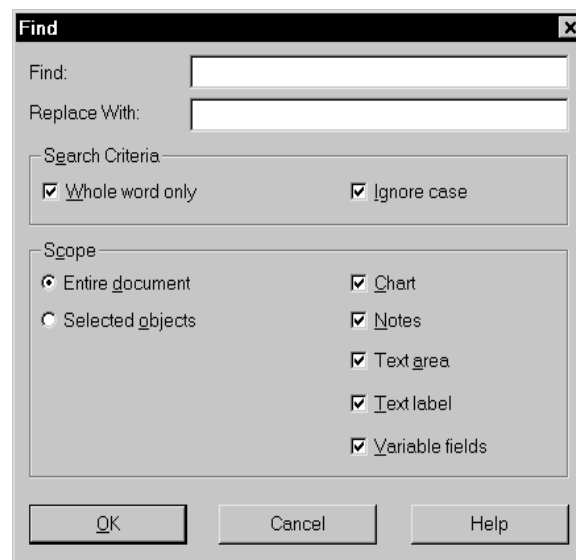
Fog index scores vary from the Flesch Index used by some programs. The Flesch Index uses the average number of syllables per word plus the average number of words per sentence to compute a score in the range of zero to 100. The higher the index number is, the easier the text is to read; however, you need a comparison scale to interpret the results.

Pictured below is a sample display of the Image Editor's readability index after performing a grammar check:



FINDING AND REPLACING TEXT

If you find terms or phrases you want to change, use the Tools, Find/Replace option to quickly search and replace text. Use this option to search for and/or replace specific words, phrases, or character strings in the Text Editor window.



To Find a Word or Phrase:

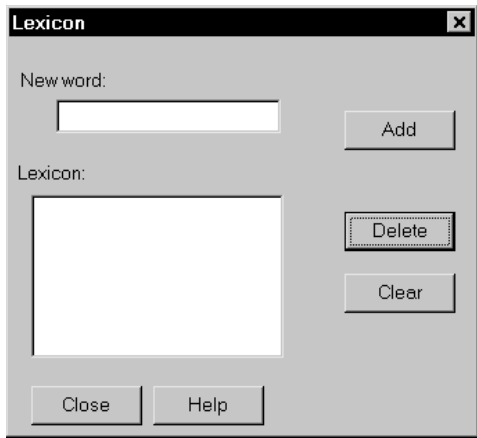
From the Text Editor menu, choose Tools, Find/Replace.

- 1 Type the word or phrase you want to find in the Find field.
- 2 If you want to replace the text with new text, enter the new text in the Replace With field.
- 3 In the Search Criteria field, click either or both of the following selections:
 - Whole Word Only - locate search term only when it appears as a complete word.

- Ignore Case - locate search terms regardless of upper- and lowercase letters.
- 4 In the Scope field, click one of the following selections:
 - Entire Document - search for terms anywhere in the text area.
 - From Cursor - search for terms only from the cursor position forward.
 - 5 Click Ok to begin the search. The system highlights the first occurrence of your term and displays a confirmation message.
 - 6 Click Yes or No to confirm or cancel the replace. The system displays the Continue Searching window.
 - 7 Click Yes to continue searching or No to end the search. Click Ok. You return to the Text Area window.

EDITING YOUR USER DICTIONARY

From the Check Spelling window, click Edit User Dictionary. The Lexicon window appears.



You have these options:

To:	Select:
Add a word to your dictionary, type the word in the New Word field and select	Add
To delete a word from your dictionary, click the word and select	Delete
Remove all words from the dictionary	Clear
Exit the Lexicon window	Close

FORMATTING THE TEXT

If you need to further format the text, use these options:

To...	Select...	Or press...
Allow the text area to grow or shrink and have the image automatically reformat itself	File, Properties	
Allow the text area to span multiple pages	File, Properties	
Balance the amount of text in columns	View, Level Columns	
Bold the text	Edit, Bold	CTRL+B
Change the dimensions of the text area	File, Properties	
Change the position of the text area	File, Properties	
Change the color of the text	Edit, Color	
Change the font	Format, Font	CTRL+F
Change line spacing for a paragraph	Format, Paragraph	CTRL+P
Change the space above or below a paragraph	Format, Paragraph	CTRL+P
Change the justification of a paragraph	Format, Paragraph	CTRL+P
Cut text	Edit, Cut	CTRL+X or SHIFT+DELETE
Copy text	Edit, Copy	CTRL+C or CTRL+INSERT
Delete multiple tab stops	Format, Tab Stops CTRL+highlight tab stops+DELETE	Ctrl+t
Edit a paragraph's format	Format, Paragraph	CTRL+P
Indent a paragraph	Format, Paragraph	CTRL+P
Insert a box	Insert, Box	
Insert a logo	Insert, Logo	
Insert a new line	Insert, Break or press SHIFT+ENTER	
Insert a new paragraph	Enter	
Insert a variable field	Insert, Field	
Italicize the text	Edit, Italics	CTRL+I

To...	Select...	Or press...
Paste text	Edit, Paste	CTRL+V or SHIFT+INSERT
Place a border around a paragraph	Format, Border	
Place a shaded background behind the paragraph	Format, Shade	
Prevent hyphenation	Edit, Do Not Hyphenate	
Prevent text from breaking	Format, Paragraph or Edit, Do Not Break	
Protect text from user edits after import	Format, Paragraph	
Reformat the text	View, Reformat	F6
Refresh the window	View, Refresh	F5
Save your changes	File, Save	CTRL+S
Select a word	Edit, Select	CTRL+SPACEBAR
Select all text (deselect text)	Edit, Select	CTRL+/ (CTRL+\)
Set tabs for a paragraph	Format, Tab Stops	CTRL+T
Set up or modify columns	Format, Columns	
Strike through the text	Edit, Strike-out	
Underline the text	Edit, Underline	CTRL+U
Undo your changes	Edit, Undo	ALT+BACKSPACE

EXITING THE TEXT EDITOR

To exit the Text Editor and return to the Image Editor, choose File, Exit. The Text Editor automatically saves your changes when you exit.

If you do not want your changes, delete them before you exit the Text Editor or, if you do not want the text area, delete the text area when you return to the Image Editor.

CUSTOMIZING TEXT EDITOR MENUS AND TOOLBAR

You can customize the Text Editor's menus and toolbar. To do so, add this option in the Menu control group:

```
< Menu >
    TxmMenu = filename.res
```

This option tells the system to find the definition of the Text Editor's menus and toolbar in the file named. For example, you could name the file *TXM.RES*.

NOTE: Documaker Workstation uses a resource file named *MEN.RES* to define its menus. The TxmMenu option used here lets you do a similar thing with the Text Editor. Keep in mind, however, that the MEN.RES file can call custom functions and DLLs while the file specified with the TxmMenu option cannot. TXM.RES is an example in the INI option above. You do not have to use that file name.

Here is a sample resource file for defining the Text Editor menus and toolbars. This file specifies the default Text Editor menus and toolbar.

Sample resource file for the Text Editor

```
MENU            "Edit"
BEGIN
    POPUP "&File" 5850 "System menu"
    BEGIN
        MENUITEM "&Save\tCtrl+S"           5851 "NULL" "Description"
        MENUITEM "&Properties..."         5852 "NULL" "Description"
        MENUITEM "E&xit\tF3"               5853 "NULL" "Description"
    END
    POPUP "&Edit" 5854
    BEGIN
        MENUITEM "&Undo\tCtrl+Z"           5856 "NULL" "Description"
        SEPARATOR
        MENUITEM "&Copy\tCtrl+C"           5857 "NULL" "Description"
        MENUITEM "Cu&t\tCtrl+X"            5858 "NULL" "Description"
        MENUITEM "&Paste\tCtrl+V"          5859 "NULL" "Description"
        MENUITEM "Paste &RTF"              5892 "NULL" "Description"
        MENUITEM "&Delete\tDel"            5844 "NULL" "Description"
        SEPARATOR
        POPUP "Se&lect"
        BEGIN
            MENUITEM "&Character"           5874 "NULL" "Description"
            MENUITEM "&Word\tCtrl+Sp"        5875 "NULL" "Description"
            MENUITEM "&Line"                5876 "NULL" "Description"
            MENUITEM "&Paragraph"           5877 "NULL" "Description"
            MENUITEM "C&olumn"              5846 "NULL" "Description"
            MENUITEM "&All\tCtrl+/"          5879 "NULL" "Description"
            MENUITEM "&Deselect\tCtrl+\"      5880 "NULL" "Description"
        END
        SEPARATOR
        MENUITEM "&Bold\tCtrl+B"           5860 "NULL" "Description"
        MENUITEM "&Italic\tCtrl+I"         5861 "NULL" "Description"
        MENUITEM "U&nderline\tCtrl+U"      5862 "NULL" "Description"
        MENUITEM "&Strike-out"             5863 "NULL" "Description"
        MENUITEM "Do not &hyphen"          5885 "NULL" "Description"
        MENUITEM "&Do not break"           5895 "NULL" "Description"
        MENUITEM "C&olor..."             5864 "NULL" "Description"
```

```

END
POPUP "&View" 5865
BEGIN
    MENUITEM "&Zoom..." 5866 "NULL" "Description"
    SEPARATOR
    MENUITEM "&Status Line" 5869 "NULL" "Description"
    MENUITEM "&Nonprinting Tokens" 5870 "NULL" "Description"
    MENUITEM "R&ulers" 5830 "NULL" "Description"
    MENUITEM "&Title bar" 5831 "NULL" "Description"
    MENUITEM "Tool&bar" 5832 "NULL" "Description"
    SEPARATOR
    MENUITEM "&Refresh\tF5" 1009 "NULL" "Description"
    MENUITEM "Re&format\tF6" 5872 "NULL" "Description"
    MENUITEM "&Level Columns" 5898 "NULL" "Description"
END
POPUP "&Insert" 5881
BEGIN
    MENUITEM "&Break..." 5882 "NULL" "Description"
    MENUITEM "&File..." 5883 "NULL" "Description"
    MENUITEM "&Logo..." 5884 "NULL" "Description"
    MENUITEM "Fiel&d..." 5878 "NULL" "Description"
    MENUITEM "B&ox..." 5847 "NULL" "Description"
END
POPUP "F&ormat" 5885
BEGIN
    MENUITEM "&Font...\tCtrl+F" 5886 "NULL" "Description"
    MENUITEM "&Paragraph...\tCtrl+P" 5887 "NULL"
"Description"
    MENUITEM "&Tab Stops...\tCtrl+T" 5888 "NULL" "Description"
    MENUITEM "&Border..." 5889 "NULL" "Description"
    MENUITEM "&Shade..." 5890 "NULL" "Description"
    MENUITEM "&Columns..." 5891 "NULL" "Description"
END
POPUP "&Tools" 5892
BEGIN
    MENUITEM "&Spell Check...\tF7" 5893 "NULL" "Description"
    MENUITEM "Spelling &Options..." 5816 "NULL" "Description"
    MENUITEM "&Find/Replace..." 5894 "NULL" "Description"
END
POPUP "&Help" 5895
BEGIN
    MENUITEM "&Contents\tF11" 9904 "NULL" "Description"
    MENUITEM "&How to...\tCtrl+F2" 9902 "NULL" "Description"
    MENUITEM "&Shortcuts\tShift+F2" 9903 "NULL" "Description"
    MENUITEM "&Glossary...\tCtrl+F11" 9907 "NULL"
"Description"
    MENUITEM "&Using Help\tShift+F11" 9901 "NULL"
"Description"
    SEPARATOR
    MENUITEM "&Product Information..." 9906 "NULL"
"Description"
END
END
TOOL 2 5851 ENABLED BUTTON
TOOL 0 0 NULL SEPARATOR
TOOL 21 5858 ENABLED BUTTON

```

TOOL 22	5857	ENABLED	BUTTON
TOOL 23	5859	ENABLED	BUTTON
TOOL 0	0	NULL	SEPARATOR
TOOL 52	5860	ENABLED	BUTTON
TOOL 53	5861	ENABLED	BUTTON
TOOL 54	5862	ENABLED	BUTTON
TOOL 68	5885	ENABLED	BUTTON
TOOL 0	0	NULL	SEPARATOR
TOOL 60	5870	ENABLED	BUTTON
TOOL 0	0	NULL	SEPARATOR
TOOL 29	5884	ENABLED	BUTTON
TOOL 34	5878	ENABLED	BUTTON
TOOL 30	5847	ENABLED	BUTTON
TOOL 0	0	NULL	SEPARATOR
TOOL 63	5891	ENABLED	BUTTON
TOOL 64	5889	ENABLED	BUTTON
TOOL 31	5890	ENABLED	BUTTON
TOOL 0	0	NULL	SEPARATOR
TOOL 41	5856	ENABLED	BUTTON
TOOL 62	5893	ENABLED	BUTTON
TOOL 55	5886	ENABLED	BUTTON
TOOL 8	5866	ENABLED	BUTTON
TOOL 0	0	NULL	SEPARATOR
TOOL 13	5899	ENABLED	BUTTON
TOOL 0	0	NULL	SEPARATOR

This feature applies both to Documaker Workstation when accessing the Text Editor and to the Image Editor's Data Entry Check feature.

CHAPTER 8

Adding Help Information

This chapter discusses working with the Help Editor. You use the Help Editor to attach help messages to a variable data entry field. The help messages you create with the Help Editor are available to the user during data entry on the form. Help messages and instructions make the entry process quicker and more efficient. Users have the option to display the help message if they need assistance with data entry.

Use the Help Editor to create user specific help records that reside in a selected library. A help file can contain multiple help records. One help record is associated with a variable field using the Properties window in the Image Editor.

There are two ways to create a Help file: through the Help Editor or during variable field creation using the Field Properties window. The entry screens are the same. The Help Editor lets you create help messages and then associate them with particular variable fields as you create them.

The topics in this chapter explain how to work with help files, records, and messages.

- [Using the Help Editor on page 286](#)
- [Creating a Help File on page 287](#)
- [Adding a Help Record on page 289](#)
- [Attach a Help Record to a Variable Field on page 291](#)
- [Creating Help from the Properties Window on page 292](#)
- [Printing a Help File Report on page 293](#)
- [Using Help Records During Data Entry on page 294](#)

USING THE HELP EDITOR

Use the Help Editor to set up or edit a help file. The Help Editor lets you create user specific help files that are accessible during data entry. A variable field is a data entry field into which a user enters data. Help records make the entry process easier and more accurate for the end user.

Help files reside in the selected master resource library. A *help file* (.DBF), typically in the \Help directory, can contain multiple help records. One help record is associated with certain variable fields. Each help record usually contains an explanation or a description for entering correct data into a variable field.

NOTE: To use the Help options from within the Image Editor, see the topic, [Creating Help from the Properties Window on page 292](#).

CREATING A HELP FILE

When creating a new help file, you can produce help records that are unique to an image. When naming the records, it may be best if you assign a help record name which is similar to the name of the variable field. This way, the name can serve as a reference for the field it is associated with.

NOTE: If you are working with a library, make sure the appropriate library is selected before you create the help file.

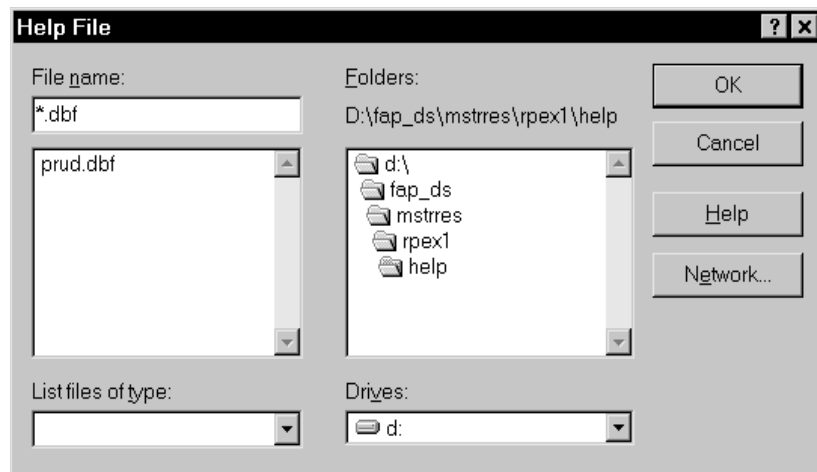
There are two ways to access help files: through the Help Editor and through the Docucreate's main window.

From the Help Editor

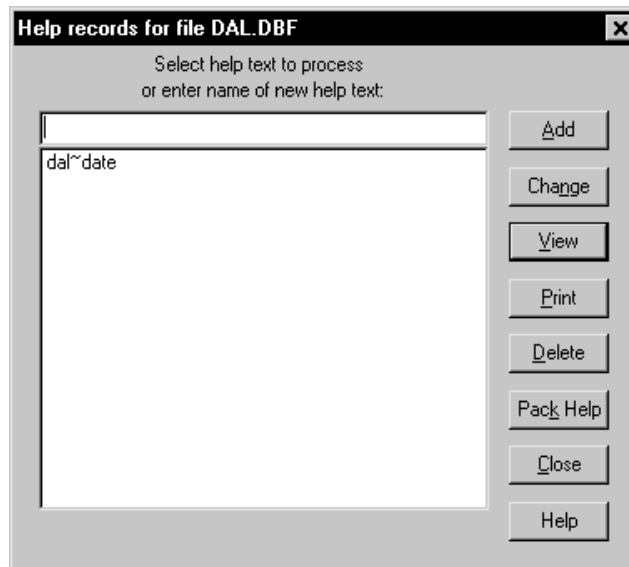
Select File, New to create a new help file. The Select Name For New File window appears. Enter the name of your new file in the file name field and click Ok. The file must have a *DBF* extension.

From the Docucreate window

- 1 Click the Resources icon and then the Help Editor icon. The Help File window appears.



- 2 Enter a name for the new file and click Ok. The file must have a *DBF* extension.
- 3 A blank help record file list for the DBF file appears.



From here, you can add, change, view, or delete records in the help file.

Packing Help Records

From the Help record for file window, click Pack Help to strip, or compress any records marked for deletion from the file. After clicking the Pack Help button, a message will appear asking if you are sure you want to pack these tables. If you click Yes, the system displays the following message stating that the table has been packed.



ADDING A HELP RECORD

You may store multiple records within a single file. The Help Records for File window provides the names of all the help records within the file. If you are starting a new file, the list is blank.

- 1 From the Help Records for File window, click Add. The Help Record for Key window appears.

- 2 Type the Help Name and Help Text. The Help Name is the name of the help ID you will select when attaching the record to the variable field. The Help Text is the information the user sees when the help record is displayed during data entry.

NOTE: When naming the records, it may be best if you assign a help record name which is similar to the name of the variable field. This way, the name can serve as a reference for the field it is associated with.

- 3 After you have completed the help record information, click Spell to run a spell check on the entry.
- 4 Click Ok to save the help record. You return to the Help Records for File window.

CHANGING A HELP RECORD

The Change option lets you edit help records in your file. You can change both the name of a record and the actual help text. Changing help text automatically changes what the user sees when accessing the help from the form. If you change the record name for a help record, you must make sure you change the record name in the Field Properties window in the Image Editor for each variable field this record is attached to.

- 1 From the Help Records for File window, highlight the record you want to edit and click Change.
- 2 Make the necessary changes to the help record and click Ok.

VIEWING A HELP RECORD

After you have created a help record, you can use the view option to see how the help text will look on screen when the data entry operator selects the Help option.

From the Help Records for File window, highlight the record you want to view and click View.

DELETING A HELP RECORD

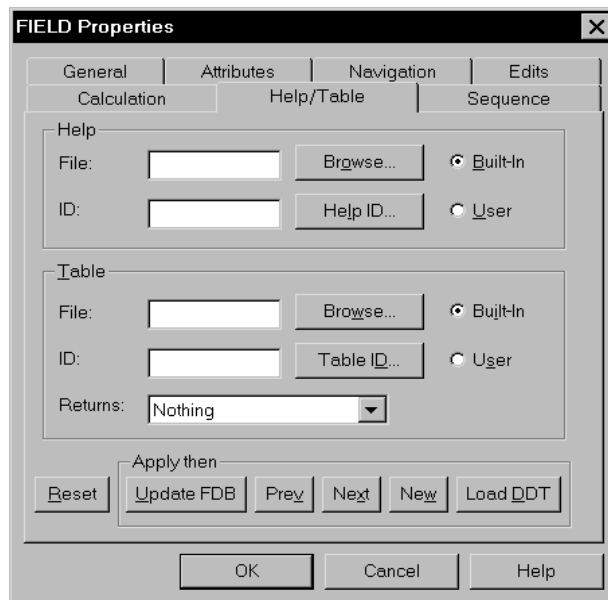
The Delete option lets you delete a help record from the help file.

From the Help Records for File window, highlight the record you want to delete. The system displays a confirmation message. Select Ok or Cancel. Ok deletes the help record. Cancel cancels the operation and returns you to the Help Records window.

ATTACH A HELP RECORD TO A VARIABLE FIELD

After you have composed the help file, you can attach a help record to a variable field in the Image Editor using the Field Properties window. This makes the appropriate help record available during data entry.

- 1 From the Image Editor, create the variable field and the Field Properties window appears. Or, double click on an existing variable field to display the Field Properties window.
- 2 Click the Help/Table tab.



- 3 Under Help, type the help file name in the File field. Or, click Browse to select from a list of help files, or to create a new help file.
- 4 In the ID field, select the help record from the list of records contained in the file you entered.
- 5 Make sure the Built-In field is selected and click Ok. The help record is attached to the field.

CREATING HELP FROM THE PROPERTIES WINDOW

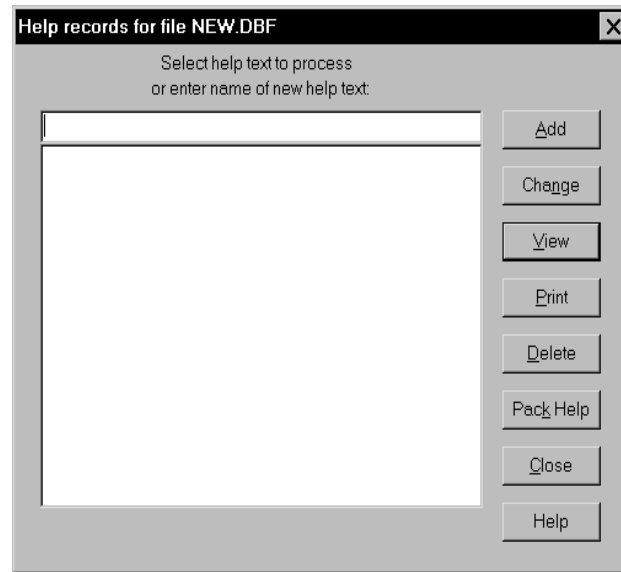
If you're working on a form and find that you need to create help, you can create a new help file or new help record from within the Image Editor. Once a file is created, you always have the option of adding help records as necessary to a file while working in the Image Editor.

- 1 Double click on the variable field you want to attach a help record to and click the Help/Table tab.
- 2 Under Help, click the Browse button next to the File field and type a name for the new help file in the Select File to Open window. Make sure you enter the file name with a DBF extension. This will create a new help file.

From here, you can add, change, view, or delete records in the help file.

PRINTING A HELP FILE REPORT

Help Editor provides an option to print a report of the help file contents.



To print a report, follow these steps:

- 1 Click the Print button on the Entry list windows. The system displays the selected report or all reports, if a specific one is not selected.
- 2 To print a hard copy of the report, select File, Print.

Understanding the System

To generate a report, the system uses the LINERPT.FAP file from the \mstrres\fmres\forms directory.

To print an individual help record, follow these steps.

- 1 Click on the help item in the record list, then change to display help.
- 2 Click on Print button to display the help report.
- 3 Select File, Print to print a hard copy of the report.

USING HELP RECORDS DURING DATA ENTRY

When a data entry operator is entering the information into a finished form or image, and comes to a variable field that has a help record attached to it, the Help button on the tool bar becomes active.

Clicking on the Help button displays the help record text that is attached to the variable field.

CHAPTER 9

Adding Tables

This chapter discusses working with the Table Editor. You use the Table Editor to attach table data to a variable field so it is available during data entry.

There are two ways to create a table file: through the Table Editor, or when you create a variable field using the Properties window. The entry screens are the same. The Table Editor lets you create tables for the variable fields you create.

Tables make the entry process quicker and more efficient for the end user. Users choose from data in a table rather than keying in information. This is especially useful, for example, when entering lengthy codes. Tables reduce data entry errors and increase speed.

This chapter covers these topics:

- [Using the Table Editor on page 296](#)
- [Creating a Table File on page 298](#)
- [Creating a New Table on page 299](#)
- [Editing Table Entries on page 301](#)
- [Attach a Table to a Variable Field on page 304](#)
- [Create a Table from the Properties Window on page 306](#)
- [Printing a Table File Report on page 307](#)
- [Using Tables During Data Entry on page 308](#)
- [Using Tables and Paragraph Assembly on page 309](#)

USING THE TABLE EDITOR

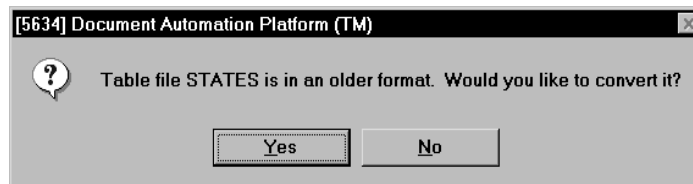
The Table Editor is used to create a table of data used during form entry. A variable field is a data entry field into which a user enters data. The data for a table can either be manually entered or merged from a client data source. Tables make the entry process quicker and more efficient for the end user. Users choose from data options in a table format rather than keying in information. Using the Table Editor, you can create and edit table files, tables, and table entries.

A *table file* can contain many tables. Each *table* contains many entries. The entries in the tables are the choices available to the data entry user. Each table entry contains two parts: a key and a description. A key might be a short abbreviation, such as *GA*, and the description provides a longer and more complete explanation of the key, such as *Georgia*.

Table files reside in the selected master resource library (typically in the \table directory). A table file (*DBF*) can contain multiple tables identified by unique names. You can create a new table file, or you can open an existing table file to correspond with your image and its variable fields. After you open or create a file, you can add or edit tables in the file to meet the particular requirements of the image.

Understanding the System

Beginning with version 10.1, the size of table names, entry names, and entry descriptions have been expanded. New tables you create using the Table Editor will automatically use the new sizes. For existing tables, the system offers to convert the table so that it can use the new sizes when you open the table in the Table Editor.



If you click Yes, the system converts the table. You can then start the Table Editor and use the Change button to apply new sizes. Old and new table sizes are shown here:

	Old	New
Table Name size	8	40
Entry Name size	20	40
Description size	100	248

For performance purposes, you can include one of these INI options to specify that entry table files will use the old or new format. (*Do not* include both options.)

```
< Tables >
  OldFormatOnly = Yes
```


`NewFormatOnly = Yes`

For instance, if you are doing a lot of entry table lookups from the DAL code, your tables are located on a network drive, and the tables are a mix of both old and new format tables, performance can be affected because the system has to check the format of each table.

If, however, you can use one of these new options to tell the system that all tables are in the same format, it can omit that query and performance improves. Specify only the option that applies. If you omit both options, the system first checks to see if the table is in the new format. If not, then it checks to see if the table is in the old format.

Keep in mind that if you include one of these options, all of your tables must be in that format. For instance if you set the `OldFormatOnly` option to `Yes`, all of your tables must be in the old format. If you later decide to convert your tables to the new format, you must remove this option and, to get the same performance gain, include the `NewFormatOnly` option.

CREATING A TABLE FILE

When creating a new Table file, you can produce tables that contain keys and descriptions unique to an image. When naming the tables, it may be best to assign a name which is similar to the name of the variable field. This way, the name can serve as an easy reference to the variable field it is attached to.

You may add or edit tables *only* after creating or opening a table file. You can have multiple tables in a single file, perhaps attached to a set of forms. The Table List window provides the names of all the tables in the file. If you are creating a new file, the Table List is blank.

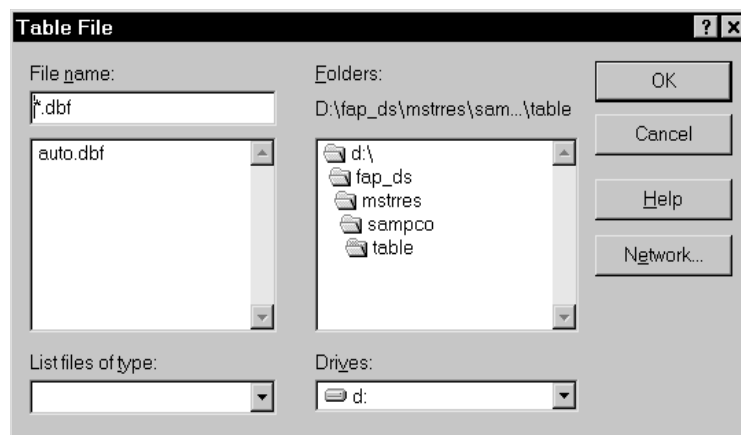
There are two ways to access table files: through the Table Editor or through the Docucreate window.

From the Table Editor

Select File, New to create a new table file. The Select Name For New File window appears. Enter the name of the file in the file name field and click Ok. The file must have a DBF extension.

From Docucreate's window

- 1 Click the Resources icon then the Table Editor icon. The Table File window appears.



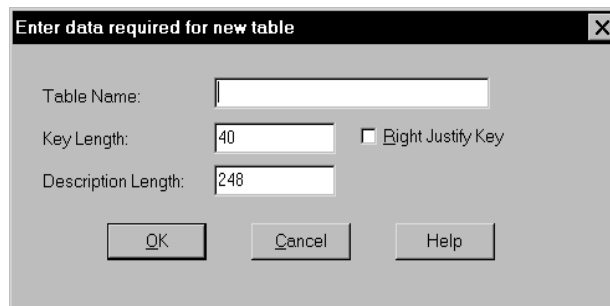
- 2 Enter a name for the new table file and click Ok. The file must have a DFB extension.
- 3 A blank Table List for the file appears. You can now begin creating tables for the file.

CREATING A NEW TABLE

From the Table List window, you can add a table to the current .DBF file, change the table information, edit the table entries, or delete a table.



- 1 From the Table List window, click Add. The Enter Data Required for New Table window appears.



- 2 Type the Table Name, Key Length, and Description Length. Table name will be the name of the table in the DBF file. Table names can consist of up to 40 characters.

The key length is the maximum number of characters for a key entry. Keys can be up to 40 characters in length.

The Description Length is the maximum number of characters for a description entry in the table. Descriptions can be up to 248 characters in length.
- 3 Check the Right Justify field to present your table entries in ascending numeric key order.

NOTE: The right justify option is useful for numeric key values, however you must be consistent in your input of information. For example, you can not mix numbers with decimal places with those with no decimal places and you can not mix numbers with different numbers of decimal places.

- 4 When you have completed the information about the table, click Ok. You return to the Table List window. From here, you can add another table, change a table's information, edit a table's entries, or delete a table.

Packing a Table

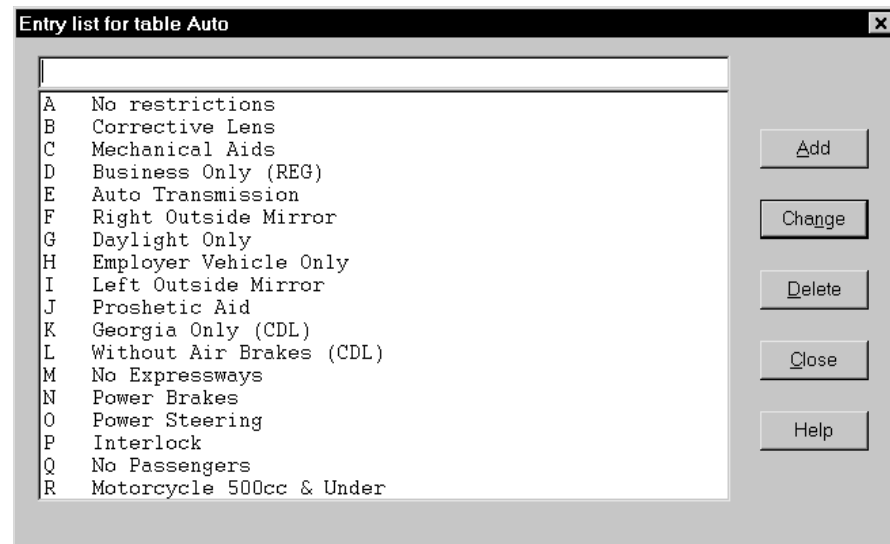
From the Table List window, click Pack Tables to strip, or compress, any records marked for deletion from the file. After clicking the Pack Tables button, a message will appear asking if you are sure you want to pack these tables. If you click Yes, the system displays the following message.



EDITING TABLE ENTRIES

After you have created a table, the two columns of information need to be entered and maintained. To do this, use the Edit Entries option to add, change, or delete the entries within the table. Once you have made an entry, the two columns of the table display. The first column is the key, and the second column is the description.

From the Table List window, highlight the table you want to work with and click Edit Entries. The Entry list for your table appears.



Adding Table Records

- 1 From the Table List window, highlight the table you want to add entries for and click Add. The Enter Data for New Entry window appears.

Enter data for new entry in table Automobile

Entry name(key):

Description:

OK Cancel Spell... Help

- 2 Type the key in the Entry Name field, and then enter the description.
- 3 After you have entered the table record, click Spell to check the spelling of your entry.

NOTE: The Table Editor will allow the spell check operation to be run against an entire table opposed to checking one element at a time.

- 4 Click Ok. The entry displays on the Entry List window for your table.

Changing Table Records

- 1 From the Table List window, highlight the table you want to change the entries for and click Change. The Change Data for Entry window appears.
- 2 Edit the Entry Name and Description as necessary.
- 3 Click Ok.

Deleting Table Records

- 1 From the Table List window, highlight the table entry you want to delete and click Delete. A confirmation window appears.
- 2 Click Ok to delete the table entry. Click Cancel to cancel the operation and return to the entry list.

NOTE: If you start typing the key value of a record you want to change or delete, the selection bar will incrementally move to the first matching record.

For instance, if you have table entries for the states where the key is the postal abbreviation, typing M will take you to Massachusetts (MA). Typing E after M will take you to Maine (ME).

CHANGING TABLE INFORMATION

The Change option lets you edit the table information in the DBF file, but not the table entries. You can change both the name of a table and the maximum length allowed for keys and descriptions in the table. If you want to change a table entry, see [Editing Table Entries on page 301](#).

NOTE: You can not increase the maximum length of keys to more than 40 or description to more than 248.

- 1 From the Table List window, highlight the table you want to edit and click Change.
- 2 Edit the table name, key length, and description length. Table name is the name of the table in the DBF file. The key length is the maximum number of characters for a key entry. Keys can be up to 40 characters in length. The description length is the maximum number of characters for a description entry in the table. Descriptions can be up to 248 characters in length.

- 3 When you have finished changing the table information, click Ok. You return to the Table List window. From here, you can add a table, edit a table's entries, or delete a table.

DELETE A TABLE

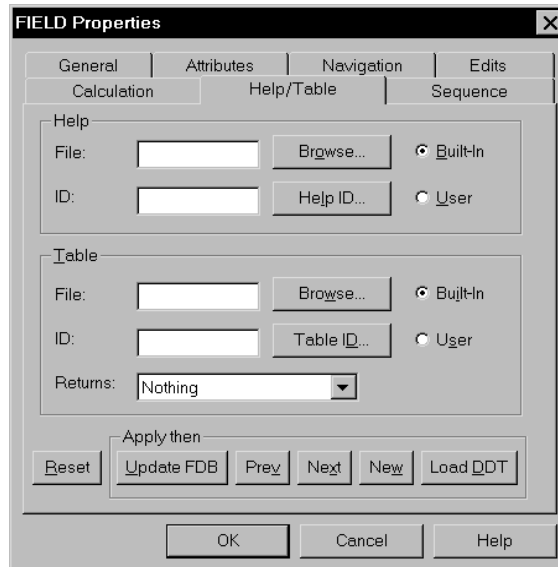
The Delete option lets you delete an entire table from your file. If you just want to delete a table entry, see [Editing Table Entries on page 301](#).

- 1 From the Table List window, highlight the table you want to delete and click Delete. A confirmation window appears.
- 2 Click Ok to delete the table from the file. Click Cancel to cancel the operation and return to the Table List window.

ATTACH A TABLE TO A VARIABLE FIELD

You can attach a table to a variable field in the Image Editor using the Field Properties window. This makes the table available during data entry.

- 1 From the Image Editor, create the variable field. The Field Properties window automatically appears. Double click on an existing variable field to display the Field Properties window.
- 2 Click the Help/Table tab.



- 3 In the Table field, type the table file name in the File field. Or, click Browse to select from a list of available tables or create a new table.
- 4 In the ID field, select the table from the list of tables contained in the file you entered.
- 5 Make sure the Built-In field is selected.
- 6 In the Return field, select the data you want to default into the variable field from the table. You can choose from key only, description only, key and description, description and key, and nothing. The default is nothing.
- 7 Click Ok. The system attaches the table to the field.

Forcing users to select from a table

To make sure data entry users make a selection from the table rather than enter data directly into the field, make the following entry in the INI file:

```
< Control >
ForceTableOnlySelection = Yes
```

Forcing users to select a valid key

Use this INI option:

```
< Control >
ValidateTableOnlyKey = Yes
```

To force data entry users to enter valid key entries in table-only variable fields. If the user enters a value that is not a valid table key, the system displays a message asking the user to select a value from the table.

This only works on fields declared as Table-Only and which return the *?Key only?* value from the table. This option has no effect if the field returns *?Description only?*, *?Key+Description?*, or *?Description+Key?*.

Keep in mind that the system only validates the field when the field is edited. This validation, like all other format validations, is not checked when you use the RequiredFields option in the Control group.

CREATE A TABLE FROM THE PROPERTIES WINDOW

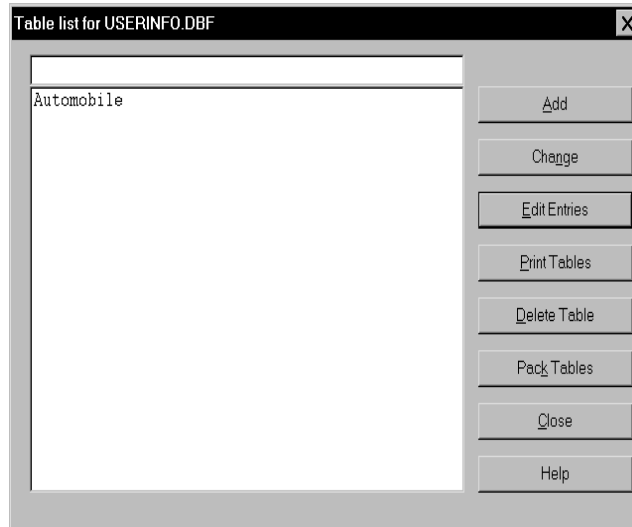
If you are working on a form and you need to add a table, you can create a new table file or table while you are working in the Image Editor. Once a file is created, you always have the option of adding tables and table entries as necessary to a file while working in the Image Editor.

- 1 Double click on the variable field you want to attach a table to and click the Help/ Table tab.
- 2 Under Table, click the Browse button next to the File field and type a name for the new table file in the Select File to Open window. Make sure you enter the file name with a DBF extension. This will create a new table file.

From here, you can add, change, or delete tables and table entries in the table file.

PRINTING A TABLE FILE REPORT

Table Editor provides an option to print a report of the Table file contents.



To print a report, follow these steps:

- 1 Click the Print button on the Table list window. The system displays the report.
- 2 To print a hard copy of the report, click Print.

Understanding the System

To generate a report, the system uses the LINERPT.FAP file from the \mstres\fmres\forms directory.

USING TABLES DURING DATA ENTRY

When a data entry operator is entering the information into a finished form or image, and comes to a variable field that has a table attached to it, the Table button on the tool bar becomes active.

Clicking on the Table button displays the table entries attached to the variable field. Simply click on the appropriate entry, and the information you selected in the Return field on the Field Properties window fills the variable field.

USING TABLES AND PARAGRAPH ASSEMBLY

The paragraph assembly feature is used with multi-line text variable fields. When you use the paragraph assembly feature, the end user selects pre-written, standardized paragraphs for entry into that field.

You create the paragraphs as separate images. Each separate image becomes an option in a lookup table. Paragraph assembly is a time saving feature for end users who frequently enter standard paragraphs or text.

- 1 From the Image Editor, create or select the variable field you want to use for the paragraph assembly feature.
- 2 Open the Variable Field Properties window and click the Attributes tab.
- 3 Select Multi-line text as the variable field type.
- 4 Click the Help/Table tab.
- 5 Select the table file name in the File Name field.
- 6 Click the Built-in field to indicate the source of the table file.
- 7 Type the table ID in the Table ID field. The table name is the name of a table in the table file. The table name is the name of the table that contains your standard paragraphs. Standard paragraphs are actually individual FAP files.
- 8 Click the Functions tab, then click the Edit tab.
- 9 Choose *TERSW32* as the pre-edit module in the Pre-Edit Module field.
- 10 Choose *TerSubstitute* as the pre-edit procedure name in the Pre-Edit Procedure field.
- 11 Click Ok.

CHAPTER 10

Adding Charts

This chapter discusses working with the Chart Editor. You can use the Chart Editor to create pie charts, bar charts, line charts, area charts, and percentage charts.

You place charts on an image much like you would add a logo, except you have more properties you can use to customize the charts. These settings let you specify the type of chart, the titles and subtitles, labels, legends, shading, and so on.

This chapter discusses these topics:

- [Overview on page 312](#)
- [Creating Charts on page 313](#)
- [Entering Information on the Chart Tab on page 315](#)
- [Entering Information on the Graph Tab on page 317](#)
- [Entering Information on the Legend Tab on page 319](#)
- [Entering Information on the Data Tab on page 320](#)
- [Entering Information on the Series Tab on page 321](#)
- [Entering Information on the Text Tab on page 323](#)
- [Entering Information on the Point Axis Tab on page 324](#)
- [Entering Information on the Scale Axis Tab on page 325](#)
- [Setting Default Properties on page 327](#)
- [Designing the Chart's Appearance on page 328](#)
- [Adding Data on page 334](#)
- [Combining Charts on page 338](#)
- [Completing Your Chart on page 339](#)

OVERVIEW

The Chart Editor lets you include graphical charts in your images. You can choose from a variety of 2-dimensional and 3-dimensional charts including pie charts, bar charts, area charts, and percentage charts.

You can customize the look of your chart by selecting various properties to change positioning, dimensions, line characteristics, chart background, chart colors, and so on.

The system provides two ways for you to show data on your charts: statically or dynamically. A chart can show static data you enter via the Image Editor. This data does not change. A chart can also show dynamic data added via the rules processor at run time or during data entry in the Image Editor or Entry module.

There are several image level rules you can use with dynamic data. These rules let you populate the chart with data from an extract file or from data in variable fields on the image. You can find more information on these rules in the Rules Reference.

After the chart has been created and the look of the chart is established, you can fill the chart with data. There are several ways to populate a chart with data. You can...

- Enter static data onto the chart by entering these permanent data values when you create the chart. These data values are stored along with the chart as part of the image file.
- Populate the fields with data at runtime or when using the Entry module to update the dynamic data.

CREATING CHARTS

Once you have determined the type of data you will be using and the type of chart that can best display the data, you can begin creating a chart meeting your data needs.

To create a chart in your image, follow these instructions:

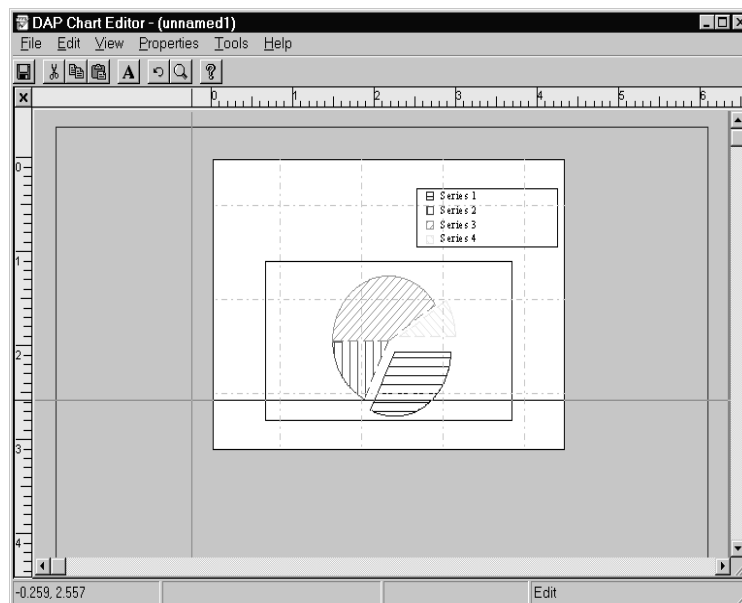
NOTE: You can set default settings for all objects using the Options, Default Properties option. If you are creating a number of charts with roughly the same properties, you can save time by changing the defaults to match your needs. See [Setting Default Properties on page 327](#) for more information.

- 1 Choose Insert, Chart or click the chart icon on the tool bar.



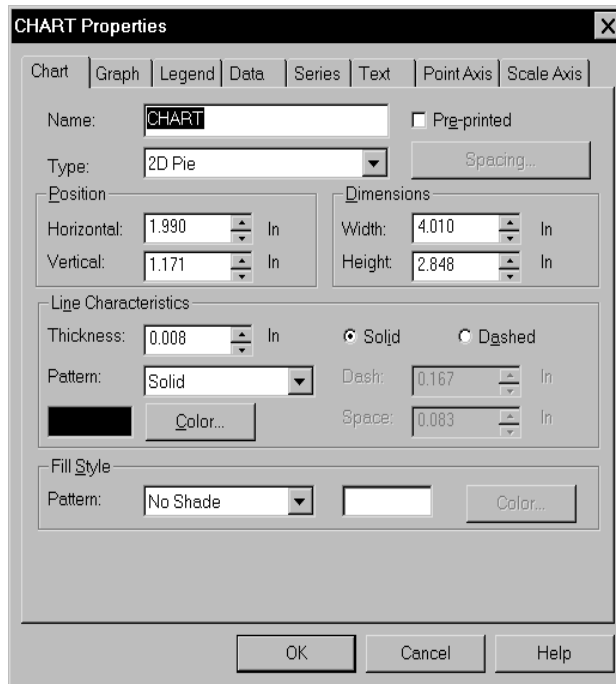
Chart Icon

- 2 Place the mouse pointer where you want the top left corner of the chart to be and press and hold the left mouse button. Drag the mouse to draw the area where you want the system to insert the chart. Release the mouse button. The Chart Editor window appears.



NOTE: If the chart is not in exactly the right spot, you can move it later.

- 3 To tailor your chart, double click on the chart to open the Chart Properties window or go to the Properties menu to go directly to a specific properties window tab. The Chart Properties window appears:



The Properties window is the direct link to making all the changes to the entire chart area and the specific points on the graph. The Properties window displays several different tabs providing quick access to all the parts of the chart:

- Chart
- Graph
- Legend
- Data
- Series
- Text
- Point Axis
- Scale Axis

If, for instance, you want to add some text labels, click on the Text tab. If you want to change the legend, click on the Legend tab.

ENTERING INFORMATION ON THE CHART TAB

Select the Chart tab to name your chart and specify the position, line characteristics, dimensions and fill style.

- 1 Enter your chart name in the Name field
- 2 In the Type field, you can choose from the following types of two- and three-dimensional charts:
 - Pie chart
 - Vertical bar chart
 - Horizontal bar chart
 - Line
 - Ribbon
 - Area
 - On-top vertical bar chart
 - On-top horizontal bar chart
 - Percent vertical bar
 - Percent horizontal bar
 - Percent area
 - Split vertical bar (three-dimensional only)
 - Split horizontal bar (three-dimensional only)
 - Split area (three-dimensional only)

You can try the various chart types to determine which type best communicates your information.

Understanding the System

The system starts drawing the first slice of a pie chart at zero (0) degrees. To specify the angle at which the system starts drawing slices, make the following entry in the INI file:

```
< Control >
FirstPieSliceAngle = XXX
```

Where XXX represents the angle degree, from zero (0) to 359.

Spacing button

If you elect to use a bar chart, click the Spacing button. A Percentage and Spacing window appears so you can define the width of bars for a bar chart, and the amount of space you want between each bar.

The Entire Group Bar Width Percentage lets you determine the percentage of the area a group of bars take up on the chart.

The Individual Bar Width lets you scale the width of the bars, allowing you to leave space between the bars if you want. Setting this at 100% leaves no space between the bars in a group.

- 3 Enter the following information for the chart.

Use this option...	To...
Position	Specify the placement of the chart in the image. You can also exit the Chart Editor, click on the chart, and use your mouse to position the chart area
Dimensions	Specify the size of the chart in the image.
Line Characteristics	Specify the thickness of the border around the chart area, the color of that border, and the style of the border.
Fill	Determine the background fill pattern and the color of that pattern.
3-Dimensional Chart	Enter the depth of the chart's bars or pie slices in the Depth field. To rotate the chart, click the Rotation button.

NOTE: The best way to use the 3-Dimensional Chart options is to try several depths and rotations to find the one that best suits your needs. The system lets you quickly make changes and see the results.

With the exception of the 3-Dimensional Chart options, these properties apply to the entire chart area, not the chart graphic inside the chart area. To edit the properties for the graphic inside the chart area, use the Properties, Graph option. To enter or change the name or type of chart, use the Properties, Chart Properties option.

NOTE: If you change the chart type to a three-dimensional pie chart, the system automatically adjusts the chart to prevent the graph from overlapping the border.

ENTERING INFORMATION ON THE GRAPH TAB

Select the Graph option to set or change the name of the graph and the type of graph.

1 Enter the name of the graph in the Name field. Then choose from the following types of two-dimensional charts:

- Pie
- Vertical bar
- Horizontal bar
- Line
- Area
- On-top vertical bar
- On-top horizontal bar
- Percent vertical bar
- Percent horizontal bar
- Percent area

You can try the various graph types to determine which type best communicates the information in the graph.

NOTE: If you elect to use a bar chart, click the Bars button to enter the proportions of the bars on your chart.

2 Enter the following information for the graph:

Use this option...	To...
Link Chart	Use the Link Chart option to generate output that combines certain types of charts. For instance, you can link a 2D line chart to a 2D vertical bar, 2D line, or a 3D vertical bar chart. Once you link one chart to another, the chart will then use the position and size information from the other chart. This option is only available on the Graph tab for certain types of charts. See Combining Charts on page 338 for more information on this option.
Position	Use the Horizontal and Vertical fields to position the graph in the image. You can also exit the Chart Editor, click on the chart, and use your mouse to position the chart area.
Dimensions	Use the Width and Height fields to specify the size of the graph in the image.
Line Characteristics	Use the Line Characteristics fields to specify the thickness of the border around the graph area, the color of that border, and the style of the border.
Fill	Use the Fill Style fields to determine the background fill pattern and the color of that pattern.

Setting the angle of the first pie slice

To set the starting pie slice angle for 2D and 3D pie charts, enter the degree at which you want the first slice to begin in the First Slice Angle field. The default is zero (0), which means the first slice begins at the 3 o'clock position. If you enter 90, the first slice begins at 6 o'clock position. Entering 180 starts the slice at the 9 o'clock position, and so on.

NOTE: You can also use the FirstPieSliceAngle INI option but the system ignores this if the angle has been set to anything other than zero (0) in the Chart Editor.

ENTERING INFORMATION ON THE LEGEND TAB

Use the Properties, Legend option in the Chart Editor to set the following properties for the chart's legend. The legend helps readers understand the information shown in the chart.

The fields on the Legend tab provide these options:

Use this option...	To...
Position	Use the Horizontal and Vertical fields to specify the placement of the legend box inside the chart object.
Dimensions	Use the Width and Height fields to specify the size of the legend box.
Autosize	Use the Autosize field to tell the system to automatically size legend boxes based on the number of series.
Border	Use the Line Characteristics fields to specify the thickness of the border around the legend, the color of that border, and the style of the border.
Fill	Use the Fill Style fields to determine the background fill pattern and the color of that pattern.

You can also click the Show Legend field to either display or hide the chart's legend.

NOTE: If you created a bar chart, click the Spacing button to enter the proportions of the bars on your chart.

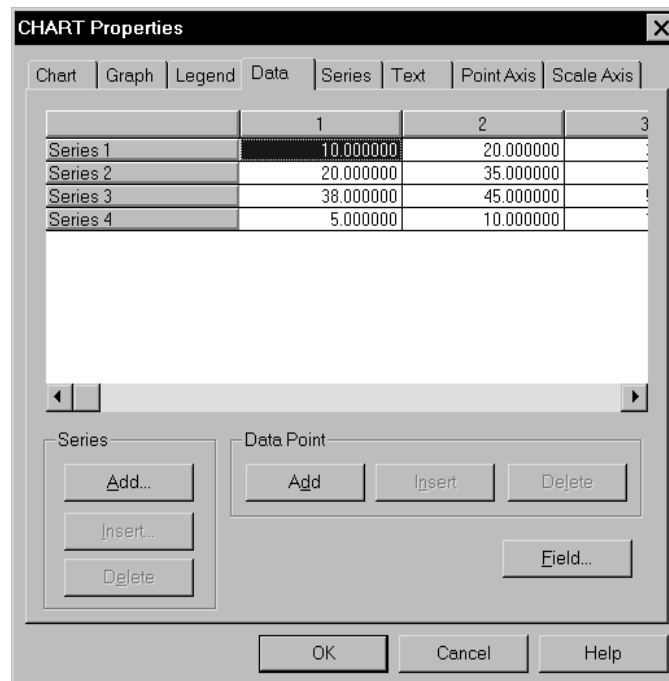
To enter titles for the legend, choose the Properties, Data option and then double click on the number next to the series for which you want to enter a title. The Series window appears, on which you can enter the text for the series title and set other properties.

ENTERING INFORMATION ON THE DATA TAB

Use the Properties, Data option to add, insert, or delete data from your chart and to add, insert, or delete series.

Series are groups of information shown in the chart. For example, in a vertical bar chart, series 1 could show the interest accrued on the principal for a given period while series 2 shows the principal amount for that same period. Each period would be shown in a data column.

For example, if you wanted to expand the vertical bar chart described above to cover additional periods, you would click Add or Insert to insert a new column into which you could enter the data for each series.



To Add a Data Point or a Series

To add a data point in the Data Point field, use the Add button to add a data column at the end of the columns. The Insert button inserts a data column before the current column. Likewise, use the Add button in the Series field to add a series to the end of the series rows, or the Insert button to add one before the current series row. Once you have added the series row or data column, you can type in the information into the appropriate cells.

If you add or insert a series, the Series window appears.

To Delete a Series or Data

To delete a data column or series row, first click the number above the column or to the left of the row. This selects the column or row. Then click Delete in the Series or Data Point field.

ENTERING INFORMATION ON THE SERIES TAB

The Series tab lets you define the title of a data series and its attributes, such as font and color. The series title appears in the chart legend. Click the Series tab to define how the title appears in the legend.

- 1 Enter your series title in the Title field. You can press the field button to assign variable values for series names or the Color Button to assign a color to your series name.
- 2 Enter a font number in the font field or press the font button to make a selection from the font choices.
- 3 Choose a Marker Symbol and Marker Size to specify how you want your data points displayed on the chart. There are several identifying symbols to choose from such as a plus sign (+) or a cross (x) to mark the specific series points on the line chart.

NOTE: The Marker Symbol and Marker Size fields only apply to line charts. The Explode Marker is only accessible when using pie charts.

- 4 Open the Series Area window by clicking on the Series Area button. You can edit the Series Area properties of the actual line, bar, or pie piece in the chart with that particular data set or series. You can change the exact line thickness, solid or dashed, shaded, line color and pattern.
- 5 Use the Data Label fields to define and position the various data labels you want to appear on your chart. Data labels tell you the value of the data depicted in the chart. Data labels can show the data's actual value, the value as a percentage, or no value.

NOTE: For series data elements, the system distinguishes between zero and no value (NULL). For example, suppose you are making a chart with 12 data points — one for each month of the year — to show a monthly account balance. If data only exists for five months, the other seven months are considered to have no value, as opposed to having a value of zero.

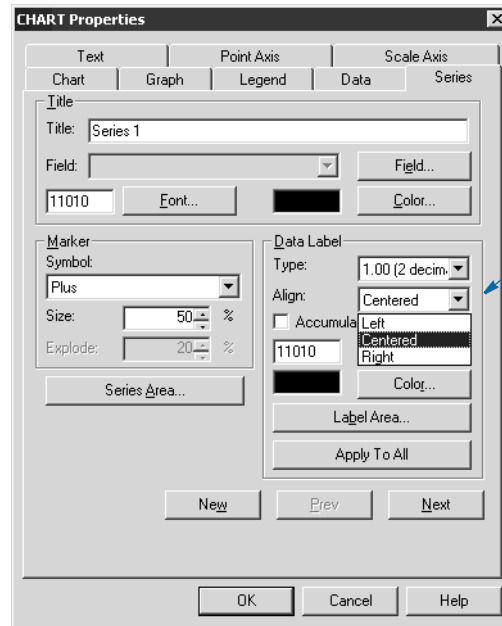
So, if your chart has a line which goes from data point to data point, the line simply stops when it gets to the first month with no value. The line only goes to zero if zero was actually assigned to the data.

- 6 Further define the data labels by clicking the Label Area button. Check the Accumulate Value field if you want totals kept for the data on the chart. The fields in the Label Area window let you determine the...
 - Border - Use the Line Characteristics fields to specify the thickness of the border around the data label, the color of that border, and the style of the border.
 - Style - Use the Pattern fields to define the line and fill patterns and colors.

Depending on the type of chart you selected in Chart Properties, other options may be available.

Aligning data labels

The Align field lets you choose how data labels are aligned next to the data points on a graph. To set the alignment, click in the Align field to select from center, left or right.



This field can be useful if you are placing charts on top of one another or if one series' data point overlaps another series' data point.

Sizing chart legend icons

You can use the `ChartLegendIconSize` option to override the default size of chart legend icons. Here is an example:

```
< Control >  
ChartLegendIconSize = 200,200
```

Specify the width and height (200,200) in FAP units and separate them with a comma. Line icons are not affected.

ENTERING INFORMATION ON THE TEXT TAB

Use the Properties, Text option in the Chart Editor to set the following properties for the text you enter for the entire chart, not the text for the point or scale axis. The text appears in the chart object, in the position you specify.

The fields on the window provide these options:

Use this option...	To...
Text	You can enter the text for the chart, and specify when the text displays: always, only on horizontal charts, or only on vertical charts.
Position	Use the Horizontal and Vertical fields to specify the placement of the title inside the chart object. The Center button calculates the horizontal or vertical offset for you and automatically centers the text.
Rotation	Use the Rotation field if you want to rotate the title. For example, you can rotate the title 90, 180, or 270 degrees to run it vertically or upside down in the chart. You can also underline the title or use the strike-out option to place a line through the text.
Color/Font	Use these buttons to select a color for the title and the font for the text.

NOTE: To enter text for the point or scale axis, choose the Properties, Data option and then double click on the number next to the series for which you want to enter a title. The Series Properties window appears, on which you can enter the text for the series title and set other properties.

ENTERING
INFORMATION ON
THE POINT AXIS
TAB

If you have selected a bar chart on the Chart tab of the Chart Properties window, use the Point Axis tab to set the following properties for the chart's point axis.

The point axis is the horizontal or vertical axis of the bar chart, depending on whether the bars on your chart are horizontal or vertical. These options do not apply to pie charts.

The fields on the Point Axis tab provide these options:

Use this option...	To...
Show data point grids in chart	Click this option to have the system display grids you can use for alignment purposes.
Line Characteristics	Use the Thickness, Pattern, Solid, and Dashed fields to define how the line appears. Click the Color button to choose a different color.
Labels	Use the Format field to select the way you want the system to format the text for the labels. If you want to define your own format, choose Custom and click the Custom button. Enter a starting value in the Start Value field and then enter an increment in the Increment field. Use the Font button to select the font for the text. Click the Color button to choose a different color.

NOTE: If you use variable fields to custom format a label, the system uses the rotation assigned to the variable fields when those fields are used for the point axis in a chart. To keep text from writing onto the chart, either use a 90 degree rotation or use labels with only one or two characters.

ENTERING
INFORMATION ON
THE SCALE AXIS
TAB

If you have selected a bar chart on the Chart tab of the Properties window, use the Scale Axis tab to set properties for the chart's scale axis. The scale axis is the horizontal or vertical axis of the bar chart, depending on whether the bars on your chart are horizontal or vertical.

Set these two fields to zero if you want the system to automatically scale the axis.

A table of Scale Axis options appears below. These options do not apply to pie charts. Make your selections then click Ok to apply these options and exit the Chart Properties window.

Option	Description
Show scale grids in chart	Click this option to display grids you can use for alignment purposes.
Show zero line	Select this option to display a line indicating zero. You may not be able to distinguish this line if you have the grid option selected.
Show scale on the right	This option displays the increment and tick marks on the right side of the chart. You can position the scale axis on the right side if you make your chart a three-dimensional chart and set the rotation to 0 (zero) for the X and +1 for the Y. This looks similar to a two-dimensional chart and causes the axis to move to the right side.
Line Characteristics	Use the Thickness, Pattern, Solid, and Dashed fields to define how the scale axis line appears. If you select Dashed, you must enter a value in the Dash and Space fields. Click the Color button to choose a different color for the scale axis. This color selection will apply to the tick marks as well. See Choosing Color on page 254 , for information about the Color Selection window.
Labels	Use the Format field to select the way you want the system to format the text for the increment labels. Click Font to select the font for the text. Click the Color button to choose a different color.

Option	Description
Marks	These fields let you specify the range and the increment value for the scale axis. Use the Min and Max fields to define the range, and use the Increment field to specify the increments in the range. For example, if you enter 10 in the Increments field, the range is divided into increments of 10. If you set the Min and Max fields to zero (0.0), the system assumes you want it to automatically scale the chart at runtime. When the system scales the chart for you, it examines the series data and determines the largest value based on the chart type then adds the difference to reach the next increment on the scale. For example, if the largest series value is 47, and the increment is set to 10, the system will scale the chart to 50. Likewise, if the largest value is 50, the system will scale the chart to 60. This adjustment assures a minimum amount of space between the top of the bar and the top of the chart. This adjustment applies to negative numbers as well; -8 will be scaled to -10. If all values are positive, the minimum scale value will be zero. For percentage charts, the Min and Max fields are unavailable since the range is from 0-100.
Suppress Major Ticks	Select this option to suppress the tick marks which appear between the increment labels and the scale axis.
Auto Label	Selecting this option lets you assign a number of labels to the scale axis rather than setting an increment value for the range. Enter the label number in the Increments field. You must enter a value other than zero; otherwise, the system will generate a message indicating that a required field has been left blank. The range is divided by the number of labels to determine a suitable increment. Since the range will not always divide evenly, the increment may be rounded off. This means the increment value may vary between each line.
Tick Marks	Click this option to include tick marks on the scale axis; then, enter a number in the field to the right to indicate how often a tick mark should appear. For instance, if the range is from 0-50 and you enter 5, you will see a tick mark for every five units.
Custom	The Custom button lets you use fields to specify the Minimum, Maximum, Increment and Tick mark units on a chart. To use this function, click Custom to display the Custom Axis Marks window. Select fields to assign to one or all of the scale units; for each item, there is a drop-down list to choose from. To create a new field, click Field to display the Field Properties window. Enter the properties for the new field and click Ok. After you have set up the fields, You can use the FieldVarsToChartSeries rule to map the field data. See Mapping Variable Fields on page 369 for information about assigning rules. For information about specific rules, see the Rules Reference.

SETTING DEFAULT PROPERTIES

To make creating charts easier, you can use the Options, Default Properties, Chart option to set up default properties which the system will use for all charts you create. The chart default properties include the following settings:

Use this setting...	To...
Type	choose from several types, including a two-dimensional pie chart and a two-dimensional vertical bar chart.
Series fonts	choose the fonts you want to use for the series.
Title and Subtitle	enter default titles for your charts and choose the font for the titles.
Axis	enter the scale and point axis headings and pick the fonts for those headings.
Display Options	choose to hide or display the rulers, tool bar, status line, and window title by checking the appropriate boxes.

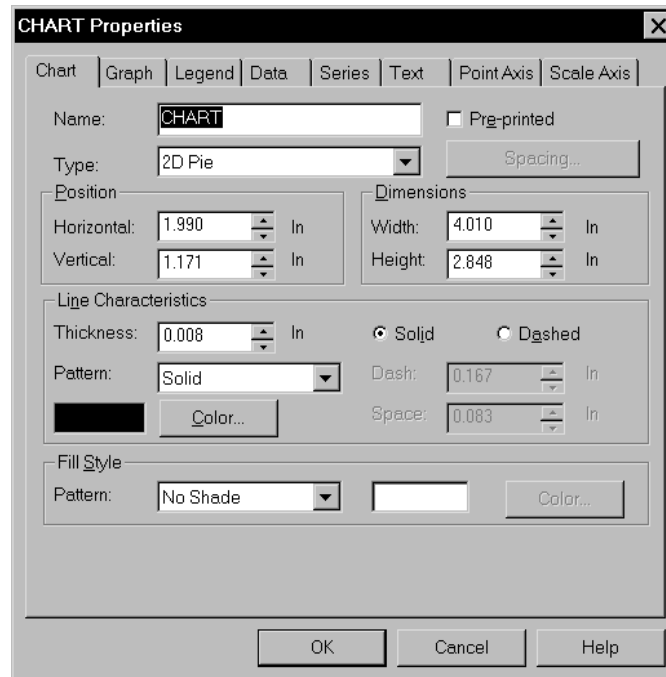
NOTE: Be sure to pick your default fonts on this properties window, because it is easy to omit that step as you create a chart. The system warns you when you close the chart if it does not have the font information it needs.

You can override these default settings when you create a chart or later on by editing the properties for that chart. Any changes you make to these properties only apply to subsequent charts you create.

DESIGNING THE CHART'S APPEARANCE

The Chart option from the Properties menu is used to change the chart name, type, positioning and dimensions. Within this window, you can change the line characteristics of the border and the background of the entire chart area. You can also change the color and size of your chart.

To access the various design properties, select Properties, Chart or double-click on the chart itself to view the Chart Properties window.

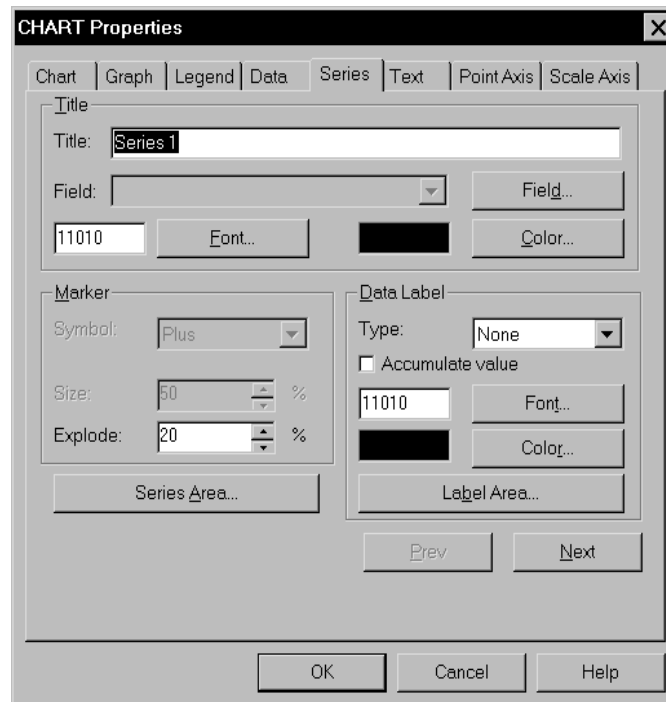


- 1 Enter horizontal and vertical values in the Position fields.
- 2 Enter width and height values in the Dimensions fields.
- 3 For the type of line, click either Solid or Dashed. For dashed lines, set the dash and space lengths.
- 4 Click Ok to display the revisions.

Creating the Legend

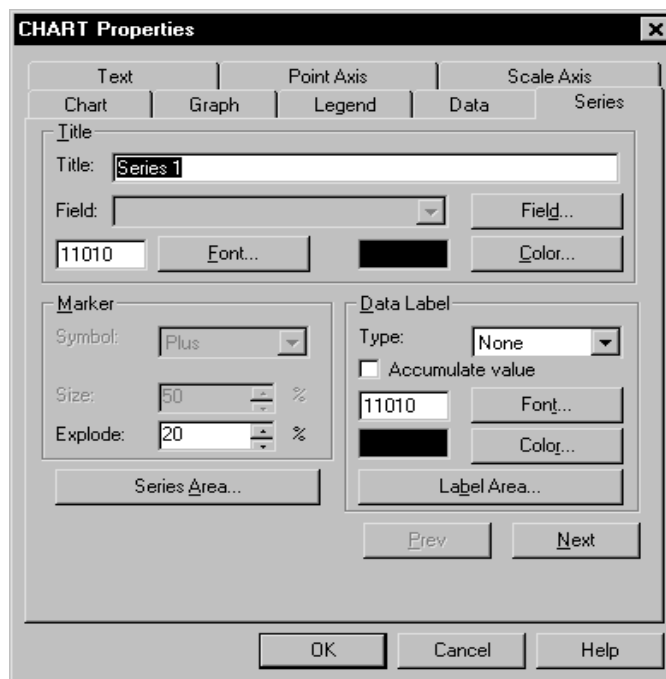
To create your charts legend, follow these steps:

- 1 Enter horizontal and vertical values in the Position fields.
- 2 Enter width and height values in the Dimensions fields.
- 3 Change line thickness as desired.
- 4 Select a Fill Style pattern in the drop down list.
- 5 Click Ok to display these changes.

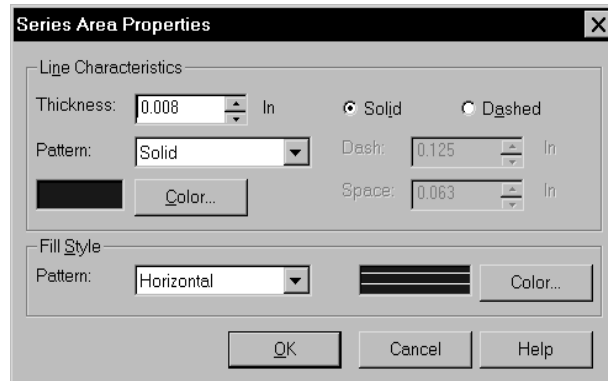


Editing the Series Area Properties

You can edit the Series Area Properties of an actual line, bar, or pie piece. Select Properties, Series. The Series tab of the Chart Properties window appears:



- 1 Open the Series Area window by clicking on the Series Area button of the Series Properties window. After clicking on the Series Area button, you will be able to edit the Series Area properties of the actual line, bar, or pie piece in the chart with that particular data set, or series. You can change your lines by selecting line thickness, solid, dashed, shaded, line color, and pattern.

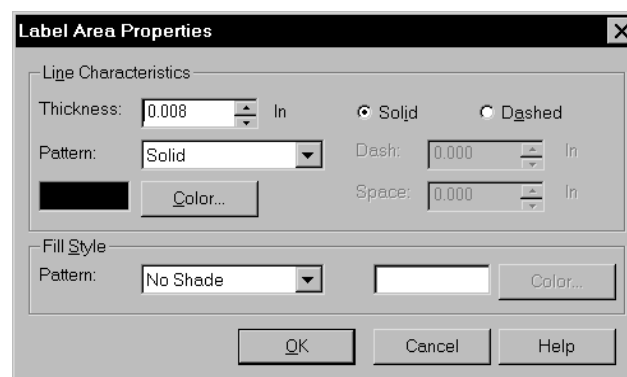


- 2 Accept or change the default setting and click Ok to return to the Series Properties window.

Creating Labels

Follow these steps to create data labels:

- 1 Choose a Data Label Type to place a decimal value above each data point in the series.
- 2 Click on the Label Area button to display the Label Area Properties window. Choose the line style and fill patterns of the labels that will display above each data point on the chart.



- 3 Enter the line and pattern characteristics in the Thickness and Pattern fields.
- 4 Click Ok to return to the Series Properties window. Then click Ok to return to the Chart Properties window.

When a two-dimensional and three-dimensional pie chart piece is less than 5% of the total pie, labels are moved away from the pie with lines drawn from the each piece to the matching data label.

If there are multiple small pieces next to each other, then the size of the lines varies to minimize collisions.

Although it is not possible to avoid all collisions, the system tries to move the labels for small, consecutive pieces up or down (depending upon the angle at which they occur) to avoid colliding with the prior label.

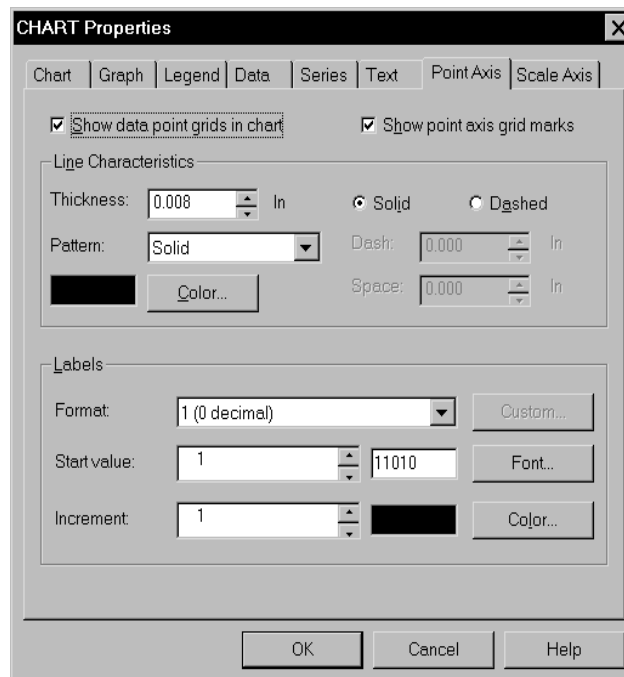
There are still several scenarios that can occur, including, but not limited to the following:

- When the pieces occur around the 12 o'clock position, the labels display vertically. Having too many such pieces in that position could cause labels to write into the pie graphic itself, or off the top of the image.
- If the first series or two are small and the last series or two are small, it is still possible for those labels to collide, depending upon the starting pie slice angle and how small the pieces are.

Determining the Point Axis Properties

To specify the properties of the Point Axis, follow these steps:

- 1 Select Properties, Point Axis. The Point Axis tab of the Chart Properties window appears.



- 2 Enter the line thickness for the point axis (X axis).
- 3 Enter the starting and increment values in the Labels area.
- 4 Enter a font ID.
- 5 Press the Color button to select a label color.
- 6 Click Ok to see colored values appear on the chart.

Understanding the System

When the system scales the chart for you, it examines the series data and determines the largest value based upon the chart type. Then it adds the difference to reach the next increment on the scale.

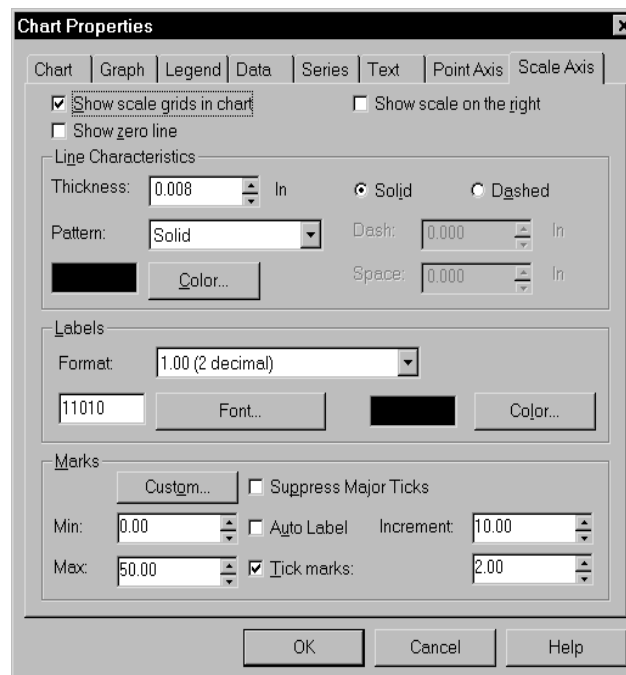
For instance, assume you set Min and Max fields to zero and you set your increment to 10. If your largest series value is 47, the system adjusts the scale to 50 (the next largest increment). If the largest value is 50, the scale will go to 60. This makes sure there is a minimum amount of space between the top of the highest value and the top of the chart.

Likewise, if the smallest series value is -8 then the minimum scale will become -10. If all values are greater than zero, then the minimum scale value will be zero.

Determining the Scale Axis Properties

To specify the Properties of the Scale Axis, follow these steps:

- 1 Select Properties, Scale Axis. Scale Axis tab of the Chart Properties window appears.



- 2 Enter the line thickness for the scale axis and Y axis.
- 3 Enter a font ID number.
- 4 Edit the label color.
- 5 Enter the minimum and maximum values in the Marks area.
- 6 Enter the increment value, select Tick Marks, and enter the amount of tick marks to appear.

- 7 Click Ok to display the proper Scale Axis properties.

NOTE: You can select the option on the Scale Axis tab to suppress tick marks on the point axis of charts.

ADDING DATA

The system provides two ways for you to add data on your charts: statically or dynamically. A chart can show static data you enter via the Image Editor. This data does not change. A chart can also show dynamic data added via the rules processor at run time or during data entry.

The Data tab of the Chart Properties window lets you enter static data or associate data with variable fields so the data is dynamically updated. The data for the keys and series are also entered through the Data option.

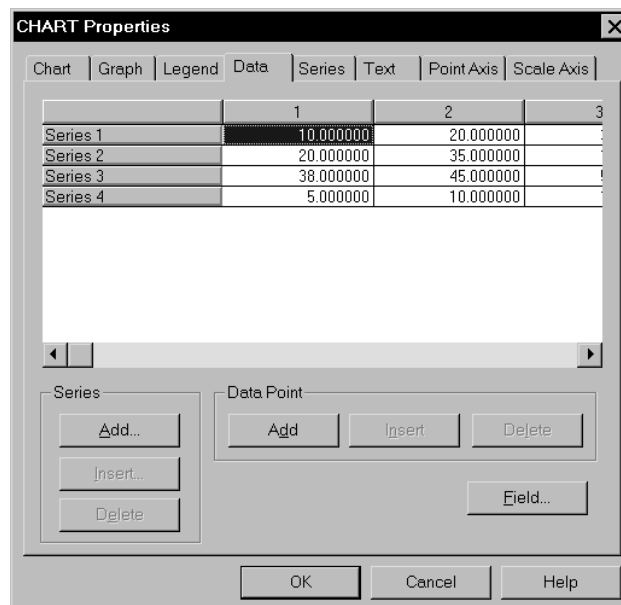
STATIC DATA

Static data on a chart reflects the data you enter through the Chart Properties window in the Image Editor. This data chart does not change once entered—data values are stored along with the chart as part of the image file.

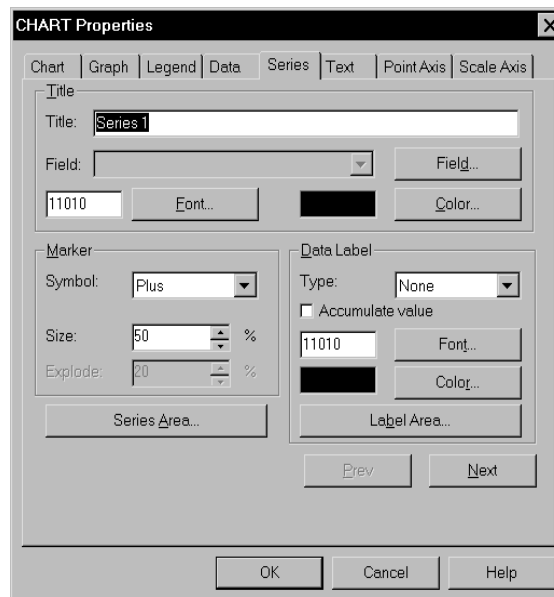
To add static data to your chart, following these steps:

- 1 Click on Properties, Data to open the Data Properties window of the Properties Window. You will see four sets, or *series*, of data. The first column contains the Series Name. The Series Name will appear in the legend area of the graphic chart and can be edited under the Series tab. The next several columns are the data associated with the Series Name. This data is part of the series or data set that makes up a piece of pie or a point on a line in a line chart.

NOTE: To place more points on a chart, click Add or Insert in the Data Point area. To remove data points, click delete in the Data Point area. To place another piece of pie, a new bar or a new line, click Add or Insert in the Series area. To delete a piece of pie, a new bar or a new line, click Delete in the Series area.



- 2 Double-click on the box marked with a Series 1 to edit the tile text of that first row. The Series Properties window will appear for that row.



- 3 Type in your Series title to assign the name of the key in the legend area.
- 4 Choose a Marker Symbol from the drop down list to specify how you want your data points to be displayed on the chart. This is only valid on a line chart.
- 5 Enter new data for your series by typing in your data points. Type a number into each column by highlighting what is there and typing the new number.

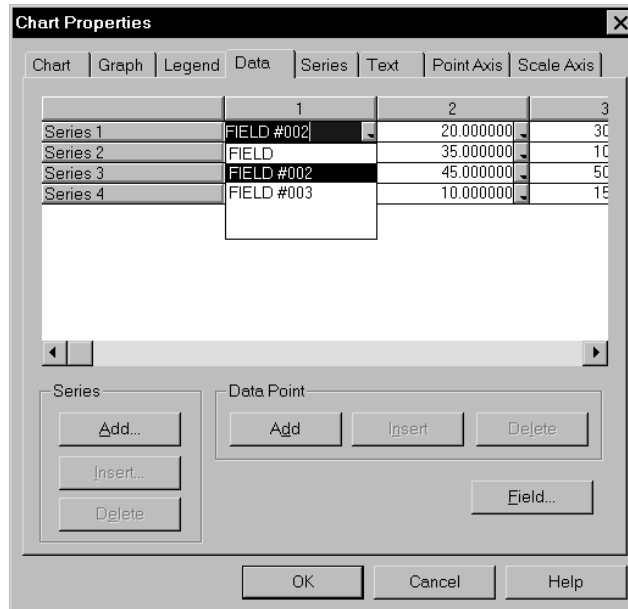
NOTE: If you leave a column blank, it will show a value of zero.

DYNAMIC DATA

Dynamic data changes during run time. These changes are reflected on the data points on the chart. You can have both fixed and variable data points within a single series. To have variable data points, a variable field must exist on the image. If you do not want the variable field to print, select the Hidden field option on the Attributes Tab of the Field Properties window to make it a hidden field.

Follow these steps to add dynamic data to a chart:

- 1 Create a new image.
- 2 Insert a chart and select Properties, Data.
- 3 Associate a variable field with each data point in each series. A drop down arrow is available in the data columns. Clicking this arrow displays a list of variable fields from which to choose. Click on the appropriate field name.



- 4 You can add variable fields to the image from within Chart Editor by clicking on the Field button.
- 5 Repeat the variable field association for all points in each series.

Rules for Dynamic Data

Use the following rules when adding dynamic data to charts:

Rule	Description
FieldVarsToChartSeries	Allows a chart's series data to be retrieved via reference to variable fields defined on the same image
CreateChartSeries	Gets data from extract records and include it as series data in a chart
PurgeChartSeries	Removes a series from a chart if the series contains no data
DeleteDefaultSeriesData	Removes series data from the series you specify

The rules link the image's variable fields to external data. The rules you assign with the Image Editor are executed during data generation and data merger procedures. The execution of rule assignments occurs in the Rules Processor.

These rules are also called *DDT rules* because they are stored in a *data definition table*, or DDT file. You can use the Image Editor to create these rules as you create your images.

DDT rules work with the image and its variable fields to retrieve data from an extract or table file and to create the NAFILE.DAT file. DDT rules provide a map the system uses to copy data from those source files. More information on these rules and others can be found in the Rules Reference.

CREATING COMBINATION CHARTS

You can create combination charts by overlaying two charts in the same location. To be most effective, place one of the charts to have the Y axis on the right side. If the charts have differing X axis values, suppress the X axis on one of the charts to avoid colliding labels.

COMBINING CHARTS

The Chart Editor lets you generate output that combines certain types of charts. For instance, you can link a 2D line chart to a 2D vertical bar, 2D line, or a 3D vertical bar chart.

To combine charts, create the two charts you want to link then follow these instructions:

- 1 Double click on one of the charts to display the Chart Properties window. Click on the Graph tab.
- 2 Click the Link To field, then choose the chart you want to link to from the list.

NOTE: Once you link a chart to another chart, the chart will then use the position and size information from the other chart. For instance, if you link chart A to chart B, chart A then uses chart B's position and size information and those fields are unavailable for chart A.

COMPLETING YOUR CHART

As you review your charts, you may make broad changes using the options from the main menu. These options are shown in the table below:

Option	Lets you
File menu	Save your image, including the chart, as well as exit the Chart Editor and return to the Image Editor.
Edit menu	Undo, cut, copy, paste, delete, and insert text labels. You can also display the Edit menu by clicking your right mouse button.
View menu	Select the different viewing options, such as zoom and ruler.
Properties menu	Display the Chart Properties window and takes you directly to the tab you select under the Properties menu.
Tools menu	Check spelling and find and replace text.
Help menu	Display the help index and glossary of help topics

Your chart is made up of objects that you can edit the same way you edit objects on your image in the Image Editor. For instance, if you double click on the text label you created as a title for your chart, the Chart Properties window appears with the Text tab selected.

The Legend and the Graph can be selected in this manner as well. If you click and hold the text label, legend, or graph, you will be able to move them around your chart area.

CHAPTER 11

Completing the Image

This chapter discusses the process of finalizing your image. You finish the image creation process with options that let you check your work.

These options let you verify the spelling accuracy of your text entries; verify the entry stage attributes and functions assigned to variable fields; and assign navigation rules to variable fields. These three steps are very important to the overall accuracy and usability of your image.

You finalize your image after you make the decisions concerning the entire image discussed in [Creating Images on page 81](#), and after you create and edit all the necessary objects to construct the image discussed in [Working with Objects on page 185](#), and [Adding Text on page 259](#).

This chapter discusses the following topics:

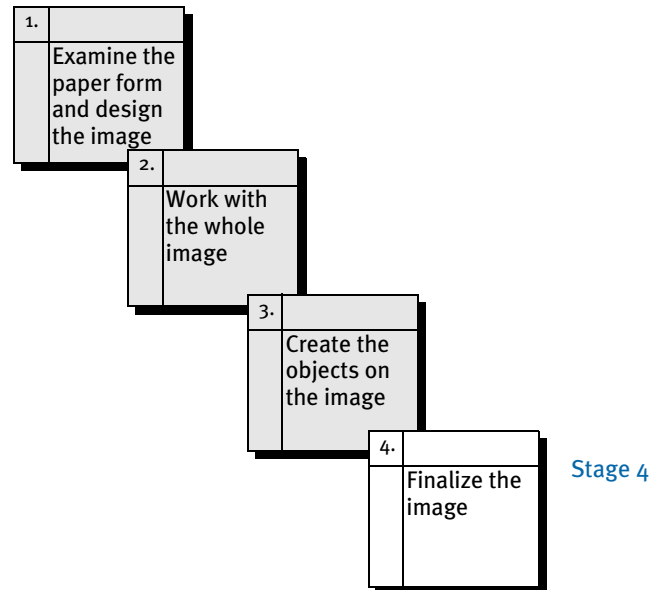
- [Overview on page 342](#)
- [Checking Fonts on page 343](#)
- [Checking Spelling on page 345](#)
- [Checking Data Entry on page 348](#)
- [Testing DAL Scripts on page 357](#)
- [Printing an Image Report on page 361](#)
- [Assigning Rules on page 367](#)

OVERVIEW

As you come to the conclusion of the image composition process you should use certain options which finalize your work. These options are important because they give you a way to check and review your work, and to assist the end user of your image. It is better for you to discover a possible problem now than to have an error discovered during the entry process.

Follow these steps as you finish the composition process:

- Check all fonts in the image (Tools, Font Check)
- Check spelling in the image (Tools, Spell Check)
- Check data entry for all variable fields (Tools, Data Entry Check)
- Use Image Report to review image information (Tools, Report)
- Assign data mapping rules (Edit, Master DDT). The rules are used with the Rules Processor.

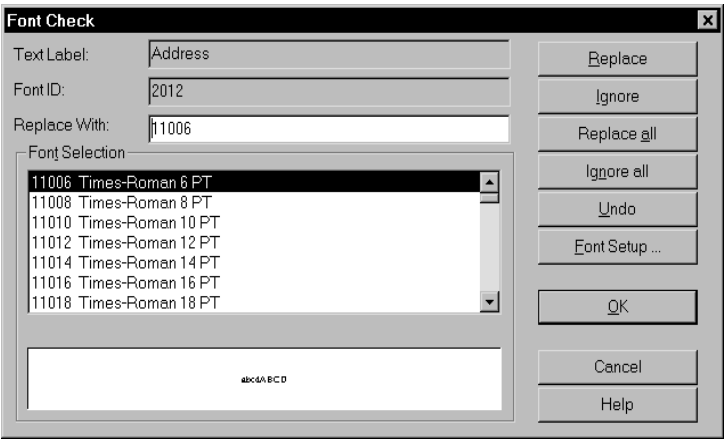


CHECKING FONTS

The Font Check option lets you compare the fonts in your image to the fonts in your font set. Font Check verifies that the image fonts are valid fonts available in the font set you selected for this image. If any fonts are invalid, you can substitute a valid font.

If some of the image's fonts are not in your current font set, the image prints and displays incorrectly. Use the Font Check option before you print to avoid printer problems. In addition to Font Check, you can quickly change each font in your image to a new font using Edit, Font Change. Refer to [Working with Fonts on page 113](#), for more information on setting up fonts.

- 1 To check the fonts in the image, choose Tools, Font Check. If the system finds any fonts not in the current font set, it displays this window:



- 2 Click a font in the font list to select the replacement font. The font ID number displays in the Replace With field and a sample of the font displays at the bottom of the window. Choose one or more of the following options:

Click:	To:
Replace	Replace the specified object's font with the font in the Replace With field.
Ignore	Leave the specified font in the image.
Replace All	Replace all fonts with the font ID specified in the Font ID field with the font specified in the Replace With field.
Ignore All	Leave all the fonts with the specified font ID in the image.
Undo	Reverse your most recent Replace or Replace All selection. Undo only reverses your most recent action.
Font Setup	Displays the currently selected font set (as set up in Library Setup). Refer to Working with Fonts on page 113 , if you need more information on selecting fonts.

- 3 After the system reviews all fonts in the image, the Font Check Complete window appears. Click Ok to return to the Font Check window.

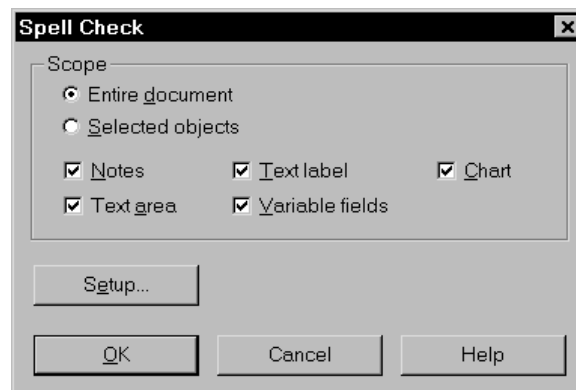
- 4 Click Ok to save your font changes and return to the image. Click Cancel to return to the image without saving the font changes.

CHECKING SPELLING

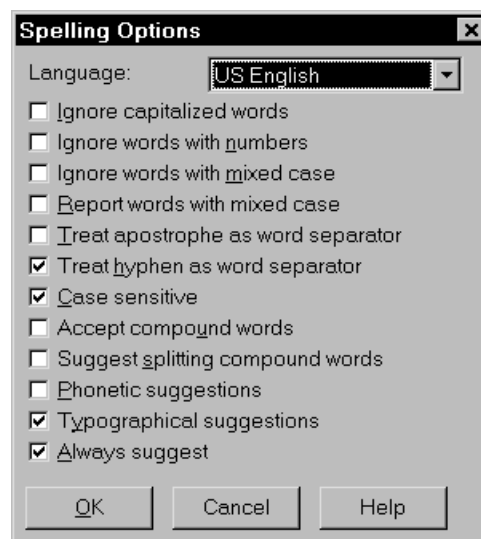
The Spell Check option lets you check the spelling of text in your image. This option locates incorrectly spelled words and gives you various options for substitution. You replace the word with one of the alternative words presented by Image Editor, add the word to your user dictionary, ignore the word, or type in your own replacement word. After you correct a word, subsequent occurrences of the same word are automatically corrected.

To check spelling, follow these steps:

- 1 Choose Tools, Spell Check. When you select Spell Check, this window appears:



- 2 Click Entire Document or Selected Objects to define the scope of your spell check.
- 3 Click Setup to display the Spell Check Options window.

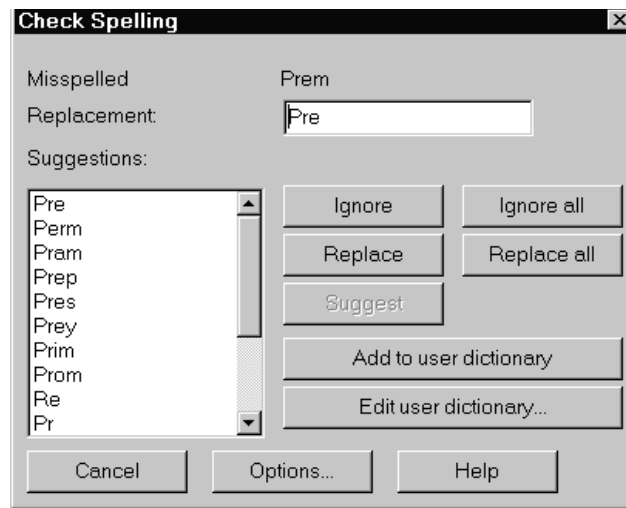


- 4 Select the options you want to use when running the spell check. Click any or all of the following:

To:	Select:
Select the language	Your language in the Language field
Skip capitalized words during spell checks.	Ignore Capitalized Words
Skip words containing numbers during spell checks. For example, the word “Sea2Land” is skipped when this option is active.	Ignore Words with Numbers
Skip words with both upper- and lowercase during spell checks.	Ignore Words with Mixed Case
Locate words with both upper- and lowercase letters during spell checks.	Report Words with Mixed Case
Check letters on both sides of an apostrophe as single words during spell checks	Treat Apostrophe as Word Separator
Check letters on both sides of a hyphen as separate words.	Treat Hyphen as Word Separator
Check for improper capitalization.	Case Sensitive
Accept compound words (mainly useful if you are checking German text).	Accept Compound Words
Make suggestions on how to split compound words.	Suggest Splitting Compound Words
Make suggestions based on how the misspelled word sounds when spoken.	Phonetic Suggestions
Make suggestions based on how the word is typed.	Typographical Suggestions
Receive suggestions for each misspelled word during spell checks.	Always Suggest

NOTE: The spell checking system supports Danish, Dutch, Finnish, French, German, Italian, Norwegian, Portuguese, Brazilian Portuguese, Swedish, Spanish, US English, and UK English.

- 5 Click Ok to return to the Spell Check window.
- 6 Click Ok to begin. If Spell Check finds a misspelled word the Check Spelling window appears:



7 You have these options:

Select:	To:
Ignore	Skip this occurrence of the misspelled word and continue with the spell check.
Ignore All	Skip every occurrence of the misspelled word and continue with the spell check.
Replace	Replace this occurrence of the misspelled word and continue with the spell check.
Replace All	Replace every occurrence of the misspelled word and continue with the spell check.
Add To User Dictionary	Add this misspelled word to your custom user dictionary. If you frequently use the same proper names of people, cities, and so on, you can add them to the user dictionary.
Edit User Dictionary	Use this option to add, delete, or clear entries in your custom user dictionary.
Suggest	This option is enabled if you turn off Always Suggest on the Spelling Options window. Click the SUGGEST button to get suggestions for your misspelled word.

8 After Spell Check verifies the spelling of all text, a message appears to tell you it is complete. Click Ok to return to the image.

CHECKING DATA ENTRY

The Tools, Data Entry Check option lets you test data entry and navigation rules assigned to variable fields. This option lets you see your form just as a data entry operator will see it. You enter data into an image's variable fields to make sure that the fields accept data, and to verify that the field formats work in the manner you intended.

You can also display and check the tables, help messages, and Text Editor functions when you use the Data Entry Check option.

With Data Entry Check you can test the following features and functions associated with images and variable fields.

Feature Checked	Function Checked
Field Type	Acceptance of data in the specified format, and consistency between the field label and type of data to enter.
Multi-Line Field - Text Editor and Paragraph Assembly	Text Editor word processing functions and paragraph assembly functions letting the user choose standardized pre-written paragraphs and/or enter free form text. The Text Editor and paragraph assembly capabilities provide flexibility in editing and updating information within multi-line variable fields. If variable fields are embedded in a text area, you can click a field to activate it for testing. (See Adding Text on page 259 for more information on the Text Editor.)
Tables	Validity of table information for the end user. The end user has the option to select from the table list during the entry stage.
Help	Validity of prompts, messages, and other information specific to the field to aid the end user in entering data in the field. You can also check tooltips added using sticky notes. To do so, first choose the Tools, Show Notes option.
Script Language	Test and debug document automation language (DAL) functions assigned to variable fields.

To open the Data Entry Check window, choose Tools, Data Entry Check. The testing options are listed below and discussed on the following pages:

- Test Field Type
- Test Multi-line Fields
- Test Tables
- Test Help

The Data Entry Check window displays your image in this manner:

The screenshot shows a software window titled "DAP Data Entry Check" with a menu bar (File, View, Tools, Help) and a toolbar. The main area displays a form for "Form Maker Insurance Company" titled "COMMERCIAL LINES POLICY COMMON POLICY DECLARATIONS". The form includes fields for "Renewal of Number", "Policy No.", "Named Insured and Mailing Address", "Policy Period", "Duration", "Business Description", and a table of policy parts with premium amounts.

THIS POLICY CONSISTS OF THE FOLLOWING PARTS:	
Commercial Property Coverage Part	PREMIUM \$
Commercial General Liability Coverage Part	\$
Commercial Crime Coverage Part	\$

At the bottom, there are three tabs labeled "2) Alphanumeric POLICY NBR", "POLICY NBR", and "POLICY NBR".

NOTE: Data Entry Check takes you to the first variable field in the image.

You have these toolbar options:

Click this icon... To...



Print the current form.



View the previous page.
Activated only for multi-page forms.



View the next page.
Activated only for multi-page forms.



Zoom. Use the Zoom option to increase or decrease the size of the window display.



Zoom In. Use the Zoom In option to increase the magnification of your display. Each time you select the Zoom In option, the display increases by 10%. Zoom In lets you quickly increase your display size for a close up view.



Zoom Out. Use the Zoom Out option to decrease the magnification of your image report display. Each time you select the Zoom Out option, the display decreases by 10%. Zoom Out lets you quickly decrease your display size for complete view.

Click this icon...	To...
	Zoom Normal. Use the Zoom Normal option to return to 100% display size.
	Display a table attached to the current variable field. This icon is only active if a table is attached to the field. When you press TAB to move to a field that has a table attached to it, this button becomes active.
	Display a help message for the current variable field. This icon is only active if a help message is attached to the field. When you press TAB to move to a field that has help attached to it, this button becomes active.

NOTE: If you use the Tools, Fixed Edits option, the Data Entry Check window displays like the one below. Data entry is performed by entering information into the field at the top of the window. Edit, Table, and Help buttons are available from the data entry field. If the Edit, Table, or Help buttons are grayed out, you know that the Text Editor, Table, or Help is not available for the current field.

Fixed Prompt is on.
The entry box is at the top of the form instead of the actual location of the variable field on the form.

The status line displays whether or not fixed edit is selected.

DAP Data Entry Check - (cgdec~1)

File View Tools Help

FormMaker Insurance Company

COMMERCIAL GENERAL LIABILITY COVERAGE PART DECLARATIONS

Named Insured [Redacted]

Policy No. [Redacted]

LIMITS OF INSURANCE

GENERAL AGGREGATE LIMIT (Other Than Products - Completed Operations)	\$	
PRODUCTS COMPLETED OPERATIONS AGGREGATE LIMIT	\$	
PERSONAL & ADVERTISING INJURY LIMIT	\$	
EACH OCCURRENCE LIMIT	\$	
FIRE DAMAGE LIMIT	\$	ANY ONE FIRE
MEDICAL EXPENSE LIMIT	\$	ANY ONE PERSON

Classification	Code No.	Premium Basis	Prem/Ops	Prod/Comp Ops
			Rate	Premium
1.) Alphanumeric	INSURED NAME	INSURED NAME		

If your variable field has a prompt and you turn on Fixed Prompts, the prompt displays here instead of above the status line.

Status line

DAP Data Entry Check - (cgdec~1)

File View Tools Help

FormMaker Insurance Company

COMMERCIAL GENERAL LIABILITY COVERAGE PART DECLARATIONS

Named Insured [Redacted]

Policy No. [Redacted]

LIMITS OF INSURANCE

GENERAL AGGREGATE LIMIT (Other Than Products - Completed Operations)	\$	
PRODUCTS COMPLETED OPERATIONS AGGREGATE LIMIT	\$	
PERSONAL & ADVERTISING INJURY LIMIT	\$	
EACH OCCURRENCE LIMIT	\$	
FIRE DAMAGE LIMIT	\$	ANY ONE FIRE
MEDICAL EXPENSE LIMIT	\$	ANY ONE PERSON

Classification	Code No.	Premium Basis	Prem/Ops	Prod/Comp Ops
			Rate	Premium
1.) Alphanumeric	INSURED NAME	INSURED NAME		

TESTING FIELD TYPES

Testing variable field types lets you check the following:

- Whether the field accepts data.
- Whether the field accepts data in the specified format.

- Whether the field name is appropriate for the entry data.

To test field types, follow these steps:

- 1 To test field type, click on a variable field in the image, or tab through the variable fields.

NOTE: We recommend that you turn off the Field Template option to retain what you entered in a field after you move to the next or previous field. Otherwise, the system replaces your entries with x's.

- 2 Place your cursor in the variable field you want to check.
- 3 Type the data in the format accepted by the field type, and press TAB to accept the data and move to the next variable field.

NOTE: Press TAB when you are in the last field of the form before you print the form to record the data entered in that field. If you do not do this, the data in that field will not print.

For information on the various field types, see [Entering Information on the Attributes Tab on page 220](#).

- 4 Once you click in a field, enter data and press TAB to go to the next field.

NOTE: If you receive an error message, read the message then click Ok. The status line at the bottom of the screen provides information about the variable field. Use this with a prompt or user help to determine what to enter in the field. If you still cannot enter data, you may want to return to the image to check the field's attributes.

TESTING MULTI-LINE TEXT FIELDS

Testing multi-line text variable fields lets you test an end user's access to the:

- Text Editor for text entry
- Paragraph Assembly feature

You can open the Text Editor and enter text into the field. Testing this feature lets you ensure that the end user will be able to open the editor, enter text and format that text.

Paragraph assembly lets the end user select one or more entries from a table (Paragraph Selection window). These entries correspond to individual image files (FAP files) which contain pre-written, standardized paragraphs.

After the paragraphs are assembled, the user can use the Text Editor to make changes, if necessary. The paragraph assembly feature is available only if the image creator assigned a specific pre-edit function module (TERSW32) and procedure (TerSubstitute) to the multi-line text variable field. See [Working with Objects on page 185](#), for information on creating a multi-line text variable field and using the paragraph assembly option.

The image creator must also create the paragraphs as separate images and make each image a table entry. The table is then associated with the variable field. For information, on creating tables and table entries see [Adding Tables on page 295](#). If paragraph assembly is active, it appears automatically when you select the field.

NOTE: You should deselect the Field Template option (Tools, Field Template) before you test variable fields. If there are variable fields embedded within the text area, you can click the variable field to activate it for testing.

Testing Text Editor options

To test multi-line fields edit options:

- 1 Tab to the multi-line field and begin to type text, or double click on the field to display the Text Editor.

The screenshot shows a window titled '(CGDEC1)' containing a form for 'COMMERCIAL GENERAL LIABILITY COVERAGE PART DECLARATIONS'. The form includes fields for 'Named Insured' and 'Policy No.'. Below these is a section titled 'LIMITS OF INSURANCE' with a list of limits and their corresponding dollar amounts. At the bottom, there is a table with columns for 'Classification', 'Code No.', 'Premium Basis', 'Prem/Ops', and 'Prod/Comp Ops'. A text editor is open over the 'LIMITS OF INSURANCE' section, allowing for text entry.

- 2 Enter your text in the Text Editor Entry field to test the multi-line field.

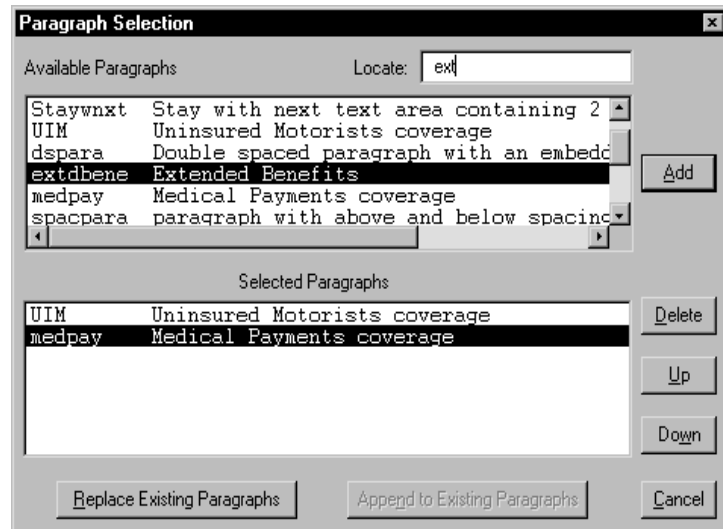
NOTE: The title of the Text Editor Entry field is the same as the name assigned to the field you are testing.

- 3 Select File, Exit to exit the Text Editor and continue testing other fields.

Testing paragraph assembly options

To test paragraph assembly options:

- 1 Tab to the multi-line field, or double click a multi-line text variable field in the image.
- 2 If the Paragraph Assembly option has been assigned to the field this Paragraph Selection window appears:



- 3 In the Available Paragraphs field, click the first paragraph you want to appear in the field. The paragraph name and description appear in the Selected Paragraphs field. Repeat this step for each paragraph you want to place in the multi-line text field.
- 4 To organize paragraphs in the text field, in the Selected Paragraphs field click the paragraph you want to move. Click Up to place your paragraph before the paragraph above it, or click Down to place your paragraph after the paragraph below it.
- 5 Click Replace Existing Paragraphs to overwrite existing text in the multi-line text field, or click Append To Existing Paragraphs to place your assembled paragraph after existing text in the multi-line text field. The system displays the assembled paragraphs in the multi-line text field.

NOTE: You can edit the assembled paragraphs by opening the Text Editor from the multi-line text field. Double click in the upper left corner of the Text Editor window to exit the Paragraph Selection window.

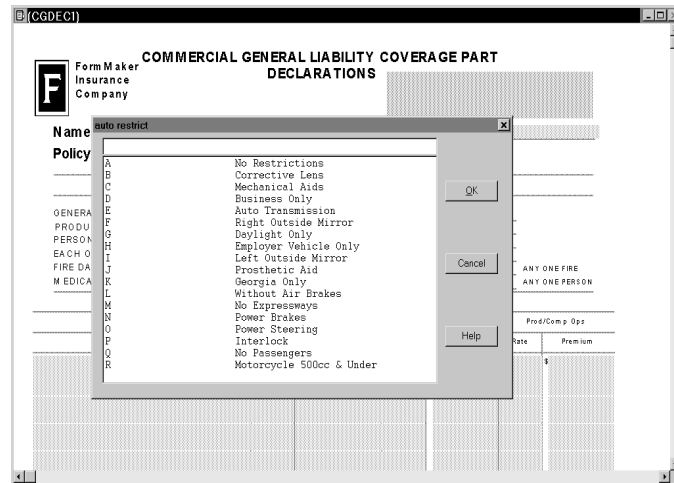
TESTING TABLES

Testing tables displays the tables attached to variable fields. You can then check the validity of information in tables to make sure it is appropriate for the particular variable field. End users make data selections from tables; so it is essential that the field entry options are valid for the field.

- 1 To test Help, tab to a variable field.

NOTE: You should deselect the Field Template option (Tools, Field Template) before you test variable fields.

- Click the Table icon to display the table attached to the variable field. If a table is not available for a specific field, the Table icon is grayed out.



- Read the table selections to make sure the information applies to the type of data the end user will enter into the field. You can also check for spelling errors in tables. Any spelling errors will need to be modified by editing the table file in Table Editor.
- Make a selection from the table and click Ok to make sure the data is entered in the field correctly.
- If you discover an error in a table, make a correction with the Table Editor. See [Adding Tables on page 295](#), for more information on creating tables.

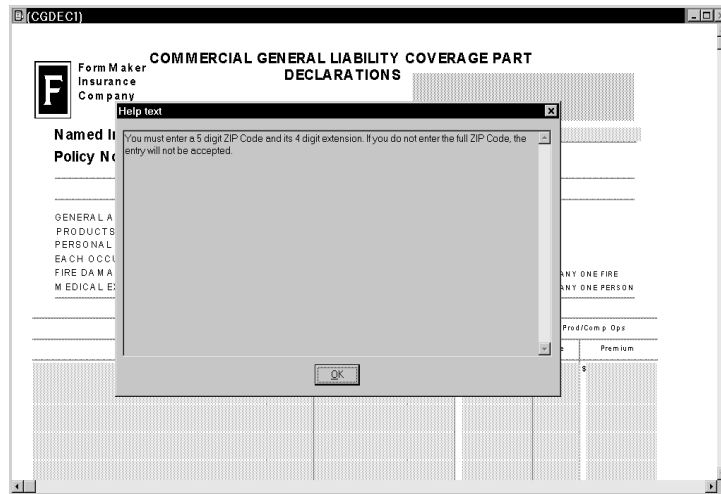
TESTING HELP

Testing Help lets you display help messages attached to variable fields. Double check the Help messages to ensure that the message applies to the data the end user enters in the field.

- To test Help, tab to a variable field.

NOTE: You should deselect the Field Template option (Tools, Field Template) before you test variable fields.

- Click the Help icon to display the help message attached to the field. If a Help message is not available for a specific field, the Help icon is grayed out.



- 3 Read the help message to make sure the information applies to the type of data the end user will enter into the field. You can also check for spelling errors in the help message.
- 4 If you discover an error in a help message, make a correction with the Help Editor. See [Adding Help Information on page 285](#), for more information on creating help messages.

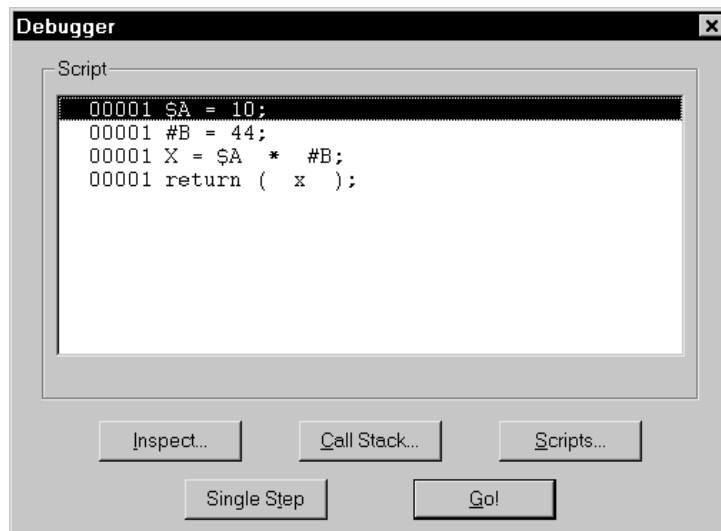
TESTING DAL SCRIPTS

Testing script language with the debugger lets you check the Document Automation Language (DAL) scripts assigned to variable fields. You view the scripts, test their functionality, and determine if any changes or additions should be made. For detailed information on DAL scripts see the [DAL Reference](#).

- 1 To test and debug script language, choose Tools, Set Debugger. Click any variable field in the image.

NOTE: You must deselect the Field Template option (Tools, Field Template) before you test variable fields.

- 2 Press TAB. The Debugger window appears.



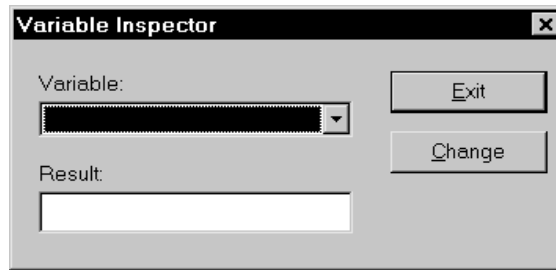
- 3 The Debugger window displays the script you are currently executing. The statement in the script being executed is highlighted. The line number of each statement appears in the left column. After opening the Debugger window you can click any of these buttons:

- Inspect
- Call Stack
- Scripts
- Single Step
- Go!

INSPECTING VARIABLES

The Inspect button lets you inspect and modify the values of any variables defined within the image's scripts.

- 1 Click Inspect in the Debugger window. The Variable Inspector window appears.

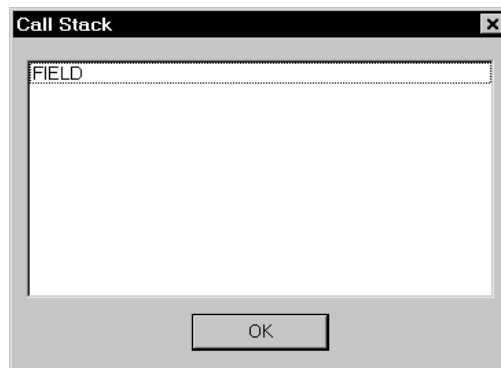


- 2 Click the arrow beside the Variable field and select the variable you want to inspect. If you want to change the result of the variable, enter your changes in the Result field and click Change. Click Exit. You return to the Debugger window.

DISPLAYING THE SEQUENCE OF SCRIPTS

The Call Stack button lets you display the sequence of scripts that are executed to reach the current script. Remember that the built-in call function is the only function that causes a call stack to be added. If there are no call function statements in your script, only the current script appears.

- 1 Click Call Stack in the Debugger window to view the sequence of called scripts. The Call Stack window appears:

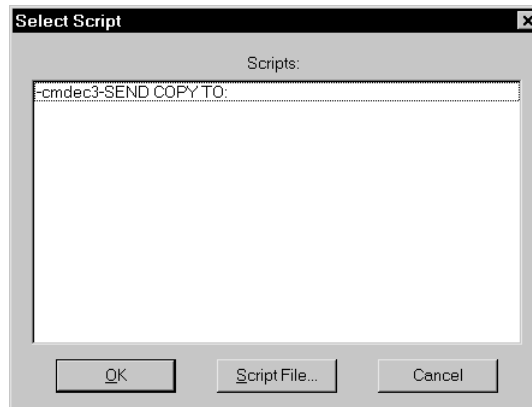


- 2 Click Ok. You return to the Debugger window.

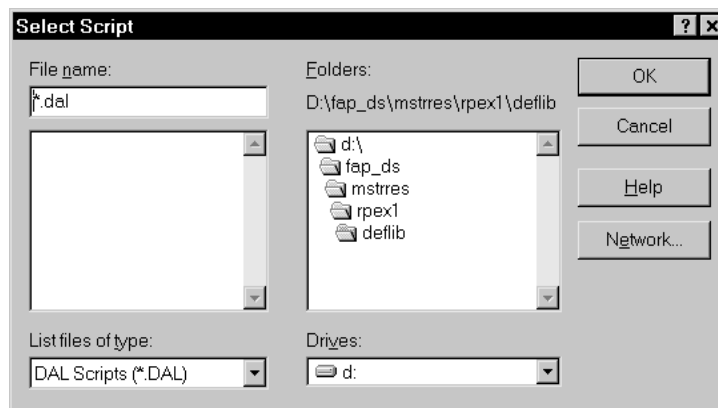
REVIEWING SCRIPTS

The Scripts button lets you see all scripts attached to fields in your image. You can select specific scripts to view and execute. Each entry in the Select Script window consists of the image name and the variable field name.

- 1 Click Scripts to see a list of all scripts within your image. The Select Script window appears.



- 2 Click a script and click Ok. You return to the Debugger window and the complete script appears in the window.
- 3 Click Script File if you want to display a script in an external file. The Select Script window appears.



- 4 To open a script file from the current directory, type the file name in the Open Filename field or select a file from the list. Click Open. You return to the Debugger window and the complete script appears in the window.
- 5 To open a script file from a different drive and directory, select the type of file, the drive and the directory. Select the file from the file list and click Open. You return to the Debugger window and the complete script appears in the window.

STEPPING THROUGH A SCRIPT

The Single Step button lets you scroll through the current script, statement by statement. Single Step is a useful way to review the details of a script's statements.

Click Single Step. The first statement in the current script appears. Continue clicking to see each subsequent statement in the script.

EXECUTING A SCRIPT!

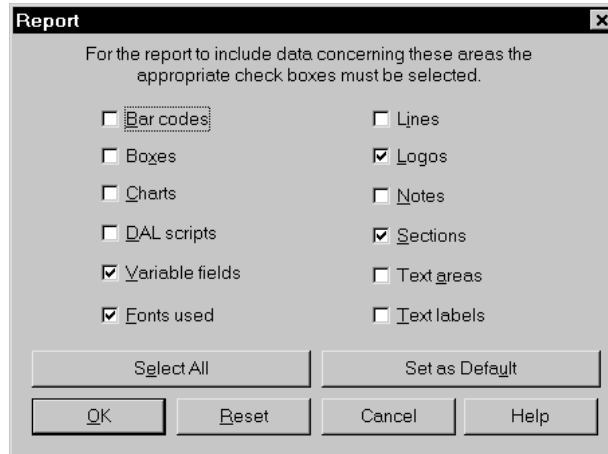
Click the Go! button to execute the script. The script executes until it reaches a breakpoint.

- 1 Click the script you want to execute in the Debugger window.
- 2 Click Go!. The script is executed and you return to the Data Entry Check window.

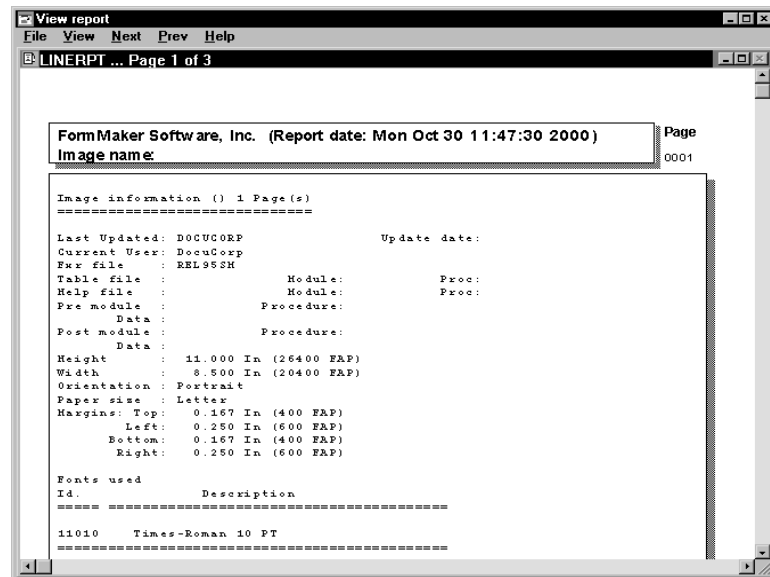
PRINTING AN IMAGE REPORT

Use the Tool, Report option to view and print a report about your image.

- 1 From the Image Editor, select Tools, Report. The Report window appears.



- 2 Select the items you want included on your report and click Ok. Click Select All to include all the objects on your report. Click Reset to return to the default settings. The View Report window appears.



- 3 The Image Report is divided into sections which provide specific information about the objects selected in the Report window. These report sections are explained in the following pages. For information on the View Report menu, see [View Report Options on page 366](#).

This section	Provides a list of
Image Information	General image information, including the description, designer, associated font, table and help files, pre and post modules, height, width, orientation, paper size, margins and whether a recipient copy should be sent.
Fonts Used	Fonts in the image; including IDs and descriptions.
Logos Used	Logos in the image; including whether a runtime block applies to the logo.
Barcodes Used	Bar codes in an image, including name, format, code and scaling factor.
Boxes Used	Boxes in the image, including name and style: solid, horizontal
Charts Used	Charts in the image, including chart name, and type
Lines Used	Lines in the image, including name and type: solid, dashed
Notes Used	Notes in an image, including sender, note style and subject
Static Text Labels Used	Static text label in an image, including font ID, Rotation, Effects and Text
Multi-line Text Areas Used	Multiline text areas in an image, including area name, font, spacing, left indent, right indent, type indent, paragraph justify, and sizing
Total Number of Text Areas	Text areas in an image, including area name, font, spacing, left indent, right indent, type indent, paragraph justify, and sizing
Section	Sections in the image; including the fields in each section.
Total Fields	Variable field in the image, including sequence numbers, names, lengths, types, formats, scope, locale, and associated fonts.

NOTE: The Report is totally dependent on your selections. If no selections are made, the only information you will get, by default, is Image information.

In the Total Fields section, the system indicates the various variable field types. For more information, see [Entering Information on the Attributes Tab on page 220](#). This table provides information about the various localities:

Locale:Language\Country	Yes	Type	No	Type
Neutral	Yes	Y	No	N
Danish\Denmark	Ja	J	Nej	N
Dutch\Belgium	Ja	J	Nein	N

Locale:Language\Country	Yes	Type	No	Type
Dutch\Netherlands	JA	J	Nein	N
English\Australia	Yes	Y	No	N
English\Canada	Yes	Y	No	N
English\Ireland	Yes	Y	No	N
English\New Zealand	Yes	Y	No	N
English\South Africa	Yes	Y	No	N
English\United Kingdom	Yes	Y	No	N
English\United States	Yes	Y	No	N
Finnish\Finland	Kyllä	K	No	N
French\Belgium	Oui	O	Non	N
French\Canada	Oui	O	Non	N
French\France	Oui	O	Non	N
French\Luxembourg	Oui	O	Non	N
French\Switzerland	Oui	O	Non	N
German\Austria	Ja	J	Nein	N
German\Germany	Ja	J	Nein	N
German\Liechtenstein	Ja	J	Nein	N
German\Luxembourg	Ja	J	Nein	N
German\Switzerland	Ja	J	Nein	N
Icelandic\Iceland	Yes	Y	No	N
Indonesian\Indonesia	Ya	Y	Tidak	T
Italian\Italy	Sì	S	Non	N
Italian\Switzerland	Sì	S	Non	N
Norwegian\Norway	Ja	J	Nei	N
Portuguese\Brazil	Sim	S	No	N
Portuguese\Portugal	Sim	S	No	N
Spanish\Argentina	Sí	S	No	N
Spanish\Bolivia	Sí	S	No	N

Locale:Language\Country	Yes	Type	No	Type
Spanish\Chile	Sí	S	No	N
Spanish\Columbia	Sí	S	No	N
Spanish\Ecuador	Sí	S	No	N
Spanish\Guatemala	Sí	S	No	N
Spanish\Mexico	Sí	S	No	N
Spanish\Panama	Sí	S	No	N
Spanish\Paraguay	Sí	S	No	N
Spanish\Peru	Sí	S	No	N
Spanish\Spain	Sí	S	No	N
Spanish\Uruguay	Sí	S	No	N
Spanish\Venezuela	Sí	S	No	N
Swedish\Finland	Ja	J	Nej	N
Swedish\Sweden	Ja	J	Nej	N

This table shows you the locale codes:

Country	Language	Code
Argentina	Spanish	ARS
Australia	English	AUD
Austria	German	ATS
Belgium	Dutch	BED
Belgium	French	BEF
Bolivia	Spanish	BOB
Brazil	Portuguese	BRC
Canada	English	CAN
Canada	French	CAD
Chile	Spanish	CLP
Columbia	Spanish	COP
Costa Rica	Spanish	CRC

Country	Language	Code
Denmark	Danish	DKK
Ecuador	Spanish	ECS
France	French	FLX
Finland	Swedish	FMK
Germany	German	DEM
Guatemala	Spanish	GTQ
Iceland	Icelandic	ISK
Indonesia	Indonesian	IDR
Italy	Italian	TL
Ireland	English	IEP
Liechtenstein	German	CHL
Luxembourg	German	LUX
Luxembourg	French	FRF
Mexico	Spanish	MXN
The Netherlands	Dutch	NLG
New Zealand	English	NZD
Norway	Norwegian	NOK
Panama	Spanish	PAB
Paraguay	Spanish	PYG
Peru	Spanish	PES
Portugal	Portuguese	PTE
South Africa	Afrikaans	ZAA
South Africa	English	ZAR
Spain	Basque	ESB
Spain	Catalan	ESC
Spain	Spanish	ESP
Sweden	Swedish	SEK
Switzerland	German	CHF

Country	Language	Code
Switzerland	French	CHH
Switzerland	Italian	CHI
United Kingdom	English	GBP
United States	English	USD
Uruguay	Spanish	UYU
Venezuela	Spanish	VEB

VIEW REPORT OPTIONS

The View Report menu lets you go to the next or previous page, display grid lines, and change the display of the report. This table explains your options.

To...	Choose...
Print the report	File, Print
Exit the report	File, Exit
To display the full width of the report	View, Fit to Width
To display an entire page of a report	View, Fit to Window
Zoom in or out by a specific percentage	View, Zoom
To display the actual size of the report	View, Actual Size
Zoom in 10%	View, Zoom In
Zoom out 10%	View, Zoom Out
Display grid lines	View, Grid
Refresh/Repaint the window	View, Refresh
Go to the Next Page	Next
Go to the previous page	Previous
Display Help	Help, Contents Help, How To Help, Shortcuts Help, Glossary Help, Using Help Help, Product Information

ASSIGNING RULES

You can assign rules to variable fields after you finish the other steps discussed in this chapter. Rules perform a variety of functions during merge procedures. The rules map the flow of data from your database to the image and from the image to your database.

When the Rules window is active, you can assign rules to variable fields. After completing this task, you can save your assignments.

To assign rules, select Load DDT on any tab of the variable field notebook. If the DDT is already open, select the Edit tab on the variable field notebook.

See [Mapping Variable Fields on page 369](#), for more information about assigning rules.

CHAPTER 12

Mapping Variable Fields

This chapter discusses using the Image Editor to assign processing and image rules to an image. These rules link the image's variable fields to external data.

This chapter explains how to add, remove and edit rule assignments. It also explains how to generate information reports.

You should only set up rules if you fully understand mapping procedures, rules, and if you are using the Rules Processor.

This chapter includes the following topics:

- [Overview on page 370](#)
- [Understanding DDT and FAP Files on page 371](#)
- [Adding Rules on page 374](#)
- [Viewing Rules Reports on page 379](#)
- [Using the Image Rules Tab on page 381](#)
- [Inserting or Changing a Rule Assignment on page 381](#)
- [List of Rules on page 382](#)

OVERVIEW

A variable field is a data entry field. You create the variable field object and its attributes with the Image Editor.

NOTE: If you need to review the steps for creating a variable field, refer to [Working with Objects on page 185](#).

The rules you assign with the Image Editor are executed during the data generation and data merging process which occurs in the Rules Processor.

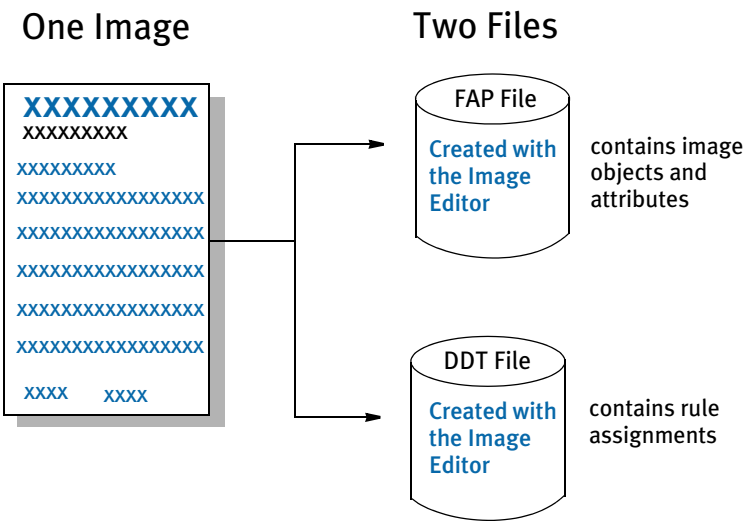
Transferring data between images and your files decreases the need for repeated manual data entry, thus decreasing errors, increasing speed, and maintaining the integrity of your document.

You can use the Image Editor to assign rules to your variable fields after you complete the finishing steps discussed in [Completing the Image on page 341](#).

UNDERSTANDING
DDT AND FAP
FILES

The Image Editor stores your image in a *FAP* file. The FAP file contains the image's objects and all object attributes. The Image Editor stores your image rule assignments in a separate file, called a *data definition table* (DDT) file. This file contains all the rule assignments that apply to a specific image.

Storing the image object file separately from the image rule assignment makes it easier to apply and modify rules, and you can reuse your resources. It is important that you understand the FAP and DDT file distinction as you work with the Image Editor.



Remember, as you assign rules with the Image Editor you affect the DDT file, not the FAP file.

FAP FILE FORMAT

This table shows the record types for FAP files. You can find more detailed information on each record type in the technical documentation, also located on the distribution CD.

Parameter	Description
V	file version information
H	file header
R	font
F	variable field
A	attributes
S	shaded box
X	line or box
T	static text

Parameter	Description
G	graphic or logo
M	multi-line text (text merge)
B	bar code
C	color
N	note
L	guideline
D	chart record

DDT FILE FORMAT

The following tables contain DDT file layouts and guidelines. Refer to these tables when you create a DDT file, which you can do using the Image Editor.

The Data Definition Table (DDT) maps data from a source record to fields in a form. The DDT file tells the GenData program what rules it should use as it processes the data. You can edit DDT files using a text editor.

In a DDT file, you store semicolon-delimited information which defines the source and target fields, field length and offset, rules to apply to the field, and optional parameters for the rules.

The following is a sample DDT record format:

Record format

```
/* This image uses these rules */
<IMAGE RULES>
;SetImageDimensions;0,0,26400,20400,400,600,400,600;
;CreateChartSeries;;

/* By default, this image contains the following fields */
<Image Fields>

/* The following fields override the lower level definitions for this
*/
/* image only. */
<Image Field Rules Override>
;0;0;FIELD;0;38;FIELD;0;53;;noopfunc;;N;N;N;N4351;3974;12010;
```

Each semicolon delimited field represents a particular piece of variable field formatting, mapping, or data information. Each DDT file contains these sections:

- Image Rules - The image level rule controls the processing of the image.
- Image Fields - Seldom used.
- Field Rules - These are rules that affect individual fields on an image.

The system automatically puts comments in the DDT file. Also, it automatically puts the SetImageDimensions in the DDT file. You can make modifications using the SetImageDimensions and SetOrigin image rules.

SetImageDimensions

The system automatically inserts this image level rule (level 3) for you when you save your DDT file in the Image Editor. If you later resize the image, go to the image Editor and save the DDT file again to have the system update the image dimensions.

Use this rule on forms which are made up of floating images. If you used the SetOrigin rule, the system automatically includes this rule in the image level rules section of your DDT file. Here is an example:

```
<Image Rules>
;SetImageDimensions;98;0;5745,166696,0,0,0,0;
;SetOrigin;REL+0,MAX+0;
```

SetOrigin

Use this image level rule (level 3) to set the image overlay/page segment X and Y coordinates. Using this rule, you specify where the page segment will be placed on the printed page. Here is an example of the syntax for this rule:

```
;SetOrigin;Parameter+#,Parameter+#'
```

The first parameter sets the X coordinate. The second parameter sets the Y coordinate. You can use the third parameter, which is optional, to specify an external form name.

For more information on the SetImageDimensions and the SetOrigin rules, see the [Rules Reference](#).

Sample record format

Here is an example of the DDT file format:

```
<Image Rules>
;IMAGERULE;IMAGERULEDATA;
;IMAGERULE;IMAGERULEDATA;

<Image Field Rules Override>
;#1;#2;#3;#4;#5;#6;#7;#8;#9;#10;#11;#12;#13;#14;#15;#16;#17;#18
```

Where:

In the <Image Rules> section:

```
IMAGE           the Image rule name
IMAGERULEDATAthe data required by the Image rule
```

In the <Image Field Rules Override> section:

```
#1      the source file number
#2      the source record index number in the record section
#3      the source field name
#4      the source field offset
#5      the source field length
#6      the destination field name
#7      the destination field offset
#8      the destination field length
#9      the field format mask
#10     the field rule name (DDT rule)
#11     the data for the field rule
#12     flag 1 (not required)
#13     flag 2 (host required)
#14     flag 3 (operator required)
#15     flag 4 (either required)
#16     x offset
#17     y offset
#18     font
```

ADDING RULES

You add rules using the Load DDT button on any page of the field's Properties window.

You can add rules using the Edit DDT tab when you create a variable field. You will see a Load DDT button on every page of the Properties window. If you push this button, the system loads the DDT library (DDTLIB) and adds the Edit DDT tab to the window.

The screenshot shows the 'FIELD Properties' dialog box with the 'Edit DDT' tab selected. The dialog has several tabs: General, Attributes, Navigation, Edits, Calculation, Help/Table, Sequence, and Edit DDT. The 'Edit DDT' tab contains the following fields and controls:

- Destination Name:** A text field with the value 'FIELD'.
- Offset:** A numeric field with the value '0'.
- Source Name:** A text field with the value 'FIELD'.
- Name...:** A button next to the Source Name field.
- Same Field Name:** A button next to the Name... button.
- Offset:** A numeric field with the value '0'.
- Length:** A numeric field with the value '43'.
- File:** A text field with the value '0'.
- Record:** A numeric field with the value '0'.
- Required:** A dropdown menu with the value 'Not'.
- Data:** A button labeled 'Edit Data'.
- Mask:** A text field.
- Explain Rule:** A button.
- Rule:** A dropdown menu with the value 'noopfunc'.
- Apply then:** A group box containing buttons: 'Reset', 'Update FDB', 'Prev', 'Next', 'New', and 'Edit DDT'.
- Buttons:** 'OK', 'Cancel', and 'Help' at the bottom.

If the Automatically update DDT field is checked under Options, Editor Properties, Save tab, the DDT file is loaded and the button is disabled.

If...	Then...
If the synchronize FAP and DDT file is checked	You will not see fields that exist in the DDT file.
If the synchronize FAP and DDT files is unchecked and autoupdate is not checked	You can see and edit fields which do not exist in the FAP file. These files will be read in the data table.
If you have only one field in your FAP file called <i>FIELD</i> and three fields in the DDT file when you open the DDT file using the Load DDT button	You will see three lines on the DDT window. All of the lines will have a destination of <i>FIELD</i> and the source name will show the various field names that they have in the DDT file. If you attempt to close the DDT window, you will get a duplicate message.

You can assign rules to variable fields and save these assignments to the DDT file. For a complete list of the available rules, see the end of this chapter. Detailed information on specific rules is available in Help and the [Rules Reference](#).

Understanding the System

If a FAP file gets changed, the system does not automatically update the DDT file. To prevent FAP and DDT files from becoming out of sync with each other, be sure to open the DDT file or the Edit DDT button on any tab of the field's Properties window before making changes to the FAP file. When you save the FAP file, you will then be prompted to save the DDT file. You may also want to turn on the option Automatically Update DDT on the Options, Editor Properties window.

The system does presume that all images have DDT files — not just those images specified as Entry and Print as in versions prior to 10.2. This change was implemented because few users create full page images and the system was, in effect, forcing you to choose Entry and Print for images that were really just for print or entry. You had to do this for these smaller images to get a DDT file so you could execute the SetOrigin rule.

If you want to make the system work as it did prior to version 10.2 — only loading DDT files for images specified as Entry and Print — include this INI option:

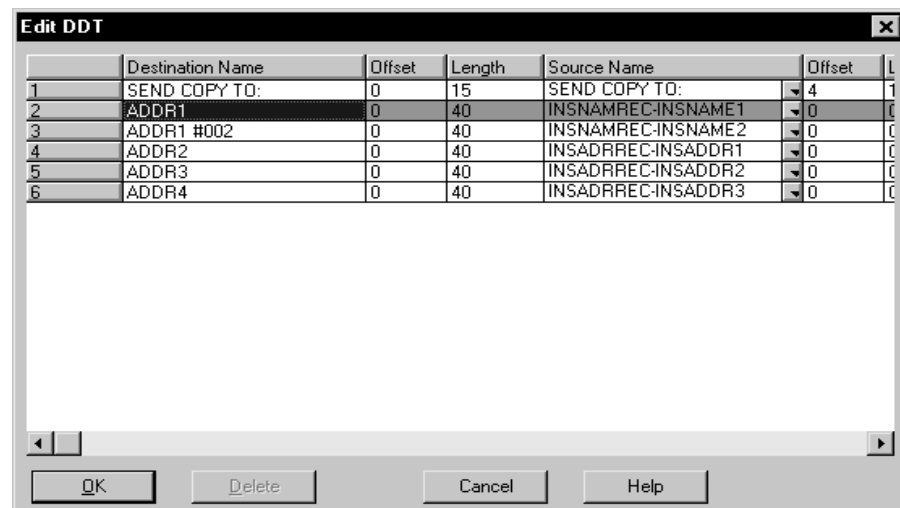
```
< Control >
LimitDDTs = Yes
```

For instance, you may want to include this option if you have legacy master resource libraries (MRLs) which include images that do not have DDT files.

To assign variable field level rules, select the Edit DDT tab on the Field's Properties window. If a DDT file does not exist, the system displays the following message and creates one for you.



Click Ok to create a DDT file for the image. The Edit DDT window appears.



The second column lists the variable fields that currently exist on the image, or FAP. This column always remains visible on the window. Use the scroll bar at the bottom of the window to scroll left or right and display other columns. You can resize any column, except for the first column.

This table provides a brief description of each of the columns on the window.

Column	Description
Destination Name	Name of the destination field. The image creator assigns the name of the variable field. Note that the row number for the variable field indicates its sequence number. The sequence number defines the order the system processes the rule. This is a required field.
Offset	Indicates the position in which the data begins.
Length	Number of characters in the destination field.
Source Name	Name of the source field.
Offset	Indicates the position in which the source field data begins.
Length	Number of characters in the source field.
File	Number of the source file.
Record	Number of the source record.
Required	Data requirement selections.
Rule	Name of the rule to execute. This is a required field.
Mask	Mask required to execute rule.
Data	Data required to execute rule.

ASSIGNING A RULE

The Rules window lets you quickly and easily assign rules to the variable fields. You simply move from column to column and row to row to make your rule assignments.

When you select a new row, any changes you made to a previous row are saved in memory but not written to the DDT file. The information is saved when you select File, Save from Image Editor.

- 1 To assign a rule, open the variable field you want to assign a rule to by clicking on it. Click on Load DDT button if the DDT has not already been opened. If the DDT file has been opened, click on the Edit DDT tab on the field's Properties window. The field name automatically defaults for you in the Destination Name field. This is the image field that receives data during processing. You should not change this name.
- 2 Enter the length for the destination field in the Length field. The system defaults to the field's length.

- 3 Enter the offset for the destination field in the Offset field. Offset indicates the beginning and end of a piece of data in data files and records.
- 4 Enter the name of the source field in the Source Name field. You can also enter source name information by clicking on the button beside this field. The system will display the Data Dictionary File. You can then retrieve and insert source names and associated source information which you assigned in the data dictionary file. Assigning a source name to specific source information eliminates having to re-enter source information.
- 5 Enter the offset for the source field in the Offset field.
- 6 Enter the length for the source field in the Length field.
- 7 Specify the number of the table file. The table file information is stored in a file called TBLFILE.DAT. This file contains pathing information for individual TBL files. Here is an example:

```
. \DEFLIB\AGENCY.TBL
. \DEFLIB\COMPCODE.TBL
```

This information is used by the TblLkUp rule. The system looks at the number in the table file field to determine which TBL file to use. Based on the search mask information, the system then looks in that TBL file for the text.

NOTE: If you are not using the TblLkUp rule no entry is needed in this field.

- 8 Enter the record number in the Record field. The record number tells the system which record to retrieve from the source file—a 1 means the first record found, a 2 means the second record, and so on.
- 9 Make one of the following data requirements selections in the Required field. Data requirements control whether data must merge in the image's variable field during the merge procedure.

Option	Description
Not	Not required at print time. Missing data does not result in an error message.
Host	Required from a source data file during a batch run. Missing data results in an error message and the document kicks to the error batch.
Operator	Required as a manual entry in Work-in-Process module. Missing data results in a warning message and the document is kicked to WIP.
Either	Required as manual entry in Work-In-Process module. Missing data results in a warning message and the document is kicked to WIP.

NOTE: By customizing your INI file settings, you can have the system send all transactions it could not process to a specific file, commonly called the error batch. You can print the error batch after the Rules Processor finishes processing. Transactions listed in this file are not sent to WIP or archived. These transactions must first be corrected before they can be sent to WIP or archive. For information on this topic, refer to the Rules Processor System Guide.

10 Select a rule from the list in the Rule field.

11 If required for execution of the rule, enter a mask in the Mask field and enter data in the Data field.

After you make all the rule assignments, select File, Exit to return to the image.

VIEWING RULES REPORTS

The system includes two reports you can use to help you make rule assignments. These reports are available from the Tools menu.

View Rules report

The View Rules Report option lets you view a listing of all fields in the DDT file and pertinent information about each field. The listing shows the information in a tabular fashion. The variable fields' offsets, lengths, assigned rules and data requirements appear.

To view Rules Report, select Tools, Report, View Rules Report. The DDT file must be loaded, or opened, to run this report.

Image name

Variable fields

Offsets and lengths

Rules

Detail DDT file report					Page# 1
Image: cgdec1					14:02:49
-----Source Field Values -----					
Name	Offset	Length	Rule	F F F F	
				1 2 3 4	
INSNAMREC-INSNAME1	25	30	move_it	Y N N N	
HEADERREC-POLICYNUM	4	7	move_it	Y N N N	
AUTONUREC-VAL1	25	9	movenum	Y N N N	
AUTONUREC-VAL2	35	9	movenum	Y N N N	
AUTONUREC-VAL3	45	9	movenum	Y N N N	
AUTONUREC-VAL4	55	9	movenum	Y N N N	
AUTONUREC-VAL5	65	9	movenum	Y N N N	
AUTONUREC-TOT	75	9	movenum	Y N N N	
CLCODE	25	6	tbltext	Y N N N	
CLSSCDREC-CODE	25	6	move_it	Y N N N	
CLSSCDREC-PREM_BASIS	31	12	movenum	Y N N N	
CLSSCDREC-PO_RATE	43	6	move_it	Y N N N	
CLSSCDREC-PO_PREM	49	9	movenum	Y N N N	
CLSSCDREC-PC_RATE	58	6	move_it	Y N N N	
CLSSCDREC-PC_PREM	64	9	movenum	Y N N N	
CLCODE	25	6	tbltext	Y N N N	

After you finish viewing the rules report information, you can close the report by double clicking on the icon in the top left corner of the window.

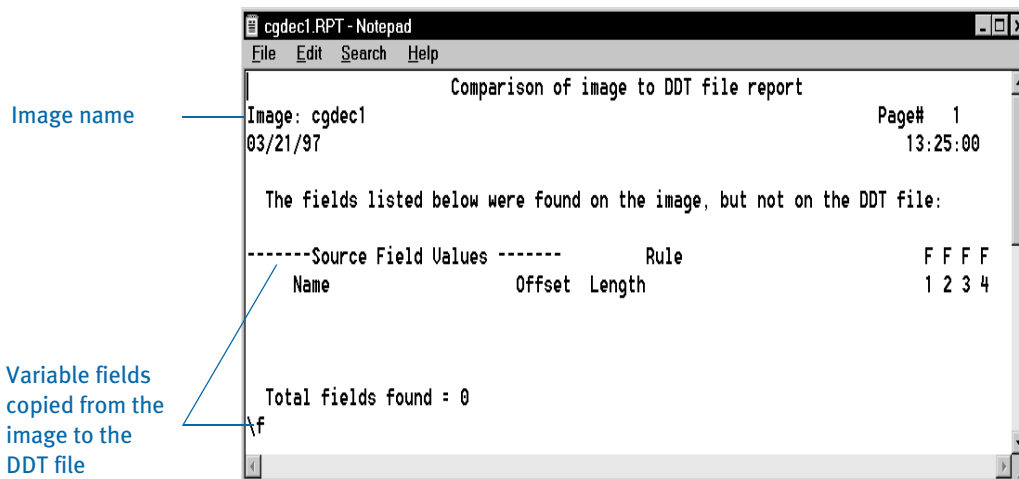
View Compare report

The View Compare Report option lets you view and compare a listing of all the fields stored in the image's FAP file with all the fields in the image's DDT file. Differences between the two files appear in the report.

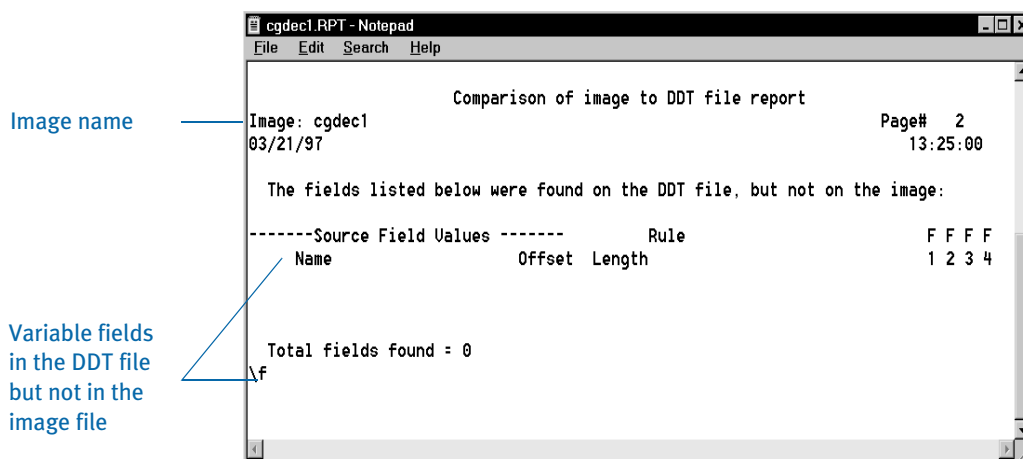
The system displays a message stating that the rules (DDT) file will be saved before running the report. Selecting OK saves the DDT file and runs the report. Cancel cancels the operation and returns you to Image Editor.

To view Compare Report, select Tools, Report, View Compare Report. The DDT file must be loaded, or opened, to run this report.

The Compare Report appears. Page 1 of the report provides the names of variable fields found in the image (FAP) file but not found in the DDT file. The fields' offsets, lengths, rules, and data flags also appear.



Page 2 of the report provides the names of variable fields found in the DDT file but not found in the image (FAP) file. The field's offsets, lengths, rules, and data flags also appear.

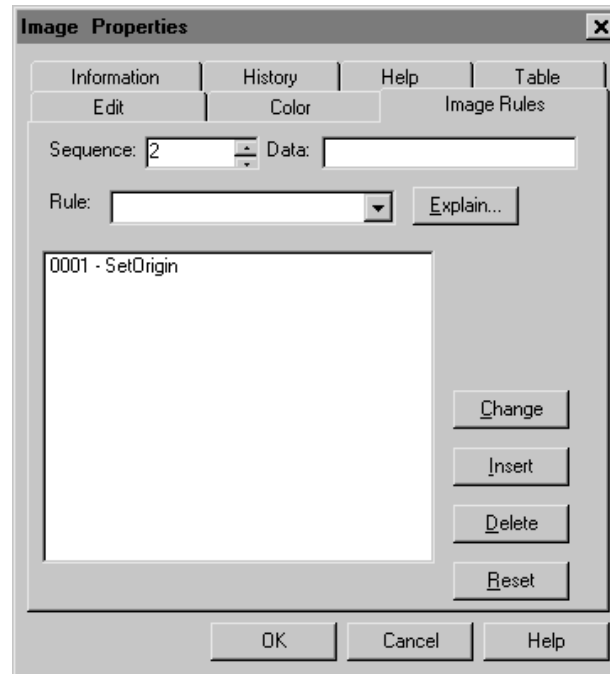


After you finish viewing the compare report information, you can close the report by double clicking on the icon in the top left corner of the window.

USING THE IMAGE RULES TAB

The Image Rules tab lets you add, remove and edit image level rules. These rules apply to an entire image, rather than to an individual variable field.

Image rules are accessed by selecting Format, Image Properties then clicking the Load DDT button, if the DDT file is not already opened. Next, select the Image Rules tab.



INSERTING OR CHANGING A RULE ASSIGNMENT

The Insert and Change buttons on the Image Rule tab let you add a rule assignment for an image, or change a rule currently assigned to the image.

- 1 To insert or change a rule assignment, click the rule you want to change or click within the rule list at the point you want to insert a rule.
- 2 Enter a sequence number in the Sequence field.
- 3 Enter or select a rule in the Rule field. If you want to see an explanation of the rule, click Explain. A Help Text window appears and provides an explanation of the rule.
- 4 Enter the required data in the Data field. Click either Insert or Change to complete the insert or change procedure.

DELETING A RULE

The Delete button lets you remove a rule assignment. You remove the rule from the DDT file. The FAP file is not affected.

- 1 To delete a rule assignment, click the rule you want to delete. Click Delete.
- 2 Click Yes or No to confirm or cancel the delete.

LIST OF RULES

Here is a list of the image and field rules you can use. The Type column tells you if the rule is an image (I) or field level rule (F). The Overflow column tells you if the rule supports overflow.

NOTE: You can also see this information by selecting the Help, Explain Rule option. This option displays Help for the current rule. You can review Help for all of the rules by then clicking on the Contents button and choosing Rules Reference.

Rule	Type	Use to...	Overflow
BldGrpList	F	create lists of data for populating image lists or columns	na
CheckImageLoaded	I	check to see if the FAP file is loaded, and if not, load the FAP file	na
compbin	F	select the largest value of multiple packed binary fields located on the same record to populate a variable field	na
concat	F	concatenate strings and place the result in the field you specify	na
CreateChartSeries	I	get data from extract records and include it as series data in a chart	na
DateDiff	F	display the difference between two dates	na
datefmt	F	format a date using the date format you specify	yes
DeleteDefaultSeriesData	I	remove series data from the series you specify	na
Dont Print Alone	I	delete a page from a form set	na
ffsysdte	F	get the current system date	na
FieldVarsToChartSeries	I	allow a chart's series data to be retrieved via reference to variable fields defined on the same image	na
fmtdate	F	format a date (including international localities)	yes
fmtnum	F	format a number	yes
ForceNoImages	I	used to return the msg NO_MORE_IMAGES rule	na
GetRecord Search Criteria	F	lets you get data records from an extract list	yes

Rule	Type	Use to...	Overflow
Group Begin	I	define the first image in a group of images	yes
Group End	I	define the last image in a group of images	yes
hardext	F	place a value in a field only if a record is found in the extract data using the search criteria you specify	na
if	F	get information from an extract file if conditions you specify are met and to call DAL functions	yes
IncOvSym	I	increment an overflow variable	yes
KickToWip	F	force a transaction to manual batch (WIP)	na
lookup	F	take data from an extract record, look up the data in a table, and copy the table data to the destination field	na
master	F	tell the system the field has been mapped to the master DDT file.	na
MessageFromExtr	F	retrieve a message from an extract file	yes
mk_hard	F	insert a specific value	na
mnumext	F	execute the movenum rule if an external record is found	yes
move_it	F	copy data from an external record into the output buffer	yes
moveext	F	copy data if a source record exists	yes
movenum	F	copy and format numeric data in an extract record	yes
movtbl	F	copy data from the table list of records into the output buffer	na
noopfunc	F	add a placeholder which causes no operation to occur, used in testing	na
OvActPrint	F	report the actual number of overflow records that could be processed per transaction.	yes
ovprint	F	count the number of overflow records used and place that number in the output buffer	yes

Rule	Type	Use to...	Overflow
PaginateBeforeThisImage	I	add a page break before the system begins processing the current image	na
powtype	F	force a transaction to manual batch (WIP)	na
printif	F	print information in a field if the data matches the string you specify	na
prtifnum	F	print information in a field if the data matches the numeric value you specify	na
PurgeChartSeries	I	remove a series from a chart if the series contains no data	na
ResetImageDimensions	I	reset image dimensions	na
rundate	F	get the run date from the TRNFILE.DAT file and format it using the mask you specify	na
runuser	F	Used to execute a user function, such as GetRecsUsed, IncRecsUsed or ResetRecsUsed to manipulate an overflow variable as you would without any other rule	na
SAPmove_it	F		
setaddr	F	store and retrieve subsequent lines of a multiple line address	yes
setaddr2	F	store and retrieve subsequent lines of a multiple line address	yes
SetImageDimensions	I	set the dimensions of an image	na
SetOrigin	I	set the image overlay/page segment X and Y coordinates	na
setstate	F	translate a numeric ISO state code into the actual state name	yes
strngfmt	F	retrieve and format a string	yes
sysdate	F	format the system date	yes
tbllkup	F	copy alphanumeric data from a table using the source record field as a key	na

Rule	Type	Use to...	Overflow
tbltext	F	get a text table item based on a key built from the source field name concatenated with the data retrieved from the source record	yes
TextMergeParagraph	I	to merge data for embedded variable fields in a text area with the text area	na
UnderlineField	F	draw an underline beneath a variable field	yes

CHAPTER 13

Managing Resources Using Libraries

This chapter discusses how you can store the resources that comprise your forms in libraries and use system tools to manage those resources.

Included in this chapter is information on:

- [Overview on page 388](#)
- [Creating Libraries on page 404](#)
- [Checking in, Checking out, and Unlocking Files on page 431](#)
- [Using Library Manager on page 437](#)
- [Using the LBRYMGR Utility on page 446](#)
- [Synchronizing Libraries on page 456](#)
- [Troubleshooting on page 459](#)

OVERVIEW

You use a variety of resources to build a form set. These resources can include images (FAP files) and image processing information (DDT files), logos (LOG files), and processing scripts (DAL scripts).

While you can simply store these resources on disk, Library Manager lets you create a library into which you can place the resources and provides features that let you manage those resources. For instance, Library Manager lets you date stamp a resource so it will not be used until its *effective date* is reached.

Other tools, such as Image Editor and Logo Manager, work with Library Manager so you can check resources into and out of the library. When a resource is checked out, Library Manager marks that resource as being locked and prevents others from checking it out until it is checked back in.

Documaker Workstation uses Library Manager to get the appropriate version of a resource, based on the effective date of the documents being generated.

Likewise, Documaker Server uses Library Manager to load the correct resources from the library when needed. And, the Bridge to DAP Archive for Docupresentment uses Library Manager to retrieve the correct version of each of the resources used when the document was archived.

Understanding the System

You can use Library Manager and the LBRYMGR utility to perform the same tasks. Both manage libraries and the resources in those libraries. The terminology and concepts are the same. The difference between these two tools is in how you work with them.

With LBRYMGR utility, you must enter a command at an operating system prompt and include the appropriate parameters. With Library Manager, you select the appropriate menu options and fill in the corresponding fields, as you would with any Windows application. This chapter discusses how to use both tools.

You can find additional information on the LBRYMGR and other utilities in the [Docutoolbox Reference](#).

To better use Library Manager, it is important for you to become familiar with the following topics:

- [Terminology on page 389](#)
- [Concepts on page 390](#)
- [How It All Works on page 398](#)
- [Managing Workflow on page 403](#)

TERMINOLOGY

Before you begin using Library Manager to manage your resources in libraries, there are some terms you should understand and concepts you should be familiar with.

Check in	The process of putting a resource back into the library after you have checked that resource out. The Image Editor and Logo Manager let you select a resource to check out and, after you are finished editing it, let you check the resource back in.
Check out	The process of selecting a resource, using Image Editor or Logo Manager, from a library. When you select the resource, it is locked by Library Manager. It remains locked until you check the resource back in.
Effective dates	A field in the library index that is associated with a resource in the library. This field indicates the date at which the resource is available for use, or when it will become effective.
Libraries	Refers to the physical files in which the resources are stored. Logically, a library is divided into an index portion and a data portion.
Modification dates	A field in the library index that contains a timestamp indicating the date and time the resource was last modified or checked in to the library. This field is in hexadecimal format in the index but is formatted to a more readable format when displayed in the tools.
Revisions	A field in the Library Index that indicates the minor change number. The revision number is generally incremented by one each time a resource is checked out and back in. If, however, the version number is incremented, the revision number is reset to 1 for that version. In Documaker 10.2 and higher, a revision number consists of five digits, such as 00001.
Response files	In Documaker terms, a file that is created by the LBRYMGR utility and contains commands and data. These commands and data are then read by the LBRYMGR utility, running in a different mode, and processed accordingly. The response file can also be read and processed by Library Manager.
Synchronization	The process of copying (or promoting) resources from one library to another library, based on some synchronization criteria. Resources from the source library that have a newer modification date than resources, with a corresponding name, in the target library, are copied to the target library.
Unlock	The process of removing the Library Manager lock from a resource that you have previously checked out. Only the user who locked the resource can unlock it.
Versions	A field in the library index that indicates the major change number. The version number is only incremented upon check in when you check the Increment Version field. If you want to change the effective date for the resource you are checking in, you are forced to check the Increment Version field before you are allowed to type a new effective date. In Documaker 10.2 and higher, a version number consists of five digits, such as 00001.

CONCEPTS

In addition to the terminology you should be familiar with, there are several concepts key to using Library Manager:

- [Understanding Libraries on page 390](#)
- [Processing with Effective Dates on page 392](#)
- [Retrieving Resources with Version and Revision Numbers on page 393](#)
- [Stringently Checking Resources on page 394](#)
- [Understanding Run Dates on page 396](#)

Understanding Libraries

A Documaker library consists of an index and its corresponding data. Generally, the index is contained in one table and the data portion in another table. The index table contains one row for each version and revision of a resource with a specific name and of a specific type.

The index table includes these fields. The maximum length is indicated in parentheses:

Field	Description
FileType (3)	This field can contains one of the following values which define the type of resource this row refers to: FAP, DDT, LOG, or DAL.
FileSTyp (3)	This field indicates the sub type of the resource this row refers to. This field is not currently used and is usually set to the value of the FileType field.
FileName (100)	This field indicates the name of the resource, such as Q1SNAM, Q1ADDR, or IMAGE1. The name can consist of up to 100 characters.
Resource (25)	Reserved for future use.
Descript (100)	This field contains a description of the resource or the last change made to it. You can enter up to 100 characters.
Effectiv (10)	This field contains the date on which you want this resource to become available for processing. This date is stored in D4 format (YYYYMMDD) in the library index. Depending on your locale setting (Options, Editor Properties, Page/Locale), you may see the date displayed in other formats like MMDDYYYY or DDMMYYYY.
ModifyTm (10)	This field indicates the date and time the resource was last checked in or modified. This date appears in the appropriate format for your locale setting, along with the time.
FileIndx (8)	This field contains a number that, for xBase implementations, connects this index record to a compressed file in the data portion of the library.
RecStat (3)	This field indicates whether this resource is locked or not. If locked, the field contains <i>LOC</i> , otherwise it is blank.

Field	Description
Version (5)	This field contains the version number of this resource. The version number starts at 00001 and, as the resource is checked out and checked in, is incremented if you have checked the Increment Version field.
Revision (5)	This field contains the revision number of this resource. The revision number starts at 00001 and, as the resource is checked out and checked in, is incremented. If you have checked the Increment Version field, the version number is incremented instead of the revision number and the revision number is reset to 00001.
UserID (64)	This field shows you the user ID of the user who last modified the resource, or who has the resource checked out. This ID can consist of up to 64 characters.
UsrLevl (2)	Reserved for future use.
Passwd (64)	Reserved for future use.
Unique_ID (26)	This field contains a unique identifier used for internal purposes.
ArcKey (18)	This key is used with DBMS implementations of the library to connect this index record to a row in the data table of the library. When using a DBMS, this field is used instead of the FILEINDX field, which is used in xBase implementations of the library.
LibName (129)	This is the name of the library. This name can consist of up to 129 characters.
AppData (10)	This field can contains up to 10 characters of additional, customer-specific application data.
Mode (25)	This field indicates the mode of the resource. You define the modes using INI options. For instance, you could set up modes to denote milestones in the development process such as Development, Testing, and Production. You can enter up to 25 characters.
Status (25)	This field indicates the status of the resource. You define the status codes using INI options. For instance, you could have codes like Pass or Fail. You can enter up to 25 characters.
Class (25)	This field indicates the class of the resource. You define classes via INI options. You can use classes to group resources by product lines or by geographical regions, such as GA, TX, or MD. You can enter up to 25 characters.
Project (25)	This field indicates the project code that last modified this resource. You define project codes using INI options. You can enter up to 25 characters.

While the index portion of the library contains attributes for each version/revision combination of a resource that is stored in the library, the data portion of the library contains the resources themselves.

The structure of the data portion of the library depends on how the library is defined (xBase, DBMS, Documanager), but in general, the data portion contains each of the version/revision combinations of the resources listed in the library index.

Processing with Effective Dates

Because document requirements change over time, your forms will evolve. Library Manager lets you assign effective dates to resources so you can make changes ahead of time while making sure those changes are put in effect only when appropriate. With Library Manager, you can change the content of a form as necessary and control the date at which the new form takes effect. Using effective dates also lets you preserve prior versions of a form so when you need to retrieve a version of a form that was effective, for example, a year ago, you can.

In the Documaker system, a form may be composed of one or more images. An image is comprised of a FAP file and, in most cases, a corresponding DDT file. So, if a form needs to be changed, then one or more of the images (FAP and DDT file combinations) that comprise the form need to be changed.

For example, you have a form called *DEC PAGE*. This form consists these images:

- Q1SNAM
- Q1MDC1
- Q1MDC2
- Q1MDC3

The Q1SNAM image contains the company's corporate address. The company's corporate address is going to change next month, and you want to go ahead and change the address to reflect the change.

If you are not using Library Manager, you could handle this by updating the image with the correct address but copying it into a temporary directory so it will not be used until next month. Or you might create another image with the new address and call it *Q1SNAM2*, but then you would need to make all the other changes necessary to begin using this new image name (using Form Set Manager).

If you use Library Manager to handle this situation, you can check out the Q1SNAM image (FAP), make the address change, then check in the Q1SNAM image and set the effective date for this new version of Q1SNAM to the first of next month.

If the DEC PAGE form is assembled at any time this month, the version of Q1SNAM that is effective this month (the older one) is used. If the DEC PAGE form is assembled next month, the version of Q1SNAM that is effective next month (the newer one) is used.

This example uses a FAP file to demonstrate how the effective date of a resource can be used to cause a different version of that resource to be used at the appropriate time. Library Manager can also manage logos (LOG files) and DAL scripts in the same way. And remember a FAP file usually has a corresponding DDT file, so you can usually assume that when you have checked out a FAP and checked it back in, you have automatically checked out and checked in the DDT as well (provided you turn on Image Editor's Automatically Update DDT option).

NOTE: Keep in mind that if you are using Library Manager to trigger forms based on effective date processing:

- If possible, avoid creating forms with effective dates that require updated printer resource files, such as fonts, form overlays, bitmap files, and so on.
 - Otherwise, make sure you have the corresponding set of printer resource files for the forms based on the effective date to be processed.
-

Retrieving Resources with Version and Revision Numbers

When a resource is added to the library it is assigned a *version* number and a *revision* number. A resource added to the library for the first time is given a version number of *00001* and a revision number of *00001*. The version number and revision number change as the resource is checked out, changed, and checked back in.

Generally, if you check out a resource to make a small change, the revision number of the resource is incremented by one when you check in the resource. If you make a major change to the resource, or if this change requires you also change the effective date, the version number is incremented by one. The version number is considered a *major* number and the revision number is considered a *minor* number.

Typically, version/revision numbers are shown in this format:

version.revision

and leading zeros are omitted. So version *00001*, revision *00003* is referred to as *1.3*.

NOTE: Documaker 10.2 enforces the rule that all revisions of a particular version of a resource must have the same effective date. Prior to version 10.2, Documaker allowed revisions of a particular version of a resource to have different effective dates.

When a resource is requested from Library Manager, the request generally supplies a resource type (FAP, DDT, LOG, or DAL), a name (such as Q1SNAM) and a *run date* (20071225 is December 25, 2007). Library Manager searches the library index for items that match that name and type, then chooses the one which has an effective date closest to, but not exceeding, the run date.

If Library Manager finds there are two or more versions of the same resource with the same effective date, it chooses the one with the higher version/revision number. For instance, the version/revision 2.1 is considered to be higher than the version/revision 1.2, so between these two resources, Library Manager would choose 2.1.

Stringently Checking Resources

In Documaker 10.3

In Documaker 10.3 and higher, the StringentChecking option defaults to Yes. Stringent checking means that if Library Manager finds versions of a resource in the library but none are effective yet — their effective date is greater than the run date being used — it will not return any of those resources.

Although you should leave the StringentChecking option set to Yes, you can, however, override it, as shown here:

```
< LibraryManager >
  StringentChecking = No
```

When StringentChecking is set to No, Library Manager tries to return some version of the resource, even if that resource is not yet effective. If Library Manager finds versions of a resource in the library but none are effective yet, Library Manager returns the resource with the oldest effective date.

If the StringentChecking option is set to No and Library Manager does not find any versions of the resource in the library, it tries to find the resource on disk, in the location designated for that resource type in the INI file. If it finds the resource on disk, it returns that resource.

In Documaker 10.2 and below

In Documaker 10.2 and earlier, the StringentChecking option defaults to No. If Library Manager does find versions of a resource in the library but none of those versions are effective yet, it returns the oldest version/revision of that resource.

If Library Manager does not find any versions of the resource in the library, it tries to find the resource on disk, in the location designated for that resource type in the INI file. If it finds the resource on disk, it returns that resource.

For DDT files only, if you want Library Manager to issue an error message or to perform specialized processing, you can set the StringentChecking option to Yes. In Documaker 10.2, stringent checking is only available for DDT resources and only affects the GenData program.

You can use these INI options to control the stringent checking of DDT resources:

```
< DDTResource >
  ErrorOnMissingFile      = Yes
  RemoveImageMissingDDT  = No
  StringentChecking       = No
  WarnOnMissingFile      = Yes
```

Option

Description

ErrorOnMissingFile

The system normally generates an error if a DDT file cannot be found for a triggered image. Errors are written to a file, named using the ErrFile option in the Data control group.

This file is typically called ERRFILE.DAT. Set this option to No to prevent the system from generating an error message when it cannot find the DDT file. The default is Yes.

Option	Description
RemoveImageMissingDDT	A DDT file is normally required for any triggered image and not finding an image is a fatal error for a transaction. Setting this option to Yes tells the system that when it cannot find a DDT file for a triggered image, it should remove the image from the form set. This can result in the removal of the form as well if all images are removed. An empty form set can result if all of the forms are removed. If this results in an empty form set, the system generates an error message. The default is No.
StringentChecking	Normally, if Library Manager does not find an effective version of the file, it returns the oldest version/revision of the file. If, however, you set this option to Yes, only an effective version of the file will be returned. If no such file exists, nothing is returned. Stringent checking is only applicable when you use Library Manager to control effective date eligibility of DDT files. The default is No.
WarnOnMissingFile	Normally, the system generates an error if it cannot find a DDT file for a triggered image. You can, however, suppress this error by setting the ErrorOnMissingFile option to No. When you suppress this type of error, the system assumes you still want a warning message but by setting this option to No, even the warning message is suppressed. The default is Yes.

Understanding Run Dates

The idea behind effective date processing is that, within a library, there can be multiple versions of a resource, each with a different effective date. When the system creates a form set, it is built with the version (and revision) of the resources that were, or will be, effective on a given date. In Documaker Server, this date is called the *run date*. In Documaker Workstation it is called the *create date*.

When using Library Manager to manage your resources, you must use run dates for the system to construct, archive, and retrieve your form sets correctly. Be sure to:

- Define the RunDate field in your TRNDFDL.DFD, RCBDFDL.DFD, and APPIDX.DFD Data Format Definition (DFD) files.
- Create the extract file to include the run date for each transaction's set of records.
- Use the TRN_FIELDS control group to indicate the location of the RunDate and other fields in the extract file. The GenTrn program uses this control group.
- Set the RunDate option in the Trigger2Archive control group as shown here to make the GenArc program populate the APPIDX file with the RunDate from the NEWTRN file:

```
< Trigger2Archive >  
    RunDate = RunDate
```

- Set the RunDate option in the AFEWIP2ArchiveRecord control group to make Documaker Workstation (PPS) populate the APPIDX file with the value of the creation date in the WIP index:

```
< AFEWIP2ArchiveRecord >  
    RunDate = CreateTime,X
```

If you follow the guidelines above, the system will behave as described here:

- When the GenTrn program runs, the value in the RunDate field for each transaction is read from the extract file and copied into the TRNFILE.
- When the GenData program runs, it uses the value in the RunDate field in the TRNFILE for each transaction and loads the appropriate resources from the library.
- When the GenPrint program runs, it uses the value in the RunDate field, if necessary, in the recipient batch files for each transaction.
- When the GenArc program runs, it copies the value in the RunDate field from the NEWTRN file into the APPIDX file, using the RunDate option in the Trigger2Archive control group.
- When you archive a form set in Documaker Workstation, the value in the CreateTime field is converted from hexadecimal format to D4 format (YYYYMMDD) and copied into the APPIDX file.

When you retrieve that form set, the value in the CreateTime field that was saved into the APPIDX file can be used to load objects, such as FAP files and logos, from the library as required to reconstruct the form set.

Keep in mind the run date should be in D4 format, which is YYYYMMDD. If your run date is not in D4 format, you can convert it using additional INI options.

To make sure the value in the RunDate field is part of the TRNDFDFL.DFD, RCBDFDFL.DFD, and APPIDX.DFD files, make sure these DFD files contain entries for the RunDate field, as shown below. The DFD files shipped with your system contain similar entries. DFD files are generally stored in the \DEFLIB directory. In each of these DFD files, you should have an entry for the RunDate field and an entry that describes the attributes of the RunDate field. These entries will look similar to those shown here:

```
< Fields >
  FieldName      = RunDate
< FIELD:RunDate >
  EXT_Type       = CHAR_ARRAY
  EXT_Length     = 8
  EXT_Precision  = 0
  INT_Type       = CHAR_ARRAY
  INT_Length     = 8
  INT_Precision  = 0
  Key            = No
  Required       = Yes
```

If you did not place the RunDate field in the TRNDFDFL.DFD, RCBDFDFL.DFD, and APPIDX.DFD files, you can use the GetRunDate rule to get the current system date and use it as the RunDate for each transaction. Keep in mind that using the GetRunDate rule limits you to using the current date as the run date, which may not always be the date you want to use.

HOW IT ALL WORKS

The following topics describe how Documaker software uses these concepts in everyday processing.

In Documaker Workstation

Entry When you use Documaker Workstation (or PPS) to create a new form set or transaction, the current system date is used to note when the form set was created. This value is stored in the CreateTime field, which is equivalent to the RunDate field in Documaker Server.

You can change this date by clicking on the Effective Date control and choosing a different date from the calendar. You can hide the Effective Date control using this option:

```
< Control >  
ShowEffectiveDate = No
```

The effective date specified — whether the current date or another date — is the date compared against the effective dates associated with the resources, such as FAP files and logos, pulled from the library.

Example 1 - Multiple versions, different effective dates

Say today's date is 10/25/2007 and the form set you are creating requires a form called *DEC PAGE*. The DEC PAGE form is comprised of these FAP files:

- Q1SNAM
- Q1MDC1
- Q1MDC2
- Q1MDC3

Assume the following versions of the Q1SNAM FAP are in the library:

Form set	Version	Revision	Effective Date
Q1SNAM	00001	00001	20070131
Q1SNAM	00001	00002	20070731
Q1SNAM	00002	00001	20071231

Since the run date is 20071025 (10/25/2007), Library Manager chooses version 00001, revision 00002 (version 1.2) of Q1SNAM because it has an effective date (20070731) and that is the latest date that does not exceed the run date (20071025).

NOTE: This example shows two revisions, 1.1 and 1.2, of version 1 which contain different effective dates. Though Documaker 10.2 and higher enforce the rule that all revisions of a particular version of a resource must have the same effective date, if you have migrated a library from a prior version, your library may contain resources that do not adhere to this restriction. This situation will not cause errors.

Example 2 - Multiple versions, same effective dates

Say today's date is 10/25/2007 and the form set you are creating requires a form called *DEC PAGE*. The DEC PAGE form is comprised of these FAP files:

- Q1SNAM
- Q1MDC1
- Q1MDC2
- Q1MDC3

Assume the following versions of the Q1SNAM FAP are in the library:

Form set	Version	Revision	Effective Date
Q1SNAM	00001	00001	20070731
Q1SNAM	00001	00002	20070731
Q1SNAM	00001	00003	20070731
Q1SNAM	00002	00001	20071231

The run date is 20071025 (10/25/2007), so the latest effective for Q1SNAM that does not exceed the run date is 20070731. There are three version/revisions of Q1SNAM that have the most correct effective date, versions 1.1, 1.2, and 1.3. Library Manager chooses version 1.3 because it has the highest version/revision number.

Sometimes, you might create a form set and decide to base that new form set on an older one from archive. To do this, you first choose the New, Retrieve Data option to select the form set from archive. By default, the new form set would consist of the same version/revisions of the forms from the archived form set.

If, instead, you want the new form set to be comprised of the same forms as the archived form set, but with newer versions/revisions of those forms — if they exist — you must use this INI option:

```
< FormSelection >
  RetrieveVersionInfo = No
```

WIP When you save a form set to WIP (by choosing File, Save or WIP, Save), the system writes a record to the WIP index table and two WIP data files are written to the \WIP directory. By default, the WIP index table is named *WIP* and is composed of these files:

- WIP.DBF
- WIP.MDX

The two WIP data files written to the \WIP directory are essentially an NAFILE and a POLFILE. These two files may be named something like:

```
D4234FF15243414FB1B504379EC76D0D.dat    (this is the NAFILE)
D4234FF15243414FB1B504379EC76D0D.pol    (this is the POLFILE)
```

Prior to version 10.2 of Documaker Workstation, the WIP data files had names such as:

```
00000001.dat    (this is the NAFILE)
00000001.pol    (this is the POLFILE)
```

If you migrated to version 10.2 of Documaker Workstation from a prior version and have a WIP index (WIP.DBF and WIP.MDX), your WIP data files have the shorter names. Depending on the configuration, the resources in the NAFILE.DAT file may have version, revision, and effective date information in the \NA=... record. Here is an example:

```
\NA=q1snam, LN=1, DUP=OFF, SIZE=C, TRAY=U, X=0, Y=0, PA=1, OPT=D\
\ENDIMAGE\

\NA=q1mdc1, LN=1, DUP=OFF, SIZE=C, TRAY=U, X=0, Y=3360, PA=1, OPT=DS, V=1, R=
1, D=20020911\
\ENDIMAGE\
```

Notice the \NA=q1mdc1... record contains these options and values:

- V=1
- R=1
- D=20020911

These values represent the specific version, revision, and effective date of Q1MDC1, pulled from the library when this form set was created. Notice that the \NA=q1snam... record does not contain these values.

After saving this form set to WIP, you might later return to retrieve this form set. When reconstructing the form set, for those images listed in the NAFILE.DAT file that contain the V, R, and D options and values, Library Manager retrieves the specific version and revision of the image listed.

For those images listed in the NAFILE.DAT file that do not contain the V, R, and D options, Documaker Workstation gets a run date and passes that date to Library Manager so it can retrieve the correct version/revision of the images. Documaker Workstation gets its run date by looking for a value in these locations:

- The RunDate field in the WIP index
- The CreateTime field in the WIP index
- The current system date

If the RunDate field does not exist or is empty, Documaker Workstation looks in the CreateTime field. If the CreateTime field does not exist or is empty, it uses the current system date.

Archive and retrieval

When a form set is archived, its NAFILE and POLFILE contents are stored in an archive file or table (called a CARFile — Compressed Archive File) and some (or all) of the information that was in the WIP index (if it was archived from WIP) or in the NEWTRN file (if it was archived using the GenArc program) is stored into the application index (APPIDX) table. One of the fields in the APPIDX table is called *RunDate*.

You can retrieve a form set from archive in Documaker Workstation by choosing the Retrieve, Formset option. When reconstructing the form set, for those images listed in the NAFILE file that contain the V, R, and D options and values, Library Manager retrieves the specific version and revision of the image that is listed.

For those images listed in the NAFILE that do not contain the V, R, and D options, Documaker Workstation gets a run date and passes that date to Library Manager so it can retrieve the correct version/revision of the images. Documaker Workstation gets its run date by looking for a value in these locations:

- The RunDate field in the application index (APPIDX)
- The CreateTime field in the application index
- The current system date

If the RunDate field does not exist or is empty, Documaker Workstation looks in the CreateTime field. If the CreateTime field does not exist or is empty, it uses the current system date.

In Documaker Server

The GenData and GenPrint programs in Documaker Server will generally need to load resources (FAPs, DDTs, LOGs, and DAL scripts). To retrieve the resource with the appropriate effective date, Library Manager needs to know the run date for each form set to be generated.

The GenTrn program gets the run date from the extract file, for each transaction and writes the run date to the TRNFILE.

The GenData program gets the run date from a Global Variable Manager (GVM) variable named *RunDate*. The RunDate GVM is set by:

- a value in the TRNFILE file or
- the GetRunDate rule, which copies the current system date into the RunDate GVM

As the GenData program processes transactions, the run date is written to the NEWTRN file and to the recipient batch files, provided the TRNDFDFL.DFD and RCBDFDFL.DFD files contain the RunDate field.

The GenPrint program reads the NAFILE, POLFILE, and recipient batch files. When it needs to load a resource referenced in the NAFILE, such as a FAP or logo file, it asks Library Manager for the specific version and revision of the resource if those values are listed in the NAFILE.

For example, in this NAFILE excerpt:

```
\NA=q1snam, LN=1, DUP=OFF, SIZE=C, TRAY=U, X=0, Y=0, PA=1, OPT=D\
\ENDIMAGE\
\NA=q1mdc1, LN=1, DUP=OFF, SIZE=C, TRAY=U, X=0, Y=3360, PA=1, OPT=DS, V=1, R=
1, D=20070911\
\ENDIMAGE\
```

The Q1MDC1 FAP file contains these options:

- V=1
- R=1
- D=20070911

These options and values represent version 1, revision 1 (1.1) and an effective date of 9/11/2007. If the GenPrint program needs to load Q1MDC1, it asks Library Manager for version 1.1 of this file.

On the other hand, for Q1SNAM, the V, R, and D options and values do not exist in the NAFILE, so if the GenPrint program needs to load this file, Library Manager uses the run date specified in the recipient batch file to determine the correct version and revision of the FAP file to retrieve.

In Docupresentment (IDS)

When you use the Bridge to DAP Archive to retrieve archived form sets, you can also use Library Manager to retrieve the correct version and revision of any objects, such as FAP and logo files, referenced in the form set.

To configure Docupresentment to use Library Manager, follow these steps:

- 1 For each request type in the DOCSERV.INI file you want to use Library Manager, specify the DPRInitLby rule in the rules list. Here is an example of how you can use the DPRInitLby rule and its location in the rule list for the PRT request type:

```
[ ReqType:PRT ]
function = atcw32->ATCLogTransaction
function = atcw32->ATCLoadAttachment
function = dprw32->DPRSetConfig
function = dprw32->DPRInitLby <-- Initializes Library Manager
function = atcw32->ATCUnloadAttachment
function = dprw32->DPRRetrieveFormset
function = dprw32->DPRPrint
function = dprw32->DPRProcessTemplates
```

- 2 For each configuration you want to use Library Manager, specify the library name in that configuration's INI file. For example, if you are using the RPEX1 configuration, you would specify options similar to these in the RPEX1.INI file:

```
< MasterResource >
  FormFile = master.lby
  LogoFile = master.lby
  DDTFile  = master.lby
  DALFile  = master.lby
  LbyLib   = e:\fap\mstrres\rpex1\deflib\
```

The DDTFile, FormFile, LogoFile, and DALFile options name the library and the LbyLib option names the location of the library.

- 3 Set the ARCEFFECTIVEDATE attachment variable before calling any rules that use the library, such as DPRRetrieveFormset. Refer to the [SDK Reference](#) to determine which rules use the ARCEFFECTIVEDATE attachment variable.

The ARCEFFECTIVEDATE attachment variable is used by the Bridge to DAP Archive to locate the appropriate version/revision of a resource if a specific version/revision is not indicated in the retrieved NAFILE. If you are using the Docupresentment CGI client, you can set the ARCEFFECTIVEDATE by specifying the following in the appropriate HTML templates:

```
<FORM METHOD="POST" ACTION="#EXENAME, #">
<INPUT NAME="USERID" VALUE="#USERID, %s#" TYPE="HIDDEN">
<INPUT NAME="DOCTYPE" VALUE="#DOCTYPE, %s#" TYPE="HIDDEN">
<INPUT NAME="REQTYPE" VALUE="PRT" TYPE="HIDDEN">
<INPUT NAME="CONFIG" VALUE="#CONFIG, %s#" TYPE="HIDDEN">
<INPUT NAME="ARCEFFECTIVEDATE" VALUE="#RUNDATE, %s#" TYPE="HIDDEN">
<-- sets the ARCEFFECTIVEDATE attachment variable
```

This copies the value of the RunDate attachment variable into the ARCEFFECTIVEDATE attachment variable. The RunDate attachment variable comes from the RunDate field of the archive application index (APPIDX) file. See [Understanding Run Dates on page 396](#) to see how to make sure the APPIDX RunDate field is populated correctly.

MANAGING WORKFLOW

You can also use Library Manager to manage the development, testing, and promotion of resources. Using one or more libraries, you can coordinate the creation and modification of image (FAP), rule (DDT), logo (LOG), and DAL script files. Locking of resources as they are checked out, prevents multiple users from trying to change a particular resource at the same time. Prior versions of a resource are kept safe and can be restored if necessary.

As you test resources checked into a library, you can mark the resources as having passed or failed using the Status field on the File Information window. You can also promote them to another library for additional testing or for production use.

CREATING LIBRARIES

The way you create a resource library differs depending on how the library is stored. You have these choices:

- [Using xBase and CARFiles on page 404](#)
- [Using the DB2 Native Driver on page 406](#)
- [Using the DB2 ODBC Driver on page 411](#)
- [Using the SQL Server ODBC Driver on page 415](#)
- [Using the Oracle ODBC Driver on page 418](#)
- [Using Documanage on page 424](#)

USING XBASE AND CARFILES

You can use the xBase or CARFile format for the library on Windows, AIX, Solaris, and Linux operating systems. By default, a Documaker library is stored in this file format:

- The index portion is stored as a xBase file (actually two files)
- The data portion is stored in a compressed file format referred to as a *CARFile*

The default library name is *MASTER.LBY*. Using this name, the system creates these files:

File	Description
MASTER.DBF	The DBF and MDX files make up the index portion of the library. The DBF component contains the index data and the MDX component contains tag information.
MASTER.MDX	The DBF and MDX files make up the index portion of the library. The DBF component of the index contains the index data and the MDX component contains tag information.
MASTER.LBY	The LBY file makes up the data portion of the library. This file contains the actual resources (FAP, DDT, LOG, and DAL files) the index refers to. This file is in a compressed archive file (CARFile) format.

Creating the CARFile and Index Files

On Windows, AIX, Solaris,
and Linux

If you are using the xBase/CARFile format for the library index and data, any of the Docucreate tools, such as Image Editor or Library Manager or the LBRYMGR utility, can create the library index and data files. The Image Editor and Library Manager are only available on Windows.

Sample INI options

Use INI options like the following to have Library Manager create a library in a CARFile format (index in xBase format) and to load resources from that library:

```
< MasterResource >
  DALFile   = master.lby
  DDTFile   = master.lby
  FormFile  = master.lby
  LogoFile  = master.lby
  LbyLib    = ..\mstrres\deflib\
< LibraryManager >
  LbyLogFile = lbylog
```

Option	Description
MasterResource control group	
DALFile	This option tells the system you want to retrieve DAL scripts and DAL script libraries from a library named <i>MASTER.LBY</i> .
DDTFile	This option tells the system you want to retrieve DDT files from a library named <i>MASTER.LBY</i> .
FormFile	This option tells the system you want to retrieve FAP files from a library named <i>MASTER.LBY</i> .
LogoFile	This option tells the system you want to retrieve LOG (logo) files from a library named <i>MASTER.LBY</i> .
LbyLib	This option tells the system that the MASTER.LBY file and the two files that make up its index (MASTER.DBF and MASTER.MDX), reside in the location specified by the relative path <i>..\mstrres\deflib\</i> .
LibraryManager control group	
LbyLogFile	This option tells the system the name of the library log file is <i>LBYLOG</i> . The library log contains information about resources added to, deleted from, or updated in the library. The library log file does not have to use the same type of database handler as the library index and data portions.

USING THE DB2 NATIVE DRIVER

You can use the DB2 native driver — using DB2 but not going through ODBC — with the Windows, AIX, Solaris, Linux, and OS390 operating systems.

Creating the Database and Tables

On Windows, AIX, Solaris,
and Linux

On Windows, AIX, Solaris, and Linux you can have the LBRYMGR utility create the library index, data and catalog tables or you can create them beforehand. To tell the LBRYMGR utility to create the library and catalog tables, specify this INI option:

```
< DBHandler:DB2 >  
CreateTable = Yes
```

To create the DB2 library and catalog tables manually, execute an SQL script like the one provided with the RPEX1 sample resources in this directory:

```
..rpex1\deflib\db2\lbysqlr.cmd
```

This file is also listed below:

```
CONNECT TO LBYLIB;
```

```
-----  
-- DDL Statements for table "DAP103_CAT_R1"  
-----
```

```
CREATE TABLE "DAP103_CAT_R1" (  
    "CATALOGID" CHAR(10) ,  
    "CARFILE" CHAR(8) ,  
    "MEDIAID" CHAR(11) ,  
    "STATUS" CHAR(1) )  
IN "USERSPACE1" ;
```

```
-----  
-- DDL Statements for table "DAP103_LBYI_R1"  
-----
```

```
CREATE TABLE "DAP103_LBYI_R1" (  
    "FILETYPE" CHAR(3) ,  
    "FILESTYP" CHAR(3) ,  
    "FILENAME" CHAR(100) ,  
    "RESOURCE" CHAR(25) ,  
    "DESCRIPT" CHAR(100) ,  
    "EFFECTIV" CHAR(10) ,  
    "MODIFYTM" CHAR(10) ,  
    "FILEINDX" CHAR(8) ,  
    "RECSTAT" CHAR(3) ,  
    "VERSION" CHAR(5) ,  
    "REVISION" CHAR(5) ,  
    "USERID" CHAR(64) ,  
    "USRLEVL" CHAR(2) ,  
    "PASSWD" CHAR(64) ,  
    "UNIQUE_ID" CHAR(26) ,  
    "ARCKEY" CHAR(18) ,  
    "MODE" CHAR(25) ,  
    "STATUS" CHAR(25) ,
```

```

"CLASS" CHAR(25) ,
"PROJECT" CHAR(25) )
IN "USERSPACE1" ;

-----
-- DDL Statements for table "DAP103_LBYD_R1"
-----

CREATE TABLE "DAP103_LBYD_R1" (
    "ARCKEY" CHAR(18) ,
    "SEQ_NUM" CHAR(5) ,
    "CONT_FLAG" CHAR(1) ,
    "TOTAL_SIZE" INTEGER ,
    "CARDATA" LONG VARCHAR FOR BIT DATA )
IN "USERSPACE1" ;

COMMIT WORK;

CONNECT RESET;

TERMINATE;

```

If you manually create the DB2 tables by running using this script, set the CreateTable option to No when you later run Documaker Server. Here is an example:

```

< DBHandler:DB2 >
    CreateTable = No

```

On OS390

On OS390, run the job located in FSI.V103.JCLLIB(LBYSQLR) to create the library index, data, and catalog tables. This job also creates the library log (LBYLOG) table, which contains entries of items that are added to, deleted from, or updated in the library.

Sample INI Options

Here is an example of how you can set up your INI options to let Library Manager use the DB2 native driver to load resources from a library defined in DB2:

```

< MasterResource >
    DALFile      = LBYI
    DDTFile      = LBYI
    FormFile     = LBYI
    LogoFile     = LBYI
< LibraryManager >
    LBYLOGFile   = LBYLOG
< Library:LBYI >
    DBTable      = LBYD
< DBTable:LBYI >
    DBHandler    = DB2
< DBTable:LBYD >
    DBHandler    = DB2
    UniqueTag    = ARCKEY+SEQ_NUM
< DBTable:LBYLOG >
    DBHandler    = DB2
< DBTable:CATALOG >

```

```

        DBHandler    = DB2
        UniqueTag    = CATALOGID
    < DBHandler:DB2 >
        Class        = DB2
        Database      = LBYDBASE
        CreateTable= Yes
        CreateIndex= No
        UserID        = userID
        Passwd         = password
        Debug         = No
    < DB2_FileConvert >
        LBYI          = DAP103_LBYI_R1
        LBYD          = DAP103_LBYD_R1
        LBYLog        = DAP103_LBYLOG_R1

```

Option	Description

MasterResource control group

DALFile	This option tells the system you want to retrieve DAL scripts and DAL script libraries from a library named <i>LBYI</i> .
DDTFile	This option tells the system you want to retrieve DDT files from a library named <i>LBYI</i> .
FormFile	This option tells the system you want to retrieve FAP files from a library named <i>LBYI</i> .
LogoFile	This option tells the system you want to retrieve LOG (logo) files from a library named <i>LBYI</i> .

LibraryManager control group

LbyLogFile	This option tells the system the name of the library log file is <i>LBYLOG</i> . The library log contains information about resources added to, deleted from, or updated in the library. The LbyLogFile does not have to use the same type of database handler as the library index and data portions.

Library:LBYI control group

DBTable	This option tells the system the data component of the library named <i>LBYI</i> is called <i>LBYD</i>. In this example, the names <i>LBYI</i> and <i>LBYD</i> have been chosen to emphasize that one table, <i>LBYI</i>, represents the library index and one table, <i>LBYD</i> represents the library data. You can call these tables any name you like but the name cannot exceed eight characters. See the <i>DB2_FileConvert</i> control group if you need to map these eight-character names to longer table names.

DBTable:LBYI control group

DBHandler	This option tells the system to access the table known as <i>LBYI</i> using the database handler named <i>DB2</i> . Based on this option, the system expects to find a control group named <i>DBHandler:DB2</i> .

DBTable:LBYD control group

Option	Description
DBHandler	This option tells the system to access the table known as <i>LBYP</i> using the database handler named <i>DB2</i> . Based on this option, the system expects to find a control group named <i>DBHandler:DB2</i> .
UniqueTag	This option tells the system the columns <i>ARCKEY</i> and <i>SEQ_NUM</i> can be combined to represent a unique tag for the table. This unique tag is only used for internal purposes. If you do not specify a unique tag for this table, and a column with the name <i>UNIQUE_ID</i> does not exist within the table, you receive warning messages indicating no unique tag is defined. Include this value to avoid those warning messages.

DBTable:LBYP control group

DBHandler	This option tells the system to access the table known as <i>LBYPLOG</i> using the database handler named <i>DB2</i> . Based on this option, the system expects to find a control group named <i>DBHandler:DB2</i> .

DBTable:CATALOG control group

DBHandler	This option tells the system to access the table known as <i>CATALOG</i> using the database handler named <i>DB2</i> . The <i>CATALOG</i> table temporarily stores the <i>CATALOGID</i> values used to construct an <i>ARCKEY</i> .
UniqueTag	This option tells the system the column <i>CATALOGID</i> represents a unique tag for this table. This unique tag is only used for internal purposes. If you do not specify a unique tag for this table, and a column with the name <i>UNIQUE_ID</i> does not exist within the table, you receive warning messages indicating there is no unique tag defined. Include this value to avoid those warning messages.

DBHandler:DB2 control group

Class	This option tells the system this database handler represents a handler for IBM's DB2 database management system. The <i>Class</i> option is unnecessary if the name of the handler (<i>DB2</i> in this case) matches one of the Documaker pre-defined values, such as <i>DB2</i> , <i>ODBC</i> , <i>ORA</i> , or <i>DMS</i> .
Database	This option tells the system the name of the database for this database handler is <i>LBYPDBASE</i> .
CreateTable	This option tells the system to create any missing required tables at run time.
CreateIndex	This option tells the system not to create database indexes. This option should <i>always</i> be set to <i>No</i> .
UserID	This option tells the system the user ID to use when connecting to the database management system.
Passwd	This option tells the system the password to use when connecting to the database management system.

Option	Description
Debug	This turns off tracing for the Documaker DB2 database handler. Normally you would omit the Debug option or set it to No. In troubleshooting situations, set this option to Yes and examine the trace messages written to the trace file.

DB2_FileConvert control group

LBYI	This option tells the system the table referenced in INI options as LBYI is really named <i>DAP103_LBYI</i> on the database management system. This control group lets you map table names of eight characters or less to table names longer than eight characters. The table name you specify must adhere to the table naming conventions for the database management system.
LBYD	This option tells the system the table referenced in INI options as <i>LBYD</i> is really named <i>DAP103_LBYI</i> on the database management system.
LBYLog	This option tells the system the table referenced in INI options as <i>LBYI</i> is really named <i>DAP103_LBYI</i> on the database management system.

USING THE DB2 ODBC DRIVER

You can use the DB2 ODBC driver on the Windows operating system.

Creating the Database and Tables

You can let the LBRYMGR utility create the library index, data, and catalog tables or you can create them beforehand. To have the LBRYMGR utility create the library and catalog tables, specify this INI option:

```
< DBHandler:DB2 >
  CreateTable = Yes
```

To create the DB2 library and catalog tables manually, execute an SQL script like the one provided with the RPEX1 sample resources in this directory:

```
..rpex1\deflib\db2\lbysqlr.cmd
```

This file is also listed below:

```
CONNECT TO LBYLIB;
```

```
-----
-- DDL Statements for table "DAP103_CAT_R1"
-----
```

```
CREATE TABLE "DAP103_CAT_R1" (
    "CATALOGID" CHAR(10) ,
    "CARFILE" CHAR(8) ,
    "MEDIAID" CHAR(11) ,
    "STATUS" CHAR(1) )
IN "USERSPACE1" ;
```

```
-----
-- DDL Statements for table "DAP103_LBYI_R1"
-----
```

```
CREATE TABLE "DAP103_LBYI_R1" (
    "FILETYPE" CHAR(3) ,
    "FILESTYP" CHAR(3) ,
    "FILENAME" CHAR(100) ,
    "RESOURCE" CHAR(25) ,
    "DESCRIPT" CHAR(100) ,
    "EFFECTIV" CHAR(10) ,
    "MODIFYTM" CHAR(10) ,
    "FILEINDX" CHAR(8) ,
    "RECSTAT" CHAR(3) ,
    "VERSION" CHAR(5) ,
    "REVISION" CHAR(5) ,
    "USERID" CHAR(64) ,
    "USRLEVL" CHAR(2) ,
    "PASSWD" CHAR(64) ,
    "UNIQUE_ID" CHAR(26) ,
    "ARCKEY" CHAR(18) ,
    "MODE" CHAR(25) ,
    "STATUS" CHAR(25) ,
    "CLASS" CHAR(25) ,
```

```

"PROJECT" CHAR(25) )
IN "USERSPACE1" ;

-----
-- DDL Statements for table "DAP103_LBYD_R1"
-----

CREATE TABLE "DAP103_LBYD_R1" (
    "ARCKEY" CHAR(18) ,
    "SEQ_NUM" CHAR(5) ,
    "CONT_FLAG" CHAR(1) ,
    "TOTAL_SIZE" INTEGER ,
    "CARDATA" LONG VARCHAR FOR BIT DATA )
IN "USERSPACE1" ;

COMMIT WORK;

CONNECT RESET;

TERMINATE;

```

If you manually create the DB2 tables by running using this script, set the CreateTable option to No when you later run Documaker Server. Here is an example:

```

< DBHandler:ODBC >
    CreateTable = No

```

Sample INI Options

Use INI options like the following to cause Library Manager to create a library in DB2, using the DB2 ODBC driver, and to load resources from that library:

```

< MasterResource >
    DALFile      = LBYI
    DDTFile      = LBYI
    FormFile     = LBYI
    LogoFile     = LBYI
<LibraryManager>
    LBYLogFile   = LBYLOG
< Library:LBYI >
    DBTable      = LBYD
< DBTable:LBYI >
    DBHandler    = ODBC
< DBTable:LBYD >
    DBHandler    = ODBC
    UniqueTag    = ARCKEY+SEQ_NUM
< DBTable:LBYLOG >
    DBHandler    = ODBC
< DBTable:CATALOG >
    DBHandler    = ODBC
    UniqueTag    = CATALOGID
< DBHandler:ODBC >
    Class        = ODBC
    Server       = LBYDB2
    Qualifier    = LBYDBASE

```

```

CreateTable= Yes
CreateIndex= No
UserID      = userID
Passwd      = password
Debug       = No
< ODBC_FileConvert >
  LBYI       = DAP103_LBYI_R1
  LBYD       = DAP103_LBYD_R1
  LBYLog     = DAP103_LBYLOG_R1

```

Option	Description

MasterResource control group

DALFile	This option tells the system you want to retrieve DAL scripts and DAL script libraries from a library named <i>LBYI</i> .
DDTFile	This option tells the system you want to retrieve DDT files from a library named <i>LBYI</i> .
FormFile	This option tells the system you want to retrieve FAP files from a library named <i>LBYI</i> .
LogoFile	This option tells the system you want to retrieve LOG (logo) files from a library named <i>LBYI</i> .

LibraryManager control group

LbyLogFile	This option tells the system the name of the library log file is <i>LBYLOG</i> . The library log contains information about resources added to, deleted from, or updated in the library. The LbyLogFile does not have to use the same type of database handler as the library index and data portions.

Library:LBYI control group

DBTable	This option tells the system the data component of the library named <i>LBYI</i> is called <i>LBYD</i>. In this example, the names <i>LBYI</i> and <i>LBYD</i> have been chosen to emphasize that one table, <i>LBYI</i>, represents the library index and one table, <i>LBYD</i> represents the library data. You can call these tables any name you like but the name must be eight characters or less. See the <i>ODBC_FileConvert</i> control group to map these eight-character names to longer table names.

DBTable:LBYI control group

DBHandler	This option tells the system to access the table known as <i>LBYI</i> using the database handler named <i>ODBC</i>. Based on this option, the system expects to find a control group named <i>DBHandler:ODBC</i>. Microsoft's SQL Server is an ODBC-compliant database.

DBTable:LBYD control group

DBHandler	This option tells the system to access the table known as <i>LBYD</i> using the database handler named <i>ODBC</i>. Based on this option, the system expects to find a control group named <i>DBHandler:ODBC</i>.

Option	Description
UniqueTag	This option tells the system the columns ARCKEY and SEQ_NUM can be combined to represent a unique tag for the table. This unique tag is only used for internal purposes. If you do not specify a unique tag for this table, and a column with the name UNIQUE_ID does not exist, you receive warning messages indicating no unique tag is defined. Include this option to avoid those warning messages.
DBTable:LBLOG control group	
DBHandler	This option tells the system to access the table known as <i>LBLOG</i> using the database handler named <i>ODBC</i>. Based on this option, the system expects to find a control group named <i>DBHandler:ODBC</i>
DBTable:CATALOG control group	
DBHandler	This option tells the system to access the table known as <i>CATALOG</i> using the database handler named <i>ODBC</i>. The <i>CATALOG</i> table temporarily stores the <i>CATALOGID</i> values used to construct an ARCKEY.
UniqueTag	This option tells the system the column <i>CATALOGID</i> represents a unique tag for this table. This unique tag is only used for internal purposes. If you do not specify a unique tag for this table, and a column with the name UNIQUE_ID does not exist within the table, you receive warning messages indicating no unique tag is defined. Include this option to avoid those warning messages.
DBHandler:ODBC control group	
Class	This option tells the system this database handler represents a handler for Microsoft's Open Data Base Connectivity (ODBC) standard. The Class parameter is unnecessary if the name of the handler, <i>ODBC</i> in this case, matches one of the Documaker pre-defined values, such as <i>DB2</i>, <i>ODBC</i>, <i>ORA</i>, or <i>DMS</i>.
Server	This option tells the system the name of the ODBC data source for this database handler is <i>LBYDB2</i>. You will need to have defined an ODBC data source by this name.
Qualifier	This option tells the system that the name of the database for this database handler is <i>LBYDBASE</i>. If you omit this option, the system uses the database set up as the default database for the <i>LBYDB2</i> ODBC data source.
CreateTable	This option tells the system that if a table needed by Library Manager does not exist, to create it.
CreateIndex	This option tells the system not to create database indexes. This option should <i>always</i> be set to No.
UserID	This option tells the system the user ID to use when connecting to the database management system.
Passwd	This option tells the system the password to use when connecting to the database management system.

Option	Description
Debug	This option turns off tracing for the Documaker ODBC database handler. Normally you should omit the Debug option or set it to No. In troubleshooting situations, set this option to Yes and examine the trace messages that are written to the trace file.
ODBC_FileConvert	
LBYI	This option tells the system the table referenced in INI options as LBYI is really named <i>DAP103_LBYI</i> on the database management system. This control group lets you map table names of eight characters or less to table names longer than eight characters. The table name you specify must adhere to the table naming conventions for the database management system.
LBYD	This option tells the system the table referenced in INI options as <i>LBYD</i> is really named <i>DAP103_LBYI</i> on the database management system.
LBYLog	This option tells the system the table referenced in INI options as <i>LBYI</i> is really named <i>DAP103_LBYI</i> on the database management system.

USING THE SQL SERVER ODBC DRIVER

You can use the SQL Server ODBC driver on Windows.

Creating the Database and Tables

On Windows, you can use any of the Docucreate tools, such as Image Editor or Library Manager, to create the library index and data files. You can also use the LBYMGR utility to do it.

Sample INI Options

Use INI options like the following to have Library Manager create a library in SQL Server, using the SQL Server ODBC driver, and to load resources from that library:

```
< MasterResource >
    DALFile   = LBYI
    DDTFile   = LBYI
    FormFile  = LBYI
    LogoFile  = LBYI
< LibraryManager >
    LBYLogFile = LBYLOG
< Library:LBYI >
    DBTable = LBYD
< DBTable:LBYI >
    DBHandler = ODBC
< DBTable:LBYD >
    DBHandler = ODBC
    UniqueTag = ARCKEY+SEQ_NUM
< DBTable:LBYLOG >
    DBHandler = ODBC
< DBTable:CATALOG >
```

```

        DBHandler = ODBC
        UniqueTag = CATALOGID
    < DBHandler:ODBC >
        Server      = LBYSQL
        Qualifier    = LBYDBASE
        CreateTable = Yes
        CreateIndex = No
        UserID       = userID
        Passwd        = password
        Debug         = No
    < ODBC_FileConvert >
        LBYI         = DAP103_LBYI
        LBYD         = DAP103_LBYD
        LBYLog       = DAP103_LBYLOG

```

Option	Description

MasterResource control group

DALFile	This option tells the system you want to retrieve DAL scripts and DAL script libraries from a library named <i>LBYI</i> .
DDTFile	This option tells the system you want to retrieve DDT files from a library named <i>LBYI</i> .
FormFile	This option tells the system you want to retrieve FAP files from a library named <i>LBYI</i> .
LogoFile	This option tells the system you want to retrieve LOG (logo) files from a library named <i>LBYI</i> .

LibraryManager control group

LbyLogFile	This option tells the system the name of the library log file is <i>LBYLOG</i> . The library log contains information about resources that are added to, deleted from, or updated in the library. The LbyLogFile does not have to use the same type of database handler as the library index and data portions.

Library:LBYI control group

DBTable	This option tells the system the data component of the library named <i>LBYI</i> is called <i>LBYD</i> . In this example, the names <i>LBYI</i> and <i>LBYD</i> emphasize that one table, <i>LBYI</i> , represents the library index and one table, <i>LBYD</i> , represents the library data. You can call these tables any name you like but the name must be eight characters or less. See the <i>ODBC_FileConvert</i> control group to map these eight-character names to longer table names.

DBTable:LBYI control group

DBHandler	This option tells the system to access the table known as <i>LBYI</i> using the database handler named <i>ODBC</i> . Because of this INI value, the system later expects to find a control group named <i>DBHandler:ODBC</i> . Microsoft's SQL Server is an ODBC-compliant database.

Option	Description

DBTable:LBYP control group

DBHandler	This option tells the system to access the table known as <i>LBYP</i> using the database handler named <i>ODBC</i> . Because of this INI value, the system later expects to find a control group named <i>DBHandler:ODBC</i> .
UniqueTag	This option tells the system the columns <i>ARCKEY</i> and <i>SEQ_NUM</i> can be combined to represent a unique tag for the table. This unique tag is only used for internal purposes. If you do not specify a unique tag for this table, and a column with the name <i>UNIQUE_ID</i> does not exist within the table, you receive warning messages indicating no unique tag is defined. Include this option to avoid those warning messages.

DBTable:LBYPLOG control group

DBHandler	This option tells the system to access the table known as <i>LBYPLOG</i> using the database handler named <i>ODBC</i> . Because of this INI value, the system later expects to find an INI control group named <i>DBHandler:ODBC</i> .

DBTable:CATALOG control group

DBHandler	This option tells the system to access the table known as <i>CATALOG</i> using the database handler named <i>ODBC</i> . The <i>CATALOG</i> table is used to temporarily store <i>CATALOGID</i> values which are used to construct an <i>ARCKEY</i> .
UniqueTag	This option tells the system the column <i>CATALOGID</i> represents a unique tag for this table. This unique tag is only used for internal purposes. If you do not specify a unique tag for this table, and a column with the name <i>UNIQUE_ID</i> does not exist within the table, you receive warning messages indicating no unique tag is defined. Include this option to avoid those warning messages.

DBHandler:ODBC control group

Class	This option tells the system this database handler represents a handler for Microsoft's Open Data Base Connectivity (ODBC) standard. This option is unnecessary if the name of the handler (<i>ODBC</i> in this case) matches one of the Documaker pre-defined values such as, <i>DB2</i> , <i>ODBC</i> , <i>ORA</i> , or <i>DMS</i> .
Server	This option tells the system the name of the ODBC data source for this database handler is <i>LBYSQL</i> . You must define an ODBC data source by this name.
Qualifier	This option tells the system the name of the database for this database handler is <i>LBYPDBASE</i> . If you omit this option, the database set up as the default database for the <i>LBYSQL</i> ODBC data source is used.

Option	Description
CreateTable	This option tells the system that if a table needed by Library Manager does not exist at run time, it should create it.
CreateIndex	This option tells the system not to attempt to create database indexes (always set to No).
UserID	This option tells the system the user ID to use when connecting to the database management system.
Passwd	This option tells the system the password to use when connecting to the database management system.
Debug	This option turns off tracing for the Documaker ODBC database handler, which is the default. Normally you should omit the Debug option or set it to No. In troubleshooting situations, set this option to Yes and examine the messages written to the trace file.

ODBC_FileConvert control group

LBYI	This option tells the system the table referenced in INI options as <i>LBYI</i> is really named <i>DAP103_LBYI</i> on the database management system. This control group lets you map table names of eight characters or less to table names longer than eight characters. The table name you specify must adhere to the table naming conventions for the database management system.
LBYD	This option tells the system the table referenced in INI options as <i>LBYD</i> is really named <i>DAP103_LBYI</i> on the database management system.
LBYLog	This option tells the system the table referenced in INI options as <i>LBYI</i> is really named <i>DAP103_LBYI</i> on the database management system.

USING THE ORACLE ODBC DRIVER

You can use the Oracle ODBC driver on Windows.

NOTE: You can have up to 32 SQL static variables.

Data Format Definition (DFD) Requirements

Sample CARFILE.DFD file

To use a library using the Oracle ODBC driver, you must use a Skywire Software-supplied CARFILE.DFD file that differs from the standard (internal) DFD definition. The supplied CARFILE.DFD file is included in the sample RPEX1 resources in the directory:

```
.. \DEFLIB\ODBC_ORA\CARFILE.DFD
```

The contents of the CARFILE.DFD file are listed below:

```

; CARFILE.DFD - use this DFD when referencing a library or archive
with the Oracle ODBC driver.
;
< Fields >
    FieldName = ARCKEY
    FieldName = SEQ_NUM
    FieldName = CONT_FLAG
    FieldName = TOTAL_SIZE
    FieldName = CARDATA
< Field:ARCKEY >
    INT_TYPE = CHAR_ARRAY
    INT_LENGTH = 18
    EXT_TYPE = CHAR_ARRAY
    EXT_LENGTH = 18
    KEY = N
    REQUIRED = N
< Field:SEQ_NUM >
    INT_TYPE = CHAR_ARRAY
    INT_LENGTH = 5
    EXT_TYPE = CHAR_ARRAY
    EXT_LENGTH = 5
    KEY = N
    REQUIRED = N
< Field:CONT_FLAG >
    INT_TYPE = CHAR_ARRAY
    INT_LENGTH = 1
    EXT_TYPE = CHAR_ARRAY
    EXT_LENGTH = 1
    KEY = N
    REQUIRED = N
< Field:TOTAL_SIZE >
    INT_TYPE = LONG
    INT_LENGTH = 4
    EXT_TYPE = DOUBLE
    EXT_LENGTH = 4
    KEY = N
    REQUIRED = N
< Field:CARDATA >
    INT_TYPE = BLOB
    INT_LENGTH = 252
    EXT_TYPE = BLOB
    EXT_LENGTH = 252
    KEY = N
    REQUIRED = N
< Keys >
    KEYNAME = ARCKEY
    KEYNAME = SEQ_NUM
    KEYNAME = CAR_KEY
< Key:ARCKEY >
    EXPRESSION = ARCKEY+SEQ_NUM
    FIELDLIST = ARCKEY, SEQ_NUM
< Key:SEQ_NUM >
    EXPRESSION = SEQ_NUM
    FIELDLIST = SEQ_NUM
< Key:CAR_KEY >
    EXPRESSION = ARCKEY

```

```
FIELDLIST = ARCKEY
```

To use the supplied CARFILE.DFD file, follow these steps:

- 1 Copy the CARFILE.DFD file into the directory where you store other DFD files (generally the \DEFLIB directory).
- 2 Tell the system to use the CARFILE.DFD file by adding this option to the INI file:

```
< ArcRet >  
CARFileDFD = ..\DEFLIB\CARFILE.DFD
```

Creating the Database and Tables

On Windows, you can use any of the Docucreate tools, such as Image Editor or Library Manager, to create the library index and data files. You can also use the LBRYMGR utility to do it.

Sample INI Options

Use INI options like the following to tell Library Manager to create a library using the Oracle ODBC driver and to load resources from that library:

```
< MasterResource >  
  DALFile = LBYI  
  DDTFile = LBYI  
  FormFile = LBYI  
  LogoFile = LBYI  
< LibraryManager >  
  LBYLogFile = LBYLOG  
< Library:LBYI >  
  DBTable = LBYD  
< DBTable:LBYI >  
  DBHandler = ODBC  
< DBTable:LBYD >  
  DBHandler = ODBC  
  UniqueTag = ARCKEY+SEQ_NUM  
< DBTable:CATALOG >  
  DBHandler = ODBC  
  UniqueTag = CATALOGID  
< DBHandler:ODBC >  
  Server = LBYORA  
  Qualifier = LBYDBASE  
  CreateTable = Yes  
  CreateIndex = No  
  UserID = userID  
  Passwd = password  
  Debug = No  
< ODBC_FileConvert >  
  LBYI = DAP103_LBYI  
  LBYD = DAP103_LBYD  
  LBYLOG = DAP103_LBYLOG  
< ODBC_FieldConvert >  
  Resource = Resource1  
  Mode = Model
```

Option	Description
MasterResource control group	
DALFile	This option tells the system you want to retrieve DAL scripts and DAL script libraries from a library named <i>LBYI</i> .
DDTFile	This option tells the system you want to retrieve DDT files from a library named <i>LBYI</i> .
FormFile	This option tells the system you want to retrieve FAP files from a library named <i>LBYI</i> .
LogoFile	This option tells the system you want to retrieve LOG (logo) files from a library named <i>LBYI</i> .
LibraryManager control group	
LbyLogFile	This option tells the system the name of the library log file is <i>LBYLOG</i>. The library log contains information about resources added to, deleted from, or updated in the library. The LbyLogFile does not have to use the same type of database handler as the library index and data portions.
Library:LBYI control group	
DBTable	This option tells the system the data component of the library named <i>LBYI</i> is called <i>LBYD</i>. In this example, the names <i>LBYI</i> and <i>LBYD</i> emphasize that one table, <i>LBYI</i>, represents the library index and one table, <i>LBYD</i> represents the library data. You can call these tables anything you like but the name must be eight characters or less. Use the ODBC_FileConvert control group if you need to map these eight character names to longer table names.
DBTable:LBYI control group	
DBHandler	This option tells the system to access the table known as <i>LBYI</i> using the database handler named <i>ODBC</i> . Because of this INI option, the system later expects to find a control group named <i>DBHandler:ODBC</i> . Microsoft's SQL Server is an ODBC-compliant database.
DBTable:LBYD control group	
DBHandler	This option tells the system to access the table known as <i>LBYD</i> using the database handler named <i>ODBC</i> . Because of this INI option, the system later expects to find a control group named <i>DBHandler:ODBC</i> .
UniqueTag	This option tells the system the columns <i>ARCKEY</i> and <i>SEQ_NUM</i> can be combined to represent a unique tag for the table. This unique tag is only used for internal purposes. If you do not specify a unique tag for this table, and a column with the name <i>UNIQUE_ID</i> does not exist, you receive warning messages indicating no unique tag id defined. Include this option to avoid those warning messages.
DBTable:CATALOG control group	

Option	Description
DBHandler	This option tells the system to access the table known as <i>CATALOG</i> using the database handler named <i>ODBC</i> . The <i>CATALOG</i> table temporarily stores the <i>CATALOGID</i> values used to construct an <i>ARCKEY</i> .
UniqueTag	This option tells the system the column <i>CATALOGID</i> represents a unique tag for this table. This unique tag is only used for internal purposes. If you do not specify a unique tag for this table, and a column with the name <i>UNIQUE_ID</i> does not exist, you receive warning messages indicating no unique tag is defined. Include this option to avoid those warning messages.

DBHandler:ODBC control group

Class	This option tells the system this database handler represents a handler for Microsoft's Open Data Base Connectivity (ODBC) standard. This option is unnecessary if the name of the handler (ODBC in this case) matches one of the Documaker pre-defined values, such as <i>DB2</i> , <i>ODBC</i> , <i>ORA</i> , or <i>DMS</i> .
Server	This option tells the system the name of the ODBC data source for this database handler is <i>LBYORA</i> . You must define an ODBC data source by this name.
Qualifier	This option tells the system the name of the database for this database handler is <i>LBYDBASE</i> . If you omit this option, the system uses the database set up as the default database for the <i>LBYORA</i> ODBC data source.
CreateTable	This option tells the system that, if a table needed by Library Manager does not exist at run time, it should create it.
CreateIndex	This option tells the system not to attempt to create database indexes (always set to No).
UserID	This option tells the system the user ID to use when connecting to the database management system.
Passwd	This option tells the system the password to use when connecting to the database management system.
Debug	This option turns off tracing for the Documaker ODBC database handler, which is the default. Normally you should omit the Debug option or set it to No. In troubleshooting situations, set this option to Yes and examine the trace messages written to the trace file.

ODBC_FileConvert control group

Option	Description
LBYI	This option tells the system the table referenced in INI options as <i>LBYI</i> is really named <i>DAP103_LBYI</i> on the database management system. This control group lets you map table names of eight characters or less to table names longer than eight characters. The table name you specify must adhere to the table naming conventions for the database management system.
LBYP	This option tells the system the table referenced in INI options as <i>LBYP</i> is really named <i>DAP103_LBYI</i> on the database management system.
LBYLog	This option tells the system the table referenced in INI options as <i>LBYI</i> is really named <i>DAP103_LBYI</i> on the database management system.

ODBC_FieldConvert control group

<i>Resource</i> <i>Mode</i>	The required Documaker column names may conflict with Oracle reserved words. If this happens, use the ODBC_FieldConvert control group to change the column names to avoid conflicts. The names on the left, in this example <i>Resource</i> and <i>Mode</i> , are the reserved words and the names on the right, in this example <i>Resource1</i> and <i>Mode1</i> , are the new column names.

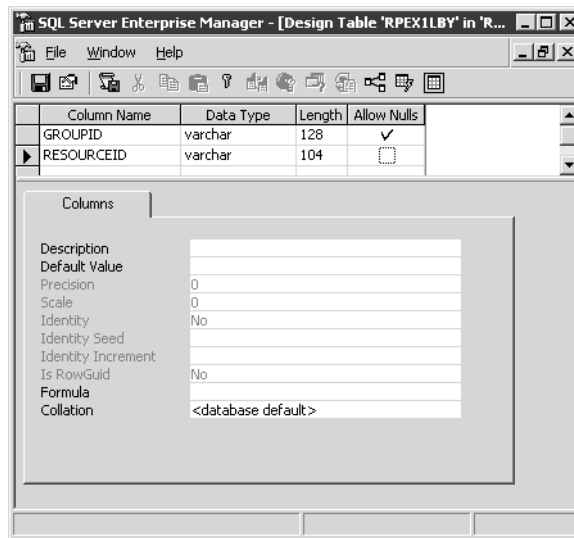
USING DOCUMANAGE

Library Manager supports installable interfaces to alternate document management systems (DMS). The default DMS is the DAP archive system, but you can also use Documanager. To use Documanager with Library Manager, you must first set up Documanager. Follow these steps:

- 1 Create a table in an ODBC database. You can name the table anything you like. This example uses RPEX1LBY. Include in the table the following fields. All fields should be of the VARCHAR type:

Field	Description
GROUPID	varchar 128
RESOURCEID	varchar 104

This table maps to the internally-defined table for Library Manager. The table corresponds to a cabinet in the Documanager environment.



For performance reasons, it is best to add an index on the new table by GROUPID and RESOURCEID, as shown on the following window.

Properties

Tables | Relationships | Indexes/Keys | Check Constraints

Table name: RPEX1LBY

Selected index: IX_RPEX1LBY

Type: Index [New] [Delete]

Index name: IX_RPEX1LBY

Column name	Order
GROUPID	Ascending
RESOURCEID	Ascending

Index Filegroup: PRIMARY

☐ Create UNIQUE

☐ Constraint ☐ Index ☐ Ignore duplicate key

Fill factor: 0 %

☐ Pad Index

☐ Create as CLUSTERED

☐ Do not automatically recompute statistics

[Close] [Help]

- 2 Set up an ODBC connection for this database using Data Sources (ODBC) in Administrative Tools in Windows 2000 Server. This lets Documanage Administrator recognize this database and table for *powermapping*.
- 3 Powermap the database table you created (RPEX1LBY in this example) using Documanage Administrator.
- 4 After you powermap the database table, edit the Business Data table to set the Part of Folder Key values to Yes for the GROUPID and RESOURCEID database fields.

Make sure these values are set to Yes.

Business Data Tables

File DB Fields Go To Help

Table: rpx1lby Description: rpx1lby

Qualified Table: RPEX1.dbo.rpx1lby Mapped to an Existing Table: Yes

Default Label: Please Define Label

DSN: RPEX1 ☒ Allow Shortcuts ☒ Can Contain Documents

DB Field Name	Data Type	Text Length	Part of Folder Key	Folder Property Name	Display Width	Display Order
GROUPID	varchar	128	Yes	Groupid	128	1
RESOURCEID	varchar	104	Yes	Resourceid	104	2

- 5 Create a cabinet. The name of this cabinet (RPEX1LBY in this example) must be used in the FAPCOMP.INI file and other Documaker INI files that access the library from Documanager. To create the cabinet in Documanager Administrator, select Cabinet, File, New, and enter the name of your new cabinet (RPEX1LBY).

On the Cabinet Definition window, select the table you powermapped from the Table list then select the Folder Properties tab and set the Editable values to Yes for the GROUPID, RESOURCEID, and UNIQUE_ID database fields.

Click here to select the table you powermapped

Cabinet Definition - Released

File Tables Go To Help

Cabinet: rpex1lby

Level	Table	Show	Documents	Label Formula
1	rpex1lby	Yes	Yes	rpex1.dbo.rpex1lby.GROUPID + '' + rpex1.dbo

Released ☐ Workflow cabinet ☒ Enable Extended Doc Attributes

Documents **Folder Properties**

Database Field Name	Display	Editable	Required
GROUPID	Yes	Yes	Yes
RESOURCEID	Yes	Yes	Yes

Distribution List **Filter On**

☒ Public Access ☐ Following Groups Only

Group

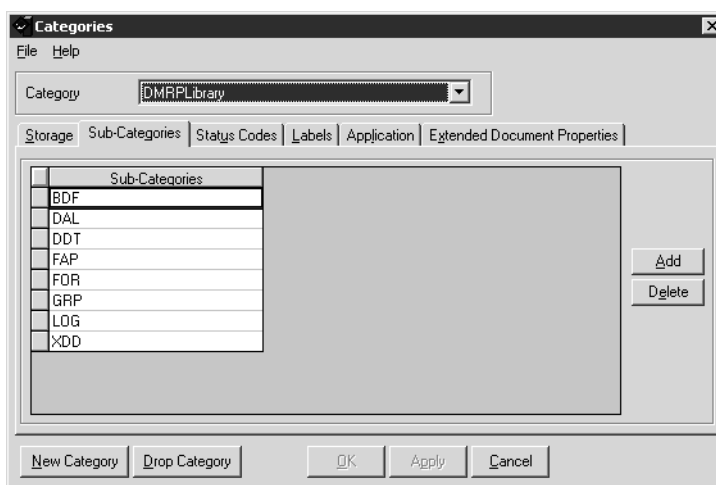
Add Delete

Once you define the cabinet, select Save, Release, and then Refresh Servers from the File menu.

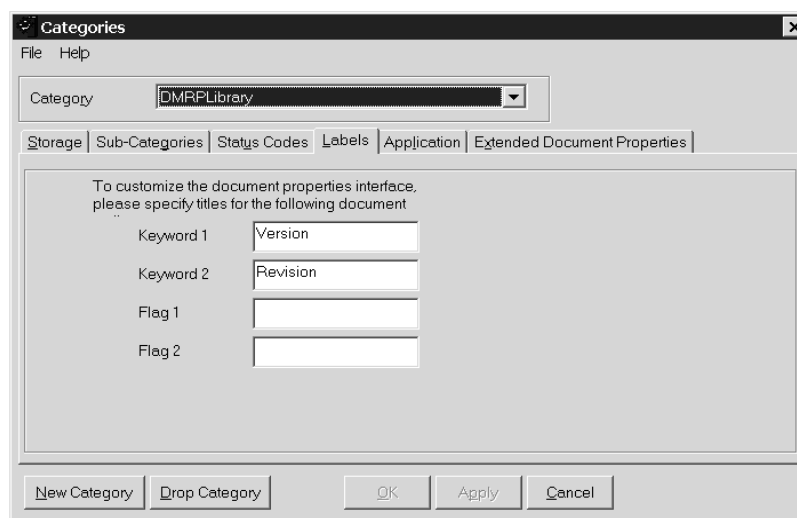
- 6 Define a category called *DMRPLibrary* using the Documanager Administrator. Set up a storage location under the Storage tab. This is usually *DEFAULT/Permanent* or *Temporary*. Under the Sub-Categories tab, add these sub-categories:

- BDF
- DAL
- DDT
- FAP
- FOR
- GRP
- LOG
- XDD

Here is an example:



- 7 Next, select the category *DMRPLibrary*, click the **Labels** tab, and enter **Version** in the Keyword1 field and **Revision** in the Keyword2 field.



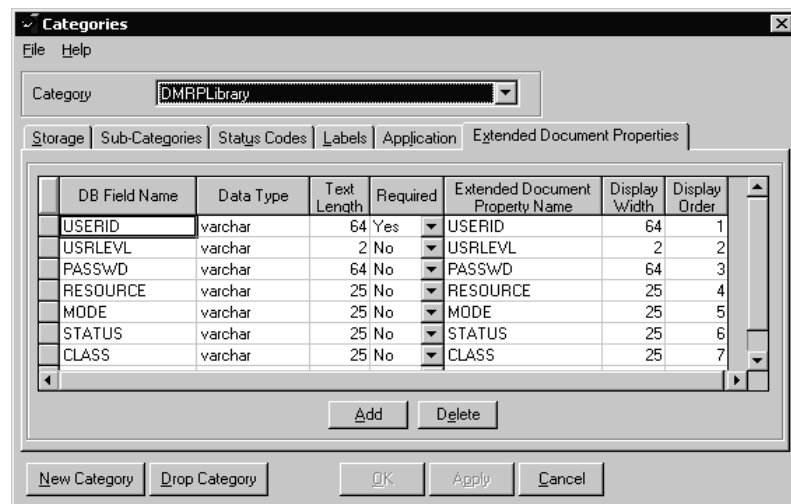
- 8 Next, select the category *DMRPLibrary*, click on the **Extended Document Properties** tab, and add the following information:

NOTE: The display order is not important for Library Manager to work properly.

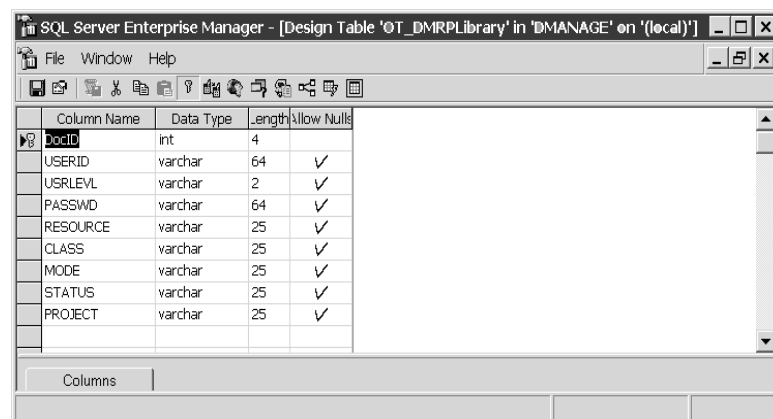
Field name	Data type	Length	Require	Extended document property name	Display Width	Order
USERID	varchar	64	Yes	USERID	64	1
USRLEVL	varchar	2	No	USRLEVL	2	2

Field name	Data type	Length	Require	Extended document property name	Display Width	Display Order
PASSWD	varchar	64	No	PASSWD	64	3
RESOURCE	varchar	25	No	RESOURCE	25	4
MODE	varchar	25	No	MODE	25	5
STATUS	varchar	25	No	STATUS	25	6
CLASS	varchar	25	No	CLASS	25	7
PROJECT	varchar	25	No	PROJECT	25	8

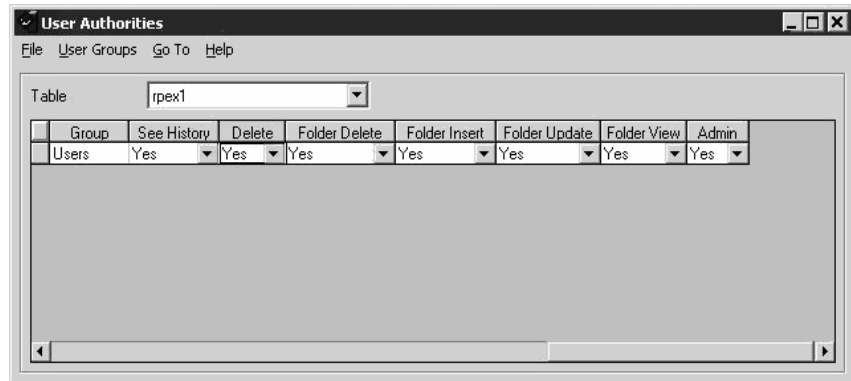
As shown here:



Documanage creates the table OT_DMRPLibrary in the DMANAGE (DM administrative tables) database.



Be sure to select Yes for Folder Update, Folder Insert, Folder Delete, and Administrator Authorities in the Authorities section of Documanager Administrator.



- 9 Load the test master resource libraries (MRLs) into the config RPEX1. Here are the necessary FAPCOMP.INI options for Documaker Server: (RPEX1LBY is the Documanager cabinet name that contains the Library Manager objects in this example)

```
< Config:RPEX1 >
  DALFile      = RPEX1LBY
  DDTFile      = RPEX1LBY
  DDTLib       = RPEX1LBY
  FormFile     = RPEX1LBY
  LbyLib       = RPEX1LBY
  LogoFile     = RPEX1LBY
  LogoLib      = RPEX1LBY
  FormLib      = FORMS
< DBHandler:LBYSETUP >
  Class        = DMIL
  Domain       = FSI
  RPCHost      = 10.1.10.228
  UserID       = administrator
  Password     = 1234589
  Debug        = No
< DBTable:RPEX1LBY >
  SelfIndex    = Yes
  DBHandler    = LBYSETUP
```

NOTE: The value in the DBHandler option must match the name in the DBHandler:XXX control group. For instance, in the above example *LBYSETUP* is used in both places.

- 10 Create a response file for RPEX1. This response file will add FAP, DDT, DAL, and LOGO files into a file called RPEX1.RSP. To create the response file, run the LBRYMGR utility in the directory where the FAPCOMP.INI file resides. Use the following syntax:

```
LBRYMGRW /RSP=RPEX1.RSP /INI=FAPCOMP.INI /  
FAP=D:\FAP\MSTRRES\RPEX1\FORMS\*.FAP /  
LOGO=D:\FAP\MSTRRES\RPEX1\FORMS\*.LOG /  
DDT=D:\FAP\MSTRRES\RPEX1\DEFLIB\*.DDT /  
DAL=D:\FAP\MSTRRES\DEFLIB\*.DAL
```

- 11** Finally, use Library Manager to run the response file. For more information on running the response file, see [Processing Response Files on page 453](#).

CHECKING IN, CHECKING OUT, AND UNLOCKING FILES

Image Editor and Logo Manager let you check out files (FAP, DDT, and LOG files), edit them and check them back in. While you have a file checked out, it is *locked* and others cannot check it out, although they can open it in view-only mode.

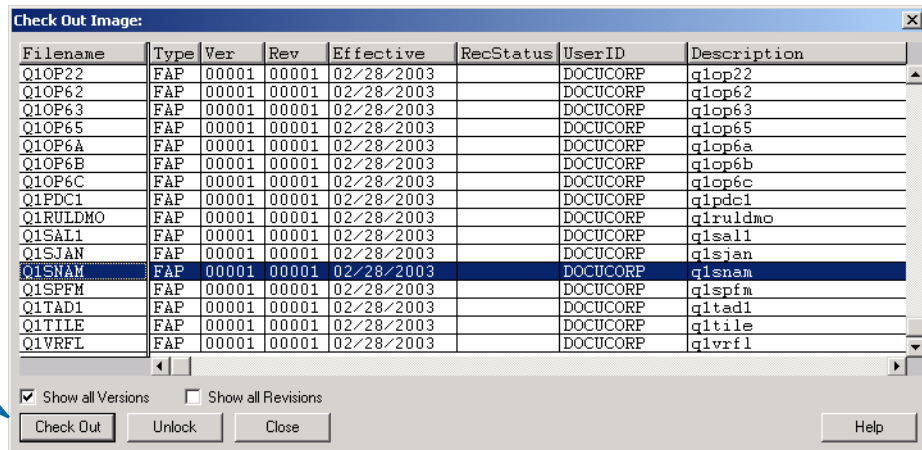
Because of the relationship between a FAP and a DDT file, when a FAP is checked out, checked in, or unlocked, the corresponding DDT is also checked out, checked in, or unlocked if you have checked the Automatically Update DDT option in Image Editor.

CHECKING OUT FILES

To check out a file from either Image Editor or Logo Manager, follow these steps:

- 1 Choose the File, Check Out option. The Check Out Image window appears.

Click here to check out
the highlighted file



- 2 From the Check Out Image window, highlight the file you want to edit and click Check Out. The file (FAP or logo) appears and you can modify it as necessary.

NOTE: You can only check out the latest revision of a specific version of a resource. You cannot, for example, check out version 1.4 of Q1SNAM if a version 1.5 exists.

When you check out a file, this is what happens:

- In the library index record for the resource you are checking out, the RecStatus column is set to LOC and your user ID is placed into the UserID column.
- A long (or *versioned*) resource name for the resource is created and the resource is retrieved from the library and placed onto disk with the long file name. The long file name consists of the resource name concatenated with the version, revision and effective date of the resource. For example, if version 2, revision 3 of Q1ADDR, with an effective date of 4/21/2007 is checked out, it will be written to disk with this name:

Q1ADDR_0000200003_20070421.FAP

The file is marked as a read/write file and the long file name is shown on the title bar so you can tell which version/revision of the resource you are editing.

The file is stored on disk in the appropriate directory. You specify these directories in the MasterResource control group, as shown below:

```
< MasterResource >
  DDTLib = \DEFLIB
  FormLib = \FORMS
  LogoLib = \FORMS
```

Option	Description
DDTLib	DAL and DDT files are stored here.
FormLib	FAP files (images) are stored here.
LogoLib	Logo (LOG) files are stored here. This is often the same directory used for FAP files.

CHECKING IN FILES

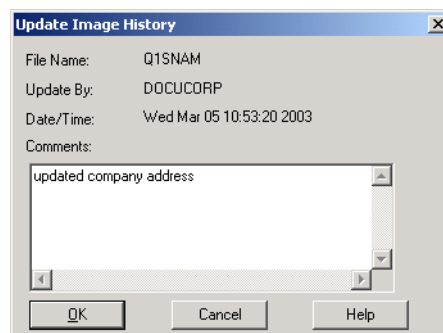
Once you finish making changes, you can check in the file.

When you check in the file, the system asks for information Library Manager needs to assign the appropriate version, revision and effective dates.

To check in a file follow these steps:

- 1 With the file open, choose File, Check In from the Image Editor or Logo Manager.

In Image Editor, the Update Image History window appears if you have the Prompt for Image Information option turned on. You do not see this window in Logo Manager.



- 2 You can enter comments to help you remember what changes you made or still need to make. Click Ok when you finish.

The system saves the text you enter with the FAP file as it is checked in the library. This text does not appear in the Description field of the library index.

The File Information window appears.

- 3 The File Information window lets you enter a description for this change, decide whether the version number should be incremented, decide whether the resource should be marked as *Expired*, enter an effective date, and set the Mode, Status, Class, and Project fields.

Field	Description
Description	You can enter up to 100 characters to indicate what type of change was made to the resource. This field defaults to the contents of the Description field of the resource checked out, but you can enter a different description if you like. The Description field appears on the Check Out Image window that appears when you select a file to check out.
Increment Version	If you only make a minor change to a FAP file or logo you will probably want to just increment the revision number and not the version number. The revision number is automatically incremented by one if you do not check the Increment Version field. If you make a major change, or if you need to change the effective date of the resource that you are checking in, check the Increment Version field. This tells Library Manager to increment the version number by one and set the revision number to one. Once this field is checked, you can modify the Effective Date field. This makes sure all revisions of a resource have the same effective date. When a resource is checked out, changed, and checked back in, the older version/revision combinations of that resource remain in the library and can be loaded by the GenData and GenPrint programs or retrieved by Documaker Workstation or Docupresentment as needed. Keep in mind, however, you can only check out the latest revision of each version of a resource.
Expired	To mark the resource as expired, check the Expired field. See Stringently Checking Resources on page 394 for more information on why you might want to expire a resource.

Field	Description
Effective Date	All revisions of a specific version of a resource must have the same effective date. This field is only available if you check the Increment Version field. The effective date defaults to MM/DD/YYYY, but may have a different format depending on your locale setting.
Mode	Use this field to assign a mode to the resource as it is checked in. For instance, you can use the Mode field to specify where in the development cycle the resource is. Modes are defined via INI options. Users can then select the appropriate mode when adding or checking in resources. Here is an example of how you could set it up: <pre>< LibraryManager> Mode = DEV;Development Mode = TEST;Testing Mode = PROD;Production</pre> These INI options set up these Mode options: DEV, TEST, and PROD. The text after the semicolon is an optional description.
Status	Use this field to assign a status to the resource as it is checked in. For instance, you could use the Status field to indicate whether a resource has passed or failed testing. Status codes are defined via INI options. Users can then select the appropriate status code when adding or checking in resources. Here is an example of how you could set it up: <pre>< LibraryManager> Status = TEST;Test Status = PASSED;Passed testing Status = FAILED;Failed testing</pre> These INI options set up these Mode options: TEST, PASSED, and FAILED. The text after the semicolon is an optional description.
Class	Use this field to assign a class to the resource as it is checked in. For instance, you could use the Class field to indicate the market in which a resource was applicable. Classes are defined via INI options. Users can then select the appropriate class when adding or checking in resources. Here is an example of how you could set it up: <pre>< LibraryManager> Class = GA;Georgia resource Class = TX;Texas resource Class = MD;Maryland resource</pre> These INI options set up these Class options: GA, TX, and MD. The text after the semicolon is an optional description.

Field	Description
Project	Use this field to assign a project ID to the resource as it is checked in. For instance, you could use the Project field to indicate which project a resource was associated with. Projects are defined via INI options. Users can then select the appropriate project when adding or checking in resources. Here is an example of how you could set it up: <pre>< LibraryManager> Project = P001;Project 001 Project = P002;Project 002 Project = P003;Project 003</pre> These INI options set up these Project options: P001, P002, and P003. The text after the semicolon is an optional description.

This is what happens when you check in a file:

- The contents of the long (or versioned) resource file are written to the data portion of the library and the long file name is deleted. For example, if you had originally checked out version 2, revision 3 of Q1ADDR FAP, with an effective date of 4/21/2007, the file written to disk during check out would have a long file name of:

```
Q1ADDR_0000200003_20070421.FAP
```

During check in, after this file is added to the data portion of the library, the file is deleted from disk.

- A new library index record for the resource is added to the library index file. This record contains the name, type, version, revision, effective date, modification date, description, mode, status, and so on of the resource.

Note the version or the revision, or both, of this library index record differs from those of the library index record for the resource originally checked out.

- The library index record for the resource originally checked out is updated so the RecStatus column is changed from *LOC* to blank. This shows the resource is no longer checked out.

In version 10.2 and higher, when you check a resource into the library, the system removes the working copy of the resource from disk. You can enter the following option in your FAPCOMP.INI file to retain that working copy on disk after it is checked in or unlocked:

```
< LibraryManager >
KeepFileOnCheckin = Yes
```

UNLOCKING FILES

When a file is checked out it becomes locked. You can tell which files are locked and by whom by looking at the RecStatus and UserID columns of the Check Out Image window, shown here:

Check Out Image:							
Filename	Type	Ver	Rev	Effective	RecStatus	UserID	Description
Q1OP62	FAP	00001	00001	02/28/2003		DOCUCORP	q1op62
Q1OP63	FAP	00001	00001	02/28/2003		DOCUCORP	q1op63
Q1OP65	FAP	00001	00001	02/28/2003		DOCUCORP	q1op65
Q1OP6A	FAP	00001	00001	02/28/2003		DOCUCORP	q1op6a
Q1OP6B	FAP	00001	00001	02/28/2003		DOCUCORP	q1op6b
Q1OP6C	FAP	00001	00001	02/28/2003		DOCUCORP	q1op6c
Q1PDC1	FAP	00001	00001	02/28/2003		DOCUCORP	q1pdc1
Q1RULDMO	FAP	00001	00001	02/28/2003		DOCUCORP	q1ruldmo
Q1SAL1	FAP	00001	00001	02/28/2003		DOCUCORP	q1sal1
Q1SJAN	FAP	00001	00001	02/28/2003		DOCUCORP	q1sjan
Q1SNAM	FAP	00001	00001	02/28/2003		DOCUCORP	q1snam
Q1SNAM	FAP	00002	00001	04/01/2003	LOC	DOCUCORP	changed company addre
Q1SPFM	FAP	00001	00001	02/28/2003		DOCUCORP	q1spfm
Q1TAD1	FAP	00001	00001	02/28/2003		DOCUCORP	q1tad1
Q1TITLE	FAP	00001	00001	02/28/2003		DOCUCORP	q1title
Q1VRFL	FAP	00001	00001	02/28/2003		DOCUCORP	q1vrfl

☒ Show all Versions ☐ Show all Revisions

If a file is locked, the RecStatus column contains *LOC*. The ID of the user who has locked the file appears in the UserID column. Only the user who has locked the file can resume editing the file or unlock it.

There are two ways to unlock a file from Image Editor and Logo Manager:

- If you are editing the FAP file or logo and you want to unlock the file, choose the File, Unlock option. A window appears telling you your changes will be lost if you unlock the file and asks whether you want to unlock it. Click Yes to unlock the file.
- If you are not editing the FAP or logo, you can display the Check Out Image window by choosing the File, Check Out option. From the Check Out Image window, highlight the file you want to unlock. The RecStatus column for this resource should indicate *LOC*. To unlock this resource, click Unlock.

To retain a working copy of a resource on disk after it is checked in or unlocked, make the following entry in your FAPCOMP.INI file:

```
< LibraryManager >
    KeepFileOnCheckin = Yes
```

USING LIBRARY MANAGER

Library Manager lets you create a library, add resources to a library, delete, or extract resources from a library and edit some of the attributes of a resource in a library. You can also use this tool to reorganize a library, run a response file, print a report, or view the library activity log. For initialization settings, including library information, it uses the FAPCOMP.INI file.

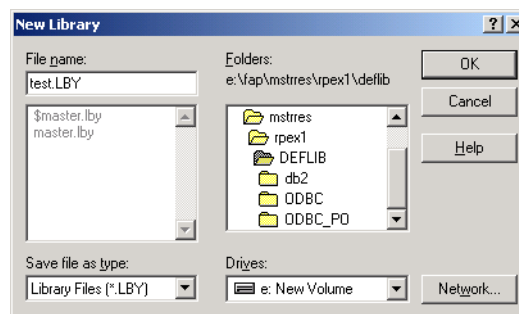
To start Library Manager, go to the Docucreate program group and select RP Library Manager. You can also select Docutoolbox RP, then click on Utilities, Library Manager.

CREATING A LIBRARY

There are several ways to create a library. You can use this tool to create a library but only if the library is to exist in the standard format — the index portion is stored as an xBase file and the data portion is stored in a compressed archive (CARFile) file. See [Creating Libraries on page 404](#) for more information on library formats.

To create a standard library, follow these steps:

- 1 Select File, New to display the New Library window.



- 2 In the File Name field, type the name of the library that you want to create. Use the *LBY* file extension. Click Ok.

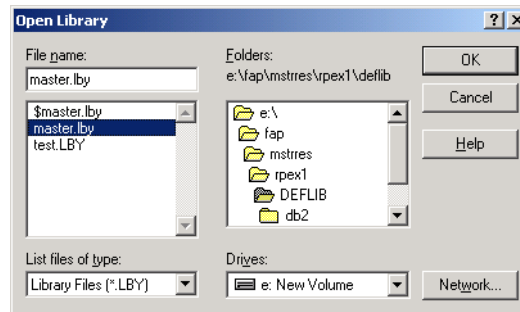
The system creates the library and you can now add entries into it.

OPENING A LIBRARY

Opening a standard library

To open a standard library (xBase/CARFile), follow these steps

- 1 Select File, Open. The Open Library window appears.

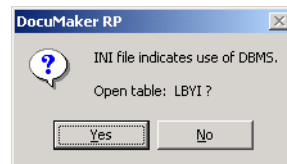


- 2 Under the File Name field, click on the library you want to open. By default only files with an extension of *LBY* appear. Click Ok.

Opening a library stored in a DBMS

To open a library stored in a DBMS, such as DB2, Oracle, or SQL Server, you must first modify your FAPCOMP.INI file so the library is set up for DBMS processing. For information on setting INI options for Library Manager, see [Creating Libraries on page 404](#). Once these INI options are set, follow the steps below:

- 1 Select File, Open. Because of the settings in your FAPCOMP.INI file, the system detects your library resides in a DBMS and asks you to confirm you want to open this library.



- 2 Click Yes and the system opens the library that resides in the DBMS. If you click No, the Open Library window appears and you can choose to open a standard library instead.

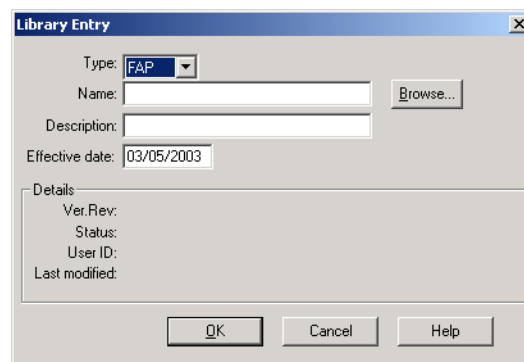
ADDING RESOURCES TO A LIBRARY

When you add resources to a library, the system writes information about the resource into the index portion of the library and places the resource itself in the data portion of the library.

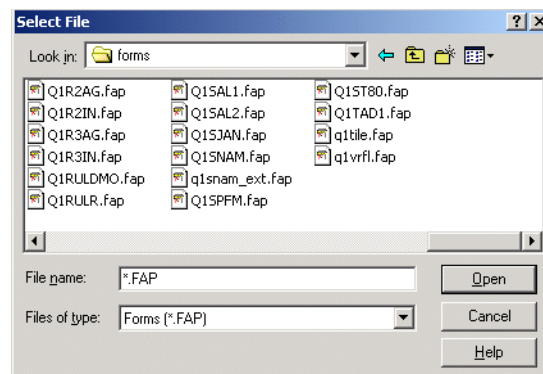
NOTE: When you add a resource to a library, the file remains on disk, but is marked as read-only. When you check in a resource, Library Manager unlocks the resource, increments its version number, and removes the file from disk.

To add a resource to a library, follow these steps:

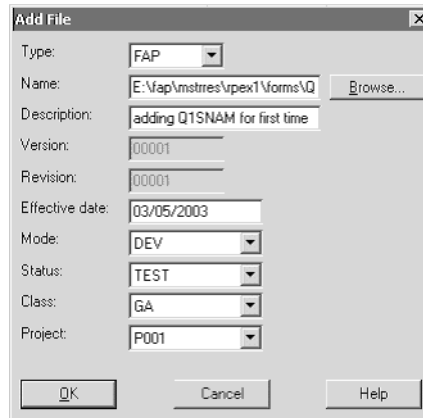
- 1 Select Action, Add. The Library Entry window appears.



- 2 Select the type of resource (FAP, DDT, LOG, or DAL) you want to add from the Type field. If you know the name and path of the resource you want to add, type it in the Name field. If you need to browse to find the file, click Browse and the Select File window appears.



- 3 Select the file you want to add to the library then click Ok.



The 'Add File' dialog box contains the following fields and values:

Field	Value
Type	FAP
Name	E:\vap\mstres\vpex1\forms\Q
Description	adding Q1SNAM for first time
Version	00001
Revision	00001
Effective date	03/05/2003
Mode	DEV
Status	TEST
Class	GA
Project	P001

Buttons: OK, Cancel, Help

- 4 In the Description field you can add text to describe the resource. In the Effective Date field, enter the date on which you want this resource to become active, or effective. You also can select values for the Mode, Status, Class, and Project fields.

Understanding the System

The values that appear in the Mode, Status, Class, and Project fields are defined in the FAPCOMP.INI file. See [Checking In Files on page 432](#) for examples of how you can set up these values.

When you click Ok, an index record for the resource is added to the index portion of the library and the resource is added to the data portion of the library.

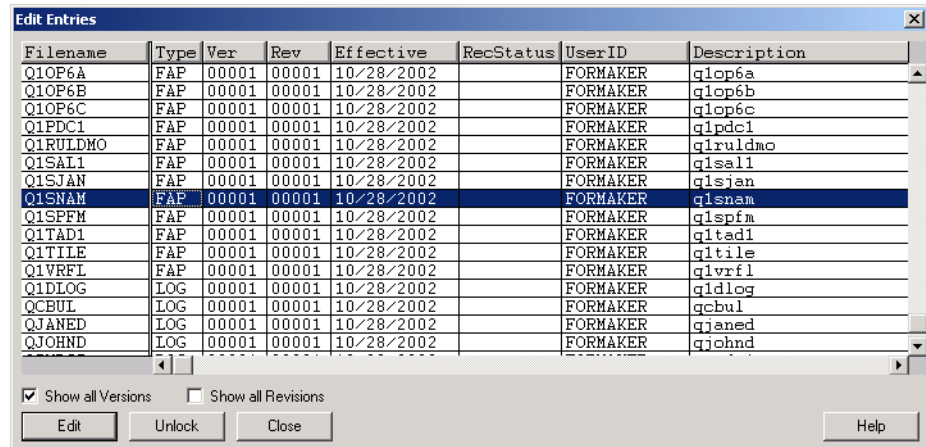
Besides using Library Manager, there are a couple of other ways to add a resource to a library:

- Using the LBRYMGR utility (see [Using the LBRYMGR Utility on page 446](#))
- Using Image Editor or Logo Manager to check in a resource (see [Checking In Files on page 432](#))

EDITING RESOURCE INFORMATION

The steps below tell you how to edit the Description, Effective Date, Mode, Status, Class, and Project fields for a resource. To edit the actual resource (a FAP, DDT, DAL, or LOG file), use Image Editor or Logo Manager.

- 1 Select Action, Edit. The Edit Entries window appears.



- 2 Select the resource you want to edit and click Edit. The File Information window appears.

The File Information window for resource Q1SNAM shows current and new values for various fields. The 'Current values' and 'New values' columns are side-by-side. The fields are: Description (adding Q1SNAM for first time), Version (00001), Revision (00001), Effective date (03/05/2003), Mode (DEV), Status (TEST), Class (GA), and Project (P001). There are checkboxes for 'Increment version' and 'Expired'. Buttons for 'OK', 'Cancel', and 'Help' are at the bottom.

Field	Current values	New values
Description:	adding Q1SNAM for first time	adding Q1SNAM for first time
Version:	00001	00001
Revision:	00001	00001
Effective date:	03/05/2003	03/05/2003
Mode:	DEV	DEV
Status:	TEST	PASSED
Class:	GA	GA
Project:	P001	P001

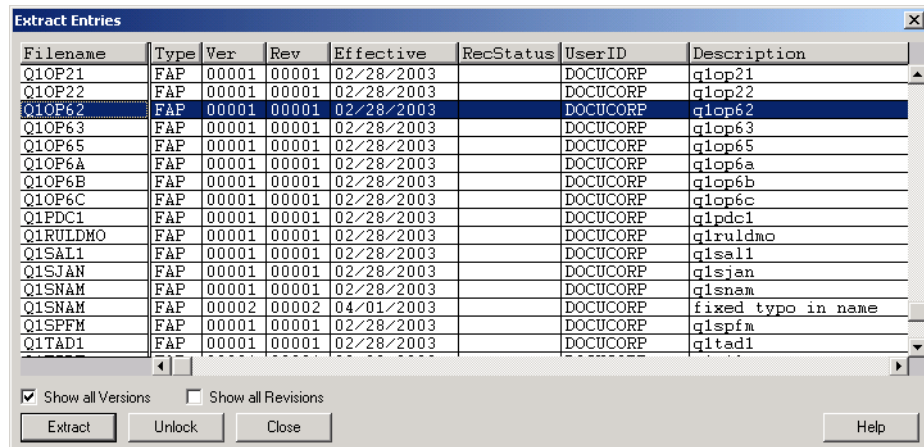
- 3 Make changes to the Description, Effective Date, Mode, Status, Class, and Project field as necessary. Click Ok to save your changes.

NOTE: If you change the description or effective date of a FAP (or DDT) file, remember you also need to make the corresponding change to the DDT (or FAP) file.

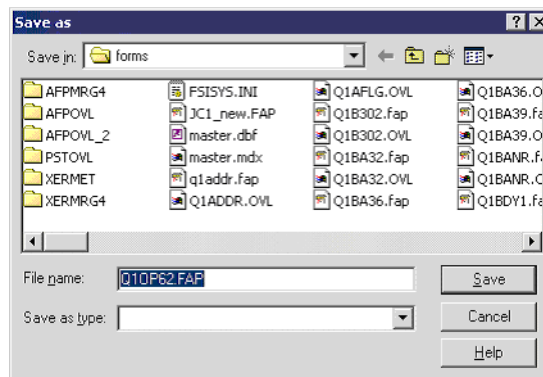
EXTRACTING RESOURCES

Extracting resources from a library lets you pull out a resource stored in a library and have Library Manager write that resource to disk. To extract a resource, follow these steps:

- 1 Choose Action, Extract. The Extract Entries window appears.



- 2 Highlight the resource you want to extract, then click Extract. The Save As window appears.



- 3 Specify the directory in which you want the file to be saved and click Ok. The resource is extracted to the location specified but is left in the library as well.

NOTE: If you want to extract both a FAP and a DDT, keep in mind you *must* extract each one separately — they are not extracted as a pair.

VIEWING THE LIBRARY ACTIVITY LOG

Library Manager keeps track of resources that have been added, updated or deleted from the library. This information is stored in a library log file.

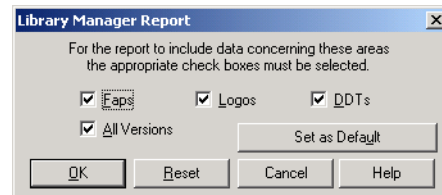
NOTE: By default the library log file is named *lbylog* and is stored in a xBase format (which exists on disk as the file pair LBYLOG.DBF and LBYLIB.MDX). You can use INI options to store this file in a DBMS. For more information on these options, see [Creating Libraries on page 404](#).

To view the Library Activity log, choose File, Library Log. The Library Activity Log window appears.

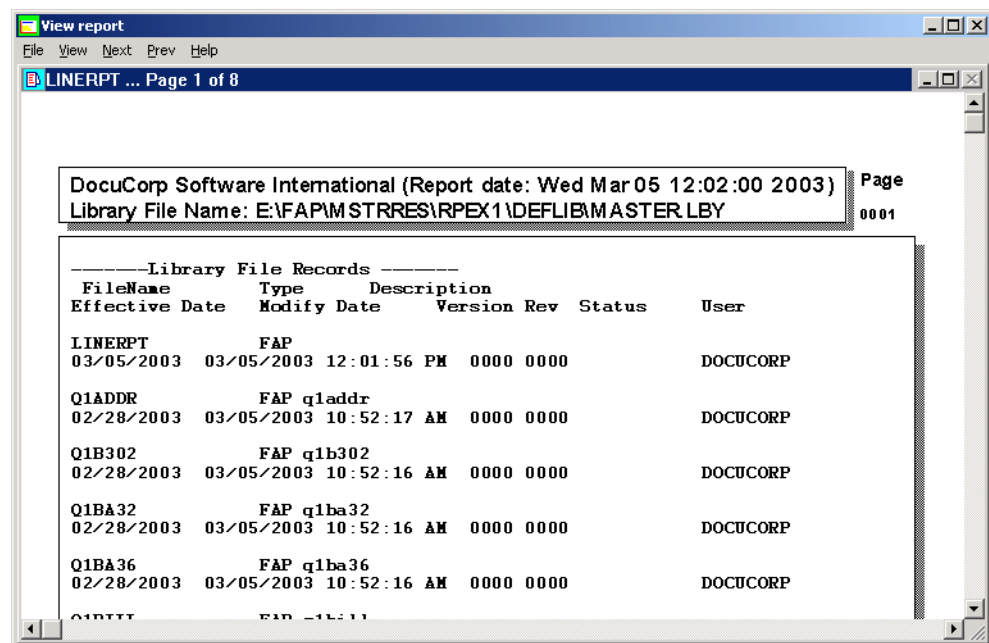
Library Activity Log									
Date	Time	UserID	Action	Filename	Type	Ver	Rev	Effective	Library
20030305	11:20:35	DOCUCORP	ADDED	Q1SNAM	FAP	00001	00001	20030305	test.lby
20030305	11:01:50	DOCUCORP	CHECKED IN	Q1SNAM	DDT	00002	00002	20030401	master.lb
20030305	11:01:49	DOCUCORP	CHECKED IN	Q1SNAM	FAP	00002	00002	20030401	master.lb
20030305	10:56:17	DOCUCORP	CHECKED OUT	Q1SNAM	DDT	00002	00001	20030401	master.lb
20030305	10:56:17	DOCUCORP	CHECKED OUT	Q1SNAM	FAP	00002	00001	20030401	master.lb
20030305	10:56:02	DOCUCORP	CHECKED IN	Q1SNAM	DDT	00002	00001	20030401	master.lb
20030305	10:56:02	DOCUCORP	CHECKED IN	Q1SNAM	FAP	00002	00001	20030401	master.lb
20030305	10:53:18	DOCUCORP	CHECKED OUT	Q1SNAM	DDT	00001	00001	20030228	master.lb
20030305	10:53:17	DOCUCORP	CHECKED OUT	Q1SNAM	FAP	00001	00001	20030228	master.lb
20030305	10:52:27	DOCUCORP	ADDED	MASTER	DDT	00001	00001	20030228	master.lb
20030305	10:52:27	DOCUCORP	ADDED	Q1RULDMO	DDT	00001	00001	20030228	master.lb
20030305	10:52:27	DOCUCORP	ADDED	Q1CIM	DDT	00001	00001	20030228	master.lb
20030305	10:52:27	DOCUCORP	ADDED	Q1FDC	DDT	00001	00001	20030228	master.lb
20030305	10:52:27	DOCUCORP	ADDED	Q1CL00	DDT	00001	00001	20030228	master.lb
20030305	10:52:27	DOCUCORP	ADDED	Q1CLF2	DDT	00001	00001	20030228	master.lb
20030305	10:52:27	DOCUCORP	ADDED	Q1CLF0	DDT	00001	00001	20030228	master.lb
20030305	10:52:26	DOCUCORP	ADDED	Q1HDR1	DDT	00001	00001	20030228	master.lb
20030305	10:52:26	DOCUCORP	ADDED	Q1GDBT	DDT	00001	00001	20030228	master.lb
20030305	10:52:26	DOCUCORP	ADDED	Q1GDTP	DDT	00001	00001	20030228	master.lb
20030305	10:52:26	DOCUCORP	ADDED	Q1SPFM	DDT	00001	00001	20030228	master.lb
20030305	10:52:26	DOCUCORP	ADDED	Q1PDC1	DDT	00001	00001	20030228	master.lb
20030305	10:52:26	DOCUCORP	ADDED	Q1FL2P	DDT	00001	00001	20030228	master.lb
20030305	10:52:26	DOCUCORP	ADDED	Q1FTRE	DDT	00001	00001	20030228	master.lb
20030305	10:52:26	DOCUCORP	ADDED	Q1OP22	DDT	00001	00001	20030228	master.lb

LISTING THE RESOURCES

You can generate a report that lists the resources in a library. To do so, choose File, Print. The Library Manager Report window appears.



Check the types of resources you would like the report to include and click Ok.



The report includes resource information for the types you selected. You can print the report by selecting the File, Print option.

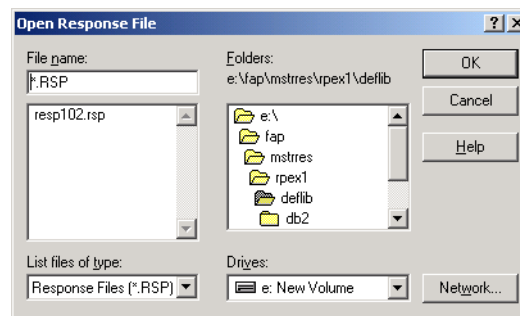
RUNNING RESPONSE FILES

A response file is usually created using the LBRYMGR utility. There are two ways to process the resulting response file:

- Using the LBRYMGR utility (see [Processing Response Files on page 453](#))
- Using Library Manager

To read and process a response file using the Library Manager, follow these steps:

- 1 Choose the Action, Run Response File option. The Open Response File window appears.



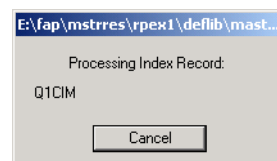
- 2 Select the response file to process and click Ok. The system displays messages to show you its progress.

REORGANIZING THE LIBRARY

When you delete a resource from a library only the resource entry, in the index portion of the library, is actually removed. The resource itself remains in the data portion of the library but there is no longer an index entry pointing to it.

To remove these orphaned resources from the data portion of the library, you must reorganize the library. This causes the data portion of the library to be rebuilt, based on the entries in the index portion of the library.

To reorganize a library, choose Action, Reorganize File. The system displays messages to show you its progress, such as the one shown here:



When the messages stop, the reorganization is complete.

USING THE LBRYMGR UTILITY

You can use the LBRYMGR utility to perform these tasks:

- Create a response file that contains Add, Extract, or Sync records
- Read and process a response file that contains Add, Extract, Sync, as well as Update, or Delete records
- Convert a library from an older format to the current format

Unless you are converting a library, you will generally need to run the LBRYMGR utility twice:

- First, to create a response file that contains an Add, Extract or Sync record for each resource you want to process
- Then, to read the response file and process each Add, Extract, or Sync record

You use these parameters to tell the utility how to create or process a response file:

Syntax

```
LBRYMGRW /LBY /RSP /FORMDEF /REC /S /SP /XP /INI /ALL /FAP /LOGO /DDT
/BDF /GRP /FOR /EFF /NOSTATS /NOLOG /R /V /C /DAL /REV /VER /MODE
/STATUS /CLASS /PROJECT /LN /EXP /CVTOLD
```

Parameter	Description
/LBY	The name of the library file. Include the <i>LBY</i> extension
/RSP	The name of the response file you want to build. Include the <i>RSP</i> extension. The extension is optional but will help you identify the file you created.
/FORMDEF	The name and path of your form definition (FORM.DAT) file, such as <i>\fap\mstrres\rpex1\deflib\form.dat</i> .
/REC	Lets you specify whether the utility creates Add records (REC=A), Extract records (REC=X), or Sync records (REC=S). The default is A.
/S	Tells the utility to write synchronization records to the response file. Use the /REC=S parameter instead of this one.
/SP	Specifies the path into which the utility unloads Library Manager objects into temporary files (file names are of the pattern F1.SYN, F2.SYN, and so on).
/XP	Specifies the path for target file names when creating extract records.
/INI	The name and path of the INI file, such as <i>\fap\dll\fapcomp.ini</i> .
/ALL	If you include just ALL, the utility includes all files in the response file. If you specify a path after the parameter, as shown here: /ALL=d:\data the utility builds add records using all files from the given path or builds extract records and uses the path you specified in the target file name.
/FAP	If you include just FAP, the utility includes FAP files in the response file. If you specify a path after the parameter, as shown here: /FAP=d:\data the utility either builds add response records using FAP files from the given path, or it builds extract response records using the path in the target file name.

Parameter	Description
/LOGO	If you include just LOGO, the utility includes LOG files in the response file. If you specify a path after the parameter, as shown here: <pre>/LOGO=d:\data</pre> the utility either builds add response records using LOG files from the given path, or it builds extract response records using the path in the target file name.
/DDT	If you include just DDT, the utility includes DDT files in the response file. If you specify a path after the parameter, as shown here: <pre>/DDT=d:\data</pre> the utility either builds add response records using DDT files from the given path, or it builds extract response records using the path in the target file name.
/BDF	If you include just BDF, the utility includes BDF files in the response file. If you specify a path after the parameter, as shown here: <pre>/BDF=d:\data</pre> the utility either builds add response records using BDF files from the given path, or it builds extract response records using the path in the target file name.
/GRP	If you include just GRP, the utility includes GRP files in the response file. If you specify a path after the parameter, as shown here: <pre>/GRP=d:\data</pre> the utility either builds add response records using GRP files from the given path, or it builds extract response records using the path in the target file name.
/FOR	If you include just FOR, the utility includes FOR files in the response file. If you specify a path after the parameter, as shown here: <pre>/FOR=d:\data</pre> the utility either builds add response records using FOR files from the given path, or it builds extract response records using the path in the target file name.
/EFF	Lets you specify an effective date for the objects you are adding to the library. Enter the effective date in one of these formats: <i>mm/dd/yy</i>, <i>mm/dd/yyyy</i>, or <i>yyyymmdd</i>. If you omit this parameter, the utility uses the current date as the effective date.
/NOSTATS	Include this parameter to suppress the statistics report which appears when the utility finishes.
/NOLOG	Include this parameter to suppress logging, which otherwise goes into the trace file.
/R	Enter LAST if you want the utility to generate sync records for only the latest revision of the resource. Enter E if you want it to generate records only for expired resources. The default is ALL which generates records for all revisions of the resource.
/V	Enter LAST if you want the utility to generate sync records for only the latest version of the resource. The default is ALL which generates records for all versions of the resource.
/C	Include this parameter to display a counter which shows the progress of response file processing.

Parameter	Description
/DAL	If you include this parameter and specify a path, the utility builds Add records using DAL files from the given path.
/REV	When generating Add records, this parameter tells the utility what revision to set for the resources added to the library. The default is 00001.
/VER	When generating Add records, this parameter tells the utility what version to set for the resources added to the library. The default is 00001.
/MODE	This parameter tells the utility to set the mode when creating Add records or, when creating Extract records, to only create records for objects with the given mode.
/STATUS	This parameter tells the utility to set the status when creating Add records or, when creating Extract records, to only create records for objects with the given status.
/CLASS	This parameter tells the utility to set the class when creating Add records or, when creating Extract records, to only create records for objects with the given class.
/PROJECT	This parameter tells the utility to set the project when creating Add records or, when creating Extract records, to only create records for objects with the given project.
/LN	The LN (<i>Long Name</i>) parameter lets you specify whether the utility applies standard file names or long file names to the library objects it extracts. The default is Yes. A long (or versioned) file name contains the version, revision and effective date in the name. For example, version 1, revision 2 of the Q1ADDR image (FAP), with an effective date of September 1, 2005, would have a long file name of... <pre>Q1ADDR_0000100002_20050901.FAP</pre> When extracting various versions and/or revisions of a library object, it is necessary to extract the objects to long file names to prevent one version/revision of the object from replacing another version/revision of an object with the same name.
/EXP	Set this parameter to No to prevent the utility from creating Add or Extract records for expired objects. The default is Yes.
/CVTOLD	Use this parameter to convert library files created before version 10.2 into the newer format. Keep in mind you should <i>always</i> back up your files <i>before</i> you convert a library.

CREATING RESPONSE FILES

You tell the utility to create a response file by specifying certain parameters. Generally, if you include the FORMDEF parameter or the BDF, GRP, FOR, FAP, DDT, LOGO, DAL, or ALL parameters, the utility creates a response file. If you omit these parameters, the utility instead processes a response file.

You indicate which type of response file records you want the utility to create using the /REC parameter. The default is to generate Add records in the response file.

Generating Add Records

You can use the utility to add resources, such as FAP, DDT, LOG, DAL, BDF, GRP, and FOR files, into a library. When you generate Add records to the response file, you can tell the utility to read the contents of your FORM.DAT file and generate Add records for the resources referenced in it. You can also specify paths you want the utility to use to search for files to generate Add records from.

Example 1 - Using the /FORMDEF parameter

In this example, the command tells the LBRYMGR utility to create a response file named *RESPONSE.RSP* and to read the FORM.DAT file located in the indicated DefLib directory. The utility then generates Add records and writes them into the response file for all referenced resource files.

NOTE: Unless you specifically indicate otherwise, the system uses the current date as the effective date for each Add record.

```
C:\fap\dll> LBRYMGR /rsp=response.rsp
/formdef=c:\fap\mstrres\rpex1\deflib\form.dat /fap /ddt /logo

---      DocuCorp LBRYMGR Utility Program (C)      ---
---      Library Manager Response File Utility      ---

Attempting to create Response File <response.rsp>
Effective Date for objects will be:   October 24 00:00 2007
Successfully created response file <response.rsp>
```

Example 2 - Using the /FAP, /DDT, and /LOGO parameters

Instead of using the /FORMDEF parameter to indicate which resources to create Add records for, you can also point to specific directories and the LBRYMGR utility will generate Add records for all files in those directories.

This example tells the LBRYMGR utility to create a response file named *RESPONSE.RSP*. It generates Add records for the files located in the forms directory that have a *.FAP* extension. It also generates Add records for the DDT and LOG files stored in the specified directories.

```
C:\fap\dll> LBRYMGR /rsp=response.rsp
/fap=c:\fap\mstrres\rpex1\forms\*.fap
/ddt=c:\fap\mstrres\rpex1\deflib\*.ddt
/logo=c:\fap\mstrres\rpex1\forms\*.log

---      DocuCorp LBRYMGR Utility Program (C)      ---
---      Library Manager Response File Utility      ---

Attempting to create Response File <response.rsp>
Successfully created response file <response.rsp>
```

Generating Extract Records

You can also create a response file that contains Extract records. You can then process this response file. The utility will extract the indicated resources from the library and copy them to the location you specified. To generate Extract records, use the /REC=X parameter.

**Example 1 - Creating
extract records for all
resources**

This example tells the LBRYMGR utility to create a response file named RESPONSE.RSP. It generates Extract records for all resources in the library. The response file contains the target path and file name for each resource that is extracted. The /ALL parameter tells the system to extract all resource types and to create target file names using the indicated directory.

```
C:\fap\dll>lbrymgrw /rsp=response.rsp /rec=x
/lby=.\deflib\master.lby /all=.\ext\

---          DocuCorp LBRYMGR Utility Program (C)          ---
---          Library Manager Response File Utility          ---

Successfully created response file <response.rsp>
```

**Example 2 - Creating
extract records for the
latest version and
revision**

This example tells the LBRYMGR utility to create a response file named RESPONSE.RSP. It generates Extract records for the latest revision of the latest version of each FAP file in the library. The file name for each resource placed in the response file will be the short name instead of the long or versioned name, which is the default.

```
C:\fap\dll>lbrymgrw /rsp=response.rsp /rec=x
/lby=.\deflib\master.lby /fap=.\ext\ /r=1 /ln=no /v=1

---          DocuCorp LBRYMGR Utility Program (C)          ---
---          Library Manager Response File Utility          ---

Successfully created response file <response.rsp>
```

Generating Sync Records

You use Sync records to update or promote resources. For instance, you could generate Sync records to promote resources from a development library into a testing library. Include the /REC=S parameter to create a response file that contains Sync records.

NOTE: To promote resources from one library to another or to synchronize libraries, use the LBYSYNC utility.

**Example - Creating sync
records**

This example tells the LBRYMGR utility to create a response file named RESPONSE.RSP. It generates Sync records for all resources in the library. Part of the process of generating the response file involves extracting the resources from the library, assigning them a temporary name, and writing these files to the directory indicated with the /SP parameter. When you later process the response file, these resources are copied into the target library, provided they are newer than the existing resources in the target library.

```
C:\fap\dll>lbrymgrw /rsp=response.rsp /rec=s
/lby=.\deflib\master.lby /sp=.\sync\

---          DocuCorp LBRYMGR Utility Program (C)          ---
---          Library Manager Response File Utility          ---

Will create Sync records for all Revisions of all Versions.
Attempting to create Sync Response File <response.rsp>
Successfully created response file <response.rsp>
```

Response File Format

Generally you create a response file by running the LBRYMGR utility. Though it is best to let the LBRYMGR utility create the response file, there may be situations in which you need to later edit the resulting response file.

Response files contain one or more records. Each record contains the information necessary information for an action (Add, Extract, Sync) to be performed on a single resource. Each record consists of several semi-colon delimited fields. The fields are ordered as shown here:

```
;Action;FileType;FileSubType;FullName;Name;Resource;Description;EffectiveDate;UserLevel;Password;UserID;Version;Revision;ModifyTime;Mode;Status;Class;Project;
```

Field	Description
Action	Specifies what action to perform when this response record is processed. You can enter - A (adds a file) - D (deletes a file) - R (replaces the reference by deleting old reference and adding a new one) - U (updates record data but does not update the file) - X (extracts file) - S (synchronizes or promotes the resource to another library).
FileType	Indicates the type of resource that is being processed. You can enter - FAP (image) - DDT (data definition table) - LOG (Logo) - DAL (Document Automation Language) - BDF (business unit definition) - GRP (business unit group) - FOR (form).
FileSubType	Indicates the subtype of the resource that is being processed. You can enter - FAP (image) - DDT (data definition table) - LOG (logo) - DAL (Document Automation Language) - BDF (business unit definition) - GRP (business unit group) - FOR (form) Use the same value here as is used for the FileType field.
FullName	Indicates the fully or partially qualified name of the resource being processed.

Field	Description
Name	Specifies the name of the resource. When processing an Add record, the name field indicates the value the name field in the library index will be set to as the resource is added to the library. When processing an Extract record, the name field indicates the name of the resource to extract from the library.
Resource	This is a legacy field used to indicate the general location the resource came from, such as FORMS or DEFLIB. This field is no longer used.
Description	(optional) You can use this field to include a comment that will be placed in the library index Description field. You can enter up to 100 characters.
Effectivedate	(optional) You can use this field to specify a date at which the resource will become effective. Enter the date in the YYYYMMDD format. If you omit this date, the system uses the date on which the response file is created.
UserLevel	(optional) You can use this field to specify a two-digit key for access rights. The default is 99, which allows access to all users.
Password	(optional) You can use this field to associate a password with the resource.
UserID	(optional) You can use this field to specify the user ID you want to associate with the resource in the library index. You can enter up to 64 characters. The default is <i>docucorp</i> .
Version	(optional) When processing an Add record, this field specifies the value the Version field in the library index will be set to as the resource is added to the library. When processing an Extract record, this field specifies the version of the resource to extract. The Version field should consist of five digits padded with zeros, such as 00001 or 00015. The default is 00001.
Revision	(optional) When processing an Add record, this field specifies the value the Revision field in the library index will be set to as that resource is added to the library. When processing an Extract record, this field specifies the revision of the resource to extract from the library. The Revision field should consist of five digits padded with zeros, such as 00001 or 00015. The default is 00001.
ModifyTime	(optional) When processing an Add or Sync record, this field specifies the value that the ModifyTime field in the library index will be set to as that resource is added to the library. If omitted, the ModifyTime field in the library index is set to the time at which the resource is added to the library. This value is in a hexadecimal format and should generally not be manually edited.
Mode	(optional) When processing an Add record, you can use this field to specify the value the Mode field in the library index will be set to as the resource is added to the library. If omitted, the Mode field in the library index is set to blank.

Field	Description
Status	(optional) When processing an Add record, you can use this field to specify the value the Status field in the library index will be set to as the resource is added to the library. If omitted, the Status field in the library index is set to blank.
Class	(optional) When processing an Add record, you can use this field to specify the value the Class field in the library index will be set to as the resource is added to the library. If omitted, the Class field in the library index is set to blank.
Project	(optional) When processing an Add record, you can use this field to specify the value the Project field in the library index will be set to as the resource is added to the library. If omitted, the Project field in the library index is set to blank.

Here is an example of an Add record:

```
;A;FAP;FAP;. \forms\qlsnam.fap;qlsnam;FORMS;sample
description;20040603;99;;DOCUCORP;00001;00001;;DEV;TEST;GA;P001;
```

PROCESSING RESPONSE FILES

You process a response file by specifying a combination of parameters. Generally, you only need to specify a response file name and a library name. The utility then processes the response file and, depending on the contents of the response file, adds to, extracts from, or synchronizes resources in the library.

Processing Add Records

If you have created a response file that contains Add records, you can run this response file against a library. The utility then adds the resources listed in the response file to the library.

Example - Adding resources to the library

In this example, the LBRYMGR utility reads the response file and processes the records against the library called *master.lby*. They are all add records. Including the */C* parameter tells the utility to display a counter to show its progress.

```
C:\fap\dll> LBRYMGR /rsp=response.rsp /
lby=c:\fap\mstrres\rpex1\deflib\master.lby /c
```

```
---      DocuCorp LBRYMGR Utility Program (C)      ---
---      Library Manager Response File Utility      ---
```

```
Attempting to read and process Response File <response.rsp>
Successfully processed response file <response.rsp>
```

```
Add (A) Record Statistics:
Records Read           :      125
Objects updated index  :         0
Objects added, Ver/Rev ok :         0
Objects added as new   :      125
Objects added Ver/Rev incr :         0
Objects Ver/Rev error  :         0
Objects add error      :         0
```

Processing Extract Records

If you have created a response file that contains Extract records, you can run this response file against a library and the resources will be extracted from the library and saved to the location you specified in the response file.

Example - Extracting resources from the library

In this example, the LBRYMGR utility reads the response file and processes the records against the library named MASTER.LBY. They are all extract records. Including the /C parameter tells the utility to display a counter to show its progress.

```
C:\fap\dll>lbrymgrw /rsp=response.rsp /lby=.\deflib\master.lby /c

---          DocuCorp LBRYMGR Utility Program (C)          ---
---          Library Manager Response File Utility          ---

Attempting to read and process Response File <response.rsp>
Successfully processed response file <response.rsp>

Extract (X) Record Statistics:
Records Read           :          142
Objects not found in Library :          0
Objects extracted       :          142
Objects extract error   :          0
```

Processing Sync Records

If you have created a response file that contains Sync records, you can run this response file against a target library and the resources listed in the response file will be copied into the target library, provided the last modified date and time for the resource in the response file is newer than the last modified date and time of the resource in the target library.

Example - Synchronizing libraries

In this example, the LBRYMGR utility reads the response file and processes the Sync records, against the library named MASTER.LBY. The /C parameter tells the utility to display a counter to show its progress.

```
C:\fap\dll>lbrymgrw /rsp=response.rsp /lby=.\deflib\prod.lby /c

---          DocuCorp LBRYMGR Utility Program (C)          ---
---          Library Manager Response File Utility          ---

Attempting to read and process Response File <response.rsp>
Successfully processed response file <response.rsp>

Sync (S) Record Statistics:
Records Read           :          142
Objects found in Library :          0
Objects not found in Library :          142
Objects older or same   :          0
Objects updated index   :          0
Objects added, Ver/Rev ok :          18
Objects added as new     :          124
Objects added Ver/Rev incr :          0
Objects Ver/Rev error    :          0
Objects add error        :          0
```

CONVERTING LIBRARIES

If a library is in an older, pre-version 10.2 format, use the LBRYMGR utility to convert the library to the newer format. The format of the library changed in version 10.2 to increase the lengths of some fields and to add these fields, used for project management:

- Mode
- Status
- Class
- Project

Example - Converting a library

In this example, you use the /CVTOLD parameter to tell the LBRYMGR utility to convert the library named *MASTER.LBY* from an older format into the newer format. Before converting the library, the utility backs up the library using file names prefixed with a dollar sign (\$). For instance, for the *MASTER.LBY* library, this table shows the back up files:

This file	Is backed up to
MASTER.DBF	\$MASTER.DBF
MASTER.MDX	\$MASTER.MDX
MASTER.LBY	\$MASTER.LBY

Once the library is backed up, the utility converts it to the newer format.

```
C:\fap\dll> LBRYMGR /lby=c:\fap\mstrres\rpex1\deflib\master.lby /
cvtold
```

```
---      DocuCorp LBRYMGR Utility Program (C)      ---
---      Library Manager Response File Utility      ---
```

```
Library <c:\fap\mstrres\rpex1\deflib\master.lby> was successfully
backed up.
```

```
Library <c:\fap\mstrres\rpex1\deflib\master.lby> was successfully
converted.
```

Syntax

SYNCHRONIZING LIBRARIES

Use the LBYSYNC utility to synchronize or promote libraries. This utility lets you copy resources from one library to another library. When one library (the source library) is synchronized to another library (the target library), both the index portion and the data portion of the target library are updated. Here is the syntax of the LBYSYNC utility:

Syntax **LBYSYNC /FROMLBY /TOLBY /INI /TEST /CRIT /C /R /V**

Parameter	Description
/FROMLBY	The name of the library to synchronize from.
/TOLBY	The name of the library to synchronize to.
/INI	The INI file you want the utility to use. The default is the FSIUSER.INI file.
/TEST	Include this parameter if you want to simulate a synchronization without actually copying any files to the target library. This lets you see what the utility would do without changing anything.
/CRIT	Specifies the synchronization criteria to use. This criteria determines which resources in the source library are eligible to be synchronized to the target library and what values to set in the source and target library for each resource upon a successful promotion. The criteria string consists of three sets of three parameters. The first set of parameters specifies the values for the Mode, Status, and Class fields of the resources in the source library eligible for promotion. The second set of parameters specifies the values to set in the target library for the Mode, Status, and Class fields if the resource is successfully promoted. The third set of parameters specifies the values to set in the source library for the Mode, Status, and Class fields if the resource is successfully promoted to the target library. The fields are semi-colon delimited. Specify the criteria like this: <pre>;SMODE;SSTATUS;SCLASS;TMODE;TSTATUS;TCLASS;FMODE;FSTATUS;FCLASS;</pre> If you omit the /CRIT parameter, it defaults as shown here: <pre>;*;*;*;*;*;*;*;*;*</pre> This tells the utility: - All resources in the source library are eligible to be promoted to the target library - Mode, Status, and Class fields of the resource in the target library will be set to the value of those fields from the source library. - Mode, Status, and Class fields of the resource in the source library will remain unchanged upon a successful promotion.
/C	Causes a counter to show the progress of the utility as it processes library entries.
/R	Specifies which revisions of the resource to synchronize. Enter LAST if you want the utility to synchronize only the latest revision of the resource. The default is ALL which synchronizes all revisions of the resource.
/V	Specifies which version of the resource to synchronize. Enter LAST if you want the utility to synchronize only the latest version of the resource. The default is ALL which synchronizes all versions of the resource.

In this example:

```
; SMODE; SSTATUS; SCLASS; TMODE; TSTATUS; TCLASS; FMODE; FSTATUS; FCLASS;
```

- **SMODE, SSTATUS and SCLASS** are the mode, status, and class of the resources in the source library you want to copy
- **TMODE, TSTATUS and TCLASS** are the mode, status, and class you want to assign to the resource entry in the target library as it is stored in the target library
- **FMODE, FSTATUS, and FCLASS** are used to set the final mode, status, and class of the resource entry in the source library, once the resource has been successfully promoted to the target library

You can enter an asterisk (*) for the SMODE, SSTATUS, or SCLASS fields to indicate *any value*.

You specify the synchronization criteria using the /CRIT parameter or in the INI file with the SyncCriteria option. If you use the /CRIT parameter, you can only enter a single record of synchronization criteria. You can enter multiple records of synchronization criteria using the SyncCriteria option.

Example 1 - Synchronizing with no parameters

In this example, resources in the library named MASTER.LBY are synchronized to the library named PROD.LBY. No synchronization criteria is specified, so the default of

. * . * . * . * . * . * . * .
 / / / / / / / / / / / / / / /

is used, which means any source library resource whose index record contains a newer modification date than the newest modification date for a resource of that same name, type, version, and revision in the target library, will be copied.

```
E:\fap\dll> lbysync /fromlby=c:\fap\mstrres\rpex1\deflib\master.lby
/tolby=c:\fap\mstrres\rpex1\deflib\prod.lby /c
```

```

--- DocuCorp LBYSync Utility Program (C) ---
--- Synchronize Library ---

```

Inserting default LBYSync criteria ;*;*;*;*;*;*;*;
Synchronization performed. The following number of objects were
added to the target library.

SOURCE LIBRARY: c:\fap\mstrres\rpex1\deflib\master.lby
TARGET LIBRARY: c:\fap\mstrres\rpex1\deflib\prod.lby

FAPs :	61
DDTs :	61
LOGOs:	5
DALs :	0
Total:	127

Example 2 - Synchronizing using the /CRIT parameter

In the example below, resources in the library named **MASTER.LBY** are synchronized to the library named **PROD.LBY**.

The synchronization criteria is supplied using the /CRIT parameter. This tells the utility to copy resources from the MASTER.LBY source library that have a mode of *DEV*, a status of *PASSED*, and are in any class, into the PROD.LBY target library.

As the resources are copied into the PROD.LBY library, the utility assigns a new mode of *PROD*. The status and class do not change. Each resource in the source library that is successfully promoted is assigned a new status of *PROMOTED*.

```
E:\fap\dll>lbysync /fromlby=c:\fap\mstrres\rpex1\deflib\master.lby  
/tolby=c:\fap\mstrres\rpex1\deflib\prod.lby /  
crit=;DEV;PASSED;*;PROD;*;*;*;PROMOTED;*;
```

```
---      DocuCorp LBYSync Utility Program (C)      ---  
---                        Synchronize Library      ---
```

Synchronization performed. The following number of objects were added to the target library.

```
SOURCE LIBRARY:      c:\fap\mstrres\rpex1\deflib\master.lby  
TARGET LIBRARY:      c:\fap\mstrres\rpex1\deflib\prod.lby
```

```
FAPs :      1  
DDTs :      1  
LOGOs:      0  
DALs :      0  
Total:      2
```

Syntax

TROUBLESHOOTING

To help you resolve problems, this topic discusses how to turn on tracing and various error messages you may encounter.

TURNING ON TRACING

If you feel Library Manager is not retrieving the correct version/revision of a resource, or if you are experiencing other problems that seem to be related to the use of a library, you can use INI options to create a trace file.

You can then use the trace file to determine the date of the resource you requested and the effective date of the resource returned by Library Manager, as well as other library-related information. To turn on Library Manager tracing, specify these options:

```
< Debug_Switches >
  Enable_Debug_Options   = Yes
  LbyLib                 = Yes
```

This table shows you where to place the options and the default file name.

For	Specify the options in	Default file name
Documaker Server (GenData)	FSIUSER.INI or FSISYS.INI	trace
Documaker Workstation	FSIUSER.INI or FSISYS.INI	trace
Docucreate	FAPCOMP.INI	trace
Docupresentment (IDS)	DAP.INI or RPEX1.INI *	dprtrc.log

* RPEX1.INI is commonly-used as the name of the configuration INI file. If the name you use differs, substitute that name.

For Documaker Server, Documaker Workstation, and Docupresentment, you can specify the name of the trace file using this option:

```
< Data >
  TraceFile =
```

NOTE: Turning on the tracing causes a large amount of data to be written to the trace file. For optimal performance, only do this when you are testing or troubleshooting an implementation.

You may also want to retain the NAFILE.DAT and the POLFILE.DAT files. During retrieval, these files are retrieved from archive and are initially written to disk then later deleted. To keep these files on disk during retrieval from Documaker Workstation, include this option:

```
< ArcRet >
  KeepFiles = Yes
```

To keep the NAFILE and POLFILE on disk during retrieval from Docupresentment (IDS), include this option:

```
< Attachments >
  Debug = Yes
```

NOTE: For optimal performance, only turn on the KeepFiles or Debug option when you are testing or troubleshooting a system.

HANDLING ERROR MESSAGES

Here are some of the error messages you may encounter:

ORA-00904

The following error message:

```
[Oracle][ODBC][Ora]ORA-00904: invalid column name
```

indicates one of the column names in the table is invalid. To determine which table is invalid, turn on LBYLIB tracing (See [Turning on Tracing on page 459](#)), recreate the problem, then examine the trace file and look for the ORA-00904 error message. The table referenced immediately before the ORA-00904 message is the one with the invalid column.

Note there are column names reserved by Oracle which cannot be used. To remap a column name use the ODBC_FieldConvert control group as described in a previous section. If you are setting up the tables for the first time, after re-mapping the column, you may need to remove the existing table so it can be recreated with the correct column names.

This message can also indicate you are trying to reference a column in the table that does not exist. Look closely at the trace file and compare the columns referenced in the SQL statement, such as SELECT, to the columns of the table as it is defined in the database.

ORA-01401

The following error message:

```
[Oracle][ODBC][Ora]ORA-01401: inserted value too large for column
```

indicates you are trying to insert a value that is too large for the column. To try to determine which table the problem is with, turn on LBYLIB tracing (See [Turning on Tracing on page 459](#)), recreate the problem, then examine the trace file and look for the ORA-01401 error message. The table referenced immediately before the ORA-01401 message should be the table that contains the column with the problem.

SQL0104N

The following DB2 ODBC error message:

```
42601 -104 [IBM][CLI Driver][DB2/NT] SQL0104N  An unexpected token
")" was found following "on DAP103_LBYI_R1 (.
Expected tokens may include: "<index_col_list>". SQLSTATE=42601
```

indicates that the DB2 driver attempted to create an index for the table. When using the DB2 ODBC driver, you should always set the following INI option to No.

```
< DBHandler:ODBC >
  CreateIndex = No
```

CHAPTER 14

Master Resource Libraries

Master resource libraries offer an effective way to manage the libraries that contain documents, logos, help files, tables, data dictionaries, and so on that are related to a specific client or set of forms.

You can create and maintain resource libraries using the File, Library Setup option, which is available in each module.

This chapter includes these topics:

- [Overview on page 462](#)
- [Adding Resource Libraries on page 464](#)
- [Changing a Resource Library on page 468](#)
- [Deleting a Resource Library on page 469](#)

OVERVIEW

The system consists of several components. These components create resources, provide generic resources and process finished documents. Each component performs specific activities necessary for full scale document automation.

Docucreate contains applications for creating resources used to build and process documents. The system lets you create images, forms, data dictionaries, and processing rules necessary for document automation.

The resource libraries store both generic and customized resources for creating and processing documents. A resource library stores resources such as images, processing rules, and logos. The master resource library acts like a warehouse, storing all the resource libraries you need for forms processing. In other words, the master resource library contains all the resource or component libraries that store each separate type of resource, such as images and processing rules.

The complete system provides the power and the instruction to transform and manipulate resources into a finished business transaction.

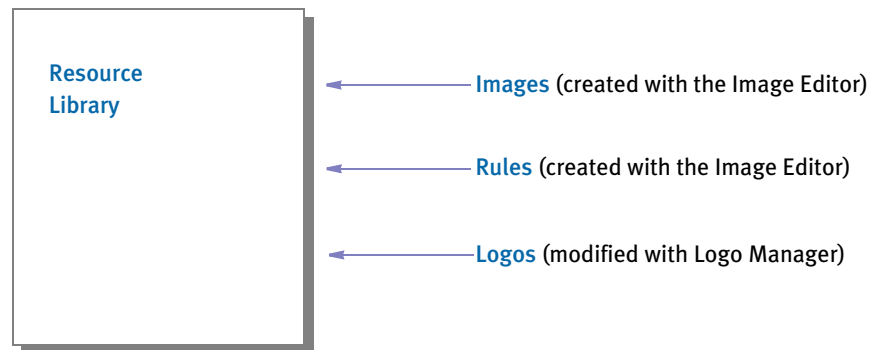
Why use master resource libraries?

The biggest advantage in using master resource libraries is the reusability of resources. Reusing resources increases efficiency and promotes consistency throughout your system and product.

Resource libraries let you combine the resources in unique ways to create customized documents to meet your specific needs. The system configuration lets you select modules to customize your system. A change in one module does not necessitate multiple changes throughout the system. This modular design also improves performance by eliminating unnecessary processing.

What is stored in a resource library

A resource library contains all the components necessary to develop and use forms and form sets. A resource library uses several major components: images, rules and logos. Each component has a corresponding system tool which lets you create or modify it. The source files from the system application comprise the resources in the master resource library.



Images

These are the reusable images (FAP files) which you select to define a form or a form set. The image provides a template for display and print functions in Documaker Workstation. The Image Editor is the tool you use to create the images stored in the library.

Rules The DDT file, accessed via the Image Editor, contains the rules, procedures, and processing tables which tell the system how to process your forms. This lets you customize the mappings in your libraries. Both base system rules and custom rules let you integrate and tailor the system to suit your business needs.

Using Resource Libraries

The following example shows the benefit of the resource library.

ABC Insurance Company underwrites automobile, property and life insurance. Corporate headquarters maintains one resource library for each line of business in the master resource library. There may be forms that are specific for each type of insurance. There may be forms that apply to all types of insurance. The forms you need for a policy will depend on the type of insurance coverage you are offering.

To meet these needs, the corporate headquarters will create a master resource library containing all of the files for all images for each insurance type. This provides greater flexibility to the end user producing the policies. Forms maintenance is also easier with all forms located in a master resource library instead of scattered throughout many libraries.

ADDING RESOURCE LIBRARIES

Use the File, Library Setup option to add a resource library to the master resource library list. You can add a new resource library, or you can use an existing resource library as a template.

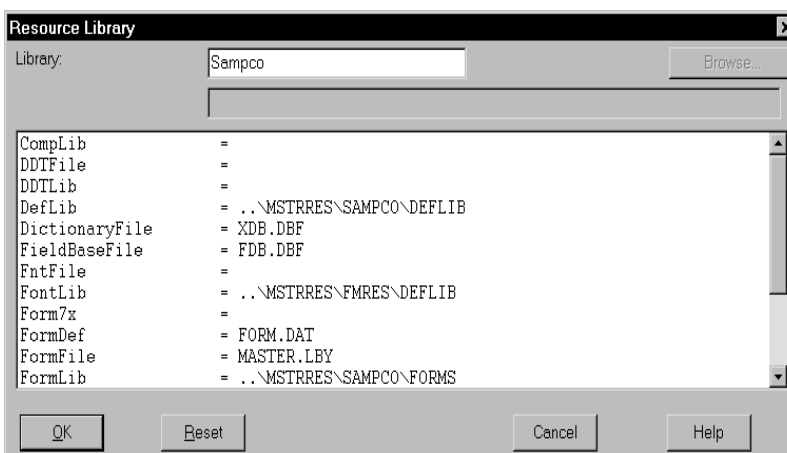
When you set up a new library, you must enter the locations of library and storage files. The entries you make during library setup are automatically saved in the appropriate FAPCOMP.INI file when you exit the Library Setup window. See [Adding a Resource Library Using a Template on page 466](#) for more information.

If you are working with an image, close the image before you begin working with resource libraries. If you want to add a resource library using another library as a template, see the next section.

- 1 Choose File, Library Setup. The Master Resource Library window appears, listing all the available resource libraries.



- 2 Click Add. The Resource Library window appears containing library setting information.



- 3 In the Library field, type the name of the new library.
- 4 Next, define your library files and directories. This table tells you what to enter for each of the library settings.

Library	Description
CompLib	This is the directory path of your compressed faps and compressed FXR file. This can be the same path as for DefLib. If this is blank, the system uses the path specified for DefLib.
DDTFile	The name of the data definition table file (DDT).
DDTLib	This stores DDT files. If this is blank, the system uses the path specified for DefLib.
DefLib	This is the path to your definition library. This contains the FORM.DAT, SETRCPTB.DAT, FDB.DBF, and XDB.DBF files. Optionally stores fonts.
Dictionary File	Name of the file where you store the data dictionary file (typically XDB.DBF) Click the Browse button to select a file.
Fieldbase File	This is the name of the file where you store commonly used variable field information for this library (typically FDB.DBF). Click on the Browse button to select a file.
FntFile	The name of your downloadable font file (FNT).
FontLib	This is the path where you are storing the fonts for this library.
Form7x	This is the path where you want the Image Editor to save your 8.0 and higher files in a 7x format. This should not be the same path as FORMLIB. If you leave this field blank, it defaults to FAP\DLL.
FormDef	This is the form definition table file (typically FORM.DAT).
FormFile	This is the name of the library for the FAP files, such as master.lby.
FormLib	This is the name of the path where you are storing all of your FAP and LOG files. If you leave this field blank, the system defaults to FAP\DLL.
Formset Trigger	This is a custom setting (typically SETRCPTB.DAT). Do not change this setting unless you are specifically instructed to do so by Customer Support.
HelpLib	This is the path where all your user-specific help files are stored.
LbyLib	This path for where your library (LBY) files are stored. If you do not put an entry here, it will default to FAP/DLL. This is usually the same as DefLib or FormLib.
LogoFile	This is the name of the library for the logo files. It can be the same file name as the form file or you may use a different file name. If left blank, it defaults to <i>master.lby</i> .
TableLib	The path where your user-specific tables are stored.

Library	Description
Xrffile	This is the name of your font cross reference file which is located in your DefLib directory.

- 5 Click the library path or file you want to add to your new library. The name of the field you selected displays next to the blank line under the name field, and the Browse button becomes active.
- 6 Enter the directory path for your selection. Click Browse to select a directory or file. Continue until you have set up all the paths for this resource library.
- 7 Click Ok to save all directory and file settings.

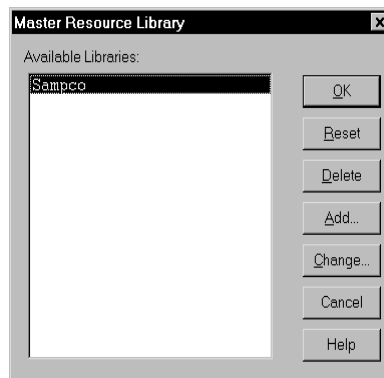
NOTE: If you click Reset after you add or change library files and directories, you will lose your changes.

- 8 Click Ok in the Resource Library window to save changes.

ADDING A RESOURCE LIBRARY USING A TEMPLATE

This option lets you set up a new resource library using an existing resource library as a template.

- 1 Choose File, Library Setup. The Master Resource Library window appears.



- 2 Highlight the resource library you want to use as a template and click Ok. The Master Resource Library window closes.
- 3 Select the File, Library Setup option again. The Resource Library window reappears.
- 4 Click Add. The Resource Library window appears, containing library setting information from the first resource library you selected.
- 5 Type the new library name in the Library field.

- 6 Change the library settings as necessary. You can edit existing paths or files for each of the resource library settings by highlighting the appropriate line and clicking Browse to select a new directory or select a file. Continue until you have set up all the paths for this resource library.
- 7 Click Ok to save all the new directory and file settings.

NOTE: If you click Reset after you add or change library files and directories, you will lose your changes.

- 8 Click Ok in the Resource Library window to save changes.

CHANGING A RESOURCE LIBRARY

Use this option to change the file and directory settings of an available resource library.

- 1 From any development tool module, choose File, Library Setup. The Master Resource Library window appears.



- 2 Highlight the library you want to change, and click Change. The Update Library window appears containing library setting information.
- 3 Change the resource library name in the Library field, if necessary.
- 4 In the list window, click the library path or file you want to change. If you know the name of the directory or file you want to change, type the directory path or file name in the corresponding field. Otherwise, click Browse to select a different directory or file.

NOTE: If you rename library directories or files within this window, you must also rename them in the operating system.

- 5 Click Ok in the Update Library window to save all directory and file settings to your resource library.

NOTE: If you click Reset in the Update Library window after you change library directories and file settings, you will lose your changes.

- 6 Click Ok in the Master Resource Library window to save changes to your resource library.

DELETING A RESOURCE LIBRARY

Use this option to remove a resource library from the master resource library list. You do not delete the library; you only remove the references from the selection list.

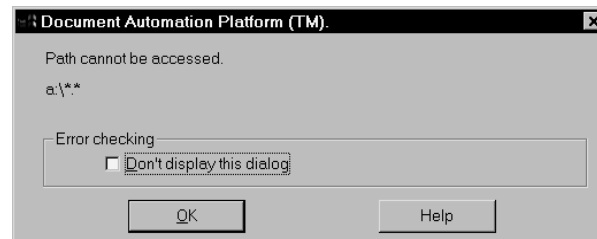
- 1 Choose File, Library Setup. The Master Resource Library window appears.



- 2 Highlight the library you want to remove.
- 3 Click Delete. The system displays a confirmation window.
- 4 Click Yes to confirm the deletion. The system removes the library from the list.
- 5 Click the resource library you want to continue working with, then click Ok in the Resource Library window.

If the system cannot access the path

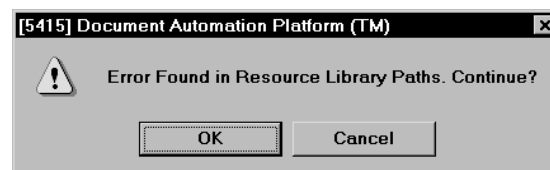
If you enter an invalid path or non-existent path, the system displays a warning message, as shown below.



If you do not want to see this message, click on the Don't Display This Window field.

After you exit Image Editor and sign on again, the system displays this message during library setup if it determines the path you entered is invalid or does not exist. Clicking the Don't Display message is only applicable for that session of Image Editor.

If you don't click Don't Display, the system displays the following message when you click Ok on the Resource Library window.



Click Ok to close the Resource Library window or Cancel to return to the Resource Library window and correct the error.

CHAPTER 15

Logo Manager

This chapter discusses working with Logo Manager. Logos are scanned objects you can place on an image. Logo Manager does not create logos. Logos are created in other programs such as Microsoft Paint.

Once you create a logo, you can edit it using Logo Manager. This gives you an easy way to resize, reverse, rotate, and manipulate the logo to fit your needs.

This chapter tells you how to perform these tasks:

- [Setting Up a Library on page 472](#)
- [Opening a Logo on page 472](#)
- [Importing a Signature or Logo on page 476](#)
- [Editing a Logo on page 476](#)
- [Setting View Options on page 479](#)
- [Setting View Properties on page 480](#)

USING LOGO MANAGER

The Logo Manager lets you manipulate the logos you place on your images. Use Logo Manager to add a logo to a library, or to edit a logo. You cannot draw a picture or logo with Logo Manager, but you can manipulate how the logo appears on a form.

Logo files reside in the master resource library you selected. A logo file (LOG) can only contain one image.

SETTING UP A LIBRARY

If you are using Library Manager, you can store all your logo files in a resource library. This practice helps you maintain version control over the various logos you place on your images.

NOTE: You can use the following option to specify a directory for logos:

```
< MasterResource >  
LogoLib =
```

If you omit this option, the system looks for logos in the path defined for FormLib.

Before you can use Library Manager for version control, you must first set up or select the library in which you are storing the forms you want to add logos to. After the library has been selected or set up, you can check out, check in, and unlock logo files for your forms.

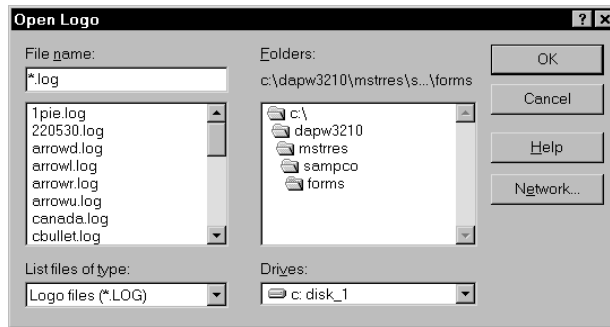
- 1 Start Logo Manager by clicking on the Logo Manager icon in Docucreate. The Logo Manager window appears.
- 2 Select File, Library Setup. The Master Resource Library windows appears with a list of the available libraries.
- 3 Highlight the library you want and click Ok.

OPENING A LOGO

Use the following instructions to open a logo file for editing.

NOTE: If you are working with a library, use the File, Check Out option to open a logo.

- 1 Start Logo Manager by clicking the Logo Manager icon in Docucreate. The Logo Manager window appears.
- 2 Select the File, Open option. The Open Logo File window appears.



- 3 Highlight the file you want and click Ok. The logo appears.

FILE TYPES

You can open the following types of files using Logo Manager:

- Logo files (*.LOG)
- Bitmap files (*.BMP)
- Xerox font files (*.FNT)
- Xerox font data files (*.FNT)
- Xerox image files (*.IMG)
- Xerox logo files (LGO)
- PCX files (*.PCX)
- TIFF (Tagged Image File Format) files (*.TIF)
- Printer overlay files (*.OVL)
- AFP page segment files (*.SEG)
- JPEG (Joint Photographic Experts Group) files (*.JPG)
- IBM MMR IOCA (Image Object Content Architecture) files (*.ICA)
- Portable Network Graphics files (*.PNG)
- Windows Meta files (*.WMF)

NOTE: Not all PNG formats are supported. Specifically, PNG supports a transparency attribute that is not supported. The system only supports opaque (non-transparent) bitmaps.

PNG also supports a variety of color bit patterns, such as - 1, 2, 4, 8, 16, 24, and 32 bits per pixel. The system does not support all of these formats, but a 3rd-party PNG library included with the system will convert the bitmaps into a pixel format the system does support.

The system converts PNG files into bitmaps when printing. It handles monochrome (1 bit), 16-color (4-bit), 256-color (8-bit), and full color (24-bit) bitmaps. However, not all printers can support these, so make sure you use bitmaps appropriate for your printer.

PDF only supports 1-bit and 24-bit bitmaps. So, some types of PNG files may look different when you create PDF files.

Positioning JPG objects

You can use the Z-Index option to position JPG objects:

```
< PrtType:HTML >  
  IMG_ZIndex = 100
```

The z-index indicates the stacking order of objects based on the order in which those objects appear in the HTML file. Higher values place objects closer to the front while lower values place them further to the back. Objects with the same value are stacked based on the order in which they appear in the HTML source.

For instance, a positive value positions an object above text that has no defined z-index. A negative value would place the object below the same text.

If you omit this option or leave it blank, the system will not layer objects.

Color file types

Logo Manager can import the following types of color bitmaps:

- TIFF
- BMP
- LOG
- JPEG

To import another type of bitmap, first convert it to monochrome (black and white). Both gray-scale and color bitmaps can be converted to monochrome bitmaps.

GDI and PCL print support color printing. Select File, Print to display the Print window. Select the printer type and device and click the Send Color option to print in color.

NOTE: Color bitmap and JPG files are only supported on Windows and UNIX systems if you are using the GenPrint program to print to color GDI, PCL, or PostScript printers or if you are producing color PDF or RTF output.

Color logos and TIF files are converted to monochrome for Metacode and AFP output, but are supported on Windows, UNIX, and z/OS systems.

Reverse black and white file types

The Logo Manager can also import reversed black and white bits. A flag tells you whether a bitmap was stored in the opposite method. You can automatically reverse the bit if necessary.

Loading IOCA Files

Logo Manager can now load IBM MMR IOCA image files. An IOCA file has an *ica* file extension. When an IOCA image is loaded, the file is read into a memory buffer and the TIFF structure is created based on the header information of the IOCA image. Logo Manager should work with the following IOCA compression types:

For this compression type	Enter this code
IBM MMR	0 (zero)
No compression (color or bw)	1
Modified Huffman	2
CCITT G3 1D and 2D	3
CCITT G4 2D	4

When loading an IBM MMR image file, CCITT G3 1D will decompress the first scan line and then CCITT G4 2D decompresses the rest of the scan lines. In most cases, the IOCA image has a single image segment and a single image data element per image segment.

When Logo Manager loads a page segment file that has inlined IOCA image data, it will be directed to IOCA image decoding API and it will be decompressed the same way as the IOCA image file.

Converting files

You can use the Edit, Save As, option to convert a logo to one of the following file types:

- Logo files (*.LOG)
- Comp. Pack (*.LOG)
- Comp. TIFF (*.LOG)
- Bitmap (*.BMP)
- Xerox font (*.FNT)
- Xerox image (*.IMG)
- AFP page segment (*.SEG)
- JPEG (*.JPG)

To do so, open the logo and choose the Edit, Save As option. Select the type of file you want to convert to in the Save File As Type field. You can also convert files using the File, Convert, Logos option in Docucreate. If you have a large number of LOG files to convert into JPEG files, see the DocuToolbox Reference for information on using the LOG2JPG utility.

NOTE: An AFP page segment can contain a mixture of text, image objects, and graphics data objects and can be placed anywhere on a presentation page. Programs can request page segments for presentation in a page or overlay. Page segments are used for logos, signatures, and boilerplate. A Xerox font can also include multiple logos or signatures.

IMPORTING A SIGNATURE OR LOGO

You can import a signature or logo out of a Xerox font that contains multiple signatures or logos by using the File, Open option of Logo Manager. For the import to be successful, you must know the characters which comprise the signature or logo and you must match case when entering the characters to be imported.

To import a signature or logo:

- 1 Choose File, Open to display the Open Logo window.
- 2 Select Xerox font data (*.FNT) in the List Files of Type field. Be sure you do not select Xerox font files (*.FNT) as the file type by mistake. Select the file containing the signature or logo and click Ok.
- 3 The system displays the Xerox Font Data window asking you to enter the characters to convert from the font file. You must enter the exact characters in the exact case for the system to properly import the signature or logo. For example, if the characters JHND OE are used to print a signature from John Doe, you can't enter jhndoe.
- 4 Click Ok to complete the import.

EDITING A LOGO

The Logo Manager lets you make changes to a logo. To edit a logo, start Logo Manager by clicking the Logo Manager icon in Docucreate. The Logo Manager window appears. Use the File, Open or File, Check Out to open the logo file you want to modify.

From the Edit menu, you have these options:

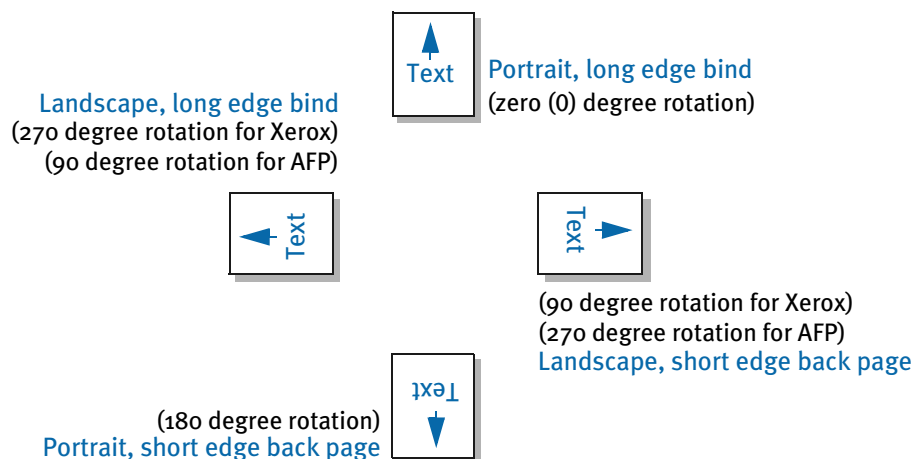
- Undo
- Rotate
- Reverse
- Resize
- Convert to BW
- Rotation Names
- White Space
- Resolution
- Clip

Undo	Use the Undo option to cancel or reverse your last action or choice, and restore the logo to its prior appearance. Since the system keeps track of all actions, you can select Undo several times to undo your most recent changes one at a time.
Rotate	The Rotate option takes the current logo and turns it in the direction you choose. You can rotate the logo left or right, flip the logo, or create a mirror image of the logo. If you want to create a mirror image of the logo, you can select either vertical or horizontal.
Reverse	The Reverse option creates a <i>negative</i> of the logo by taking the open logo and switching the black and white colors.
Resize	The Resize option gives you two choices for changing the size of the logo you're working in: absolute and by percentage. The Absolute option lets you set the height and width in inches. If you choose the Absolute option, your logo will not necessarily retain its current proportions. The Percentage option lets you increase or decrease the size of the logo by the percentage you choose. If you choose this option the system retains the current proportions of the logo.
Convert to BW	Use the Convert to BW option to convert a logo to black and white. Reducing the number of colors typically reduces the size of the logo. The system displays the Color Selection window when you choose this option. If you select Print in Color, the system prints the logo in the color you selected.
Rotation Names	Use the Rotation Names option to enter logo file names if you want to print a rotated logo using an AFP or Xerox Metacode printer. The names you enter here are the names of the printer resources (files stored on the printer) which are to be used when printing a logo which has a rotation of 0, 90, 180, or 270 degrees. One system logo file can equate to four printer resource files.

NOTE: PCL and PostScript printers do not have printer resource files, so they can automatically rotate a logo. You only need to enter these names if you are using an AFP or Xerox Metacode printer.

AFP and Metacode printers cannot automatically print a rotated logo. Therefore, you must create four printer resource files to support a logo printed in any rotation. Since you cannot rotate a logo directly on a FAP image, you need rotated logos when using logos on a non-portrait long edge image. For example,

- Portrait, long edge bind requires a zero (0) degree (normal) rotation printer resource.
- Portrait, short edge back page requires a 180 degree (upside down) rotation printer resource.
- Landscape, long edge bind requires a 270 degree (upward) rotation printer resource for Xerox printers and a 90 degree rotation printer resource for AFP printers.
- Landscape, short edge back page requires a 90 degree (downward) rotation printer resource for Xerox printers and a 270 degree rotation printer resource for AFP printers.



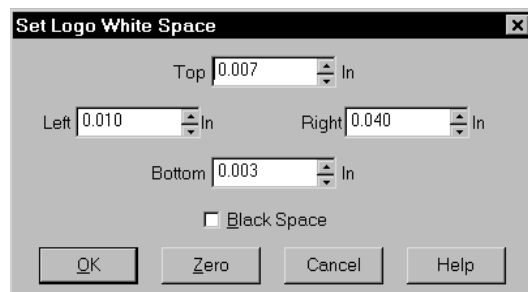
NOTE: If you are using a Metacode printer, *do not* enter more than six characters per name.

White Space

The White Space option lets you add and remove white and black space around the logo. The amount of space can be as precise as needed.

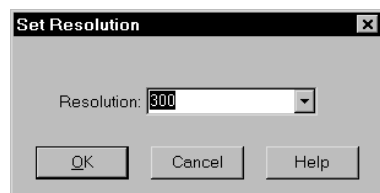
To add white space, simply uncheck the Black Space field and set all the fields to the specific amount of white space you need. If you then want a black border or frame around the logo, check the Black Space field again and enter the amount or thickness of the border.

Use the Zero button to reset the fields to zero. This removes all the white or black space, depending on whether you checked the Black Space field.



Resolution

The Resolution option lets you change the dpi (dots per inch) of the logo. Resolution determines the clarity of the object for use with different printer types. The more dots per inch, the sharper and more defined the object appears.



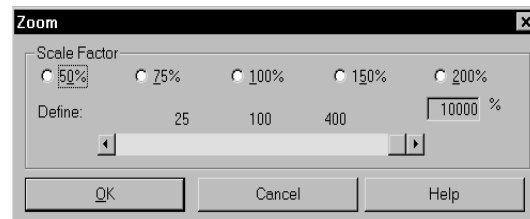
- Clip** The Clip option lets you crop the logo. After you select the Clip option from the Edit menu, outline the portion of the logo you want to keep by clicking and dragging the mouse. The selected area remains while everything outside the outline you dragged around the image is discarded.

SETTING VIEW OPTIONS

The View menu provides several zoom and refresh options so you can change the size of the screen by fitting the logo to the width or size of the window. From the View menu, you have the following options:

- Fit to Window
- Fit to Width
- Actual Size
- Zoom In
- Zoom Out
- Zoom
- Refresh
- Options

- Fit to Window** Use Fit to Window to display the entire logo within an active window. The Fit to Window option is selected if a check mark displays beside the option.
- Fit to Width** Using Fit to Width displays the full width of the logo in the window. This lets you see the full width of the logo even if it is larger than your screen. The Fit to Width option is selected if a check mark displays beside the option.
- Actual Size** Selecting Actual Size displays logos at 100% display size. This lets you see the true proportion of the logo, thus viewing it at the same size it will be printed.
- Zoom In** The Zoom In option magnifies the logo at a default percentage of 10%. Each time you select the Zoom In option, the logo is magnified another 10%.
- Zoom Out** The Zoom Out option reduces the size of the logo at a default percentage of 10%. Each time you select the Zoom Out option, the logo is reduced another 10%.
- Zoom** Zoom lets you magnify or reduce the size of the logo display. This option gives you greater flexibility in determining how you view the logo. You can reduce or magnify the logo using the preset zoom scale (50%, 75%, 100%, 150%, or 200%) or define your own scale (from 1% to 8100%). This lets you vary the zoom percentage until it matches your needs.



Refresh Use the Refresh option to redraw the logo and remove any ghost-like figures that may appear during editing.

SETTING VIEW PROPERTIES

Select View, Options to set your view properties for Logo Manager. You can choose to view the status line, tool bar, rulers, and the vertical and horizontal grid. Using rulers and grids lets you customize your work environment. There are three tabs in the View Properties window:

- View
- Rulers
- Grid

View The View tab lets you display or hide the status line and tool bar. These are the only options available in the window while working in Logo Manager. All other options are disabled.

Rulers On the Rulers tab, you set the display options for the Horizontal and Vertical rulers. Select the appropriate Show field to display a ruler. Select the ruler's units of measure in the field to the right. You can choose between FAPs ($1/2400$ of an inch), points, inches ($1/6$, $1/8$, or $1/10$), centimeters, or picas.

Click Foreground to change the color of the tick marks on the ruler. Select Background to change the ruler bar's color. Click the Default field in the Color Selection window to deselect it and activate the color list. Select a color and click Ok to apply the changes.

Grid Use the Grid tab to display or hide horizontal and vertical grid lines on the logo. Grid lines show you the edges of the logo. Select the appropriate Show field to display a grid line. Spacing between grid lines can be adjusted in the Line Every field. Click the grid's Color button to activate its Color selection window. Deselect the Default field to activate the color list and select a color. Click Ok to exit the Color Selection window apply the color to the grid lines.

CHAPTER 16

Form Set Manager

This chapter tells you how to build and edit form sets using the Form Set Manager. The Form Set Manager is similar to Explorer in Windows. It displays your form sets in hierarchical structure and lets you graphically create and edit the forms, images and related recipient information.

This chapter includes information on the following topics:

- [Overview on page 482](#)
- [Terminology on page 483](#)
- [Before You Begin on page 486](#)
- [Using the Form Set Manager on page 487](#)
- [Adding Groups, Forms, Images, and Recipients on page 491](#)
- [Printing a Form Set on page 505](#)
- [Listing the Objects in a Form Set on page 507](#)
- [Changing Object Settings on page 508](#)
- [Setting Recipients on page 511](#)
- [Modifying Form Sets on page 522](#)
- [Viewing Forms and Images on page 531](#)
- [Testing Fields on page 533](#)
- [Working with Normalized Files on page 534](#)

OVERVIEW

The Form Set Manager helps you create and modify the *form set definition table*, typically named *FORM.DAT*. This table groups images into a set of related forms.

The Entry module of the Documaker Workstation uses the FORM.DAT file to control the entry, print, work-in-process, and archive and retrieval functions for related forms and images. The FORM.DAT file contains user-defined information which specifies the organization of images into forms and form sets.

The Form Set Manager also helps you create and modify the *transaction trigger* or *SetRecip table*. The transaction trigger table is typically named *SETRCPTB.DAT*. The Rules Processor uses the transaction trigger table to define the required form set based on options selected in the transaction trigger table.

Both the FORM.DAT and SETRCPTB.DAT files are stored in a semi-colon delimited files. These files have their own specific format. The form.dat file includes information such as company, line of business, forms, each image in the form, and the names of the person, organization, or entity that receive a copy of each page of the form. The SETRCPTB.DAT file includes information about form level triggers and image level triggers. (For more information on triggers see Setting Recipients and Copy Counts in the [Rules Processor System Guide](#).

How it all works together

In the Entry module, a data entry operator selects the forms that make up a document set. Some forms may be mandatory and are always included. Others are optional and must be specified by the operator.

The operator chooses forms by examining the data at hand and considering certain conditions pertaining to that data. For instance, if the operator is creating insurance policies, he or she would have to know:

- What company is this for?
- What line of business?
- What type of transaction is this?
- Who needs a copy of the policy?
- How many copies are needed?

The answer to each question affects the makeup of the document set you will assemble.

TERMINOLOGY

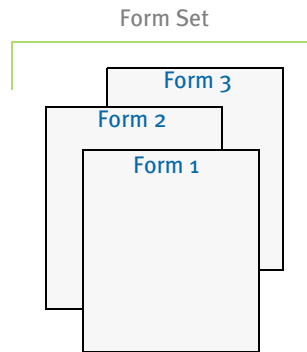
When you create a form set, you define the selection and arrangement of the images that comprise the form set. You determine the attributes of the forms and images. The form sets you define are stored in the particular master resource library of the system. The Form Set Manager is initially set up to store all form sets in a directory called *DefLib* within the appropriate master resource library.

The Form Set Manager helps you re-use images in different form sets. After reviewing a form set's terminology and structure, this chapter discusses the options available in the Form Set Manager for working with form sets and their groups, forms, images, and recipients.

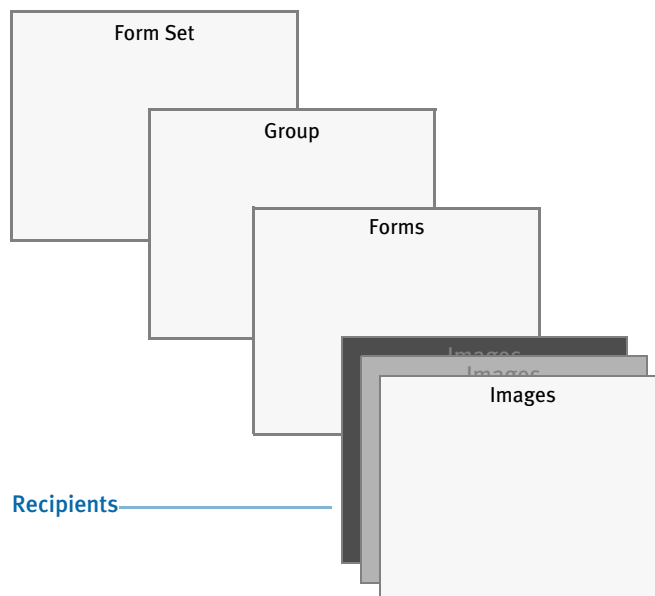
Form set

A form set is a group of forms required to process a single transaction. Copies provided to each recipient are considered part of a form set. For example, you recently purchased a new car, and your local bank holds the lien on the car. Your auto insurance company provides both you and the lienholder (your bank) a copy of your insurance policy. Your insurance agent also keeps a copy of your policy on file. All three copies of your auto insurance policy comprise the form set.

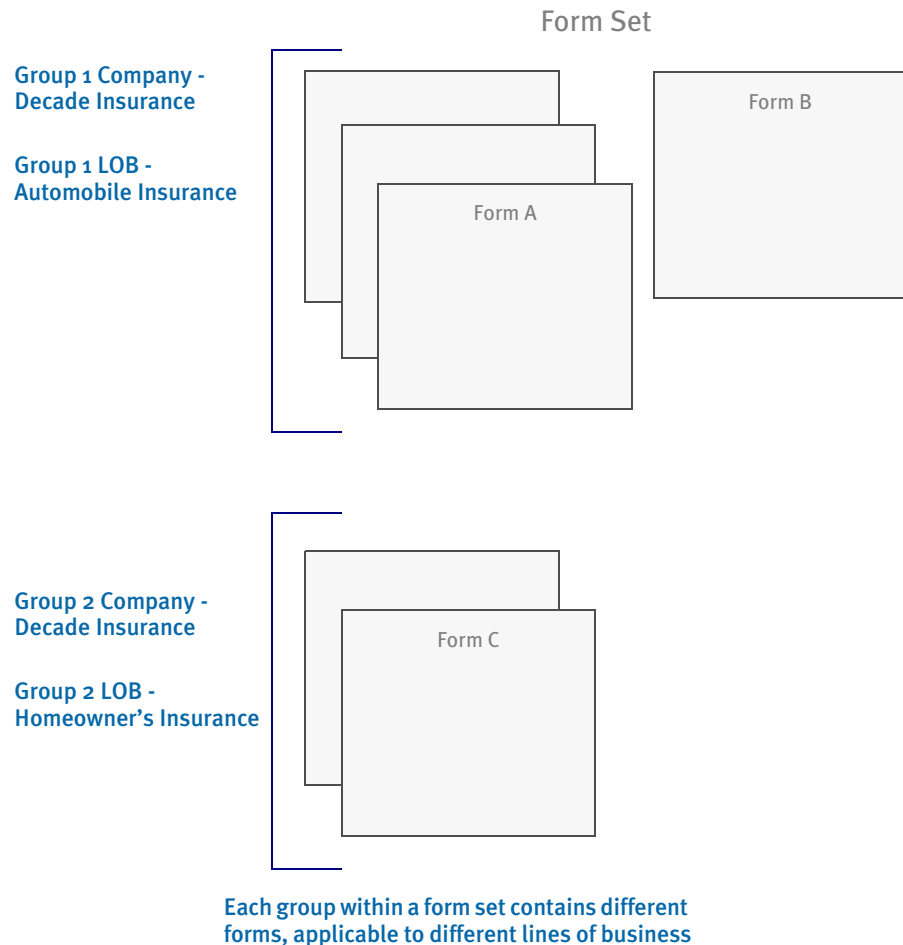
Form sets
consist of one
or more forms



A form set is the top level in the form set hierarchy. Lower level objects in descending order are: Groups, Forms, Images, and Recipients.



Group A group defines the specific company name, and the specific line of business of a form set. A single company with multiple lines of business comprises separate groups; one group for each line of business (LOB) in the company. For example, a company called Decade Insurance Company underwrites automobile, and homeowner's insurance. Each different insurance type is considered a separate line of business.



As shown above, the form set for this company has two groups in the form set:

- Decade Insurance/Automobile
- Decade Insurance/Homeowner's

Insurance policies that cover multiple lines of business for a single policy owner are called umbrella policies or package policies.

For example, the Decade Insurance Company may also underwrite policies under a subsidiary company name. A company that underwrites the policies for the same line of business, or same type of insurance, using different company names would also comprise separate groups:

- Decade Insurance/Automobile Insurance
- Millennium Insurance/Automobile Insurance

Form A form is a single document containing one or more pages. Typical forms include insurance policies, tax returns, and mortgage documents.

A form can consist of one or more images

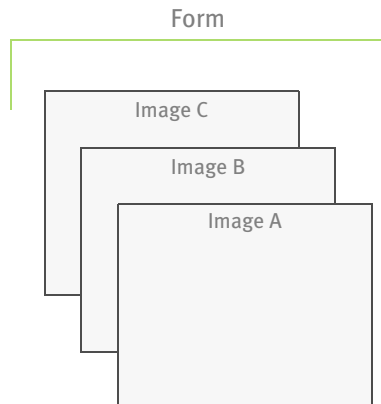
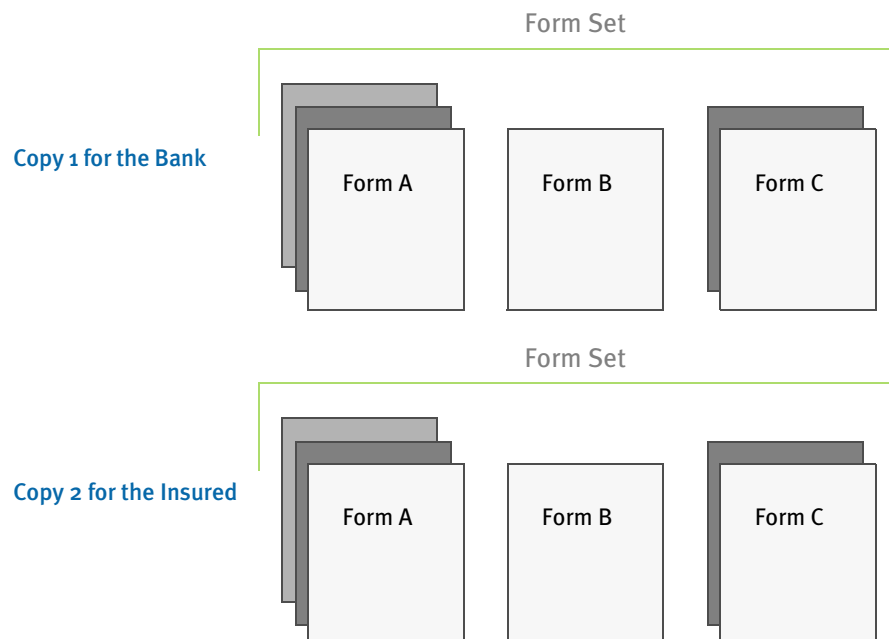


Image An image is a user defined selected grouping of text and/or graphics comprising a section of a page, or an entire page, of a form. For the Form Set Manager, a page is equivalent to one side of a sheet of paper. Each image is stored in a separate file, which lets you reuse images in various forms and form sets. Multiple images can comprise a single page, and several pages (comprised of multiple images) can comprise a single form. A three-page form with text and graphics printed on both sides of each page, contains a total of six images. Two examples of images include an insurance policy declaration page, and page one of a 1040 Federal tax return form.

Recipient A recipient is any person, company, or other entity who receives a copy or copies of a form set, or any part of a form set such as a single form, or image. Recipients include insurance policy owners (insureds), agents, lienholders, and mortgage companies.



BEFORE YOU BEGIN

When you create form sets, the Form Set Manager stores your forms information in a hierarchy with five levels. Objects at each level of the form set are represented by icons.

Selecting an object's icon opens the objects beneath it in the form set in the same way directory paths lead to a file. Double clicking an object icon displays the next level of objects beneath it. Clicking the object icon with the right mouse button displays a popup menu, which lets you work with the object and its lower level objects

To create a new form set...

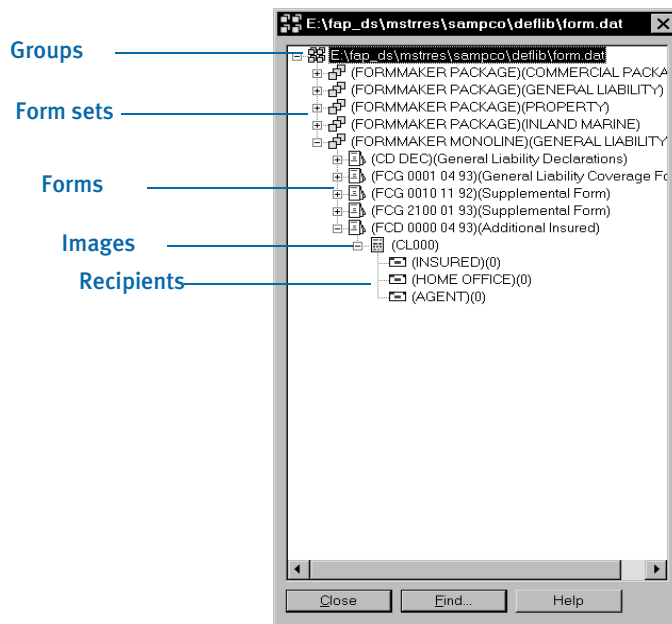
- Determine what groups to include in the form set, based on company and line of business
- Create a new form set
- Add the groups
- Add the forms
- Select form options
- Add the images
- Select image options
- Add the recipients

Once you add the objects of a form set, you maintain the form set by changing, deleting, and adding more objects (forms, images, and so on) or by changing an object's attributes.

USING THE FORM SET MANAGER

Some options in the Form Set Manager are available for working with all five objects discussed above. Other options are unique to a specific object. Since the first object you must create is a form set, this chapter begins with those options available for use only with form sets. They are:

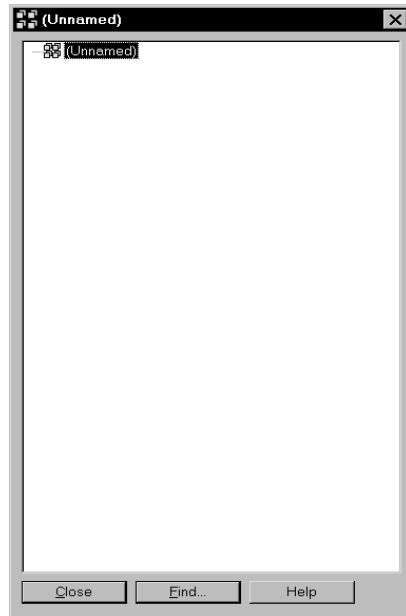
- New
- Open
- Save
- Save As
- Close
- Exit



CREATING A NEW FORM SET

The File, New option lets you create a new form set file. Once you create a new form set file, you build your form set by adding objects to the set. To create a new form set, choose File, New.

The Form Set Manager displays a window which contains an unnamed form set icon. You can now add form set objects such as groups and forms.



OPENING A FORM SET

The File, Open option lets you retrieve an existing form set file. To make changes to a form set or any object in the form set, you must first open the file. You can open a single form set, or open multiple form sets.

To open a form set stored in the default directory, follow these steps:

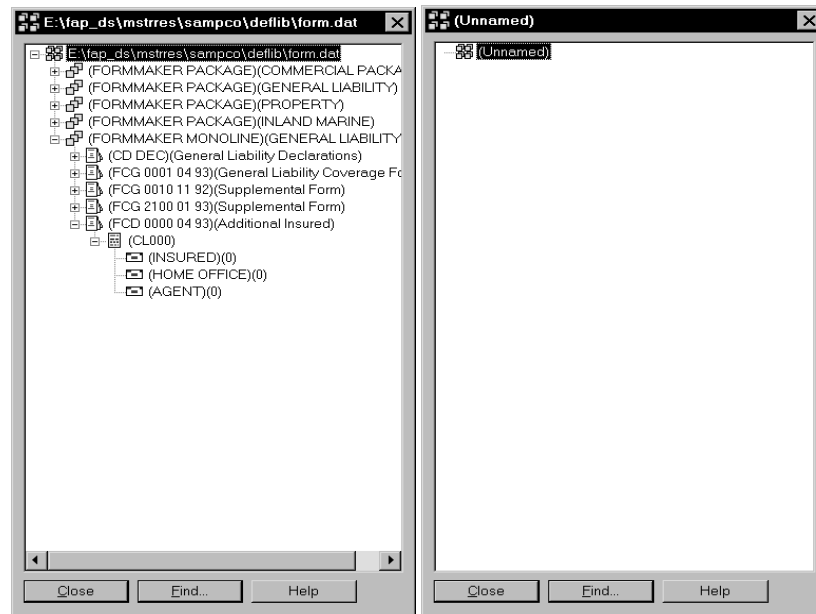
- 1 Choose File, Open. The Open File window appears. Enter the file name in the File name field, or select a file from the list of files, and click Ok. If the file is in a different directory or on a different drive, use the Folders and Drives fields to locate the form set you want. The system then displays the Open Recipient file window. If you want to modify this file, select it and click Ok. If you do not want to modify the file at this time or your library does not use this file, click Cancel.

NOTE: The file name in the Open Filename field defaults to *FORM.DAT*, or to the file name you specify in your master resource setup.

- 2 The steps for opening a set recipient table are the same for opening a form set. Click Ok to open the set recipient table or Cancel to bypass selecting a set recipient table. The form set appears in your window.

NOTE: The set recipient table is used in the Rules Processor. For more information on the set recipient table, see [Setting Recipients on page 511](#).

- 3 Repeat these steps to open your second form set window. If you want to create a new form set, choose New. The windows display side by side. The window with the highlighted title bar is your active window.



Opening multiple files makes it easy to view a form set upon which you want to base a new form set. You can also copy objects from one form set file into another (see [Copying Objects on page 522](#) for specific steps).

SAVING YOUR WORK

The File, Save option lets you save the active form set configuration. When creating form sets, remember to save often. To save a form set, choose File, Save.

If you have not yet named the file, the Save File window appears. Enter the name you want to assign to the file and click Ok. Use the default file extension of *DAT*.

Using the Save As Option

The File, Save As option lets you save an existing form set file under a different name. When you choose Save As, you retain the original form set file and create a new copy of the file. The copy contains all the same objects (groups, forms, images, and recipients) as your original file.

- 1 To save a form set under a new name, choose File, Save As. The Save File window appears.
- 2 Enter the new name you want to assign to this file and click Ok. Use the default file extension of *DAT*.

NOTE: If you enter the name of an existing form set, you receive a message stating that the form set exists. If you answer Yes to overwrite the existing form set, the system will overwrite the previous form set.

CLOSING A FORM SET

The File, Close option lets you exit the form set window you are working in. When you choose Close the system provides several options, as shown in the following table:

To...	Click this button
Save your changes	Save
Rename the form set	Save As
Exit the current form set without saving your changes	Discard
Continue working with the form set	Cancel
Display Help information	Help

If you work with a set recipient table, you are also prompted to save the set recipient table after saving the form set. See [Setting Recipients on page 511](#), for more information on the set recipient table.

EXITING THE FORM SET MANAGER

The File, Exit option lets you exit the Form Set Manager. You can save changes to your form set as you exit, or exit without saving changes. When you choose Exit, the system provides the same options for saving your work as explained in the preceding section on closing a form set.

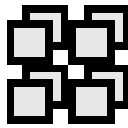
If you work with a set recipient table, you are also prompted to save the set recipient table after saving the form set. See [Setting Recipients on page 511](#), for more information on the set recipient table.

ADDING GROUPS, FORMS, IMAGES, AND RECIPIENTS

The Add button lets you add an object, including any lower level objects attached to it, to the form set. When you add an object to the form set, it will be added at the end of the current object list by default. If you want to insert it at the beginning of the list, highlight the top object in the list; then click Add. If you want to insert the object in between existing objects, select the existing object which the added object will precede then click Add.

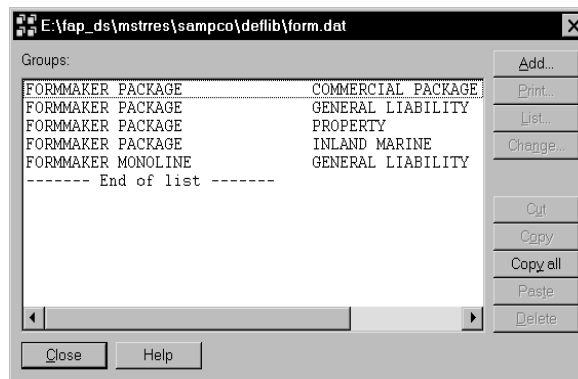
ADDING A GROUP TO A FORM SET

- 1 To add a group, open the form set to which you want to add a group. Right mouse click the Form Set icon.



A popup menu with Edit, Print, and List options appears.

- 2 Select the List option to display the Groups window.



- 3 Click Add to open the Add Group window.

00

Company:

LOB:

☐ Package

OK Cancel Help

- 4 Enter the company name in the Company field. You can enter up to 30 characters. Do not include semicolons, slashes, parentheses, brackets, commas, or pipe symbols (|).

- 5 Enter the line of business in the LOB field. You can enter up to 30 characters. Do not include semicolons, slashes, parentheses, brackets, commas, or pipe symbols (|). Click Ok to add the group to your form set. The Form Set Manager requires you to complete the remaining levels (form, image, and recipient) before you close your group.

NOTE: The Package field directly relates to forms. The package will have a check mark if any form in that company/line of business is marked as being a Master Dec. See [Adding a Form to a Group on page 492](#) for more information.

- 6 Click Close to close the Groups window.
- 7 Repeat these steps for each group you want to add. By adding groups you can further define the types of information in the form set, and the objects in each group.

ADDING A FORM TO A GROUP

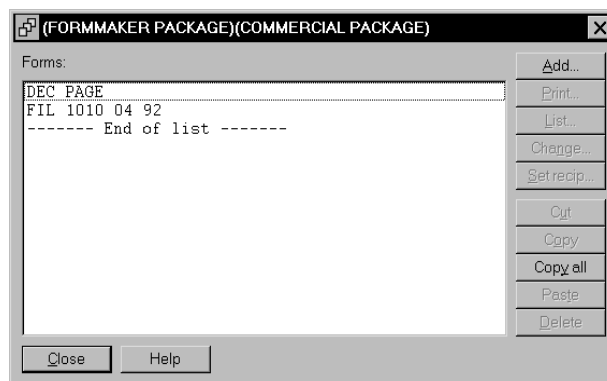
To add a form to a group, follow these instructions:

- 1 Open the form set to which you want to add a form. Right click the Group icon, shown here.



Or, you can right click the text line of the group to which you want to add the form. This will also display the popup menu.

- 2 Select List to open the Forms window.



- 3 Click Add to display the Add Form window.

- 4 Enter a name and description for the form. You can enter up to 20 characters for the name and 30 characters for the description. Do not include semicolons, slashes, parentheses, brackets, commas, or pipe symbols (|).
- 5 In the Dec Page Options field, choose from the following:

Choose	If the form is...
No Dec	Any page other than a policy Declaration page
Dec Page	A policy Declaration page
Master Dec	A Master Declaration page for the Form Set (package policy)
Sub Dec	A Sub Dec Page for one group in the form set

NOTE: When you add a form that is a Declaration page, the Is Package field in the Group window displays a check mark if the form is a Master Dec. In this situation, the check mark indicates the group and lower level objects are part of a package policy.

- 6 In the Form Options field, select from the following:

Choose	If the form is...
Required	Required in the form set
Pull	Manually inserted into the form set by the user as needed. An example of this is the policy jacket.
Hidden	Used to embed data which is not to be displayed to or printed by the user. A form marked hidden appears only on the Forms Selection window. The hidden image is a segment on a page with other images. The hidden segment never appears in the Entry module and will never print. If the hidden form is the first form in the form set, you will not be able to retrieve the form set into the Entry module.

Choose	If the form is...
Staple	Specifies which forms should be stapled. Valid for Xerox Metacode and PCL printers with the optional stapling feature.
Multi-Copy	A repeatable form; where one or more form copies can be inserted into the form set.
Overflow	Designated as overflow. For example, if a form can accept five records, and a policy holder insures a total of seven vehicles, a duplicate form generates to cover the remaining two records.

- 7 In the Size Options field, you can choose from these options (in version 11.0 or higher):

Width x Height			
Name	FAP units	Millimeters	Inches (approximate)
US letter	20400 x 26400	216 x 279	8½ x 11
US legal	20400 x 33600	216 x 356	8½ x 14
US executive	17400 x 25200	190 x 254	7¼ 10½
US ledger	40800 x 26400	432 x 279	17 x 11
US tabloid	26400 x 40800	279 x 432	11 x 17
US statement	13200 x 20400	140 x 216	5½ x 8½
US folio	20400 x 31200	216 x 330	8½ x 13
US fanfold	35700 x 26400	378 x 279	14 ⁷ / ₈ x 11
ISO A0	79464 x 112345	841 x 1189	33 ¹ / ₈ x 46¼
ISO A1	56125 x 79464	594 x 841	23 ³ / ₈ x 33 ¹ / ₈
ISO A2	39685 x 56125	420 x 594	16½ x 23 ³ / ₈
ISO A3	28063 x 39685	297 x 420	11¾ x 16½
ISO A4	19842 x 28063	210 x 297	8¼ x 11¾
ISO A5	13984 x 19842	148 x 210	5 ⁷ / ₈ x 8¼
ISO A6	9921 x 13984	105 x 148	4 ¹ / ₈ x 5 ⁷ / ₈
ISO A7	6992 x 9921	74 x 105	2 ⁷ / ₈ x 4 ¹ / ₈
ISO A8	4913 x 6992	52 x 74	2 x 2 ⁷ / ₈
ISO A9	3496 x 4913	37 x 52	1½ x 2

Name	Width x Height		
	FAP units	Millimeters	Inches (approximate)
ISO A10	2457 x 3496	26 x 37	1 x 1½
ISO 2A	112345 x 158927	1189 x 1682	46¾ x 66¼
ISO 4A	158927 x 224690	1682 x 2378	66¼ x 93⅝
ISO B0	94487 x 133605	1000 x 1414	39⅞ x 55⅞
ISO B1	66802 x 94487	707 x 1000	27⅞ x 39⅞
ISO B2	47244 x 66802	500 x 707	19⅝ x 27⅞
ISO B3	33354 x 47244	353 x 500	13⅞ x 19⅝
ISO B4	23622 x 33354	250 x 353	9⅞ x 13⅞
ISO B5	16630 x 23622	176 x 250	7 x 9⅞
ISO B6	11811 x 16630	125 x 176	5 x 7
ISO B7	8315 x 11811	88 x 125	3½ x 5
ISO B8	5858 x 8315	62 x 88	2½ x 3½
ISO B9	4157 x 5858	44 x 62	1¾ x 2½
ISO B10	2929 x 4157	31 x 44	1¼ x 1¾
ISO 2B	133605 x 188974	1414 x 2000	55¾ x 78¾
ISO 4B	188974 x 267209	2000 x 2828	78¾ x 111¼
ISO C0	86645 x 122550	917 x 1297	36⅞ x 51
ISO C1	61228 x 86645	648 x 917	25½ x 36
ISO C2	43275 x 61228	458 x 648	18 x 25½
ISO C3	30614 x 43275	324 x 458	12¾ x 18
ISO C4	21638 x 30614	229 x 324	9 x 12¾
ISO C5	15307 x 21638	162 x 229	6⅜ x 9
ISO C6	10772 x 15307	114 x 162	4½ x 6⅜
ISO C7	7653 x 10772	81 x 114	3¼ x 4½
ISO C8	5386 x 7653	57 x 81	2¼ x 3¼

Name	Width x Height		
	FAP units	Millimeters	Inches (approximate)
ISO C9	3779 x 5386	40 x 57	1 ⁵ / ₈ x 2 ¹ / ₄
ISO C10	2646 x 3779	28 x 40	1 ¹ / ₈ x 1 ⁵ / ₈
ISO DL	10394 x 20787	110 x 220	4 ¹ / ₃ x 8 ² / ₃
JIS B0	97322 x 137573	1030 x 1456	40 ¹ / ₂ x 57 ¹ / ₄
JIS B1	68787 x 97322	728 x 1030	28 ³ / ₄ x 40 ¹ / ₂
JIS B2	48661 x 68787	515 x 728	20 ¹ / ₄ x 28 ³ / ₄
JIS B3	34393 x 48661	364 x 515	14 ¹ / ₄ x 20 ¹ / ₄
JIS B4	24283 x 34393	257 x 364	10 ¹ / ₈ x 14 ¹ / ₄
JIS B5	17197 x 24283	182 x 257	7 ¹ / ₄ x 10 ¹ / ₈
JIS B6	12094 x 17197	128 x 182	5 x 7 ¹ / ₄
JIS B7	8598 x 12094	91 x 128	3 ¹ / ₂ x 5
JIS B8	6047 x 8598	64 x 91	2 ¹ / ₂ x 3 ¹ / ₂
JIS B	4252 x 6047	45 x 64	1 ³ / ₄ x 2 ¹ / ₂
JIS B10	3024 x 4252	32 x 45	1 ¹ / ₄ x 1 ³ / ₄

- 8 In the Orientation field, select from these options:

Choose	If the form prints...
Portrait	Top to bottom. For example, with an 8.5" x 11" form, the height would be 11" and the width would be 8.5".
Landscape	Left to right. For example, with an 8.5" x 11" form, the height would be 8.5" and the width would be 11".

- 9 Click Ok to add the form to your group. The Form Set Manager requires you to complete the remaining levels (image and recipient) before closing your form.
- 10 Repeat these instructions for each form you want to add. You can add an infinite number of forms to a group.

Adding an Image to a Form

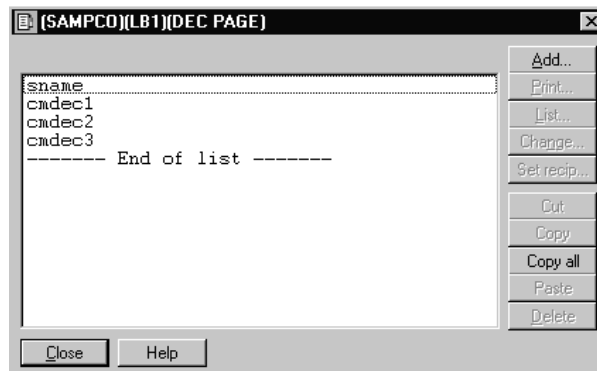
To add an image, follow these steps:

- 1 Open the form set to which you want to add an image. Right click the Form icon

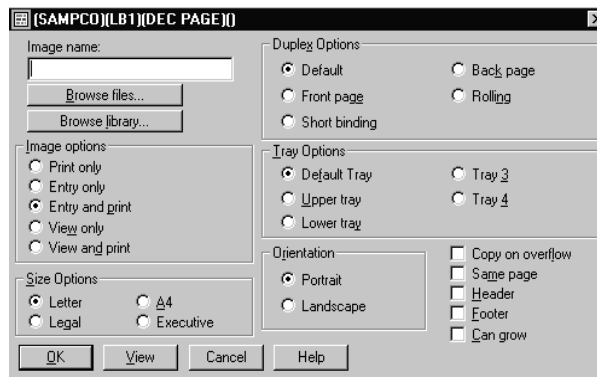


or text line of the form to which you want to add the image to display the popup menu.

- 2 Select List to open the Images window.



- 3 Before proceeding, decide where you want to insert the image. Remember that Form Set Manager adds the image at the end of the current list unless you highlight the existing image above which you want to add the new image. Once you decide where to insert the image and click Add, the Add Image window appears.



- 4 Do one of the following:

To add	Do this...
A new image	Enter a name in the Image Name field. Although Windows supports longer file names, this field allows no more than eight characters. You can add the name of an image that has not yet been created, or is being developed. After the image is created in the appropriate /forms directory (as specified in setup), you can then perform other actions on it.
An existing image	Click Browse to select the image you want to add, and click Ok. You may simply enter the name in the Image Name field.

NOTE: You can rename images after entered.

- 5 In the Image Options field, choose one of the following:

Choose	If the image...
Print Only	Is a static image which is printed, but does not contain variable fields.
Entry Only	Is for data entry only. The image contains variable fields is never printed, such as an image designed for electronic image exchange.
Entry and Print	Contains variable fields and is printed.
View Only	Displays in a window but does not contain variable fields and is never printed, such as an image used only for reference information.
View and Print	Does not contain variable fields, but is printed.
Hidden	Should not be displayed or printed by the user. A form marked hidden appears only on the Forms Selection window. The hidden image is a segment on a page with other images. The hidden segment never appears in the Entry module and will never print.

- 6 In the Duplex Options field, choose one of the following:

Choose	If the image...
Default	Prints only on single-sided pages. (not duplexed)
Front Page	Is a front page in a duplexed form (pages 1, 3, 5, and so on).

Choose	If the image...
Back Page	Is a back page in a duplexed form (pages 2, 4, 6, and so on).
Short Binding	Is a front page in a short binding duplex form (pages 1, 3, 5 and so on). Prints on both sides of paper. Odd pages print on the front, even pages print on the back. Pages are duplexed in flip chart fashion, top to bottom. You may want to set the first page to <i>Short</i> and subsequent pages to <i>Rolling</i>. This makes it easier when some forms are conditionally triggered, for example, form1/image1 - <i>short</i> form2/image2 - <i>rolling</i>(instead of back) form3/image3 - <i>rolling</i>(instead of short) form4/image4 - <i>rolling</i>(instead of back) If all four forms are triggered, images 1 and 2 print as short bind on the first page while images 3 and 4 print as short bind on the second page. If form2 was not triggered and rolling was used, image3 would appear on the back of the first page and image 4 would appear on the front of the second page. If form2 was not triggered and back/short was used, the first page would only contain image1 and the second page would contain images 3 and 4 in a short bind form. Of course, if you wanted images 3 and 4 to appear on the same piece of paper, then short/back would be the way to set it up.
Rolling	Prints on both sides of paper. Odd pages print on the front, even pages print on the back. Pages are duplexed in a book fashion, with odd pages on the right side beginning with page 1, and odd pages on the left side beginning with page 2. If a form begins with a rolling duplex option, the print drivers begin printing on the blank back page of the previous form. Any form that starts with rolling and begins a form set is treated as the front page of a rolling set.

7 In the Tray Options field, choose one of the following:

Choose	If the printer uses the...
Default	Default tray for printing.
Upper Tray	Upper tray for printing (tray paper size may vary according to printer type).
Lower Tray	Lower tray for printing (tray paper size may vary according to printer type).
Tray 3	Third tray for printing
Tray 4	Fourth tray for printing
Tray 5	Fifth tray for printing

Choose If the printer uses the...

Tray 6	Sixth tray for printing
Tray 7	Seventh tray for printing
Tray 8	Eighth tray for printing
Tray 9	Ninth tray for printing

- 8 Choose an option in the Size Options field. For an explanation of size options, see [Adding a Form to a Group on page 492](#) for more information.
- 9 Choose an option in the Orientation field. For an explanation of orientation options, see [Adding a Form to a Group on page 492](#). You can also choose from these additional options:

Choose If the image...

Copy on Overflow	Is copied onto additional pages. If the image is a header or footer, this option makes sure the image appears on the top or bottom on each subsequent page.
Same Page	Is on the same page. This option insures that the image remains on the same page and does not flow onto two or more forms.
Header	Is designated as a header image which appears at the top of a page.
Footer	Is designated as a footer image which appears at the bottom of a page.
Can Grow	Size is not fixed. This option is useful when an image contains a multi-line text field which lets the user enter varying amounts of text.
Printer Resident	Is used frequently and the text on it never changes, the system creates an overlay of this image which is stored on the printer when this option is selected. This can speed the printing process.
Background Image	Is designated as a background image. This is similar to a watermark or other full page image intended for viewing but not necessarily for print. Selecting this option indicates that an image should not move to another page regardless of the position of the image within the internal form set structure. Select both the Same Page and Background Image fields to mark the image as a background image. Keep in mind that the background image should be the first physical image on a page to make sure there are no print or display problems.

- 10 Click Ok to add the image to your form. Form Set Manager requires you to complete recipient level options prior to closing your image. See [Adding Recipients to an Image on page 501](#), for detailed instructions on adding recipients.
- 11 Repeat these instructions for each image you want to add. You can add an infinite number of images to a single form. Click Close to close the Images window and return to the Form Set window.

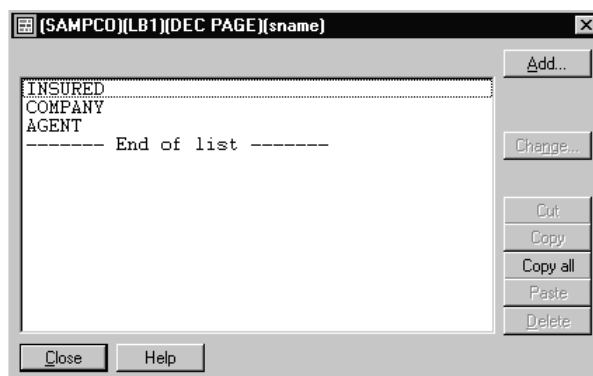
Adding Recipients to an Image

To add a recipient, follow these steps:

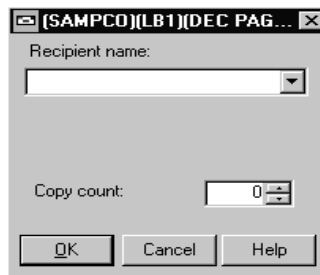
- 1 Open the form set to which you want to add a recipient.
- 2 Right click the Image icon



or text line to display the popup menu. Select List to open the Recipients window.



- 3 Click Add to display the Add Recipient window.



- 4 Enter a name in the Recipient Name field. You can enter up to 15 characters.
- 5 Select the number of copies in the Copy Count field.
- 6 Click Ok to add the recipient to the image.
- 7 Repeat steps 3-6 for each recipient you want to add. Click Close to close the recipients window and return to the form set window.

Using Variables to Set Copy Counts

You can use a GVM or DAL variable to set the copy count for images and forms triggered using the newer method known as DAL triggers. This makes it possible for the trigger script to assign the count based on user data, or in the case of GVM variables, to get a value directly from the data feed.

The key is that the DAL or GVM variable *must* have the same name as the recipient being mapped. For instance, if you are mapping the *INSURED* recipient and want to use a DAL variable, then the DAL variable must be named *INSURED* as well. Or if you want to use a GVM variable to map the copy count to the recipient *AGENT3*, then the GVM variable must be named *AGENT3*.

If the requested variable type cannot be found with the correct name, a warning message appears and the count is set to one (1).

To use a GVM variable to assign the count, enter *G* on this window where you would normally enter the copy count. Enter *D* in that location if you want to assign the count from a DAL variable.

The screenshot shows a window titled "(SAMP)CO)(LB1)(IDCARD)". It has a "Trigger Name:" dropdown set to "SOUTHERN_STATES" and a "Show Standard View" checkbox. Below is a "Recipients:" section with a table:

	Count	Recipient
☐	0	AGENT
☒	G	COMPANY
☒	D	INSURED

At the bottom are buttons: New, Delete, Prev, Next, OK, Cancel, and Help.

This is an example of a form trigger definition. If the DAL trigger *Southern_States* establishes the inclusion of the form, the Company recipient is assigned the value from the GVM variable named *COMPANY* and the Insured recipient is assigned a count from the DAL variable named *INSURED*. In this example, the Agent recipient is not assigned a count based upon this trigger.

You must establish the values assigned to the recipient named GVM and/or DAL variables referenced by the triggers prior to their use. You can do this in the trigger script or at any point before the trigger executes. Subsequent values assigned to the recipient named GVM or DAL variables do not affect forms and/or images that have already been triggered and assigned a value.

NOTE: The G and D settings are only applicable to SETRCPBT.DAT file. They do not apply to the FORM.DAT file.

Generating Optional Back Pages

For some forms, you will want the system to generate a back page to make sure the form has an even number of pages and to prevent the next form from flowing onto the back of the last page of the form. *Optional back pages* is the term used to describe pages the system generates during the print step to protect the back page.

NOTE: The attributes you use to designate the image you want the system to use when it generates an optional back page can only be combined in this manner in version 10.2 and later.

To create an optional back page, open Form Set Manager and select a FAP file. Right click and select Change. Then click the Optional Back Page field, as shown here:

Click here to designate an image as an optional back page

(FORMMAKER PACKAGE)(GENERAL LIABILITY)(CG DEC)(CGDEC~1)

Image name: CGDEC~1

Browse files...
Browse library...

Image options:
☒ Print only ☐ View only
☐ Entry only ☐ View and print
☐ Entry and print ☒ Hidden

Size Options:
 Letter

Orientation:
☒ Portrait ☐ Landscape

Duplex Options:
☐ Default ☐ Back page
☐ Front page ☒ Rolling
☐ Short binding

Tray Options:
 Default tray

☐ Copy on overflow ☐ Can grow
☐ Same page ☐ Printer resident
☐ Header ☐ Background image
☐ Footer ☒ Optional back page

OK View Cancel Help

Notice that when you check this field, the system automatically checks these fields for you:

- Hidden
- Print only
- Rolling

This combination of image attributes defines the image as an optional back page.

The FAP file you choose to represent the optional back page can contain anything you like, such as the text message *"This page is intentionally left blank."* You can also include other types of objects, including variable fields and logos.

If you want to place more than one image on the optional back page, the first image on is the only one you have to flag as the optional back page because it defines the page properties for the entire page.

Be sure to set the recipient triggers for this image and assign the desired recipients.

During GenData processing, the image is triggered and field rules apply as they do for any other image. The image options of *RAQ* are present for the image in the POLFILE.DAT file.

During GenPrint processing, images defined to print on the optional back page print only when these conditions are met:

- The recipient matches
- The first image has the options of Hidden, Print only, and a duplex option of Rolling

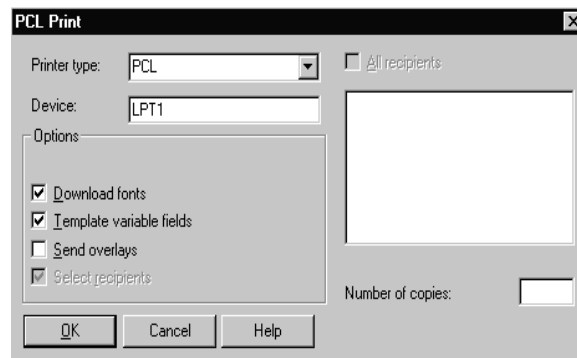
- The page is a back page

This lets you protect the back page of a form or various back pages within a form set during dynamic document printing.

PRINTING A FORM SET

Print lets you print a specific form set, including all the groups and forms that comprise the form set. To print a form set, click the form set icon or text line with the right mouse button to display the Object popup menu. Select view from the pop-up menu.

- 1 From the popup menu, click Print to display the Print window. View for group displays all images and forms for that group. View for form displays all the images for that form.



NOTE: The printing options on this window are stored in your FAPCOMP.INI file.

- 2 If necessary, change your printer type in the Printer Type field. The system displays the associated printer port in the Device field. You can change the printer port if necessary.
- 3 Depending on your system configuration, the Print window can include some or all of these options:

Option	Description
Fit to Width	Prints the full width of the image on the page.
Download Fonts	Downloads to the printer, the fonts needed to correctly print the format
Template Variable Fields	Displays Xs in place of actual variable field data on printed policy. Each X indicates a field character. You can see the actual field size by turning this option on.
Send Overlays	FAP images are compiled into HP printer language. Enhances print speed. Usually, this option is automatically selected.
Send Color	Enables color printing if a supported color printer is used.

- 4 All recipient copies print by default. To print only selected recipient copies, click the Select Recipients option, then deselect the All Recipients option. The policy recipients display in the Recipients list.
- 5 Select the recipients for whom you want to print policy copies.

- 6 If you want to increase the number of copies printed for each recipient, highlight and change the number in the Number of copies field. The number you enter multiplies the number of copies by the copy count initially set up for the recipient. For example, if you enter 2 for the number of copies in the Print window, and the initial insured copy count is two, you print a total of four copies for the insured.
- 7 Click Ok to print all copies of the form set, or Cancel to cancel the print job. If you selected GDI as your printer type, you may have to select a specific printer or device. Check with your system administrator for more information about your specific printers.

The system displays the Print Status window while it prints the form set. To stop the print job in process, click Cancel in the Print Status window.

PRINTING A GROUP

To print a group, open the form set containing the group you want to print. The system lets you print a specific group, including all the forms that comprise the group. Click the Group icon or text line with the right mouse button to display the Object popup menu.

From the popup menu, select Print to display the Print window. For an explanation of print window options, see the section above on printing a form set.

PRINTING A FORM

To print a form, open the form set containing the form you want to print. Print lets you print a specific form, including all recipient copies. Click the Form icon or text line with the right mouse button to display the Object popup menu. From the popup menu, click Print to display the Print window. For an explanation of print window options, see [Printing a Form Set on page 505](#).

PRINTING AN IMAGE

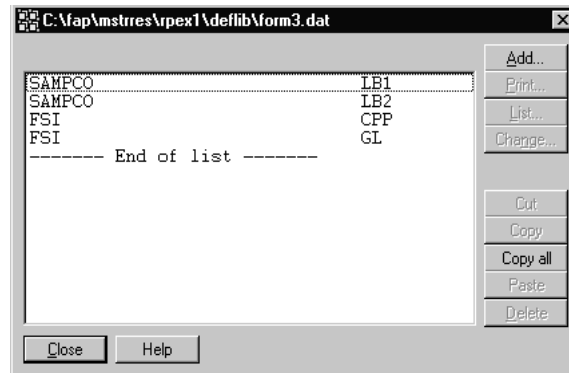
To print an image, open the form set containing the image you want to print. Print lets you print a specific image, including all recipient copies. The Form Set Manager prints each image on a separate page.

Click the Image icon or text line with the right mouse button to display the object popup menu. Click Print to display the Print window. For an explanation of print window options, see [Printing a Form Set on page 505](#).

LISTING THE OBJECTS IN A FORM SET

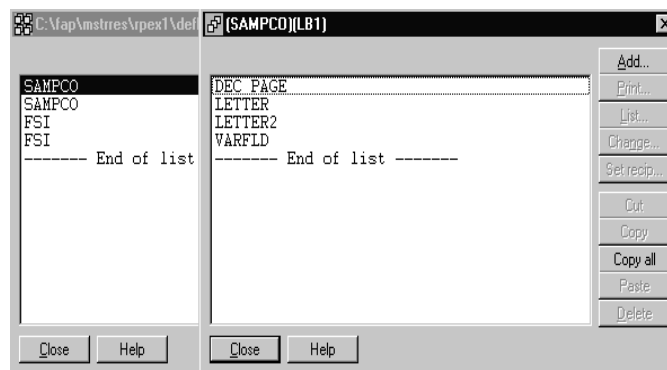
The List button provides a summary listing of all objects in the form set. When you select List from an object's popup menu, you display a list of the objects directly below it in the form set. You can display a list of objects, and display lists of lower level objects connected to an object, on the same window.

To display a list of groups, open the form set containing the groups you want to list. Right click the Form Set icon or text line and choose List from the popup menu. The Groups window displays a list of all groups attached to the form set.



To display a list of lower level objects, from the Groups window, select the group containing lower level objects you want to list. Click List to display the Forms window listing all the forms attached to the group. To display the images attached to a form, select a form and click List. You can continue selecting objects and display each subsequent level object list through the recipient level. Each window displays on top of the previous window.

NOTE: You can also double click an object shown in a list window to display a listing of objects attached to it.



Click Close in the window to close the list display.

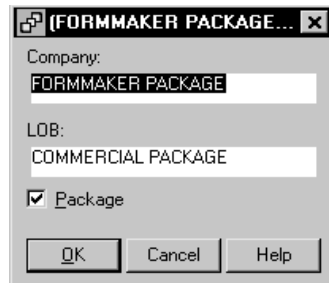
CHANGING OBJECT SETTINGS

The Change option on the popup menu lets you edit an object in a form set.

Editing Groups

To change a group, open the form set containing the group you want to change. Click the icon or text line of the group you want to change with the right mouse button, to display the object's popup menu.

From the popup menu, select Change to display the Change Group window.

The screenshot shows a dialog box titled "FORMMAKER PACKAGE...". It contains two text input fields: "Company:" with the value "FORMMAKER PACKAGE" and "LOB:" with the value "COMMERCIAL PACKAGE". Below these fields is a checked checkbox labeled "Package". At the bottom are three buttons: "OK", "Cancel", and "Help".

Change one or both of the following fields:

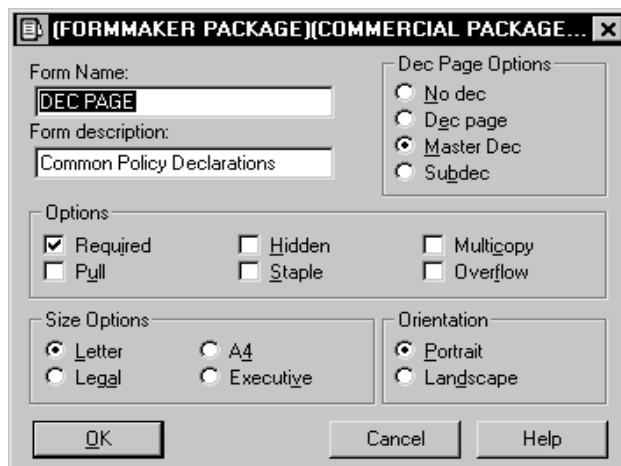
- Company name
- Line of Business

Click Ok to accept your changes.

Editing Forms

To change a form, or form options, open the form set containing the form you want to change. Click the icon or text line of the form you want to change with the right mouse button, to display the object's popup menu.

From the popup menu, select Change to display the Change Form window.

The screenshot shows a dialog box titled "(FORMMAKER PACKAGE)(COMMERCIAL PACKAGE...". It contains several sections: "Form Name:" with the value "DEC PAGE", "Form description:" with the value "Common Policy Declarations", "Dec Page Options" with radio buttons for "No dec", "Dec page", "Master Dec" (selected), and "Subdec", "Options" with checkboxes for "Required" (checked), "Hidden", "Pull", "Staple", "Multicopy", and "Overflow", "Size Options" with radio buttons for "Letter" (selected), "Legal", "A4", and "Executive", and "Orientation" with radio buttons for "Portrait" (selected) and "Landscape". At the bottom are three buttons: "OK", "Cancel", and "Help".

Change any of the following fields (see [Adding Groups, Forms, Images, and Recipients on page 491](#) for option descriptions):

- Form Name
- Form Description
- Dec Page Options
- Form Options
- Size Options
- Orientation Options

Click Ok to accept your changes.

Editing Images

To change an image, or image options, open the form set containing the image you want to change. Click the icon or text line of the image you want to change with the right mouse button, to display the object's popup menu. From the popup menu, select Change to display the Change Image window.

Change any or all of the following fields (see [Adding an Image to a Form on page 496](#) for option descriptions):

- Image name
- Image options
- Duplex options
- Tray options
- Size options
- Orientation options
- Additional options

Click Ok to accept your changes.

Viewing and Editing Images from Image Editor

On the image level, you can start Image Editor from Form Set Manager using a pop-up menu.

To start Image Editor:

- 1 Open your form definition file (FORM.DAT), in Form Set Manager.
- 2 Click the plus sign (+) icon to select the company/line of business, form, or image that you wish to modify.
- 3 Right mouse click on the image to display a pop-up menu with the Edit FAP option. Choosing Edit FAP starts Image Editor and opens the FAP file associated with that image.

Once Image Editor has been opened, you can perform all of the functions available in Image Editor, such as opening other FAP files, creating new FAP files, and so on. Once you exit image Editor you return to Form Set Manager.

Editing Recipients

To change a recipient, open the image containing the recipient you want to change. Click the icon or text line of the recipient you want to change with the right mouse button, to display the object's popup menu. From the popup menu, select Change to display the Change Recipient window.



Change either or both of the following fields:

- Recipient name
- Copy count

Click Ok to accept your changes.

SETTING RECIPIENTS

The Set Recipient option lets you define trigger information that determines when a particular form or image is included in a form set. This option applies only if your company uses the Rules Processor and it only appears on the popup menu for forms and images.

The *set recipient table* defines a set of criteria which the Rules Processor uses to determine whether or not a particular form, or image, is part of a form set. The set recipient table sets this criteria based upon the existence of some piece of data from an extract file record.

The Form Set Manager employs a graphical interface to access and modify the set recipient table. This section covers the syntax and description of the set recipient table and details the steps to access and modify the table's parameters. The end of this section covers each parameter in detail.

NOTE: If you do not use the SETRCPTB.DAT file, you can enter the following INI option to tell the system not to automatically load the recipient table when you start Form Set Manager:

```
< Control >
LoadSetRcpTb = No
```

The default is Yes.

Definition

The set recipient table is a unique file. The FSISYS.INI file is an initialization file located in the \FAP\DLL directory and at the individual library level. For the Rules Processor to use the set recipient table during a print job, you must define the file in the FSISYS.INI file at the individual library level. The change is made in the DATA control group. This INI option must reference the path of your set recipient table file to function properly.

Example:

```
[ DATA ]
SETRCPTB = SETRCPTB.DAT
```

Table format

The set recipient table is a flat ASCII file. The table conforms to a specific format with each line representing a single table entry. Each line consists of 12 semicolon delimited parameters. Some parameters contain multiple fields, each delimited by a comma. Each line is separated by a carriage return/line feed (CR/LF).

The following lines are from a sample set recipient table:

```
;ABCCOMPANY;LB1;DEC
PAGE;;T1;INSURED,HOMEOFF;11,HEADERREC,96,~O;0;1;0;1;;
;ABCCOMPANY;LB1;LETTER;;T1;INSURED,COMPANY;11,FRMLSTREC,25,1;0;1;0;1;;
;ABCCOMPANY;LB1;BILL1;;T1;INSURED,COMPANY;11,FRMLSTREC,27,1;0;1;0;1;;
;
;ABCCOMPANY;LB2;DEC
PAGE;;T1;INSURED,COMPANY;11,HEADERREC,96,~O;0;1;0;1;;
```

Syntax:

```
;COMPANY;LOB;FORM NAME;IMAGE NAME;TRANS CODE;
RECP LIST; SEARCH MASK;OCCURRENCE (overflow) FLAG; RECS/FIRST IMAGE;
RECS/OVERFLOW IMAGE;RECIP. COPY COUNT; CONDITION;(CRLF)
```

Field	Purpose
COMPANY	Company name as defined in the form set definition file (FORM.DAT) and the transaction record (TRNDFDFL.DFD)
LOB	Line of business as defined in the FORM.DAT and TRNDFDFL.DFD
FORM NAME	Form name as defined in the FORM.DAT file
IMAGE NAME	Image name as defined in the FORM.DAT file. Image name is included only when you want to set conditions on a particular image in a form.
GroupName1	Matches the GroupName1 field in the FORM.DAT file. In an insurance industry application, this would typically contain the <i>company</i> code. <Key1Table> in the FSISYS.INI file.
GroupName2	Matches the GroupName2 field in the FORM.DAT file. In an insurance industry application, this would typically contain the <i>line of business</i> code. <Key2Table> in the FSISYS.INI file.
Form name	The name of the form, as specified in the FORM.DAT file. Note: Form names are descriptive, and do not correlate to any physical file name.
Image name	The name of an image within a form, as specified in the FORM.DAT file. This name also correlates to a physical image file (.FAP file) and often to a Data Definition Table file (DDT file). Note: An image level trigger record requires an entry in this key field; a form level trigger record must omit any value in this field.
Transaction codes	By including one or more transaction codes in this field, a particular form is triggered only if the extract file record includes that particular transaction code.
Recipient list	Allows the optional specification of certain recipients.
Search mask 1 (Counter)	Defines the criteria to determine when a form belongs in a form set (or an image within a form). The criteria lets the Rules Processor get specific data from the extract file. One form (or image) is added for every occurrence of the search mask per transaction when the overflow flag is set.
Occurrence (overflow) Flag	Indicates the need to calculate overflow conditions. Valid entries are: 0=No overflow and 1=Overflow Also used for Master and Subordinate form and image level flags. Valid entries: M=master (used on form level triggers) and S=subordinate (used on image level triggers) F=tells the system to override any previous copy count settings and use the copy count settings in this trigger file (used on form level triggers) You can choose these options for the occurrence Flag field from a drop-down pick list on the Transaction window. For more information, see Occurrence (Overflow) Flag on page 519 .
Records per overflow image	(Used by overflow) Specifies the number of records matching the Counter Search Mask that will fit on the specified overflow form.

Field	Purpose
Records per first image	(Used by overflow) Specifies the number of records matching the Counter Search Mask that will fit on a specific form before overflowing to a new form.
Recipient copy count	Specifies the number of copies a recipient receives.
Search Mask 2 (True/False)	Similar to Search Mask 1, but only one form will be triggered, regardless of how many occurrences of the condition exists.
Custom Rule	Available field for use with custom rules or search masks. Most common custom rule is RecipIf.
Custom Rule Parameters	Specifies parameters for the selected custom rule.

RECORDING SET RECIPIENT INFORMATION

The Form Set Manager makes it easy to create and modify the set recipient table. The first three parameters in each set recipient table entry (Company, LOB, and Form Name) are assigned when you access the form for which you wish to set the recipient. You assign the remaining parameters in the Set Recipient window.

NOTE: There are two approaches to setting recipients and a window for each approach. The default approach is based on using DAL scripts. The legacy approach requires you to create multiple triggers with the same expression to have different counts for different recipients.

The following information explains how to set recipients using DAL scripts. For information on using the legacy Set Recipient window, see [Using the Legacy Set Recipient Window on page 516](#).

For more information on Set Recipient Table and its functionality see the [Rules Processor System Guide](#).

Here is an example of the Set Recipient window:

Click here to use the legacy
Set Recipient window

Use this field to choose
from a list of DAL scripts.

Click here to indicate which
recipients apply to this
trigger.

Enter the copy count for the
recipient if the trigger
activates the image or form.

(FORMMAKER PACKAGE)(PROPERTY)(FCP 0120 10 92)

☐ Show Legacy View

Trigger Name:

Recipients:

	Count	Recipient
☒	1	AGENT
☒	3	CUSTOM
☒	1	HOME OFFICE
☒	1	INSURED

New Delete Prev Next

OK Cancel Help

Use the Trigger Name field to select from a list of DAL routines. The DAL routines are stored in a file which has the same name as your SETRECIP.DAT file, but with the *DAL* extension. This file is located in your DAL library — where you store all your trigger subroutines.

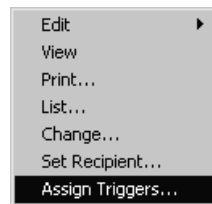
Use the first column to indicate which recipients apply to this trigger. Use the second column to enter the copy count for the recipient if the trigger activates the image or form.

Keep in mind:

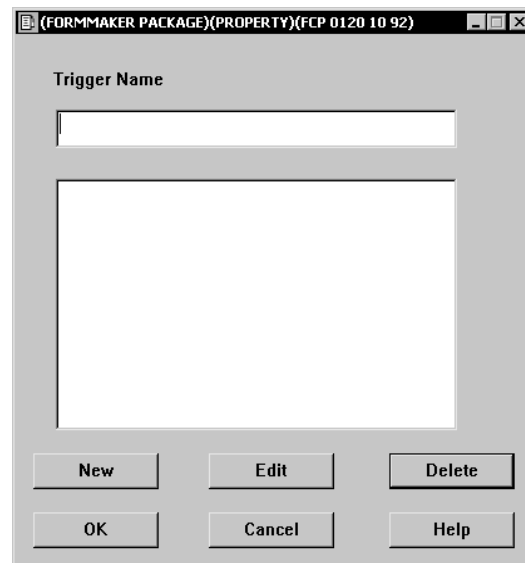
- The Set Recipient window automatically looks for files specified in your MRL setup. You can, however, use the File, Open option to open other files if you want.
- If you close a FORM.DAT file and open another one, the window for the new FORM.DAT will default to the left side if it is the only FORM.DAT open.
- If you load and edit existing triggers, you will see the legacy window with a field you can use to switch from one view to the other.
- The Transaction Codes field only appears on the legacy Set Recipient window. Use this field to list the transaction codes that apply to the trigger you want to use.

Creating triggers

To create a new trigger, highlight the form or image and right click to display this menu:



Use the Assign trigger option to display the following window:

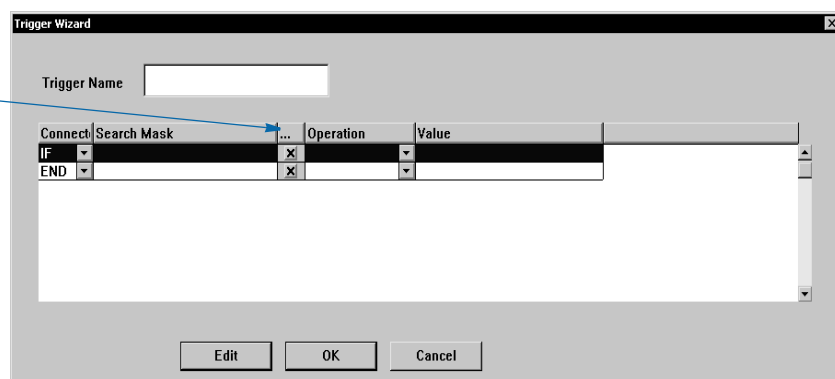


Here you can choose from a list of defined triggers. You can select a trigger, create a trigger, edit a trigger or delete a trigger on this window.

Highlight a trigger and click Edit Trigger to edit that trigger.

Click New to create a trigger. The system prompts you for the name of the trigger and to select its conditions.

Click here to choose from a list of XDB entries.

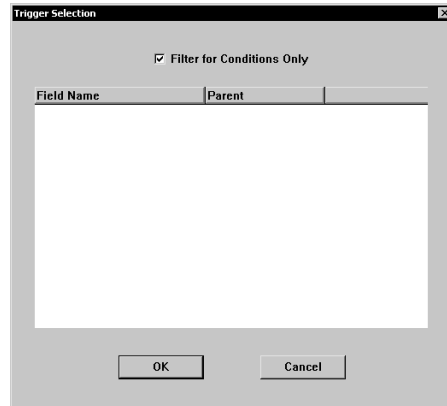


Enter a name for the trigger then use the Connector, Search Mask, Search Mask Lookup, Operation, and Value columns to define the conditions.

The first connector is *IF* and the last connector is *End*.

For Search Mask, enter the XDB Entry, in the ? look-up or Name/Parent format.

Click the Search Mask Lookup to choose from a list of XDB entries. By default, the system filters the XDB entries based on the Condition Flag. This window appears when you click the field:



Use the Operation column to tell the system how to compare the data from the Search Mask to the Value.

To add another line, change the Connector for the last line from *End* to *And* or *Or*. When you are done, click Ok or Edit to go into a Script Editor.

NOTE: The *ALWAYS* trigger is for any image or form that should always be triggered. This DAL script always returns 1. You cannot edit or delete this trigger.

You can create and edit all of your form triggers at once, before assigning them to forms or images. To do this, choose the Form Set Manager's Tools, Triggers option and follow the instructions above for creating triggers.

Using the Legacy Set Recipient Window

To record set recipient information on the legacy Set Recipient window, follow these steps:

- 1 Open the form set containing the form for which you want to set the recipient.
- 2 With the right mouse button, click the icon or text line of the form or image for which you want to set conditions for inclusion in the form set. The object's popup menu appears.
- 3 From the popup menu, click Set Recipient. The Set Recipient window appears.

NOTE: If you did not open a set recipient table when you opened the form set, or if you are creating a new form set, the Open Recipient File window appears. Select a set recipient table and click Ok. The Set Recipient window appears.

The screenshot shows a window titled "(FORMMAKER PACKAGE)(COMMERCIAL P...". It contains the following fields and controls:

- Transaction Codes: Text box with "T1".
- Recipient List: List box with "AGENT" and "HOME OFFICE".
- Search Mask (Counter): Text box with "11,HEADERREC,96~0".
- Occurrence Flag: Spin box with "0".
- Records on different first image: Spin box with "0".
- Records per overflow image: Spin box with "0".
- Recipient Copy Count: Spin box with "0".
- Search Mask (True/False): Text box.
- Custom Rule Name: Text box.
- Custom Rule Parameters: Text box.
- Buttons: New, Delete, Prev, Next, OK, Cancel, Help.

Options for forms and images are listed in the following table. For further explanation of these tags, see table item, Occurrence (overflow) flag in the section, [Setting Recipients on page 511](#).

For Forms	For Images
0	0
1	1
F	0,S
0,M	1,S
1,m	

- Complete all applicable fields in the Set Recipient window; then, click Ok. The Form Set Manager returns you to the Form Set window to continue working with your form set. For an explanation of each field, see the appropriate heading in the next section.
- Save the set recipient table when closing your form set. The Form Set Manager displays a Save window for your set recipient table after displaying the Save window for your form set.

Fields on the Set Recipient Window

This section discusses each field in the Set Recipient window. The set recipient table lets you set conditions which trigger whether a certain recipient receives a particular form. Depending upon your needs, you may not need to complete every field.

Transaction Code

The Transaction Code is a comma-delimited list of one or more transaction codes. Transaction codes specify a particular type of transaction such as new business, renewal, and endorsement. The extract file record usually contains a transaction code defining the associated transaction type. By including one or more transaction codes in this field, you can trigger a particular form only if the extract file record includes a particular transaction code. For example, by entering a *T1* or New Business transaction code, a specific form will print only if the extract file record contains the *T1* transaction code.

Transaction codes are usually two-character codes, which are contained in the source extract file.

NOTE: If the transaction code field is left blank, any transaction code will be accepted. A blank field is treated like a wildcard character providing unexpected results.

Recipient List

The Recipient List is a comma-delimited list of one or more recipients. This list defines the specific recipients that receive a copy of the form if the form meets the criteria defined in the set recipient table. Although you define recipients in this field, this does not replace specifying recipients in the actual FORM.DAT file. Rather, the set recipient table gives you the option of including or excluding specific recipients based on the existence of data.

When you enter recipients into the Recipient List field make sure that the recipient name is also defined in the form set definition table, the FORM.DAT file. If you include a recipient in the Recipient List field, but fail to define that recipient in the FORM.DAT file, the recipient will not receive a copy of the form. Because the recipient list field name is case sensitive, it must exactly match the recipient name in FORM.DAT file.

Search Mask 1 Counter

The Search Mask field lets you set the criteria to determine whether or not a form is included in the form set. The Search Mask data you enter is necessary for the Rules Processor to obtain specific data from the extract file. Depending on your Search Mask entries, you can trigger the inclusion of forms based on the existence or lack of specific data in the extract record.

For example, your company handles property insurance. In cases when the client requests coverage on a warehouse, a special addendum form is required. In this situation, you enter a Search Mask to verify that coverage for a warehouse has been requested. When the Rules Processor runs, it searches the extract file for existence of data in a certain field. If the extract file contains this data, it triggers the set recipient table to include the form.

The Search Mask consists of one or more pairs of data (offset, data). An example of a Search Mask entry, and a table defining the parameters, appears below:

```
11, HEADERREC, 25, 1, 96, ~0
```

The syntax is:

```
OFFSET, DATA, OFFSET, DATA, OFFSET, DATA...
```

Parameter	Description
OFFSET	The beginning position of data in the extract file. All offsets are 1 based, meaning that the first character in a record is position 1, not position 0.
DATA	The specific item of data to search for beginning at position OFFSET. The DATA parameter is case sensitive. For example, XYZ is not the same as XyZ. You can also trigger the inclusion of a form based on the absence or non-match of specific data. By placing a tilde (~) before the DATA, the form triggers only if the extract file does not contain the specified DATA record.

In the example above, Search Mask Entry, (11,HEADERREC,25,1,96,~o) causes a form to trigger only if each of the following conditions are met:

At offset 11 (the 11th character in the extract file), the character string *HEADERREC* appears. At offset 25, the integer *1* appears. And, at offset 96, the integer *o* does not appear (any other character or string could appear).

You should become very familiar with the extract data file and the offset position of data before completing this field.

Occurrence (Overflow) Flag

The Occurrence Flag indicates the need to calculate overflow conditions. Enter o (zero for no overflow or 1 if you want the system to calculate overflow conditions. When the Overflow Flag is on, you must use the search mask to determine the overflow situation.

The Form Set Manager lets you choose options for the Occurrence Flag field on the Transaction window by clicking the right mouse button over any form or image and then selecting the Set Recipient option from the context menu.

For forms, you can choose from these options:

o
1
F
o,M
1,M

For Images, these options are provided:

o
1
o,S
1,S

The M and S flags control how image level triggers placed in the Occurrence (overflow) Flag field of form or image level triggers are evaluated.

The S flag, called the subordinate flag, identifies the image as subordinate to the parent or master form. The subordinate flag is enabled when you place an uppercase S in the Occurrence flag field (which is the 8th semi-colon delimited field of each table entry), and may be separated from the overflow flag (0 or 1) by a comma. As long as there is an uppercase S character in the flags field, the image will be treated as a subordinate. The S flag makes the image level trigger dependent on the successful triggering of its parent form by the form level trigger for that form. If the parent form was not triggered on its own account, such as if it was added because of an underlying non-subordinate image being triggered, then all subordinate images triggers are still ignored.

In some cases, you will have information on a form that will repeat an unknown number of times. For example, an auto insurance policy may contain a form that lists the vehicles owned by the insured. The number of vehicles varies from one insured to another, so there is no way to know how many lines will be needed to list the vehicles on the form. Overflow handles this situation.

There are two types of overflow in the transaction trigger table, forced and automatic. In this example, automatic overflow is used. In automatic overflow, the system automatically determines how many entries exist and inserts them in the form.

For example, suppose in the SETRCPTB.DAT file there is only one image level entry, which references the image IMAGE1. And, in the FORM.DAT file, IMAGE1 has a default copy count of 0, while all other images have a default copy count of 1 for each recipient. In this situation, triggering IMAGE1 will trigger the remaining images that make up the form.

In this example, the SETRCPTB.DAT entry would have set a simple counter search mask and the overflow field (called Occurrence Flag). The next two overflow-related fields would be set to 0, to indicate that this is an automatic overflow situation.

When the system executes this SETRCPTB.DAT entry, it will track of the number of records that exist in the extract file which meet this criteria and automatically insert that number of IMAGEs into the form.

Forced overflow differs from automatic overflow in that there are a set number of overflow entries on a form. For example, if a form lists all the vehicles owned by an insured, you might design the image to list up to two vehicles. For insureds with two or less vehicles, only one image is needed. For insureds with more than two vehicles, you could use another add-on image to list the remaining vehicles.

Records Per Overflow Image

The Records Per Overflow Image field lets you specify the number of records matching the search mask that can be found before triggering the same form or image.

For example, suppose there are two images in the FORM.DAT which make up the form FORM1. The first image, IMAGE1, is the main image, the second image, IMAGE2, is the overflow image. Both images have copy counts of zero (0), which lets the SETRCPTB.DAT entries control the copy counts.

The first SETRCPTB.DAT entry triggers the form for all recipients, leaving the copy count set to zero (0). The next entry sets IMAGE1s copy count to 1 if the search mask is true. The last SETRCPTB.DAT entry is the forced overflow entry. The same search criteria is used, but the overflow (Occurrence Flag) flag is set. The next two overflow fields specify how many entries are to be split among the two images. The records per overflow, specifies how many records will fit on IMAGE2. The next field, records per first image, specifies how many records will fit on the primary image IMAGE1. So, IMAGE2 will only be triggered if the search mask criteria is true and there are more than two occurrences of this record type.

Records on Different First Image

The Records on Different First Image field lets you indicate how many items of data appear on a specific form or image before overflowing to a new form or image.

For example, suppose the Records on Different First Image field is set to two, and the search mask criteria yields three matches. The first two matches print on the first form, while the third match prints on another copy of the form, if the form has an overflow designation.

Recipient Copy Count

The Recipient Copy Count field lets you define the number of copies a recipient receives if the form is added to the form set, based on the conditions defined in the search mask. In the FORM.DAT, you can have multiple copy counts--one for each recipient for each image in the form. In the SETRCPTB.DAT file, however, there is only one copy count field for each entry. A single SETRCPTB.DAT file entry can reference multiple recipients, so that single copy count field can be applied to more than one recipient.

Search Mask 2 [True/False]

This field is similar to the first Search Mask field in that it lets you set the criteria which determines whether a form is included in the form set. This field differs in that only one form will be triggered, regardless of how many occurrences of the condition are found.

See [Occurrence \(Overflow\) Flag on page 519](#) for more information on how to enter the conditions in this field.

NOTE: The system evaluates this search mask first. Once an extract file record has been found that meets the true/false search criteria, system then evaluates the counter search mask.

Custom Rule Name

The Custom Rule Name field lets you specify a custom rule to be used when the system executes conditional search criteria to determine when to include a form or image in the form set. If you have created a custom rule, enter it here. Depending on your custom rule and search mask parameters, you can trigger the inclusion of forms or images based on the conditional existence or lack of specific data in the extract record.

NOTE: When you use a custom rule, the system ignores Search Mask 1.

Custom Rule Parameters

The custom rule sets up a logical *or* statement to test for the existence of data. The parameters of the custom rule are set up within the custom rule.

MODIFYING FORM SETS

The quickest way to create new form sets or to modify existing ones is to use the Cut, Copy, Paste, Copy All, and Delete options. There are many ways to use these options. The following topics discuss these options and how you can use them.

CUTTING OBJECTS

The Cut option removes an object and all lower level objects attached to it from the form set and places them on the clipboard. Use this option with Paste, just as you would when editing in other applications.

To cut an object, open the form set containing the object you want to cut. Right click the object's icon to display the popup menu. Select Edit, Cut. The object and all lower level objects attached to it are removed from the form set and placed on the clipboard.

For instructions on pasting the object, see [Pasting Objects on page 526](#).

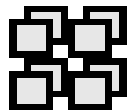
COPYING OBJECTS

The Copy option lets you copy an entire form set or any object in the form set. When you copy a form set or an object, you also copy all lower level objects (groups, forms, images, and recipients) to your new form set. Copy lets you copy an object in the same form set or copy an object to a new form set. You can copy a form set or object using menu options or by using the mouse to click and drag.

After using Copy, use Paste to place the copied form set into a new form set file.

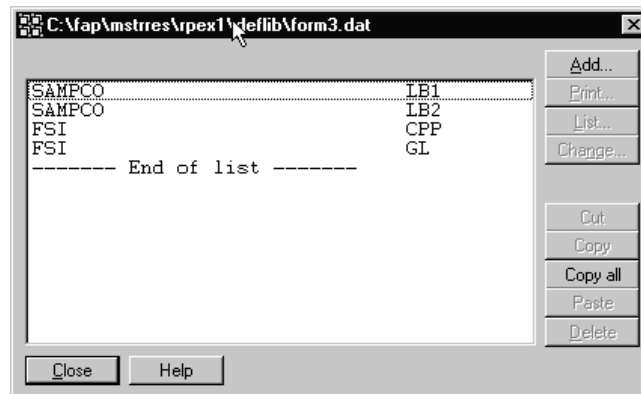
Copying Form Sets

To copy a form set using menu options, open the form set file you want to copy. Right mouse click the existing Form Set icon



or text line to display the popup menu. Select Edit, Copy. The form set is copied to the clipboard.

Another method of copying form sets using menu options is to right click the Form Set icon or text line to display the popup menu. Select List. The Groups window appears.



Choose Copy All. The form set is copied to the clipboard.

Click Close in the Groups window to close the window.

Copying Groups

To copy a group using menu options, open the form set containing the group you want to copy. Right click the Group icon or text line to display the popup menu. Select Edit, Copy. The group, including all lower level objects, is copied to the clipboard.

Another method for copying groups using menu options is to right click the Form Set icon to display the popup menu. Select List. The Groups window appears.



To copy a single group, click the group you want to copy, then click Copy. The group is copied to the clipboard. To copy all groups, click Copy All. The groups are copied to the clipboard.

Click Close in the Groups window to close the window.

Copying groups with your mouse

To copy a group using the mouse, open the form set containing the group you want to copy. Click the Group icon or text line you want to copy. Using the right mouse button, drag the icon and place it on top of one of the following object icons:

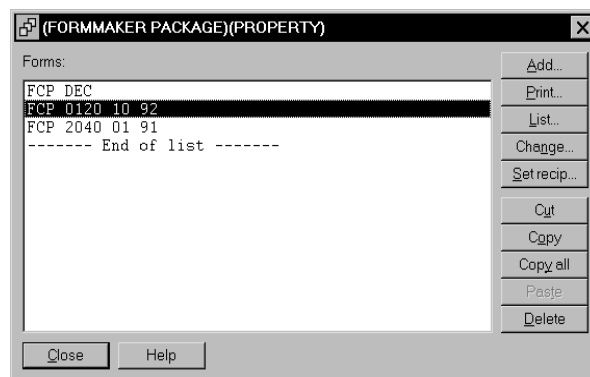
- Form Set - To add the group to the end of the form set.
- Group - To add the new group before the target group.

You now have a copy of the original group, including all lower level objects in the group (forms, images, and recipients).

Copying Forms

To copy a form using menu options, open the form set containing the form or forms you want to copy. Right click the Form icon or text line of the form you want to copy to display the popup menu. Choose Edit, Copy. The form is copied to the clipboard.

Another method of copying forms using menu options is to right click the Group icon or text line containing the forms you want to copy. The popup menu appears. Select List to display the Forms window.



To copy a single form, click the form you want to copy, then click Copy. The form is copied to the clipboard. To copy all forms, click Copy All. The forms are copied to the clipboard.

Click Close in the Forms window to close the window.

Copying forms with your mouse

To copy a form using the mouse, open the form set containing the form you want to copy. Click the icon or text line of the form you want to copy. Using the right mouse button, drag the icon and place it on top of one of the following object icons:

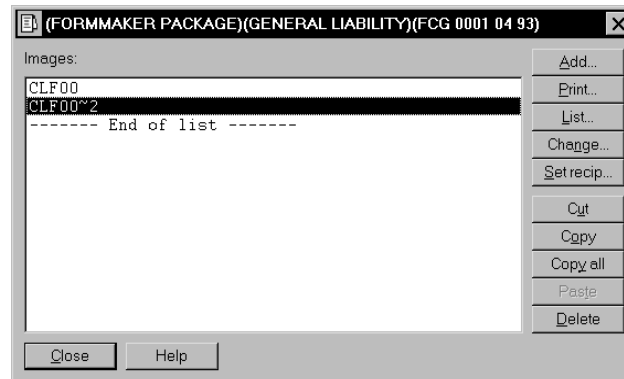
- Group - To add the form to the end of the group.
- Form - To add the new form before the target form.

You now have a copy of the original form, including all lower level objects in the form (images and recipients).

Copying Images

To copy an image using menu options, open the form set containing the image or images you want to copy. Right click the Image icon or text line of the image you want to copy to display the popup menu. Choose Edit, Copy. The image is copied to the clipboard.

Another method of copying images using menu options is to right click the Form icon or text line containing the images you want to copy. The popup menu appears. Choose List to display the Images list.



To copy a single image, click the image you want to copy, then click Copy. The image is copied to the clipboard. To copy all images, click Copy All. The images are copied to the clipboard.

Click Close in the Images window to close the window.

Copying images with your mouse

To copy an image using the mouse, open the form set containing the image you want to copy. Click the icon or text line of the image you want to copy. Using the right mouse button, drag the icon and place it on top of one of the following object icons:

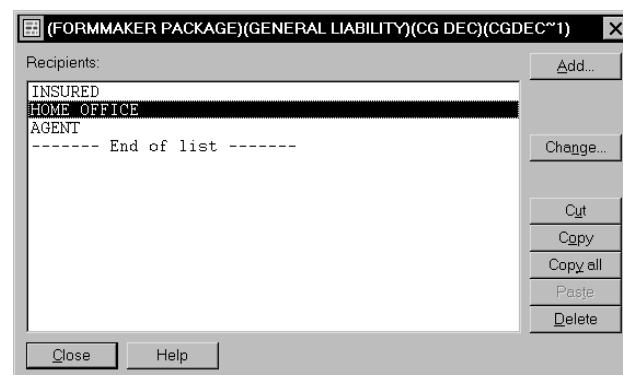
- Form - To add the image to the end of the form.
- Image - To add the new image before the target image.

You now have a copy of the original image, including all recipients in the image.

Copying Recipients

To copy a recipient using menu options, open the form set containing the recipient or recipients you want to copy. Right click the icon or text line of the recipient you want to copy to display the popup menu. Select Edit, Copy. The recipient is copied to the clipboard.

Another method of copying recipients using menu options is to right click the Image icon which contains the recipients you want to copy. From the popup menu, select List. The Recipients window appears.



To copy a single recipient, click the recipient you want to copy, then click Copy. The recipient is copied to the clipboard. To copy all recipients, click Copy All.

Copying recipients with your mouse

Click Close to close the Recipients window.

To copy a recipient using the mouse, open the form set containing the recipient you want to copy. Click the icon or text line of the recipient you want to copy. Using the right mouse button, drag the icon and place it on top of one of the image or recipient icons.

NOTE: An image cannot contain two of the same recipients (two agents, two insureds, and so on). The Form Set Manager only lets you copy recipients to different images or across form set windows.

COPYING ALL OBJECTS

The Copy All option copies all objects in a list window to the clipboard. When you use Copy All, all lower level objects attached to the object list are copied as well. After using Copy All, use Paste to place the objects in a new form set or in the same form set. For more information on using Copy All, see the preceding section.

PASTING OBJECTS

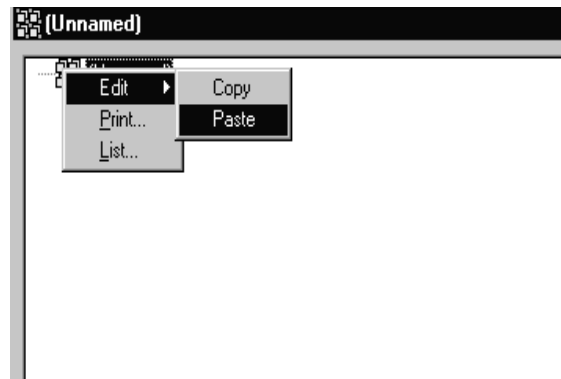
The Paste option lets you paste a previously copied form set into a new form set file or paste a previously copied object into a new or existing form set. Before using Paste you must first copy an object or form set. See the two preceding sections for information on how to copy.

To paste a copied object at the end of an object list, right click the object level above it and select Edit, Paste from the popup menu. For example, to paste a form at the end of a group's form list, right click the group's icon and select Edit, Paste from the popup menu. The pasted form's icon will now appear at the bottom of the group's form icons. To paste the form at the top or among the other forms, right click the form icon above which you want to paste the copied form and select Edit, Paste from the popup menu.

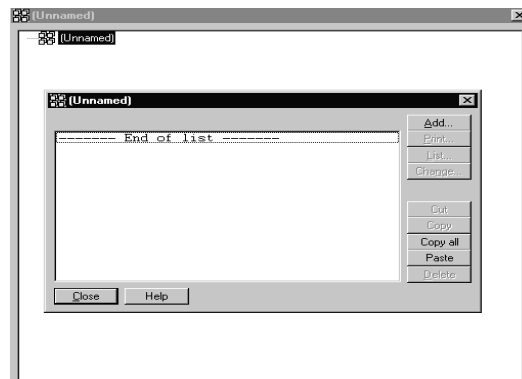
Detailed instructions on pasting specific objects appear below.

Pasting Form Sets

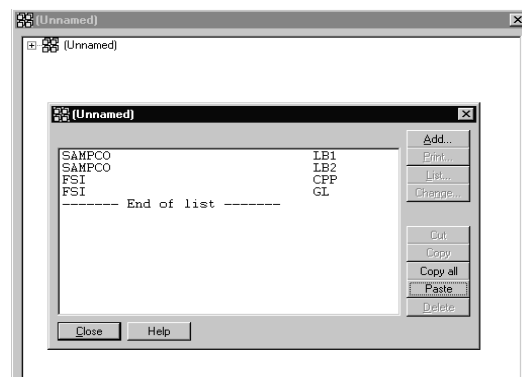
To paste a form set, right click the Form Set icon or text line of the new form set to display the popup menu. Select Edit, Paste. The original form set, including all lower level objects is pasted into your new form set.



Another method for pasting a form set, is to right click the Form Set icon or text line of your newly-created form set. From the popup menu, choose List. The Groups window appears.

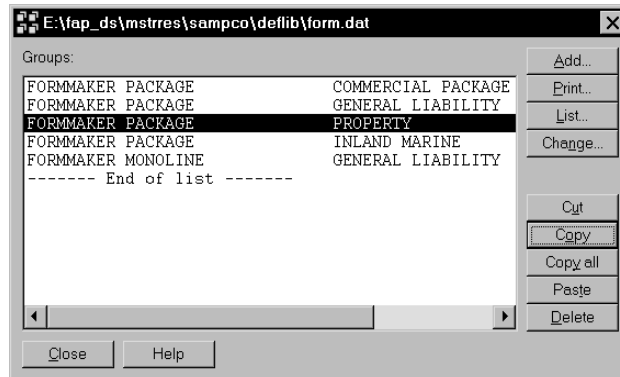


Click Paste. The groups from the original form set, including all lower level objects, are pasted into your new form set. Click Close in the Groups window to close the window, and continue working with your form set.



Pasting Groups

To paste a group, right click the Form Set icon or text line of the form set that you want to paste the previously copied group to. Choose List from the popup menu. The Groups window appears.

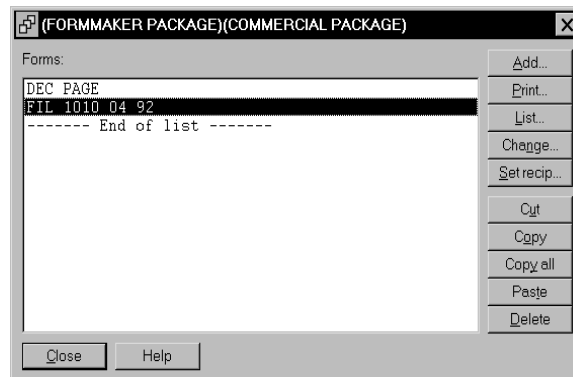


You can paste groups anywhere in a form set: before, in between, or after existing groups. The Form Set Manager will paste the copied group at the end of the current list by default. To paste the copied group before or in between existing groups, click the group above which you want to paste the copied group. Click Paste. The group you copied, including all lower level objects, is pasted into your form set.

Click Close in the Groups window to close the window, and continue working with your form set.

Pasting Forms

To paste a form, right click the Group icon or text line of the form set that you want to paste the previously copied forms to. From the popup menu, choose List. The Forms window appears.

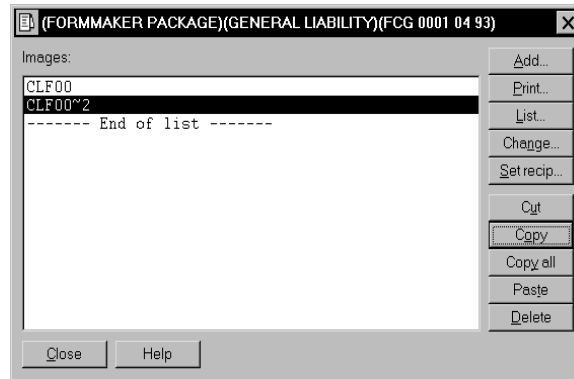


You can paste copied forms anywhere in a form set group: before, in between, or after existing forms. The Form Set Manager will paste the copied form at the end of the current list by default. To paste the copied form before or in between existing forms, click the form above which you want to paste the copied form. Click Paste. The form you copied, including all lower level objects, is pasted into your new form set group.

Click Close in the Forms window to close the window, and continue working with your form set.

Pasting Images

To paste an image, right click the Form icon or text line of the form set that you want to paste the previously copied image to. From the popup menu, choose List. The Images window appears.

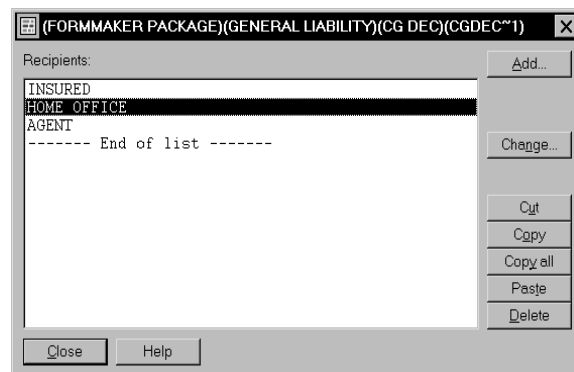


You can paste copied images anywhere in a form: before, in between, or after existing images. The Form Set Manager will paste the copied image at the end of the current list by default. To paste the copied image before or in between existing images, click the image above which you want to paste the copied image. Click Paste. The image you copied, including its recipients, is pasted into your new form set form.

Click Close in the Images window to close the window, and continue working with your form set.

Pasting Recipients

To paste a recipient, right click the Image icon or text line of the image that you want to paste the copied recipient to. Choose List from the popup menu. The Recipients window appears.



You can paste copied recipients anywhere in the image: before, in between, or after existing recipients. The Form Set Manager will paste the copied recipient at the end of the current list by default. To paste the copied recipient before or in between existing recipients, click the recipient above which you want to paste the copied recipient. Click Paste. The recipient is pasted into your image.

Click Close in the Recipients window to close the window, and continue working with your form set.

NOTE: An image cannot contain two of the same recipients (two agents, two insureds, and so on). The Form Set Manager only lets you copy recipients to different images or across form set windows.

DELETING AN OBJECT

The Delete option lets you remove an object from your form set.

NOTE: If you delete an object containing other lower level objects (forms, images, and recipients), you also delete those objects. If you change your mind and want to restore the object you deleted, choose Discard rather than Save or Save As, when you exit the Form Set Manager.

To delete an object, open the form set containing the object you want to delete. Click the object you want to delete with the right mouse button, to display the object popup menu. Choose Edit, Delete. The system lets you confirm your choice.

Click Yes to delete the object, or No to cancel.

VIEWING FORMS AND IMAGES

View lets you view all forms and images in a form set. Viewing your forms and images lets you see them in detail, and ensure you grouped them correctly in the form set.

VIEWING FORMS

To view all the forms in a group, open the form set containing the group you want to view and right mouse click the Group icon or text line to display the popup menu. Select View to display the View window. The Form Set Manager displays the first form of the group.

The screenshot shows the 'DAP Form Set Definition Editor' window. The 'Formset' menu is open, showing a list of formsets: CHARTS, VAREID, LETTER2, LETTER, and DEC PAGE. The 'DEC PAGE' formset is selected. The main area displays a form for 'SAMPKO INSURANCE COMPANY'. The form includes the following fields and sections:

- DATE OF ISSUE** and **RENEWAL OR REPLACEMENT NO.** (two separate input fields)
- ACCOUNT SUMMARY** (a section header)
- ACCOUNT NUMBER** (an input field)
- Named Insured** (a section header)
- ADDRESS** (an input field with a note: '(Number & Street, Town, County, State & Zip No.)')
- Policy Period** (an input field with a note: 'AT 12:01 A.M. STANDARD TIME') and **From:** and **To:** (two input fields)
- REPRESENTATIVE:** (a section header) with sub-fields for **Agent or Broker**, **Office Address**, and **Town and State** (three input fields)
- Business Description:** (an input field)
- IN RETURN FOR THE PAYMENT OF THE PREMIUM, AND SUBJECT OF ALL THE TERMS OF THIS POLICY, WE ACCEPT WITH US TO PROVIDE THE INSURANCE AS STATED IN THIS POLICY.** (a text line)

The status bar at the bottom shows '1) Alphanumeric FIELD 1' and 'FIELD 1'.

To view a single form, right click the Form icon or text line and choose View from the popup menu. The Form Set Manager displays the first image of the form in the View window.

Select Formset, Close from the main menu to close the View window.

VIEWING IMAGES

To view an image, right click the Image icon or text line and select View from the popup menu. The image displays in the view window.

Select Formset, Close from the main menu to close the window.

VIEWING AND PRINTING

The View and Print option lets you view then print a group, form or image. You can print directly from the View window without having to return to the Form Set window.

To View and Print an object, open the form set containing the object. Right click the object's icon and select View from the popup menu. The View window appears.

DAP Form Set Manager

File
View
Formset
Options
Window
Help

FCP DEC

F

FORMMAKER INSURANCE COMPANY
2300 Windy Ridge Parkway
Suite 400 N
Atlanta, GA 30339

COMMERCIAL PROPERTY COVERAGE PART
DECLARATIONS

POLICY NUMBER:

NAMED INSURED:

DESCRIPTION OF PREMISES:

PREM. NO. 1 BLDG. NO.

LOCATION, CONSTRUCTION AND OCCUPANCY

COVERAGES PROVIDED: INSURANCE AT THE DESCRIBED PREMISES APPLIES ONLY FOR WHICH A LIMIT OF INSURANCE IS SHOWN.

PREM. NO. 1 BLDG. NO.
COVERAGE
LIMIT OF INSURANCE
COVERED CAUSES OF LOSS
CONSUMPTION
RATES
PREMIUM

1.) Alphanumeric

POLICY NBR

POLICY NBR

From the main menu, choose:

- File, Print, Formset to print a group
- File, Print, Form to print a form
- File, Print, Page to print an image

The Form Set Manager displays the Print window. For information on Print window options, see [Printing a Form Set on page 505](#).

TESTING FIELDS

The Form Set Manager lets you view a form and test the variable fields for accuracy in accepting data. You can go through the form in data entry mode to make sure that variable fields are accepting data in the format specified and displaying all messages and prompts designed for the end user.

To test variable fields, follow these steps:

- 1 Right click the form icon to display the popup menu. Select View. The first page of the form appears.

The screenshot shows the 'DAP Form Set Manager' window. The menu bar includes File, View, Formset, Options, Window, and Help. The window title bar shows 'FCP 2040 01 91', 'FCP 0120 10 92', and 'FCP DEC'. The form content includes a logo, company name 'FORMMAKER INSURANCE COMPANY', address '2300 Windy Ridge Parkway, Suite 400 N, Atlanta, GA 30339', and the title 'COMMERCIAL PROPERTY COVERAGE PART DECLARATIONS'. Below this are input fields for 'POLICY NUMBER' and 'NAMED INSURED'. A section titled 'DESCRIPTION OF PREMISES' contains a text area. At the bottom, a table titled 'COVERAGES PROVIDED' lists various insurance coverages with columns for 'PREM. NO.', 'COV. NO.', 'COVERAGE', 'LIMIT OF INSURANCE', 'COVERED CAUSES OF LOSS', 'COINSURANCE', 'RATED', and 'PREMIUM'. The table has several rows of data.

- 2 Press TAB to highlight the first field. Enter data and press TAB to go to the next field. You can highlight a field with the mouse and enter data if you do not want to go through the entire form. Press TAB to see the data in the field.
- 3 When you finish testing variable fields, select Formset, Close from the main menu.

FINDING OBJECTS

Press the Find button to display this window and search for a specific object.

The screenshot shows the 'Find' dialog box. It has a 'Search criteria' text field and a 'Search' button. Below these are three checkboxes: 'Group', 'Form', and 'Image' (which is checked). A 'Matches:' label is above a large empty text area. At the bottom are three buttons: 'Go to', 'Close', and 'Help'.

WORKING WITH NORMALIZED FILES

The system lets you work with normalized files in AFP and Metacode format. This capability lets Documerge users view and edit forms. You can open and create *normalized* files in Image Editor and Form Set Manager.

For more information, see the following topics:

- [Using Normalized AFP Files on page 534](#)
- [Using Normalized Metacode Files on page 539](#)

NOTE: Normalized field (BPSD Tag) names cannot exceed 30 characters.

USING NORMALIZED AFP FILES

Normalized AFP files have been prepared and formatted to contain comment records and text commands necessary for Documerge to use the file as a form template. For instance, you can open normalized AFP files in Image Editor and then view, change, and print those files. You can even save the file as a FAP file or a normalized AFP file. This lets you incorporate normalized AFP files into the entire form set cycle.

Turning on normalization

To work with normalized AFP files in both Image Editor and the Form Set Manager, you must add the option shown here:

```
< Control >  
  Normalize =
```

Parameter	Description
Normalize	Specify the <i>PrtType</i> control group you want the system to use when it normalizes the files. For instance, if you create a control group called <i>PrtType:Norm</i> to contain the option you want the system to use when it normalizes AFP files, enter <i>Norm</i>. If the control group you specify is missing or is not an AFP printer group (Class=AFP), you will receive errors. Note that typically, the Class option is not set in the INI file. The Class name is normally derived from the first three letters of the Module option. If the Module is not AFPW32 (or AFPW32), and you want the system to think the control group is an AFP print group, you must set the Class option to AFP. Setting this option also enables the normalized AFP option which is available when you choose Image Editor's Tools, Convert option and also on the Documerge tab of Image Editor's Object Properties window.

Specifying the location of the output file

When you select the Tools, Convert option in the Image Editor to generate normalized AFP, the system creates normalized AFP files which have the same file name as the input file with an AFP extension, assuming that is how your system is set up.

The file is placed in the folder you specified in the EDLLib option.

```
< MasterResource >  
  EDLLib = .\EDLLIB\
```

Parameter	Description
EDLLib	Enter the name of the folder into which you want the system to place the normalized AFP file it creates. Normalized AFP files have the same extension as regular AFP files. Set up a distinct destination to separate the two types of files. If you omit this option, the file is placed in the current directory.

Also, to generate the desired AFP printer format, you must have the appropriate printer options set in the AFP printer type group, such as PrtType:AFP.

Displaying Documerge options

You can display Documerge options in the Field Database Editor. To enable these options, add this INI option to your FAPCOMP.INI file:

```
< Control >
Normalize =
```

This adds these columns to the Field Database Editor: Delete, Replacement Character, Line End Character, Generate, Multidata, and Mandatory. There are lists you can use to choose the appropriate type for Delete, Replacement Character, and Multidata.

Handling multi-line text fields and block tags

In addition to displaying and being able to change the number of columns and rows on the Documerge tab in Image Editor, you can use these INI options to specify the replacement character for the tag field. The default is X.

You can also choose to see the row number of the multi-line text fields. The default is to see the first few replacement characters in the row. Include these options in the FAPCOMP.INI file:

```
< Control >
TemplateUseReplaceChar =
TemplateNumber =
```

Option	Description
TemplateUseReplaceChar	Enter Yes to see the BPSD character instead of X, which is the default. Please note that the calculation of the width to display for each field is based on the character width of the letter X. If you choose to view the replacement characters, the exact number of characters may not appear in each row. Wider replacement characters mean fewer characters per row appear. Narrower characters mean more appear. Keep in mind that this only affects the display — the number of replacement characters per row is still contained in the document used by Documerge. Displaying the X or the replacement character gives you an idea of how much space you have on the document before it processed by Documerge and merged with actual data.
TemplateNumber	Enter Yes to see numbers on multi-line text field templates. When you enter Yes, the first few replacement characters of each row are replaced by the line numbers, so the character counts will not be exact.

Creating Normalized AFP Files

In both Image Editor and Form Set Manager, you can convert a FAP file into a normalized AFP file. In Form Set Manager, you can convert a form which consists of multiple FAP files into a single normalized AFP file.

Limitations

Keep in mind these limitations:

- There is no support for text areas with embedded fields and charts, because these features are not supported by Documerge.
- You can not mix using logos as fonts or as images. All logos must be represented as either fonts or images.
- Only BSPD tags are supported in the normalized AFP conversion.
- Normalization output does not support date, time, or bar code fields. If you want a date field, specify an alphanumeric type, then type in the format string using replacement characters.
- Normalized field (BPSD Tag) names cannot exceed 30 characters. If they are longer than 30 characters, the field names push other tag information past their intended columns and Documerge cannot process them correctly.
- Beginning with version 11.2, Image Editor can produce 300 DPI output for Documaker AFP print streams and normalized AFP files. For Documerge customers who compose AFP forms at 300 dots per inch (DPI) via Printcommander 5.x/6.x, you no longer have to convert your AFP forms to 240 DPI to use Image Editor.

The Resolution option in your AFP printer control group controls the resolution of the coordinates used to produce Documaker AFP print streams and normalized AFP files for Documerge. The Resolution option also controls the resolution of the bitmap data produced when using inline logos.

```
< PrtType:AFP >  
Resolution = 240
```

Option	Description
Resolution	You can enter 240, 300, or 600 to indicate the resolution in dots per inch (DPI). The default is 240.

Prior to version 11.2, Image Editor and Form Set Manager produced 240 dpi normalized AFP files. To use these files with AFP forms produced via Printcommander 5.x/6.x, you must tell Printcommander to produce 240 dpi normalized AFP files.

Using Image Editor

Opening a normalized AFP file

To open a normalized AFP file in Image Editor, follow these steps:

- 1 Select the File, Open option. The Open window appears.
- 2 In the List files of type field, select Normalized AFP (*.AFP).
- 3 All files of that type are displayed. Select one and click Ok.

NOTE: You must have this option set up in your INI file for the system to display the normalized AFP files:

```
< Control >
  Normalize = Yes
```

If normalized files do not appear, check your INI file.

Changing a normalized AFP file

Once the image appears, you manipulate it just as you would a regular FAP file. For instance, you can save it as a FAP or normalized AFP file, change it, or print it to any printer you have set up.

To change tag information on a variable field, double click the field to display its Properties window. Then click the Documerge tab. On the Documerge tab you can set these fields:

Field	Description
Replacement Character	Fills space until replaced by variable data. The character you choose should not occur elsewhere in the document. The space the replacement characters occupy varies based on the font. Typical replacement characters are: @ # ! "
Multi-data	Specifies the number of line feeds to generate between the lines of the variable data. Enter a numeric value from 0-9 or N to specify only one variable data item is associated with this BPSD.
Line End	Specifies a character in the variable data which identifies the end of a line of data. The default is [. To change the line end character follow this example: <pre>< PrtType:XER > LineEndChar = !</pre> The character you choose should not occur elsewhere in the document. You can only designate one character and you cannot use an equals sign (=).
Delete After Use	Enter Yes to indicate that the data specified by this Boilerplate Space Definition (BPSD) should remain available to Documerge after being used once. The default is No, which tells the system to delete the data after it is used once.
Mandatory/Optional	Also called Type. Enter M (mandatory) to tell the system to generate an error if this BPSD is missing from the variable replacement file for use during Documerge processing. Enter O (optional) to tell the system that this BPSD is optional.
Generate	Enter No if you want to type the replacement characters in a special format. The default is Yes, which tells the system that it should generate the characters.

NOTE: The Required Field on the Attributes tab and the Mandatory field on the Documerge tab serve the same purpose. When you select or deselect one field, the other reflects that change.

Converting a normalized AFP file

To convert to normalized AFP, select the Tools, Convert option. In the conversion window you have these options:

Option	Description
File Name	The name of the file you are normalizing.
Loaded Logical Bottom	The logical bottom from the loaded AFP file. Logical bottom refers to the coordinates of the lowest object on the normalized form. Documerge uses these coordinates for concatenating images right after each other that aren't considered complete pages. Documerge users want to retain this value and reuse it when normalizing, even if the logical bottom value has changed. When users want to concatenate images together, they call those images overlays and give the ones that they want concatenated afterwards a logical bottom value of zero so Documerge understands that an image will be placed right after it. If the loaded logical bottom value is zero, the loaded AFP form would be considered an overlay.
Logical Bottom Checkbox	This checkbox defaults to being checked on, which means you want to retain the loaded logical bottom value in the new normalized AFP file you are creating.
Set Logical Bottom	If the checkbox is selected, then the Set Logical Bottom is greyed out. To activate this field, deselect the checkbox and enter the logical bottom value you want. The system-calculated logical bottom value is defaulted here. Use the units of measure field to enter your own logical bottom value. The units of measure (FAP units, inches, etc.) are configurable within the Image Editor. If you want to bypass the loaded logical bottom value, you can either accept the system-calculated value, enter your own value, or click the Copy button, which will copy over the loaded value.
Image Separation	This is a margin to add between images to be concatenated together on a page.

When you finish setting your options, choose Ok to convert the file to a normalized AFP file. The converted file is placed in the directory you specified in the EDLLib option.

Using Form Set Manager

You can generate normalized AFP from an individual image or a form which consists of one or more images. When you generate normalized AFP from a form, you get a single file which is equivalent to all the images which comprised the form.

To generate normalized AFP, highlight the form or image and select Tools, Convert. The system places the converted file in directory you specified in the EDLLib option.

USING NORMALIZED METACODE FILES

You can open and create *normalized* Metacode files in Image Editor and Form Set Manager. Normalized Metacode files have been prepared and formatted to contain comment records and text commands necessary for Documerge to use the file as a form template.

For instance, you can open normalized Metacode files in Image Editor and then view, change, and print those files. You can even save the file as a FAP or a normalized Metacode file. This lets you incorporate normalized Metacode files into the entire Documaker form set cycle.

Turning on normalization

To turn on this functionality in both the Image Editor and the Form Set Manager, add the Normalize and CodeDef options to the FAPCOMP.INI file, as shown here:

```
< Control >
  Normalize   =
< PrtType:Norm >
  CodeDef     =
```

Parameter	Description
Normalize	Specify the PrtType control group you want the system to use when it normalizes the files. For instance, if you create a control group called <i>PrtType:Norm</i> to contain the option you want the system to use when it normalizes Metacode files, enter <i>Norm</i>. If the control group you specify is missing or does not appear to be a Xerox printer group (Class=XER) you will receive errors. Note that typically, the Class option is not explicitly set in the INI file. The Class name is normally derived from the first three letters of the Module option. If the Module is not XERW32 (or XERW32), and you want the system to think the control group is a Xerox print group, you must set the Class option to XER. Setting this option also enables the normalized Metacode option which is available when you choose Image Editor's Tools, Convert option and also on the Documerge tab of Image Editor's Object Properties window.
CodeDef	For loading and outputting normalized Metacode in the Image Editor, the default codedef, which is used like an ASCII to EBCDIC translation table, is <i>DCASCII9</i>. The system loads the codedef from the directory specified by the DefLib option in the MasterResource control group. To specify a different codedef, use this option. The file name you enter must be eight characters in length.

Specifying the location of the output file

When you select the Tools, Convert option in the Image Editor to generate normalized Metacode, the system creates normalized Metacode files which have the same file name as the input file with a *MET* extension. The file is placed in the folder you specified in the EDLLib option.

```
< MasterResource >
  EDLLib = .\EDLLIB\
```

Parameter	Description
EDLLib	Enter the name of the folder into which you want the system to place the normalized Metacode file it creates. Normalized Metacode files have the same file extension as regular Metacode files. Set up a distinct destination to separate the two types of files. If you omit this option, the file is placed in the current directory.

Also, to generate the desired Metacode printer format, you must have the appropriate printer options set in the Metacode printer type group, such as `PrtType:XER`.

For Normalized Metacode, the system supports the standard Documerge 4-byte ISI format of Metacode, which in the INI files is represented by setting the `OutMode` option to `MRG4`.

The system also supports the 2-byte variable (ISI 2-byte) format for loading and creating Metacode. To indicate this, set the `OutMode` option as shown here:

```
< PrtType:XER >
    OutMode = MRG2
```

Displaying Documerge options

You can display Documerge options in the Field Database Editor. To enable these options, add this INI option to your `FAPCOMP.INI` file:

```
< Control >
    Normalize =
```

This adds these columns to the Field Database Editor: Delete, Replacement Character, Line End Character, Generate, Multidata, and Mandatory. You can choose the appropriate type for Delete, Replacement Character, and Multidata.

Handling multi-line text fields and block tags

In addition to displaying and being able to change the number of columns and rows on the Documerge tab in Image Editor, you can use these INI options to specify the replacement character for the tag field. The default is `X`.

You can also choose to see the row number of the multi-line text fields. The default is to see the first few replacement characters in the row. Place these options in the `FAPCOMP.INI` file:

```
< Control >
    TemplateUseReplaceChar =
    TemplateNumber          =
```

Option	Description
TemplateUseReplaceChar	Enter Yes to see the BPSD character instead of X, which is the default. Please note that the calculation of the width to display for each field is based on the character width of the letter X. If you choose to view the replacement characters, the exact number of characters may not appear in each row. Wider replacement characters may mean fewer characters per row appear. Narrower characters may mean more appear. Keep in mind that this only affects the display — the number of replacement characters per row is still contained in the document used by Documerge. Displaying the X or the replacement character gives you an idea of how much space you have on the document before it processed by Documerge and merged with actual data.
TemplateNumber	Enter Yes to see numbers on multi-line text field templates. When you enter Yes, the first few replacement characters of each row are replaced by the line numbers, so the character counts will not be exact.

Creating Normalized Metacode Files

In both Image Editor and Form Set Manager, you can convert a FAP file into a normalized Metacode file. In Form Set Manager, you can convert a form which consists of multiple FAP files into a single normalized Metacode file.

Logos

Make sure the LOGO.DAT file is in the same directory as your logos.

Creating common font lists

To create normalized Metacode, Documerge and Printcommander users output Metacode files which have a common fonts list. This list includes all available fonts, not just those used on the form. Anytime you create normalized Metacode, be sure to create a common fonts list in your INI file by adding the CommonFonts control group, as shown here:

```
< CommonFonts >
  Name1 = FORMSX
  Name2 = FXCONB
  Name3 = FXTIBF
  Name4 = FXTIBJ
  Name5 = FXTIIO
  .
  .
  .
  Name34 = FXTIB0
  Name35 = FXTINO
  Names = 35
```

You cannot skip a number (Name1, Name2, Name3, and so on) and the Names option at the end of the control group must equal the total in the list, as shown above.

If, for instance, you had the following...

```
Name35 = FXTIB0
```

```
Name36 = FXTINO  
Names = 35
```

The font specified in the Name36 option would not be included in the normalized file. If you omit from the CommonFonts control group any of the fonts on the form you are converting to normalized Metacode, the system stops and displays a font validate error.

Be sure to include the FORMSX font. This is the standard Metacode business graphics font which is required for printing lines, boxes, and shading. Include it in your font list even if you do not plan to print graphical characters.

NOTE: In addition to setting up a common fonts list in the INI file, you must also make sure your font cross-reference file (FXR) is correct. For instance, every font being used should be in the FXR. For best results, every font listed in the common fonts list should be in the FXR.

Limitations

Keep in mind:

- There is no support for text areas with embedded fields and charts, because these features are not supported by Documerge.
- You can not mix using logos as fonts or as images. All logos must be represented as either fonts or images.
- Only BSPD tags are supported in the normalized Metacode conversion.
- Normalization output does not support date, time, or bar code fields. If you want a date field, specify an alphanumeric type, then type in the format string using replacement characters.
- Normalized field (BPSD Tag) names cannot exceed 30 characters. If they are longer than 30 characters, the field names push other tag information past their intended columns and Documerge cannot process them correctly.
- The process of normalizing Metacode files does not support optimization, so if the Optimize INI option is set to Yes, the system ignores it.

Using Image Editor

Opening a normalized Metacode file

To open a normalized Metacode file in Image Editor, follow these steps:

- 1 Select the File, Open option. The Open window appears.
- 2 In the List files of type field, select Normalized MET (*.MET).
- 3 All files of that type are displayed. Select one and click Ok.

NOTE: You must have this option set up in your INI file for the system to display the normalized Metacode files:

```
< Control >
```

Normalize = Yes

If normalized files do not appear, check your INI file.

Changing a normalized Metacode file

Once the image appears, you manipulate it just as you would a regular FAP file. For instance, you can save it as a FAP or normalized Metacode file, change it, or print it to any printer you have set up.

To change tag information on a variable field, double click the field to display its Properties window. Then click the Documerge tab. On the Documerge tab you can set these fields:

Field	Description
Replacement Character	Fills space until replaced by variable data. The space the replacement characters occupy varies based on the font. Typical replacement characters are: @ # ! "
Multi-data	Specifies the number of line feeds to generate between the lines of the variable data. Enter a numeric value from 0-9 or N to specify only one variable data item is associated with this BPSD.
Line End	Specifies a character in the variable data which identifies the end of a line of data. The default is [.
Delete After Use	Enter Yes to indicate that the data specified by this Boilerplate Space Definition (BPSD) should remain available to Documerge after being used once. The default is No, which tells the system to delete the data after it is used once.
Mandatory/Optional	Also called Type. Enter M (mandatory) to tell the system to generate an error if this BPSD is missing from the variable replacement file for use during Documerge processing. Enter O (optional) to tell the system that this BPSD is optional.
Generate	Enter No if you want to type the replacement characters in a special format. The default is Yes, which tells the system that it should generate the characters.

NOTE: The Required Field on the Attributes tab and the Mandatory field on the Documerge tab serve the same purpose. When you select or deselect one field, the other reflects that change.

Converting a normalized Metacode file

To convert to normalized Metacode, select the Tools, Convert option. The converted file is placed in the directory you specified in the EDLLib option.

Using Form Set Manager

You can generate normalized Metacode from an individual image or a form which consists of one or more images. When you generate normalized Metacode from a form, you get a single file which is equivalent to all the images which comprised the form.

To generate normalized Metacode, highlight the form or image and select the Tools, Convert option.

The system places the converted file in directory you specified in the EDLLib option.

CHAPTER 17

Field Database Editor

The field database is a centralized location where the system stores variable field attributes for the master resource library. The Field Database Editor lets you edit and manage this information.

By storing common variable field information, you can make setting up and creating FAP files faster and more consistent.

This chapter includes these topics:

- [Overview on page 546](#)
- [Opening a Field Database on page 548](#)
- [Changing a Database Record on page 549](#)
- [Inserting a Database Record on page 551](#)
- [Deleting a Database Record on page 554](#)
- [Importing a File on page 555](#)
- [Importing a File from a Library on page 556](#)
- [Packing a Database on page 556](#)

OVERVIEW

The Field Database is essentially a database of variable field processing instructions. The database contains three types of files:

- Image files
- Table files
- Help files

Each file directs the processing of attributes assigned to a variable field.

Image files

Image files are important in two places: the resource library and the Field Database. In each, the image file defines the objects that comprise the image and their attributes.

In the field database, the field database file contains all the variable field attributes associated with each variable field on an image, with the exception sequencing. You assign variable field attributes using the Properties window.

You can display this window from the Image Editor or from the Field Database Editor. The variable field properties include descriptors such as field length, field type, fonts, and field color properties.

Table files

Table files contain the records which define the tables associated with a variable field. You use the Table Editor to create the tables that the end user accesses from a variable field.

You can create the table, and consequently the table files either during the image composition process or at a later point in time. You attach table files to variable fields using the Properties window.

Help files

Help files contain the records and messages that define the help text associated with a variable field. You use the Help Editor to create the help text that the end user accesses from a variable field.

You can create the help text, and consequently the help text files either during the image composition process or at a later point in time. You can start the Help Editor from the Properties window in the Image Editor, or Docucreate. You attach table files to variable fields using the Properties window.

THE FIELD DATABASE EDITOR AND THE IMAGE EDITOR

All of the attributes of a variable field, with the exception of mapping attributes, are stored in the image file (FAP file). You can customize the image as needed. You can also use an image as a template for a new image.

Simply open the existing image and use the File, Save As option to give it a new name. Then customize the new image by modifying selected variable fields as well as other objects to meet specific requirements.

Reusability lets you meet your unique processing needs while taking advantage of previously defined forms. This saves you both time and resources.

Mapping attributes are not stored in image file. They are stored in a separate file—the *data definition table* or DDT file. This lets you place the same variable field on different forms, but having the mapping attributes for the variable fields stored in separate files. Storing the mapping attributes in separate files lets you have different mappings for the same variable field.

For example you may have Named Insured variable field on two forms—A.FAP and B.FAP. The attributes for this variable field may be the same in the image file (AB.FAP) but the mappings may need to be different. Since the mappings are stored in two files— A.DDT and B.DDT— this is not a problem.

The Field Database Editor lets you create and maintain one database used by all of your libraries or several databases used by several libraries.

You can also use the Field Database Editor to attach table and help files to individual variable fields. Table and Help files are created using the Table Editor and Help Editor modules. The Help file provides help tailored to the variable field to the user during data entry. Tables provide a list of items from which the user can select the appropriate item. This feature helps save keystrokes at data entry time.

NOTE: Information stored in the field database is stored in xBase format.

THE FIELD DATABASE EDITOR AND DATA ENTRY

As an image composer, you have designed an image with both fixed and variable objects. While the text labels and other static objects, such as lines and boxes remain fixed on the image, the variable field data varies.

The variable field is blank before a user manually enters or electronically merges text. Just as you defined the dimensions, position, and line size of a box, you must define the attributes of the variable field. The attributes not only define the display and print variables, such as field type, field format, and various flags, but also serve as a filter to detect errors or invalid data.

As a filter, these attributes protect variable fields from errors and invalid entries. For example, suppose you define a group number field to accept a three-character alphanumeric entry, and a policy number field to accept a seven-character numeric entry. If a user enters a five-digit number in the group field, the system rejects the entry as an error. Similarly, if a user enters a seven-digit alphanumeric entry in the policy number field, the system rejects the entry as an error. The variable field attributes can help to protect your data integrity and consistency.

USING THE FIELD DATABASE EDITOR

The Field Database Editor makes it easy to store common variable field information so setting up and creating FAP files is faster and more consistent. The database file contains a record for each unique variable field name, and is indexed in ascending order. Use this tool to make sure your form sets are consistent.

For example, if you have a Named Insured field, you can pull the attributes for that field into the form from the Field Database Editor. The database contains such information as name of field, font, type of variable field, help tables, and so on.

This topic tells you how to perform these tasks:

- [Opening a Field Database on page 548](#)
- [Changing a Database Record on page 549](#)
- [Inserting a Database Record on page 551](#)
- [Deleting a Database Record on page 554](#)
- [Importing a File on page 555](#)
- [Importing a File from a Library on page 556](#)
- [Packing a Database on page 556](#)

OPENING A FIELD DATABASE

Use this option to open a database. The Field Database Editor opens the data files currently located in the current resource library's directory. If the database does not exist, you must first create it using the New option. Any records contained in the database are displayed in a spreadsheet-style window.

- 1 Click on the Field Database Editor icon from Docucreate. The spreadsheet for the current resource library appears.

NOTE: If you want to open a different database, close the current database by selecting File, Close. Then use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

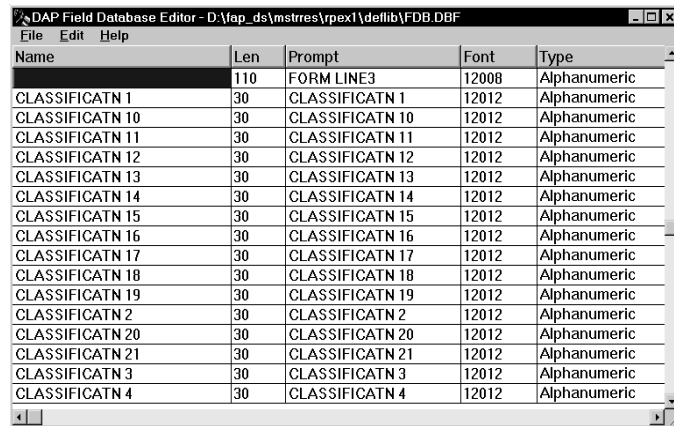
- 2 From here you can change, insert, or delete field database records.

NOTE: Although you can tell the system to open multiple files, the operating system limits the number of characters it tracks in your selection. If you get an error stating that too many files were specified, try again with fewer files.

CHANGING A DATABASE RECORD

In the spreadsheet-style window, you can edit any record in the database. Changes to a database made in one library do not default to another library. Remember, the entries are in alphabetical order, and the first column is fixed, so it always remains in view. Use the horizontal and vertical scroll bars to see the complete window.

- 1 Click on the Field Database Editor icon from Docucreate. The spreadsheet for the current resource library appears.



The screenshot shows the 'DAP Field Database Editor' window with a menu bar (File, Edit, Help) and a spreadsheet table. The table has five columns: Name, Len, Prompt, Font, and Type. The 'Name' column is fixed and contains various classification codes. The 'Len' column shows lengths of 110 or 30. The 'Prompt' column contains text like 'FORM LINE3' or 'CLASSIFICATN 1'. The 'Font' column shows font IDs like 12008 or 12012. The 'Type' column shows 'Alphanumeric'.

Name	Len	Prompt	Font	Type
	110	FORM LINE3	12008	Alphanumeric
CLASSIFICATN 1	30	CLASSIFICATN 1	12012	Alphanumeric
CLASSIFICATN 10	30	CLASSIFICATN 10	12012	Alphanumeric
CLASSIFICATN 11	30	CLASSIFICATN 11	12012	Alphanumeric
CLASSIFICATN 12	30	CLASSIFICATN 12	12012	Alphanumeric
CLASSIFICATN 13	30	CLASSIFICATN 13	12012	Alphanumeric
CLASSIFICATN 14	30	CLASSIFICATN 14	12012	Alphanumeric
CLASSIFICATN 15	30	CLASSIFICATN 15	12012	Alphanumeric
CLASSIFICATN 16	30	CLASSIFICATN 16	12012	Alphanumeric
CLASSIFICATN 17	30	CLASSIFICATN 17	12012	Alphanumeric
CLASSIFICATN 18	30	CLASSIFICATN 18	12012	Alphanumeric
CLASSIFICATN 19	30	CLASSIFICATN 19	12012	Alphanumeric
CLASSIFICATN 2	30	CLASSIFICATN 2	12012	Alphanumeric
CLASSIFICATN 20	30	CLASSIFICATN 20	12012	Alphanumeric
CLASSIFICATN 21	30	CLASSIFICATN 21	12012	Alphanumeric
CLASSIFICATN 3	30	CLASSIFICATN 3	12012	Alphanumeric
CLASSIFICATN 4	30	CLASSIFICATN 4	12012	Alphanumeric

NOTE: If you want to open a different database, close the current database by selecting File, Close. Then use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

- 2 You can edit the entry in one of two ways: by typing in the information directly onto the spreadsheet, or by going to the Properties window. To display the Properties window, highlight the entry you want to change and select the Edit, Change option.

This table provides a detailed explanation of the fields on the General and Attributes tabs on the Properties window:

Field	Description
Name	Type the variable field name in the Name field, or accept the default name of <i>Field 1</i> .
Length	Enter the field length.
Prompt	A prompt is a short amount of additional information to aid the user in entering correct variable field data. An example would be: <i>Type physician's last name</i> . You can enter up to 60 characters.
Font	Enter the font ID for the text. This is the font for the text you enter in the variable field. Or, if you are entering the information from the Field Properties window, click Fonts to display the Select Fonts window.

Field	Description
Rotation	Controls the rotation of the variable field: 0: - normal, 90-Downward, 180 - upside down, 270 - upward.
Type	Select the variable field type in the Type field. The variable field types are: <i>Custom</i> - Accepts data based on field type. Field types are customized by your system supervisor. <i>Alphanumeric</i> - Accepts both characters and numbers. <i>Int'l Alphanumeric</i> - Accepts both characters and numbers, including international characters. <i>Alphabetic</i> - Accepts only alphabetic characters (ABC). <i>Int'l Alphabetic</i> - Accepts only alphabetic characters, including international characters. <i>Uppercase Alphanumeric</i> - Accepts both uppercase characters and numbers (ABC123). Defaults text to all uppercase. <i>Int'l Uppercase Alphanumeric</i> - Accepts both uppercase characters and numbers (defaults text to all uppercase) including international characters. <i>Uppercase Alphabetic</i> - Accepts only uppercase alphabetic characters (defaults text to all upper case). <i>Int'l Uppercase Alphabetic</i> - Accepts only uppercase alphabetic characters (defaults text to all uppercase) including international characters. <i>Numeric</i> - Accepts only numbers. <i>(Y)es or (N)o</i> - Accepts the a 1 character value equivalent to Yes or No, based on the Locale selected. For example, if Locale is French/France, enter O (Oui) for yes and N (Non) for No. <i>X or Space</i> - Accepts an X or a blank space. <i>Date Format</i> - Accepts dates in the format indicated in the Format field. <i>Table only</i> - Accepts only table selections. <i>Multi-line Text</i> - Accepts multiple lines of text to which you apply word processing functions. <i>Barcode</i> - Displays bar code information. <i>Tlme</i> - Displays time formats. If you later change a variable field's type, remember to make any necessary changes in the Format field.
Format	Select the format in the Format field. Variable field formats correspond to your field type selection. When you select the variable field type, all applicable formats appear in the Format field so you can select the format you want. Here are some sample date formats: MM/DD/YY or YY/MM/DD

Field	Description
Scope	The variable field scope controls the distribution of entered data to all variable fields with identical names. Your choices are: <i>Image</i> - The system writes data to the variable field in a single image. <i>Form</i> - The system writes to all identically named variable fields throughout all images in a form. <i>Global</i> - The system writes to all identically named variable fields throughout all images and forms in a form set.
Required field	Check this field if the field is required.
Locale	Includes numeric date, yes or no
Paragraph	Display the Paragraph window to set indentation, justification, and line spacing for the multi-line text field.
Tabs	Select the length of tab stops in the multi-line text field. Default tab stops cannot exceed text area width defined during the initial setup.
Can Grow	Expands the multi-line text field as text is entered.

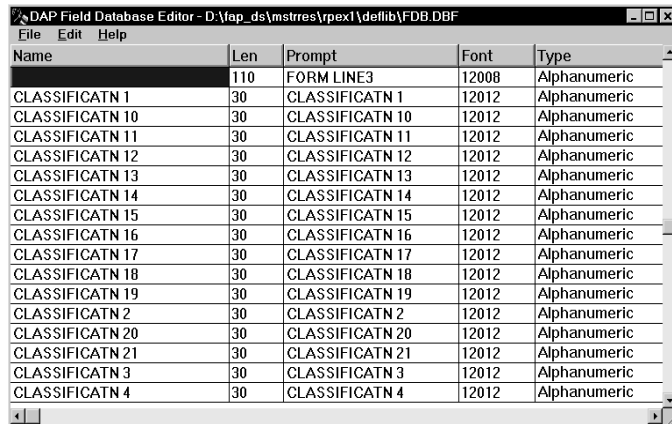
- 3 Make your entries directly into the spreadsheet, or in the Properties window. When you have completed all changes, click Ok.

INSERTING A DATABASE RECORD

Use this option to insert a new variable field into the database. Remember, the entries are in alphabetical order, and the first column is fixed, so it always appears on your screen. Use the scroll bars to see the complete window.

NOTE: If you change a variable field on a FAP file, the system *does not* default to or update all FAP files in that library.

- 1 Click on the Field Database Editor icon from Docucreate. The spreadsheet for the current resource library appears.



The screenshot shows the 'DAP Field Database Editor' window with a menu bar (File, Edit, Help) and a table of field definitions. The table has columns: Name, Len, Prompt, Font, and Type. The first row is highlighted in black.

Name	Len	Prompt	Font	Type
	110	FORM LINE3	12008	Alphanumeric
CLASSIFICATN 1	30	CLASSIFICATN 1	12012	Alphanumeric
CLASSIFICATN 10	30	CLASSIFICATN 10	12012	Alphanumeric
CLASSIFICATN 11	30	CLASSIFICATN 11	12012	Alphanumeric
CLASSIFICATN 12	30	CLASSIFICATN 12	12012	Alphanumeric
CLASSIFICATN 13	30	CLASSIFICATN 13	12012	Alphanumeric
CLASSIFICATN 14	30	CLASSIFICATN 14	12012	Alphanumeric
CLASSIFICATN 15	30	CLASSIFICATN 15	12012	Alphanumeric
CLASSIFICATN 16	30	CLASSIFICATN 16	12012	Alphanumeric
CLASSIFICATN 17	30	CLASSIFICATN 17	12012	Alphanumeric
CLASSIFICATN 18	30	CLASSIFICATN 18	12012	Alphanumeric
CLASSIFICATN 19	30	CLASSIFICATN 19	12012	Alphanumeric
CLASSIFICATN 2	30	CLASSIFICATN 2	12012	Alphanumeric
CLASSIFICATN 20	30	CLASSIFICATN 20	12012	Alphanumeric
CLASSIFICATN 21	30	CLASSIFICATN 21	12012	Alphanumeric
CLASSIFICATN 3	30	CLASSIFICATN 3	12012	Alphanumeric
CLASSIFICATN 4	30	CLASSIFICATN 4	12012	Alphanumeric

NOTE: To open a different database, close the database by selecting File, Close. Then use the File, Open option to open a different database for the library. To select a different resource library, select the File, Library Setup option. The database for that library appears.

- 2 Select the Edit, Insert Row option to insert a new field. The Field Properties window appears. Use the General and Attributes tabs to enter information in these fields:

Field	Description
Name	Type the variable field name in the Name field, or accept the default name of <i>Field 1</i> .
Length	Enter the field length.
Prompt	A prompt is a short amount of additional information to aid the user in entering correct variable field data. An example would be: <i>Type physician's last name</i> . You can enter up to 60 characters.
Font	Enter the font ID for the text. This applies to the text you enter in the variable field. Or, click Fonts to display the Select Fonts window.
Rotation	Controls the rotation of the variable field o: - normal, 90-Downward, 180 - upside down, 270 - upward.

Field	Description
Type	Select the variable field type in the Type field. The variable field types are: <i>Custom</i> - Accepts data based on field type. Field types are customized by your system supervisor. <i>Alphanumeric</i> - Accepts both characters and numbers. <i>Int'l Alphanumeric</i> - Accepts both characters and numbers, including international characters. <i>Alphabetic</i> - Accepts only alphabetic characters (ABC). <i>Int'l Alphabetic</i> - Accepts only alphabetic characters, including international characters. <i>Uppercase Alphanumeric</i> - Accepts both uppercase characters and numbers (ABC123). Defaults text to all uppercase. <i>Int'l Uppercase Alphanumeric</i> - Accepts both uppercase characters and numbers (defaults text to all uppercase) including international characters. <i>Uppercase Alphabetic</i> - Accepts only uppercase alphabetic characters (defaults text to all upper case). <i>Int'l Uppercase Alphabetic</i> - Accepts only uppercase alphabetic characters (defaults text to all uppercase) including international characters. <i>Numeric</i> - Accepts only numbers. <i>(Y)es or (N)o</i> - Accepts the a 1 character value equivalent to Yes or No, based on the Locale selected. For example, if the locale is French/France, enter O (Oui) for yes and N (Non) for No. <i>X or Space</i> - Accepts an X or a blank space. <i>Date Format</i> - Accepts dates in the format indicated in the Format field. <i>Table only</i> - Accepts only table selections. <i>Multi-line Text</i> - Accepts multiple lines of text to which you apply word processing functions. <i>Barcode</i> - Displays bar code information. <i>Tlme</i> - Displays time formats. If you later change a variable field's type, remember to make any necessary changes in the Format field.
Format	Select the format in the Format field. Variable field formats correspond to your field type selection. When you select the variable field type, all applicable formats appear in the Format field so you can select the format you want. Here are some sample date formats: MM/DD/YY or YY/MM/DD
Scope	The variable field scope controls the distribution of entered data to all variable fields with identical names. Your choices are: <i>Image</i> - The system writes data to the variable field in a single image. <i>Form</i> - The system writes to all identically named variable fields throughout all images in a form. <i>Global</i> - The system writes to all identically named variable fields throughout all images and forms in a form set.
Required field	Check this field if the field is required.

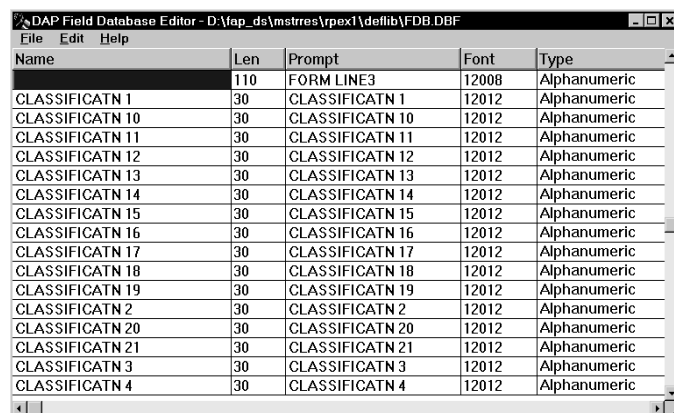
Field	Description
Locale	Includes numeric date, yes or no
Paragraph	Display the Paragraph window to set indentation, justification, and line spacing for the multi-line text field.
Tabs	Select the length of tab stops in the multi-line text field. Default tab stops cannot exceed text area width defined during the initial setup.
Can Grow	Expands the multi-line text field as text is entered.
Can Span	Extends the multi-line text field from one page to the next.
Underline	Underlines data as it is entered
Display Only	Check this field if the field is display only (no data entry).
Send Copy To	Click this field to display the image recipient's name when printed.
Hidden field	Check if the field is a hidden field. Fields are also hidden in the Entry module. Data entry operators are prompted to enter data in the field, even though it is hidden. The system propagates hidden field data, to hidden fields with the same name in the image.
Non-printing	Check if you want the field to display on the form, but not print.

- When you have finished entering all the required information about the field, click Ok. The new field is inserted in alphabetical order.

DELETING A DATABASE RECORD

Use this option to delete a database entry. Deletions made in one library do not default into another library.

- Click on the Field Database Editor icon from Docucreate. The spreadsheet for the current resource library appears.



The screenshot shows the 'DAP Field Database Editor' window with a menu bar (File, Edit, Help) and a spreadsheet table. The table has columns for Name, Len, Prompt, Font, and Type. The data is as follows:

Name	Len	Prompt	Font	Type
	110	FORM LINE3	12008	Alphanumeric
CLASSIFICATN 1	30	CLASSIFICATN 1	12012	Alphanumeric
CLASSIFICATN 10	30	CLASSIFICATN 10	12012	Alphanumeric
CLASSIFICATN 11	30	CLASSIFICATN 11	12012	Alphanumeric
CLASSIFICATN 12	30	CLASSIFICATN 12	12012	Alphanumeric
CLASSIFICATN 13	30	CLASSIFICATN 13	12012	Alphanumeric
CLASSIFICATN 14	30	CLASSIFICATN 14	12012	Alphanumeric
CLASSIFICATN 15	30	CLASSIFICATN 15	12012	Alphanumeric
CLASSIFICATN 16	30	CLASSIFICATN 16	12012	Alphanumeric
CLASSIFICATN 17	30	CLASSIFICATN 17	12012	Alphanumeric
CLASSIFICATN 18	30	CLASSIFICATN 18	12012	Alphanumeric
CLASSIFICATN 19	30	CLASSIFICATN 19	12012	Alphanumeric
CLASSIFICATN 2	30	CLASSIFICATN 2	12012	Alphanumeric
CLASSIFICATN 20	30	CLASSIFICATN 20	12012	Alphanumeric
CLASSIFICATN 21	30	CLASSIFICATN 21	12012	Alphanumeric
CLASSIFICATN 3	30	CLASSIFICATN 3	12012	Alphanumeric
CLASSIFICATN 4	30	CLASSIFICATN 4	12012	Alphanumeric

NOTE: To open a different database, close the current database by selecting File, Close. Then use File, Open to open a database for the library. To select a different resource library, select File, Library Setup. The database for that library appears.

- 2 Highlight the entry you want to delete and select Edit, Delete Row. Click Yes at the verification prompt to remove the entry from the database.

IMPORTING A FILE

The Import File option lets you import the variable field attributes of a particular FAP file (image) into the open database.

NOTE: You can import Tagcommander (TGA) files into the Field Database Editor. Tagcommander is the Docucreate Workstation software component you use to create, manage, and insert BPSDs (Boiler Plate Space Definitions). The names of BPSDs are called *tags*.

Tagcommander uses two types of files to store tags: text (TXT) files including tag name, tag width, and tag depth; and Tag Attribute (TGA) files including tag name, length, depth, and all replacement and formatting information.

- 1 Click on the Field Database Editor icon from Docucreate. The spreadsheet for the current resource library appears.

Name	Len	Prompt	Font	Type
	110	FORM LINE3	12008	Alphanumeric
CLASSIFICATN 1	30	CLASSIFICATN 1	12012	Alphanumeric
CLASSIFICATN 10	30	CLASSIFICATN 10	12012	Alphanumeric
CLASSIFICATN 11	30	CLASSIFICATN 11	12012	Alphanumeric
CLASSIFICATN 12	30	CLASSIFICATN 12	12012	Alphanumeric
CLASSIFICATN 13	30	CLASSIFICATN 13	12012	Alphanumeric
CLASSIFICATN 14	30	CLASSIFICATN 14	12012	Alphanumeric
CLASSIFICATN 15	30	CLASSIFICATN 15	12012	Alphanumeric
CLASSIFICATN 16	30	CLASSIFICATN 16	12012	Alphanumeric
CLASSIFICATN 17	30	CLASSIFICATN 17	12012	Alphanumeric
CLASSIFICATN 18	30	CLASSIFICATN 18	12012	Alphanumeric
CLASSIFICATN 19	30	CLASSIFICATN 19	12012	Alphanumeric
CLASSIFICATN 2	30	CLASSIFICATN 2	12012	Alphanumeric
CLASSIFICATN 20	30	CLASSIFICATN 20	12012	Alphanumeric
CLASSIFICATN 21	30	CLASSIFICATN 21	12012	Alphanumeric
CLASSIFICATN 3	30	CLASSIFICATN 3	12012	Alphanumeric
CLASSIFICATN 4	30	CLASSIFICATN 4	12012	Alphanumeric

NOTE: If you want to open a different database, close the current database by selecting File, Close. Then use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

- 2 Select **File, Import File** to import the field information. The **Import Common Field Database** window appears.

- 3 Select the FAP file you want to import and click Ok.

Handling repeating fields

Use the ImportUpdateDups option to handle repeating fields found during a Field Database import:

```
< FDBEditor >  
ImportUpdateDups = Yes
```

If you enter Yes, the system updates the field database (overwriting the previously entered field). The default is No, which tells the system not to update the field database.

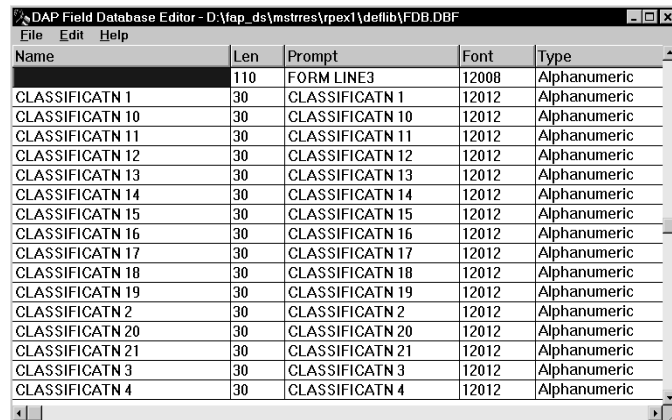
If you omit this option, a message appears to ask if you want to update the record.

Keep in mind that including this INI option disables the message so you will no longer be asked or know if duplicates are found.

IMPORTING A FILE FROM A LIBRARY

This option shows you all the FAP files checked into the library you are working in, and lets you add them to the database.

- 1 Click on the Field Database Editor icon from Docucreate. The spreadsheet for the current resource library appears.



The screenshot shows a window titled "DAP Field Database Editor - D:\fap_ds\mstres\rep1\deflib\FDB.DBF". The window contains a table with the following columns: Name, Len, Prompt, Font, and Type. The table lists various classification fields, all with a length of 30 and a font of 12012, and all of type Alphanumeric.

Name	Len	Prompt	Font	Type
	110	FORM LINE3	12008	Alphanumeric
CLASSIFICATN 1	30	CLASSIFICATN 1	12012	Alphanumeric
CLASSIFICATN 10	30	CLASSIFICATN 10	12012	Alphanumeric
CLASSIFICATN 11	30	CLASSIFICATN 11	12012	Alphanumeric
CLASSIFICATN 12	30	CLASSIFICATN 12	12012	Alphanumeric
CLASSIFICATN 13	30	CLASSIFICATN 13	12012	Alphanumeric
CLASSIFICATN 14	30	CLASSIFICATN 14	12012	Alphanumeric
CLASSIFICATN 15	30	CLASSIFICATN 15	12012	Alphanumeric
CLASSIFICATN 16	30	CLASSIFICATN 16	12012	Alphanumeric
CLASSIFICATN 17	30	CLASSIFICATN 17	12012	Alphanumeric
CLASSIFICATN 18	30	CLASSIFICATN 18	12012	Alphanumeric
CLASSIFICATN 19	30	CLASSIFICATN 19	12012	Alphanumeric
CLASSIFICATN 2	30	CLASSIFICATN 2	12012	Alphanumeric
CLASSIFICATN 20	30	CLASSIFICATN 20	12012	Alphanumeric
CLASSIFICATN 21	30	CLASSIFICATN 21	12012	Alphanumeric
CLASSIFICATN 3	30	CLASSIFICATN 3	12012	Alphanumeric
CLASSIFICATN 4	30	CLASSIFICATN 4	12012	Alphanumeric

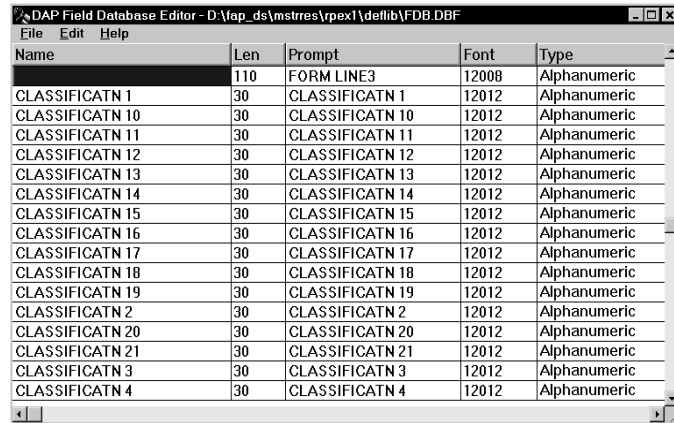
NOTE: If you want to open a different database, close the current database by selecting File, Close. Then use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

- 2 Click File, Import from library. The Select a File window appears.
- 3 Select the FAP file you want to import and click Ok.

PACKING A DATABASE

This option lets you perform maintenance on a database by packing the data. The pack option removes deleted records from the database, saving you valuable disk space.

- 1 Click on the Field Database Editor icon from Docucreate. The spreadsheet for the current resource library appears.



The screenshot shows the 'DAP Field Database Editor' window with a menu bar (File, Edit, Help) and a table of field definitions. The table has five columns: Name, Len, Prompt, Font, and Type. The first row is highlighted, showing 'FORM LINE3' with a length of 110. Subsequent rows list various 'CLASSIFICATN' fields with a length of 30, prompts like 'CLASSIFICATN 1' through 'CLASSIFICATN 21', font '12012', and type 'Alphanumeric'.

Name	Len	Prompt	Font	Type
	110	FORM LINE3	12008	Alphanumeric
CLASSIFICATN 1	30	CLASSIFICATN 1	12012	Alphanumeric
CLASSIFICATN 10	30	CLASSIFICATN 10	12012	Alphanumeric
CLASSIFICATN 11	30	CLASSIFICATN 11	12012	Alphanumeric
CLASSIFICATN 12	30	CLASSIFICATN 12	12012	Alphanumeric
CLASSIFICATN 13	30	CLASSIFICATN 13	12012	Alphanumeric
CLASSIFICATN 14	30	CLASSIFICATN 14	12012	Alphanumeric
CLASSIFICATN 15	30	CLASSIFICATN 15	12012	Alphanumeric
CLASSIFICATN 16	30	CLASSIFICATN 16	12012	Alphanumeric
CLASSIFICATN 17	30	CLASSIFICATN 17	12012	Alphanumeric
CLASSIFICATN 18	30	CLASSIFICATN 18	12012	Alphanumeric
CLASSIFICATN 19	30	CLASSIFICATN 19	12012	Alphanumeric
CLASSIFICATN 2	30	CLASSIFICATN 2	12012	Alphanumeric
CLASSIFICATN 20	30	CLASSIFICATN 20	12012	Alphanumeric
CLASSIFICATN 21	30	CLASSIFICATN 21	12012	Alphanumeric
CLASSIFICATN 3	30	CLASSIFICATN 3	12012	Alphanumeric
CLASSIFICATN 4	30	CLASSIFICATN 4	12012	Alphanumeric

NOTE: If you want to open a different database, close the current database by selecting File, Close. Then use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

- 2 Select the File, Pack option.
- 3 At the verification message, click Yes.

UPPERCASING FIELD NAMES

Use the File, Validate FDB option to uppercase field names in the Field Database Editor.

PRINTING FIELD DATABASE REPORTS

All reports generated in the Field Database Editor can be printed by selecting Print from the File menu.

CHAPTER 18

Dictionary Editor

The Dictionary Editor provides an easy way to create and maintain information about the extract files you use to merge information into variable fields on a form.

The Dictionary Editor lets you import Data Dictionary File Layout (DDF), Data File Definition (DFD), dBase IV files (DBF), COBOL Copybook files (CBL, CPY), and SAP RDI (Raw Data Interface) files. This lets you define customer data or transaction file data, and makes it easier to apply, modify, and reuse data.

This chapter includes these topics:

- [Overview on page 560](#)
- [Opening a Dictionary on page 563](#)
- [Importing a Database File on page 564](#)
- [Inserting a Record on page 565](#)
- [Copying a Record on page 567](#)
- [Deleting a Record on page 568](#)
- [Packing a Dictionary Database on page 569](#)

OVERVIEW

The Dictionary Editor defines customer data or transaction file data. The dictionary file (XDB) must be an xBase file.

The default dictionary is an xBase file named XDB.DBF which is accessed using the xBase (DBF file) library. The file layout of the dictionary is as follows:

Field	Description
Name	Specifies a unique identifier for this XDB entry
Parent	Specifies the name of parent record that this entry belongs to.
Data Length	Specifies the length of the data in the extract.
Offset	Specifies the offset of the data in the extract.
Record Flag	Set to Yes if this entry has children.
Condition Flag	Set to Yes if this entry can be used as a trigger.
Multiple Flag	Reserved for future use.
Custom Format Flag	Reserved for future use.
Type	Reserved for future use.
Format	Reserved for future use.
Rule	List any optional rule to run on this data. You can only use the DAL ? rule and the GlobalFld rule.
Mask	Include the formatting mask for the data returned by the rule.
Description	Reserved for future use.
Required Flag	Choose one of these options: Not, Host, Operator, Either.
Data	Use this optional data field for search masks and rule parameters

NOTE: All Name/Parent combinations must be unique.

The XDB database is laid out in a *parent-child* structure. The top level, *records*, are usually going to be individual records in the extract file.

NOTE: You can use the DAL ? function to retrieve data from a record in the extract file. This function uses criteria you specify to determine the:

- Rule to use to retrieve the data
- Search mask to use
- Offset and length
- Format mask

See the [DAL Reference](#) for more information on this function.

FILES USING THE DICTIONARY EDITOR

As a working part of the Data Dictionary, various loaders are needed to import different file types that contain DDF-related information into the database. The traditional DDF file is loaded and converted into the new database format along with the other file types listed. This lets you import COBOL Copybook, DDF, DFD, SAP, RDI, and xBase file definitions to build a common data dictionary.

The spreadsheet-like file contains a record for each unique variable field name, and is indexed in ascending order and grouped by source. If the source is blank, all the items that have a blank source name are grouped together. If the source name is COBOL Copybook, all those items are grouped together.

The Dictionary Editor and the Image Editor

The Image Editor stores all the attributes, with the exception of the rule mapping attributes, in the Image file (FAP file). Therefore, you can customize the image as necessary to meet your needs. Reusability lets you meet unique processing needs while taking advantage of previously defined forms. You can save a considerable amount of time and resources by taking advantage of reusable resources.

The Image Editor stores each variable field mapping attribute separately from the physical image in a DDT file. The Dictionary Editor lets you import information into a format the FAP file can use during a data merge.

When working with resource libraries, the Dictionary Editor lets you merge with information from a variety of databases.

The Dictionary Editor and the Rules Processor

The Rules Processor uses the mapping specifications stored in the dictionary to retrieve data from your database to and place it in your DDT file.

INI Options

You can also use these INI options with this tool:

```
< SymLookup >
  MaxCache      =
  LeastFrequent =
```

Option	Description
MaxCache	Determines the maximum number of records to hold in memory at any given time. The greater the number lessens the hits on the external database, but requires more system memory. The defaults is 1000.
LeastFrequent	Determines how to purge cache entries when the MaxCache number is reached. If you set this option to Yes, the system finds the least <i>frequently</i> used record and removes it from the cache to make room for a new record. If you set this option to No, the removes the least <i>recently</i> used record. The default is Yes. Set it to Yes if you are running batches which call the same symbolic names many times. Set it to No if you are running batches which have different data in each batch.

USING THE DICTIONARY EDITOR

The Dictionary Editor provides an easy way to create and maintain information about the extract files you use to merge information into variable fields on a form.

Using the Dictionary Editor, you can import DDF, DFD, DBF, and COBOL Copybook files. This lets you define customer data or transaction file data, and gives you a greater ability to apply and modify data, and increase the ease of reusing resources.

The Dictionary includes such information as source name, source file, record, offset, length, required, rule, mask, and data. This topic tells you how to perform these tasks:

- [Opening a Dictionary on page 563](#)
- [Importing a Database File on page 564](#)
- [Inserting a Record on page 565](#)
- [Copying a Record on page 567](#)
- [Deleting a Record on page 568](#)
- [Packing a Dictionary Database on page 569](#)

OPENING A DICTIONARY

Use this option to open a dictionary. The Dictionary Editor opens the data files currently pathed to the current resource library's directory. Records contained in the dictionary database appear in a spreadsheet-style window.

Click on the Dictionary Editor icon from Docucreate. The spreadsheet for the current resource library appears.

RP Dictionary Editor - XDB.DBF										
File Edit Help										
Name	Parent	Offset	Length	Record	Condition	Required	Rule	Mask	Data	
PRODUCER NAME		0	25	No	No	Not	mk_hard		DocuCorp International	
PPREVIOUS BALANCE		15	12	No	No	Not	moveenum	12.2,15.2,C,Z	1,Payments	
MLMESSAGE TEXT		15	255	No	No	Not	move_it		1,MssgLine	
SMSPECIALMESSAGE LINE		15	255	No	No	Not	move_it		1,SpecMesg	
SASERVICEADDRESS		15	63	No	No	Not	move_it		1,ServAddr	
PPREVIOUSBALANCEMSG		27	30	No	No	Not	move_it		1,Payments	
BHADDRESSNAME		49	40	No	No	Not	move_it		1,BillHead	
PPAYMENTSRECEIVED		57	12	No	No	Not	moveenum	12.2,15.2,C,Z	1,Payments	
PTOTALNETADJUSTMENTS		69	12	No	No	Not	moveenum	12.2,15.2,C,Z	1,Payments	
PBALANCEFORWARD		81	12	No	No	Not	moveenum	12.2,15.2,C,Z	1,Payments	
BHADDRESSLINE1		89	30	No	No	Not	setaddr2	F	1,BillHead 89,30,119,30,229,13,242,20,262,	
PTOTALAMOUNTDUE		93	12	No	No	Not	moveenum	12.2,15.2,C,Z	1,Payments	
PPAYTOTALAMOUNTBY		105	11	No	No	Not	move_it		1,Payments	
BHADDRESSLINE2		119	30	No	No	Not	setaddr2	N		
PDUENOWMESSAGE		128	25	No	No	Not	move_it		1,Payments	
BDMETERNUMBER		136	20	No	No	Not	move_it		1,BillDetl	
PDUEDATE		136	20	No	No	Not	move_it		@GETRECSUSED,SUBGROUP,SUBGROUP	
BDBILLPRINTDESCRIPTION		153	11	No	No	Not	move_it		1,Payments	
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move_it		@GETRECSUSED,SUBGROUP,SUBGROUP	
BHADDRESSLINE5		203	35	No	No	Not	move_it		1,BillDetl	
BHADDRESSLINE6		229	13	No	No	Not	setaddr2	N		
BDCHARGEAMOUNT		242	65	No	No	Not	setaddr2	N		
BDCHARGEAMOUNT		263	12	No	No	Not	moveenum	12.2,15.2,C,Z	1,BillDetl	
BDCHARGEAMOUNT		263	12	No	No	Not	moveenum	12.2,15.2,C,Z	@GETRECSUSED,SUBGROUP,SUBGROUP	
BHZIPCODE		263	12	No	No	Not	moveenum	12.2,15.2,C,Z	1,BillDetl	
BHACCOUNTNUMBER		265	5	No	No	Not	move_it		1,BillHead	
		307	17	No	No	Not	move_it		1,BillHead	

NOTE: If you want to open a different dictionary, close the current dictionary database by selecting File, Close. Then use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

From here, you can change, insert, or delete field database entries.

IMPORTING A DATABASE FILE

Use this option to import a file into a DBF file format. You can import into a new file, or you can import into an existing file.

NOTE: The XDB Editor lets you import XDB format data dictionaries. This file is a standard xBase file which contains the following information: name, parent, data length, offset, record flag, multiple flag, custom format flag, type, format, rule, mask, description, required flag, and data. Use this option when you need to merge two data dictionaries.

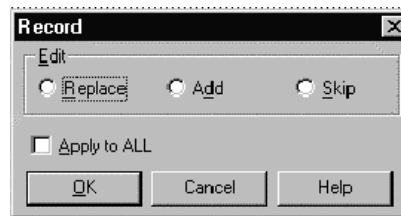
Keep in mind the data dictionary files you want to merge must be in a version 10.2 or later format. To convert an earlier format data dictionary file, use the File, Open option in the Data Dictionary Editor version 10.2 or later to open the file.

- 1 Select the Dictionary Editor icon from Docucreate. The window for the current resource library appears.

RP Dictionary Editor - XDB.DBF										
File Edit Help										
Name	Parent	Offset	Length	Record	Condition	Required	Rule	Mask	Data	
PRODUCER NAME		0	25	No	No	Not	mk_hard		DocuCorp International	
PPREVIOUS BALANCE		15	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments	
MLMESSAGE TEXT		15	255	No	No	Not	move_it		1.MssgLine	
SMSPECIALMESSAGE LINE		15	255	No	No	Not	move_it		1.SpecMesg	
SASERVICE ADDRESS		15	63	No	No	Not	move_it		1.ServAddr	
PPREVIOUSBALANCEMESSG		27	30	No	No	Not	move_it		1.Payments	
BHADDRESSNAME		49	40	No	No	Not	move_it		1.BillHead	
PPAYMENTSRECEIVED		57	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments	
PTOTALNETADJUSTMENTS		69	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments	
PBALANCEFORWARD		81	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments	
BHADDRESSLINE1		89	30	No	No	Not	setaddr2	F	1.BillHead 89,30,119,30,229,13,242,20,262,	
PTOTALAMOUNTDUE		93	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments	
PPAYTOTALAMOUNTBY		105	11	No	No	Not	move_it		1.Payments	
BHADDRESSLINE2		119	30	No	No	Not	setaddr2	N		
PDUENOVMESSAGE		128	25	No	No	Not	move_it		1.Payments	
BDMETERNUMBER		136	20	No	No	Not	move_it		1.BillDetl	
BDMETERNUMBER		136	20	No	No	Not	move_it		@GETRECSUSED,SUBGROUP,SUBGROUP	
PDUEDATE		153	11	No	No	Not	move_it		1.Payments	
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move_it		@GETRECSUSED,SUBGROUP,SUBGROUP	
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move_it		1.BillDetl	
BHADDRESSLINE5		229	13	No	No	Not	setaddr2	N		
BHADDRESSLINE6		242	65	No	No	Not	setaddr2	N		
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1.BillDetl	
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	@GETRECSUSED,SUBGROUP,SUBGROUP	
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1.BillDetlTL	
BHZIPCODE		265	5	No	No	Not	move_it		1.BillHead	
BHACCOUNTNUMBER		307	17	No	No	Not	move_it		1.BillHead	

NOTE: If you want to import into a different dictionary, close the current dictionary database by selecting File, Close. Then use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears. Or, if you want to import into a new file, close the current dictionary database and select File, New. Then enter the name of the DBF file you want to create and click Ok.

- 2 Select File, Import File to import the field information. The Import Data Dictionary window appears.
- 3 Select the type of file you want to import in the List of File Types field. As records are imported into the Data Dictionary, the system checks to see if they match existing records. If there are matches, the Record window appears:



Choose replace if you want the new record to replace the existing record. Choose Add if you want to add this record to the file. Choose Skip if you do not want to add the new record or replace an existing record.

Check Apply to All if you want to use the option you selected for all subsequent records in the import.

- 4 Highlight the file you want to import and click Ok.

INSERTING A RECORD

In the spreadsheet-style window, you can insert records into the dictionary. Changes made to a dictionary database in one library *do not* default to another library.

Remember, the entries are in alphabetical order, within the source file group. This data is grouped by source, then record, and then source name. The first column is fixed, so it is always in view. Use the scroll bars to see the complete window.

- 1 Select the Dictionary Editor icon from Docucreate. The window for the current resource library appears.

RP Dictionary Editor - XDB.DBF										
File Edit Help										
Name	Parent	Offset	Length	Record	Condition	Required	Rule	Mask	Data	
PRODUCER NAME		0	25	No	No	Not	mk hard		DocuCorp International	
PPREVIOUS BALANCE		15	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments	
MLMESSAGE TEXT		15	255	No	No	Not	move it		1,MsgLine	
SMSPECIALMESSAGE LINE		15	255	No	No	Not	move it		1,SpecMsg	
SASERVICE ADDRESS		15	63	No	No	Not	move it		1,ServAddr	
PPREVIOUSBALANCE MESSG		27	30	No	No	Not	move it		1,Payments	
BHADDRESSNAME		49	40	No	No	Not	move it		1,BillHead	
PPAYMENTSRECEIVED		57	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments	
PTOTALNETADJUSTMENTS		69	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments	
PBALANCEFORWARD		81	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments	
BHADDRESSLINE1		89	30	No	No	Not	setaddr2	F	1,BillHead 89,30,119,30,229,13,242,20,262,	
PTOTALAMOUNTDUE		93	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments	
PPAYTOTALAMOUNTBY		105	11	No	No	Not	move it		1,Payments	
BHADDRESSLINE2		119	30	No	No	Not	setaddr2	N		
PDUENOWMESSAGE		128	25	No	No	Not	move it		1,Payments	
BDMETERNUMBER		136	20	No	No	Not	move it		1,BillDetl	
BDMETERNUMBER		136	20	No	No	Not	move it		@GETRECSUSED,SUBGROUP,SUBGROUPP	
PDUEDATE		153	11	No	No	Not	move it		1,Payments	
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move it		@GETRECSUSED,SUBGROUP,SUBGROUPP	
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move it		1,BillDetl	
BHADDRESSLINE5		229	13	No	No	Not	setaddr2	N		
BHADDRESSLINE6		242	65	No	No	Not	setaddr2	N		
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1,BillDetl	
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	@GETRECSUSED,SUBGROUP,SUBGROUPP	
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1,BillDetlTL	
BHZIPCODE		265	5	No	No	Not	move it		1,BillHead	
BHACCOUNTNUMBER		307	17	No	No	Not	move it		1,BillHead	

NOTE: To open a different dictionary, close the current dictionary by selecting File, Close. Then, use the File, Library Setup option to select a different resource library.

- When you insert a row, the blank line always displays as the first line of the database, regardless of where your cursor is located. Select Edit, Insert Row to insert a blank row.
- Enter the following information in the spreadsheet:

Field	Description
Source Name	The first column in the spreadsheet provides a listing of the image's variable fields. This column is fixed. The image developer assigns the name of the variable field. Sorting order in the Data Dictionary is based on the Source File. Data should appear in the following order: blanks, data beginning with numbers, data beginning with alpha characters and international characters.
Source File	This is the name of the file the data is stored in.
Record	This is the record name from the file.
Offset	Offset of the destination field.
Length	Number of characters in a destination field.
Field Name	The name of the field.

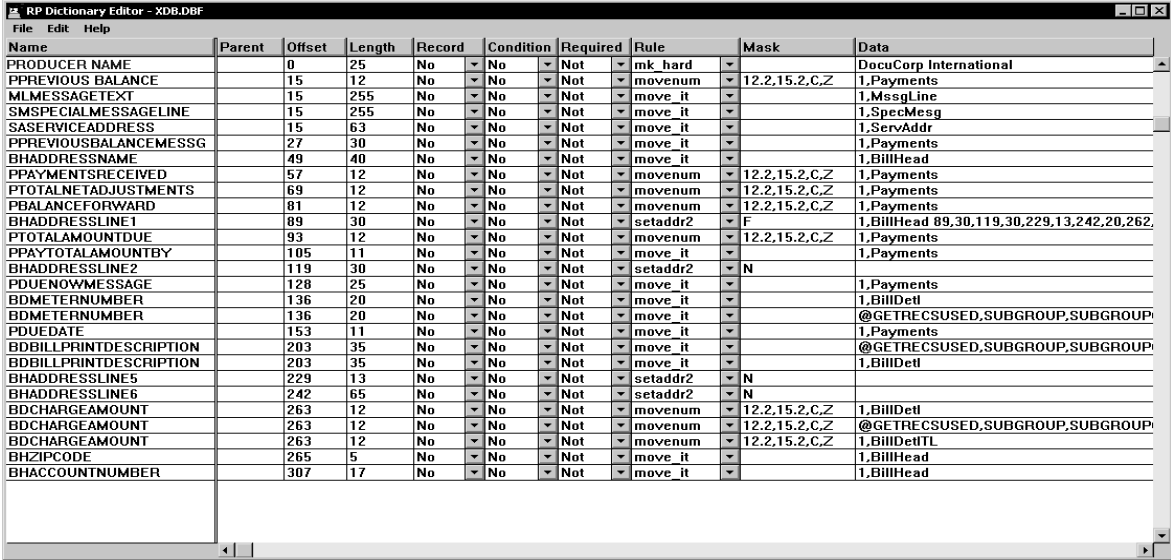
Field	Description
Required	Data requirements. Your choices are: <i>Not</i> - not required at batch run <i>Host</i> - required from a source data file during a batch run <i>Operator</i> - required as a manual entry in a Work-In-Process module, but missing data results in a warning message and the document kicks to WIP <i>Either</i> - required from a source data file during a batch run, if possible, but the user may enter the field data manually and missing data results in a warning message and the document kicks to WIP.
Rule	Name of the rule to execute.
Mask	Mask required to execute the rule.
Data	Data required to execute the rule.

- 4 To save your entry, you must move your cursor to the next line and click. This writes the new record to the dictionary.

COPYING A RECORD

Use this option to copy a dictionary database record. The duplicated record displays beneath the record you chose to copy. You might want to copy a record if you need to add a very similar record to the database. It's easier to copy the record and edit the information than to re-key the entire entry.

- 1 Select the Dictionary Editor icon from Docucreate. The window for the current resource library appears.



Name	Parent	Offset	Length	Record	Condition	Required	Rule	Mask	Data
PRODUCER NAME		0	25	No	No	Not	mk hard		DocuCorp International
PPREVIOUS BALANCE		15	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
MLMESSAGE TEXT		15	255	No	No	Not	move it		1,MsgLine
SMSPECIALMESSAGE LINE		15	255	No	No	Not	move it		1,SpecMsg
SASERVICE ADDRESS		15	63	No	No	Not	move it		1,ServAddr
PPREVIOUSBALANCEMESSG		27	30	No	No	Not	move it		1,Payments
BHADDRESSNAME		49	40	No	No	Not	move it		1,BillHead
PPAYMENTSRECEIVED		57	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
PTOTALNETADJUSTMENTS		69	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
PBALANCEFORWARD		81	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
BHADDRESSLINE1		89	30	No	No	Not	setaddr2	F	1,BillHead 89,30,119,30,229,13,242,20,262,
PTOTALAMOUNTDUE		93	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
PPAYTOTALAMOUNTBY		105	11	No	No	Not	move it		1,Payments
BHADDRESSLINE2		119	30	No	No	Not	setaddr2	N	
PDUENOWMESSAGE		128	25	No	No	Not	move it		1,Payments
BDMETERNUMBER		136	20	No	No	Not	move it		1,BillDetl
BDMETERNUMBER		136	20	No	No	Not	move it		@GETRECSUSED,SUBGROUP,SUBGROUP
PDUEDATE		153	11	No	No	Not	move it		1,Payments
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move it		@GETRECSUSED,SUBGROUP,SUBGROUP
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move it		1,BillDetl
BHADDRESSLINE5		229	13	No	No	Not	setaddr2	N	
BHADDRESSLINE6		242	65	No	No	Not	setaddr2	N	
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1,BillDetl
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	@GETRECSUSED,SUBGROUP,SUBGROUP
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1,BillDetl
BHZIPCODE		265	5	No	No	Not	move it		1,BillHead
BHACCOUNTNUMBER		307	17	No	No	Not	move it		1,BillHead

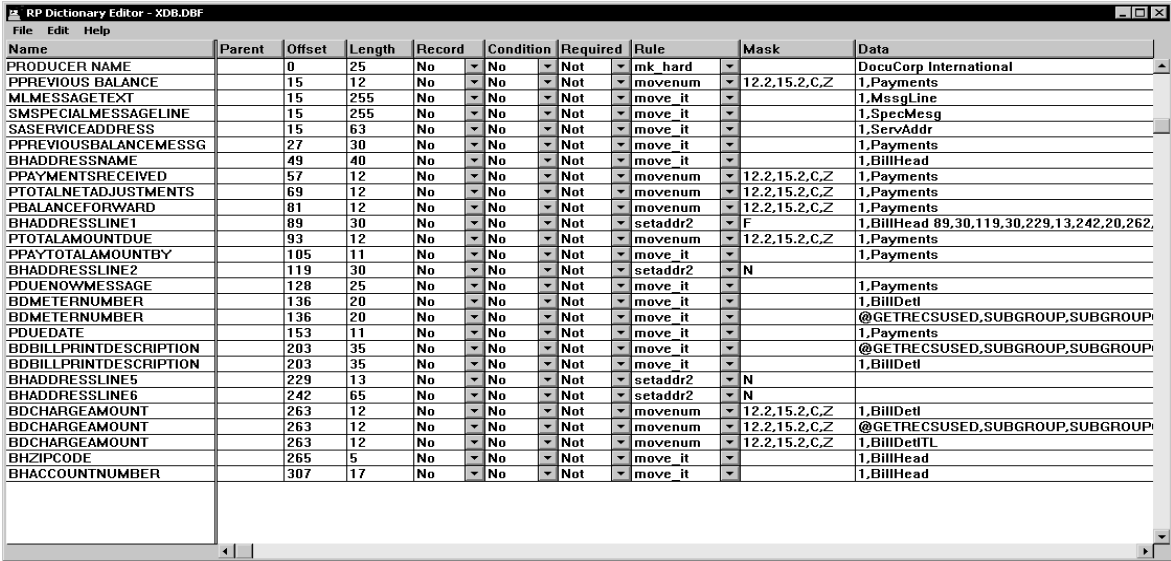
NOTE: To open a different dictionary, close the current dictionary database by selecting File, Close. Then, use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

- 2 Highlight the entry you want to copy. Select Edit, Copy Row to duplicate the entry below the entry you have highlighted.
- 3 Edit the fields as necessary.
- 4 To save your entry, you must move your cursor to the next line and click. This writes the new record to the dictionary database.

DELETING A RECORD

Use this option to delete a dictionary database entry. Deletions made in one library do not default into another library.

- 1 Select the Dictionary Editor icon from Docucreate. The window for the current resource library appears.



Name	Parent	Offset	Length	Record	Condition	Required	Rule	Mask	Data
PRODUCER NAME		0	25	No	No	Not	mk_hard		DocuCorp International
PPREVIOUS BALANCE		15	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
MLMESSAGE TEXT		15	255	No	No	Not	move_it		1,MsgLine
SMSPECIALMESSAGE LINE		15	255	No	No	Not	move_it		1,SpecMesg
SASERVICEADDRESS		15	63	No	No	Not	move_it		1,ServAddr
PPREVIOUSBALANCEMESSG		27	30	No	No	Not	move_it		1,Payments
BHADDRESSNAME		49	40	No	No	Not	move_it		1,BillHead
PPAYMENTSRECEIVED		57	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
PTOTALNETADJUSTMENTS		69	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
PBALANCEFORWARD		81	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
BHADDRESSLINE1		89	30	No	No	Not	setaddr2	F	1,BillHead 89,30,119,30,229,13,242,20,262,
PTOTALAMOUNTDUE		93	12	No	No	Not	movenum	12.2,15.2,C,Z	1,Payments
PPAYTOTALAMOUNTBY		105	11	No	No	Not	move_it		1,Payments
BHADDRESSLINE2		119	30	No	No	Not	setaddr2	N	
PDUENOWMESSAGE		128	25	No	No	Not	move_it		1,Payments
BDMETERNUMBER		136	20	No	No	Not	move_it		1,BillDetl
BDMETERNUMBER		136	20	No	No	Not	move_it		@GETRECSUSED.SUBGROUP.SUBGROUP
PDUEDATE		153	11	No	No	Not	move_it		1,Payments
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move_it		@GETRECSUSED.SUBGROUP.SUBGROUP
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move_it		1,BillDetl
BHADDRESSLINE5		229	13	No	No	Not	setaddr2	N	
BHADDRESSLINE6		242	65	No	No	Not	setaddr2	N	
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1,BillDetl
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	@GETRECSUSED.SUBGROUP.SUBGROUP
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1,BillDetlTL
BHZIPCODE		265	5	No	No	Not	move_it		1,BillHead
BHACCOUNTNUMBER		307	17	No	No	Not	move_it		1,BillHead

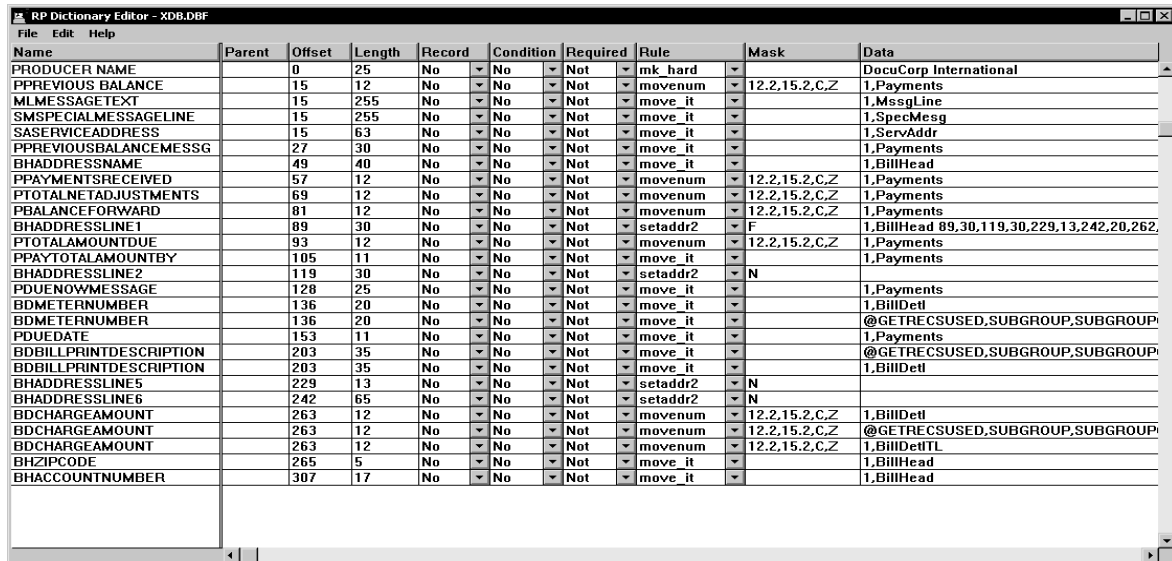
NOTE: To open a different dictionary, close the current dictionary database by selecting File, Close. Then, use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

- 2 Highlight the entry you want to delete and select Edit, Delete Row.
- 3 At the verification prompt, click Yes. The entry is removed from the current library's database.

PACKING A DICTIONARY DATABASE

This option lets you perform maintenance on a dictionary database by packing the data. The pack option removes deleted records from the dictionary database, saving disk space.

- 1 Select the Dictionary Editor icon from Docucreate. The window for the current resource library appears.



Name	Parent	Offset	Length	Record	Condition	Required	Rule	Mask	Data
PRODUCER NAME		0	25	No	No	Not	mk hard		DocuCorp International
PPREVIOUS BALANCE		15	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments
MLMESSAGE TEXT		15	255	No	No	Not	move it		1.MessgLine
SMSPECIALMESSAGE LINE		15	255	No	No	Not	move it		1.SpecMesg
SASERVICE ADDRESS		15	63	No	No	Not	move it		1.ServAddr
PPREVIOUSBALANCEMESSG		27	30	No	No	Not	move it		1.Payments
BHADDRESSNAME		49	40	No	No	Not	move it		1.BillHead
PPAYMENTSRECEIVED		57	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments
PTOTALNETADJUSTMENTS		69	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments
PBALANCEFORWARD		81	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments
BHADDRESSLINE1		89	30	No	No	Not	setaddr2	F	1.BillHead 89,30,119,30,229,13,242,20,262,
PTOTALAMOUNTDUE		93	12	No	No	Not	movenum	12.2,15.2,C,Z	1.Payments
PPAYTOTALAMOUNTBY		105	11	No	No	Not	move it		1.Payments
BHADDRESSLINE2		119	30	No	No	Not	setaddr2	N	
PDUENOWMESSAGE		128	25	No	No	Not	move it		1.Payments
BDMETERNUMBER		136	20	No	No	Not	move it		1.BillDetl
BDMETERNUMBER		136	20	No	No	Not	move it		@GETRECSUSED,SUBGROUP,SUBGROUP
PDUEDATE		153	11	No	No	Not	move it		1.Payments
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move it		@GETRECSUSED,SUBGROUP,SUBGROUP
BDBILLPRINTDESCRIPTION		203	35	No	No	Not	move it		1.BillDetl
BHADDRESSLINE5		229	13	No	No	Not	setaddr2	N	
BHADDRESSLINE6		242	65	No	No	Not	setaddr2	N	
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1.BillDetl
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	@GETRECSUSED,SUBGROUP,SUBGROUP
BDCHARGEAMOUNT		263	12	No	No	Not	movenum	12.2,15.2,C,Z	1.BillDetlTL
BHZIPCODE		265	5	No	No	Not	move it		1.BillHead
BHACCOUNTNUMBER		307	17	No	No	Not	move it		1.BillHead

NOTE: To open a different dictionary, close the current dictionary database by selecting File, Close. Then, use File, Open to open a different database for the current library. To select a different resource library, select File, Library Setup. The database for that library appears.

- 2 Select File, Pack.
- 3 At the verification prompt, click Yes.

SORTING ITEMS

Use the SortByParentOffset option to tell the system to sort the items in the data dictionary by parent and offset key. The default sort order is by field name.

```
< XDB Editor >
SortByParentOffset = Yes
```

If you enter Yes, the system sorts the data dictionary by parent then offset within parent. The default is No, which tells the system to sort the data dictionary by field name.

Keep in mind that using this INI option also affects the Image Editor and Form Set Manager, as well as the Dictionary Editor.

PRINTING DICTIONARY REPORTS

All reports generated in the Dictionary Editor can be printed by selecting Print from the File menu.

Glossary

All components of the system use specific terminology. We suggest you familiarize yourself with these terms before you begin using the system. The following terms include definitions of system tools and files as well as commonly-used terms.

AFP

Advanced Function Printing (AFP), developed by IBM, is a print server language that generates data streams of objects. The data streams merge with print controls and system commands to generate Intelligent Printer Data Stream (IPDS). Your system then sends the IPDS to the AFP printer for printing. The GenPrint program can create spool files for AFP printers.

Base Product

Any executable modules, source code, resource libraries, and documentation and help delivered to you from the Support Services Group within the normal system release and update cycle are considered part of the base product. All executable modules, source code, resource libraries, and documentation and help which were changed or customized by your internal development team, a third-party development team, or the Professional Services staff, are custom solutions.

Custom Solution

All executable modules, source code, resource libraries, and documentation and help which were changed or customized by your internal development team, a third-party development team, or Skywire Software's Professional Services staff, are considered to be a custom solution. Any executable modules, source code, resource libraries, and documentation and help delivered to you from the Support Services Group, within the normal system release cycle, are considered part of the base product.

DAL Document Automation Language (DAL) is the language you use when you tell the system how to calculate variable fields. This calculation is also called a script. When you select calculation options for a variable field, you can choose one of the following:

DAL CALC. Recalculates the value of all fields each time a user tabs to a new field in the image.

DAL SCRIPT. Recalculates the value of the fields to which you assign the script only when a user tabs out of that field

NOTE: You can find detailed information about the DAL language in the DAL Reference.

.DAT Files

Data table (DAT) files define various information the system uses as it processes information. All DAT are text files which have the extension *DAT*. Some DAT files are comma-delimited text files. You can edit DAT files using a text editor.

In many cases, there are graphical tools, such as the Form Set Manager, which you can use to edit specific DAT files. For example, the FORM.DAT file tells the system how the various forms are organized in the form set. The SETRCPTB.DAT file contains information about the recipients of a form and the conditions which determine whether or not a form is included in a form set or sent to a recipient. You can edit these files using the Form Set Manager.

The NAFILE.DAT file contains the variable data generated by the GenData program. This file, along with the POLFILE.DAT file, tell the GenPrint program what to print. This file also tells the GenWIP and GenArc programs what to place into WIP and what to archive. These files can only be edited with a text editor.

The GenWIP program also creates DAT files for each incomplete transaction it must process. These files are numbered sequentially and for each file there is a corresponding POL file which contains information about the forms to use.

.DBF Files

Database files (DBF) are used in several places in the system. For each DBF file, there is a corresponding MDX file which serves as its index. Examples of DBF files are FDB.DBF, which is created by the Field Database Editor; ARCHIVE.DBF, which is created by the GenArc program; and WIP.DBF, which is created by the GenWIP program.

See also [Field Database Editor on page 574](#) and [External Database Editor on page 573](#).

DDT Files	The data definition table (DDT) file tells the GenData program what rules it should use as it processes the data. You can edit DDT files using a text editor or by using the Image Editor. In the DDT file you store comma-delimited information which defines the source and target fields, field length and offset, rules to apply to the field, and optional parameters for the rules.
DESKJET.FXR File	This font cross reference file provides information about internal HP fonts for HP Deskjet and compatible printers.
.DFD Files	Data field definition (DFD) files define to the system the file formats of the files generated by the system. An example of a DFD file is the TRNDFDFL file which the GenTrn program creates. The GenData program uses this file to read the TRNFILE which contains the actual transactions GenTrn creates.
Distributed Resource Library	A <i>Distributed Resource Library</i> provides a decentralized repository into which you can place compiled items you select from you Master Resource Library. A Distributed Resource Library provides a unique and customized library of reusable resources for specific users at various locations in your organization. A Distributed Resource Library contains an image library, a variable data dictionary library, a rules library, and a system library. See also Master Resource Library on page 577.
Duplex	A form printed on both the front and back sides of a sheet of paper is printed in duplex mode. See also Simplex on page 577.
External Database Editor	The External Database Editor provides you with an easy-to-use tool for creating and maintaining information about the extract file being used. The data in the file can be automatically merged onto a form's variable fields using the External Database Editor. The External Database Editor can import DDF, DFD, DBF, and COBOL copy book files. The tool defines customer data or transaction file data, which provides you with a greater ability to apply and modify data, and increase the ease of reusing resources. See also Field Database Editor on page 574.
Extract Files	Extract files are typically text files which contain the data the system processes. Extract files are created by another program, typically a database program, in a format the system can read. The text file format provides a standard interface into the system. For example, your data may be stored in a DB/2 or VSAM database from which you extract the data you want to process in the system in text format. You can customize the system to read almost any type of file layout. The GenTrn program first reads the extract file and, using that extract data and TRNDFDFL.DFD file, creates transaction files (TRN files) the GenData program can use as it applies the processing rules and creates batch files, the NAFILE.DAT, and the POLFILE.DAT file.

NOTE: For use on an z/OS platform, the extract file must be converted to EBCDIC format if the file contains international characters.

The system includes a base extract file, called EXTRFILE.DAT, which serves as an example of the type of file the base system can read. You can use this file to experiment with the base system and determine how you want to set up your system.

.FAP Files

The information which defines each image is stored in a FAP file. FAP files are text files with the extension *FAP*. You can edit FAP files using a text editor, but they are most commonly created and edited using the Image Editor. The FAP file defines the image while the FORM.DAT file defines the images which comprise a form and form set.

See also [Image Editor on page 576](#).

FDB.DBF File

The FDB.DBF file is the default name of the database file created by the Field Database Editor which contains a record for each unique variable field you create. You can use any name you prefer as long as the extension is *DBF*. You can add records (variable fields) using the Field Database Editor or as you create images using the Image Editor. The FDB.MDX file serves as an index to this file.

See also [Field Database Editor on page 574](#).

Field Database Editor

The Field Database Editor provides you with an easy mechanism to store common variable field information to make setting up and creating FAP files faster and more consistent. When you use this tool, you create a file named FDB.DBF by default. This file contains a record for each unique variable field name, and is indexed in ascending order.

Use this tool to ensure consistency in forms sets. For example, if you have a Name variable field on a form, you can pull the attributes for that field into the form from the Field Database Editor. The database contains such information as the name of the field, font, type of variable field, and so on.

See also [External Database Editor on page 573](#).

Fixed Data

Fixed data is the same on every copy of the form. This includes items such as logos, text labels and titles. This information remains constant regardless of the data entry.

Font Manager

The Font Manager is used to organize fonts and font sets. A font is a collection of letters, symbols, and numbers that share a particular design. A font set is a collection of fonts you choose to group together for your image and printing needs. The font set information is stored in the *font cross-reference file* (FXR file) which is created by the Font Manager. The Font Manager lets you make sure your documents print the same way on different printers.

A well organized font set makes image creation quick and efficient. Forms composers need a variety of fonts for text and field creation. The Font Manager does not change the actual printer fonts. This tool is used for defining the appropriate characteristics (bold, point size, and so on) about the font so the fonts used to create a particular form set are consistent and easily accessible to the forms composers.

Form	A form is a single document containing one or more pages or images. Most forms contain multiple pages that are usually printed on both sides of a single sheet (duplex). Some forms are printed only on one side (simplex). Typical forms include insurance policies, tax returns, and mortgage documents. A form includes two types of data: fixed and variable. - Fixed data is the same on every copy of the form. This includes items such as logos, headers and titles. This information remains constant regardless of the data entry. - Variable data may differ from form to form. This includes items such as individuals' names, addresses, and policy numbers. This information relates to the specific data processed on each form.
Form Set	A form set is a group of logically related forms required to process a single transaction. A form set may contain one or many forms. You can group forms any way you want as you create form sets.
Form Set Manager	This tool helps you group the individual images and forms you create using the Image Editor into a set of related forms. This information is stored in the form set definition table. The system uses the form set definition table to control the data entry, print, work-in-process, and archive/retrieval functions for related forms and images. The system stores the form set information in a semi-colon delimited file named FORM.DAT. This file includes information about the company, line of business, forms, each image in the form, and the names of the person, organization, or entity who receives a copy of each image of the form. Specific information about the recipients of a form is stored in the <i>set recipient table</i> which is stored in the SETRCPTB.DAT file.
FORM.DAT File	This file, also known as the <i>form set definition table</i>, contains information about the key fields, such as company, line of business, and policy number, plus information about each image in the form, its recipients, and the form set itself. The information is stored in semicolon-delimited. You can edit this file using the Form Set Manager or a text editor. The information that comprises the individual images is stored in a FAP file.
FSISYS.INI File	The FSISYS.INI file is a one of the initialization (INI) files used by the system to set system parameters and to enable or disable system features.
FSIUSER.INI File	The FSIUSER.INI file is one of the initialization (INI) files used by the system to set system parameters. For example, the FSIUSER.INI file contains information specific to each user, such as the location of files.
.FXR Files	Font cross-reference (FXR) files are used by the system so you can make sure your documents print the same way, regardless of which printer you choose. These files contain information about the various fonts you use and their equivalents on various printers. The system includes these font cross-reference files: REL95.FXR, REL95SM.FXR, DESKJET.FXR, HPINTL.FXR, and HPINTLSM.FXR. You can edit and create font cross-reference files using the Font Manager.

Help Editor

The Help Editor is a tool you can use to create user specific help records that are accessible from a variable field during form entry time. You can easily create a help file which contains records for the variable fields on a form. Each help record usually contains an explanation of a description for entering correct data into a variable field. Help files reside in the resource library.

Image

An image is a group of text or graphics or both that make up a form or a section of a form. You create images using the Image Editor. Each image is stored in a separate file, so you can reuse images in several forms and form sets. Multiple images can comprise a single form. For instance, a three-page form with text and graphics, printed on both sides of each page, could contain a total of six images. Some examples of images include an insurance policy declaration page, the return portion of a bill, and page one of a 1040 Federal tax return form.

You may choose to create a single page containing multiple images, especially if you develop a page with graphics.

Image Editor

The Image Editor lets you create documents, forms, and images that become part of an electronic form or document. It is a full-featured design tool with an easy to learn and use graphical user interface. With the Image Editor, you have complete control and flexibility in managing and creating your image. The image and objects that you create are stored in the Resource Library's Image Library. Each image is stored in a file with the extension, FAP. Images are also referred to as *FAPs*.

.INI Files

Initialization (INI) files are used by the system to set system parameters and to enable or disable system features. Some examples of system INI files are: FAPCOMP.INI, FSISYS.INI, and FSIUSER.INI. For example, the FSISYS.INI file contains information the GenTrn program uses to determine when a new record starts and other information about the extract files the GenTrn program processes. The FSIUSER.INI file contains information specific to each user, such as the location of files and so on.

Library Manager

The Library Manager lets you manage documents and logos while maintaining the versions, revisions, and integrity of the images you are developing. You may want to set up a library for a specific client or form set. You can store all images and logos in a resource library. The storage consists of a listing of the image or logo, as well as a snap shot of the image.

When you set up a library, you must define the locations of the library and storage files. Entries made during library setup are automatically saved back to the FSIUSER.INI file when you exit the setup window.

.LOG Files

Logos and other graphics, such as scanned signatures, are stored as LOG files in the system. You use the Logo Manager to manage and manipulate LOG files. You can view these files using the Logo Manager.

Logo Manager

Once you create a graphic object such as a logo or a scanned signature, you can edit it using the Logo Manager. This tool lets you resize, reverse, rotate, crop, and otherwise manipulate an image to fit your needs. The system stores these graphic images as LOG files.

Master Resource Library	The Master Resource Library provides a central repository into which you can place all reusable resources such as images, fonts, graphic files, data definitions, processing rules, and processing procedures. A Master Resource Library contains an image library, a variable data dictionary library, a rules library, and a system library. See also Distributed Resource Library on page 573.
Metacode	A printer definition language developed by Xerox. Metacode is the native language of Xerox's Centralized Printing Systems. The GenPrint program can create spool files for Metacode printers.
Objects	Objects are the individual items which comprise your image. Examples of objects are boxes, bar codes, lines, graphics, and text. All objects have unique attributes within the image. Attributes include items such as position, size, font type, and color. The Image Editor lets you easily create the various objects which comprise an image.
Page	Pages are the printed result of an image or a group of images. You can have one image per page, several images per page, or even an image that spans several pages. You determine the size of a page based on the size of your printed output. You can design forms for any size page your printer can print.
PCL	PCL (Printer Control Language) is a printer definition language developed by the Hewlett-Packard company. The GenPrint program can create spool files for PCL printers.
PostScript	PostScript is a printer definition language developed by Adobe Systems which you can use on various printers. The GenPrint program can create spool files for PostScript printers.
SETRCPTB.DAT File	This file, also known as the <i>form set trigger table</i>, contains information which tells the GenData program which recipients receive which forms or images. This file also contains the information the GenData program needs to determine whether or not to include or exclude a form. You can define conditions using the Form Set Manager or by editing the SETRCPTB file in a text editor.
Simplex	A form printed on only one side of a sheet of paper is printed in simplex mode. See also Duplex on page 573.
System Releases	To continually improve and support the product, software enhancements and corrections are organized into regularly scheduled system releases. Typically, Skywire Software develops two system releases per year. Releases are noted with a major and minor version number, such as 11.0 or 11.3.
System Patches	In certain situations, and on a case by case basis, a correction to the current system release can be made available as a system patch. Corrections to the prior release are handled on a case by case basis, and are made available only as system patches.

Table Editor

The Table Editor lets you create a table of data used to automatically fill a variable field during form data entry. Tables make the entry process quicker and more efficient for the end user. Users can choose entries within a table format rather than keying information. Using tables reduces data entry errors and increases speed. In the Table Editor, you can create and edit table files, tables, and table entries. Tables are stored in the resource library.

Variable Data

Variable data may differ from form to form. This includes items such as individuals' names, addresses, and policy numbers. This information relates to the specific data processed on each form.

xBase

A generic term for industry-standard dBase IV file format.

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