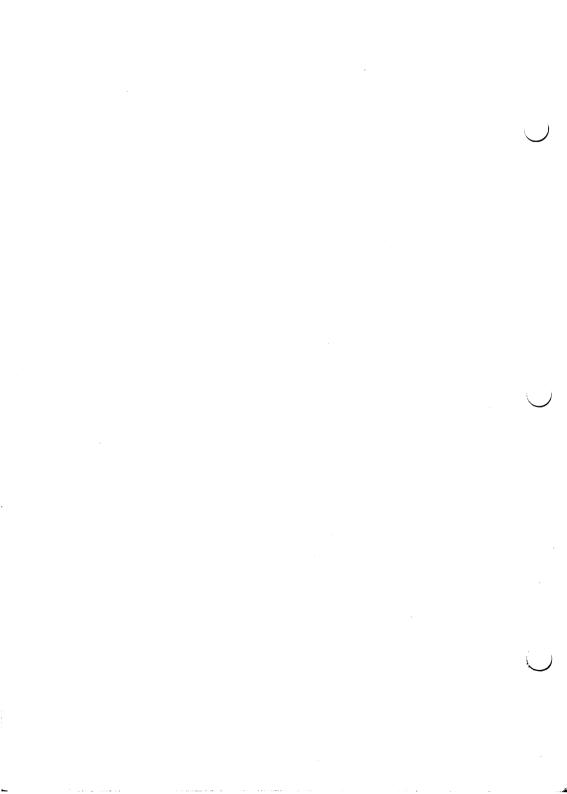
TMQ SOFTWARE, INC. 82 FOX HILL DRIVE

82 FOX HILL DRIVE BUFFALO GROVE, ILLINOIS 60090 312/520-4440



DATA BASE MANAGEMENT SYSTEM



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CHAPTER

DESCRIPTION

File-Fax is a sophisticated database management program that is very easy to use.

way. For extra assistance, Help Screens are accessible while you are working.

File-Fax allows the user to create database applications which are customized to his or her needs.

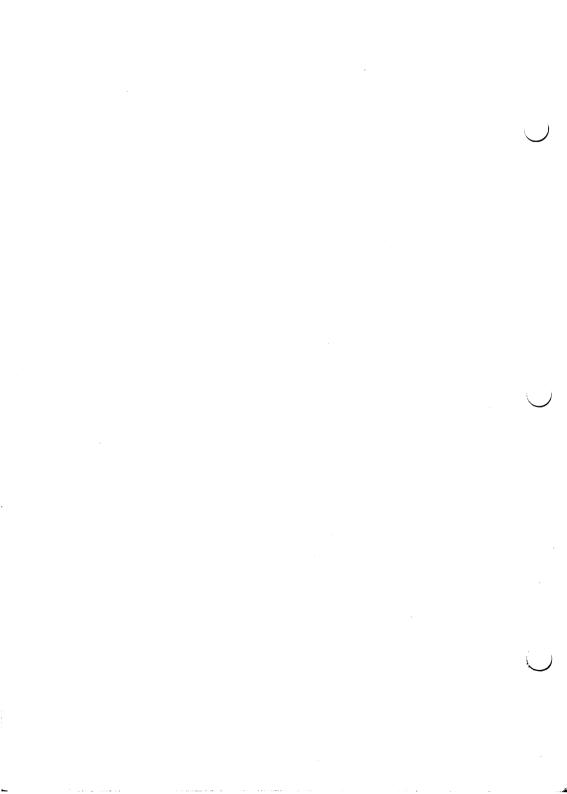
File-Fax can be used with a single disk drive because the File-Fax program is completely memory-resident. This eliminates the tedious disk-swapping process that is common in other database products. If required, however, the storage capacity of your database applications can be expanded by increasing the number of disk drives in your system. In some computer systems, File-Fax can handle as many as 8 disk drives.

The File-Fax manual provides a background that will prepare you for creating a database application. A thorough and well-organized Tutorial then introduces you to the capability and use of File-Fax. The Tutorial was designed to be concise and understandable to those who have little or no background in computers.

Each File-Fax database record occupies one screen page, and you can have up to 31 fields per record.

File-Fax allows you to create up to 4 reports for each database application. You can design the reports to suit your specific needs.

File-Fax has a comprehensive and lucid manual that guides you every step of the



2

INTRODUCTION

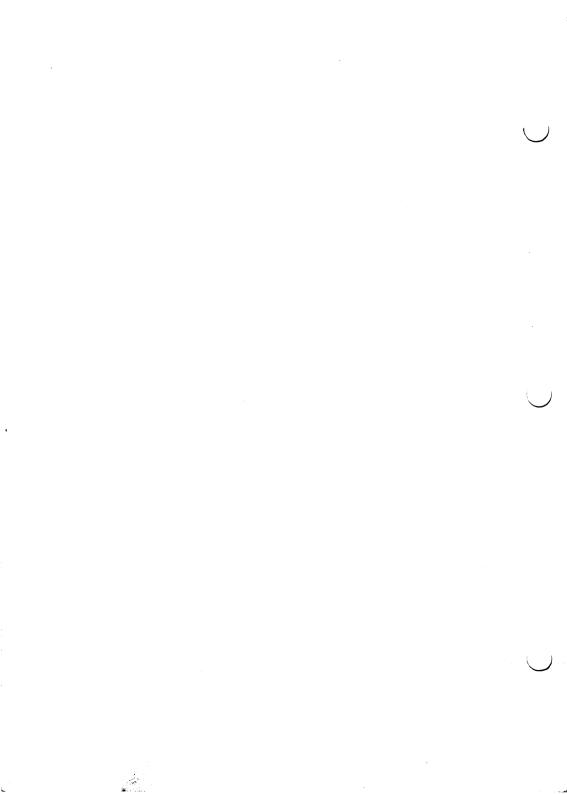
Most people approach a microcomputer with a slight hesitation, as well as a spark of interest.

The microcomputer is an excellent tool, capable of multiple functions. It is a product of modern and sophisticated technology.

However, to use a computer, you need programs. But most people do not have the time or the interest to learn or do programming. This is why File-Fax was developed. You do not need to know computer programming to use File-Fax. To prepare your own database, customized to your particular needs, all you must do is simply design it. File-Fax will do the rest.

File-Fax is very easy to use. Just take the time to go through the manual from beginning to end. Do not be intimidated. Like most learning experiences, what you need most is patience. Let the manual guide you. Enjoy the experience, because soon you will have no need for the manual, except to review or to show somebody else how to use File-Fax.

After you have learned how to use File-Fax, you can start using your creativity to design a database, or several databases, customized especially for you.



CHAPTER

OVERVIEW

Go through the manual from cover to cover. If some sections are not immediately clear to you, just read them thoroughly and keep going. They should become clearer after you go through the other sections, or you can review those sections after you have worked through the entire manual.

There are four major steps involved in learning how to use File-Fax:

- 1. Know your microcomputer system. Chapter 4 will provide you with important information about File-Fax which is specific to your microcomputer. If you are new to computers, read your computer's manuals beforehand so that you can relate what you have learned about your particular computer to the information provided in Chapter 4.
- **2. Go through the tutorial sections diligently.** Chapters 5 to 10 are the tutorial sections. They will provide you with examples and guide you through the creation of a database on your computer screen. Try to complete the entire tutorial with few interruptions. To really get the "feel" of the step-by-step presentation of File-Fax, and to eliminate the need to review previous chapters, it would be best to run through the instructions from start to finish.

3. Learn the other features of File-Fax not covered by the tutorial sections. Chapters 11-18 will cover these features.

4. Make your own database. From what you have learned, create a simple database as a final exercise. Think of something that might be useful to you. It could be a phone and address database of your friends or clients, or a fairly simple inventory listing database. Make it simple, but be creative in your screen and report designs.

When you feel more confident about your grasp of File-Fax, start your real database projects. You will find that File-Fax is not only easy, but also fun to use.

3.1 DESCRIPTION OF TERMS

Here are the definitions of certain words that are used throughout the manual.

stroke will appear on the screen. Usually it is a solid box or an underline.

ATTRIBUTE—An attribute describes the type of information which you may enter into a field. Examples of attributes are 'alphabetic' (letters only) and 'numeric' (numbers only).

BOOT—To start up your computer.

CHARACTER—Any symbol that can appear on the screen when typed at the keyboard.

CONTROL CHARACTER—A character typed when the CTRL key is depressed. Control characters are usually used as commands and can not appear on the screen.

CTRL—The name of a key located on the left-hand side of the keyboard. You can use this key like a shift key by holding it down while pressing other keys. This is often called the Control Key.

CURSOR—The cursor is a special marker which pinpoints where your next key-

DATABASE—A database is an organized collection of related information. A collection of friends' names, addresses, and phone numbers is an example of a database.

DATA ENTRY SCREEN—The data entry screen is the screen on which you create the design and layout of your database records. It will later be used to store, alter, and retrieve these records.

DEFAULT—A default is the answer your computer will automatically assume should you skip over or fail to answer a question.

DISK—This is a piece of round magnetic material inside a square plastic jacket. Also called a diskette.

DISK DRIVE—The part of your computer system where you insert diskettes.

ESC—The name of a key located at the left-hand side of the keyboard. Also called the Escape Key.

FIELD—A field is the smallest block of information used in a database. Fields pieced together form a record. An example of a field is the area used in a database record for the ZIP code

FORM, FORMAT—These are synonyms for the design or layout of your data entry screen or report.

INITIALIZE—To prepare a disk for use by the computer, which will destroy any and all information previously stored on the disk.

KEY—In addition to the keys on the keyboard, keys are those fields in a record by which you may sort or search a database.

PRIMARY DISK—The data disk located in the first drive. This disk stores the application, up to four report formats, the system characteristics, and data.

PRIMARY KEY—The first or most frequently used key. File-Fax normally sorts and searches by one field only, which is therefore the primary key.

RECORD—A record is a collection of fields that have a relationship to one another, such as name, address, and

phone number fields. Several records form a database.

REPORT—A report is an organized and descriptive listing of selected records from a database. Frequently it will include subtotals and totals as well.

REPORT FORMAT—A report format is the user-created layout which tells File-Fax how a report should appear.

SHIFT—The name of the shift keys on the keyboard, which are similar in function and location to the shift keys on a typewriter.

SORT—To arrange a list of records alphabetically or numerically according to one or more fields.

SORT LEVELS—A sort level is the relative importance of a field when its record is sorted. For example, if the sort level of a SALARY field is 1, LAST NAME is 2, and FIRST NAME is 3, then the records will first be sorted by SALARY since it is the most important. If there is more than one record with the same salary, then these records will be further sorted by LAST NAME, and likewise by FIRST NAME if necessary.

3.2 CARE OF DISKS

Handle the disks gently. Do not touch the brown portion of the disks. Keep them away from dirt, liquids, and static charges. Do not expose your disks to extreme heat, cold, or dryness. And always insert any disk back into its cover after use.

Everytime you insert a disk into or remove it from a disk drive, do it gently. Do not push or pull too hard. Be careful not to bend the disk.

When you are using the disk drives, do not remove or insert a disk into any drive when the drive lights are on.

Maintain a well organized filing system for your disks. There are several disk filing containers available from your dealer which might be useful to you.

Label each disk properly. Do not mix them up. It is good practice to write on the label first, before you pull it off the label paper and stick it to a disk. If you have to mark a label that is already on a disk, use a felt-tipped pen. Do not use a pencil or a ball-point pen. Writing too hard on your disk could damage it.

Do not leave your disks lying around when you take a break from your computer. Disks can easily be damaged by children or pets.

Learn to make back-ups of your data disks. This is explained in Chapter 17. Your File-Fax master disk is protected and cannot be copied.*

* See Chapter 4 for exceptions.

CHAPTER 4

MACHINE SPECIFIC INFORMATION

File-Fax version 2.0 currently runs on the APPLE][and APPLE][plus, ATARI 800, Commodore 64, IBM personal computer, NEC and OSBORNE computer systems.

This chapter presents information specific to some of these computer systems. It is suggested that you read the information specific to the computer system you are using. Certain parts of the manual refer back to this chapter. At that point, you may wish to reread sections presented here.

4.1 Apple][or Apple][plus

Disk drive usage

The Apple version of File-Fax requires a minimum of 48K of memory and one disk drive; up to eight drives are supported. Since the File-Fax program is completely memory-resident, all drives can be used for data disks; the primary disk is the disk located in slot 6, drive 1. If you want to use more than one disk, the others should be connected as follows:

File-Fax drive 2 in Apple slot 6 drive 2 File-Fax drive 3 in Apple slot 5 drive 1 File-Fax drive 4 in Apple slot 5 drive 2 File-Fax drive 5 in Apple slot 4 drive 1 File-Fax drive 6 in Apple slot 4 drive 2 File-Fax drive 7 in Apple slot 3 drive 1 File-Fax drive 8 in Apple slot 3 drive 2

You must never remove a disk from a drive unless you are in a menu screen. Doing so may cause damage to your database.

Cursor Keys

In order to use any of the cursor or other editing commands explained later in this manual, you will have to press a combination of two keys: CTRL and a letter. The only exception is that the arrow keys on the right of the keyboard are Cursor Left (CTRL H) and Cursor Right (CTRL U), as usual.

Since the Apple normally lacks any bracket ([]) keys, you will have to use the following substitutes:

FUNCTION OR USE KEY TYPE THIS ...

Field start/blank line [CTRL B Field end] SHIFT M

Printer selection (DEFINE SYSTEM CHARACTERISTICS)

The printer selection number becomes the slot number of the printer card to which File-Fax will send printouts. Therefore, if your printer card is in slot two, then you would enter a two in response to this question. Note that only slots one, two, and three can be used.

4

Copying disks

File-Fax's built-in copy program will automatically format the copy disk, before writing the contents of the other disk onto it. After using the copy program, you can copy more disks or reboot the Apple by pressing the ESC key. It is not possible to directly return to File-Fax after disk copying because the copy program uses all of your Apple's memory in order to go faster. If you want to use File-Fax again after copying, you must reinsert the master disk in slot six drive one and reboot the computer (by pressing the ESC key if you are still in the copy program.)

Note, however, that the File-Fax program disk is not copyable.

Inverse Video

The Apple version of File-Fax supports inverse video.

4.2 ATARI 800

Disk drive usage

The Atari version of File-Fax requires 48K of memory and one disk drive; up to four drives are supported. Since the File-Fax program is completely memory-resident, all drives can be used for data disks; the primary disk is the disk located in drive one.

You must never remove a disk from a drive unless you are in a menu screen. Doing so may cause damage to your database.

Cursor keys

The Atari has quite a number of special function keys, and File-Fax allows you to use them instead of using the control characters explained elsewhere in this manual. The keys and their equivalent control characters are shown below.

FUNCTION OR USE	ATARI KEY	FILE-FAX EQUIVALENT
Help	Atari key	ctrl G
Cursor left	CTRL \leftarrow , BACK S	ctrl H
Cursor right	CTRL \rightarrow , CAPS	ctrl U
	LOWER	
Cursor up	CTRL 1	ctrl E
Cursor down	CTRL ↓	ctrl C
Forward tab	TAB	ctrl F
Clear to end	CTRL or	ctrl J
of line	SHIFT CLEAR	
Push right	CTRL INSERT	ctrl P
Omit character	CTRL DELETE	ctrl O
Kill line	SHIFT DELETE	ctrl K
Line insert	SHIFT INSERT	ctrl L
Field start/		
blank line]	ctrl B

Printer selection (DEFINE SYSTEM CHARACTERISTICS)

The printer selection should be set to one. It has no special significance.

If you use a Centronics-type printer with the Atari 850 interface, you will have to set an "autolinefeed" switch on your printer. If you do not, then your printer will not work with a program that was not specifically written for it.

Copying disks

File-Fax's built-in copy program will automatically format the copy disk, before writing the contents of the other disk onto it. After using the copy program, you can copy more disks or return to the main menu by pressing the ESC key.

Note, however, that the File-Fax program disk is not copyable.

Inverse Video

The Atari version of File-Fax supports inverse video.

4.3 IBM PC

Disk drive usage

The IBM version of File-Fax requires a minimum of 64 K of memory and one disk drive; up to two drives are supported. Since the File-Fax program is completely memory-resident, all drives can be used for data disks; the primary disk is the disk located in drive "A".

You must never remove a disk from a drive unless you are in a menu screen. Doing so may cause damage to your database.

Remember, however, that these commands will only work when Num Lock is not activated; otherwise, these keys will act like a numeric keypad, as usual.

Printer selection (DEFINE SYSTEM CHARACTERISTICS)

The valid entries for printer selection are 1, 2 or 3. Use 1 if you are using the standard printer port on the video card. Options 2 and 3 are to be used for the two settings on the printer card.

Cursor keys

The IBM has quite a number of special function keys, and File-Fax allows you to use them instead of using the control characters explained elsewhere in this manual. The keys and their equivalent control characters are shown below.

FUNCTION OR USE	IBM KEY	FILE-FAX EQUIVALENT
Cursor left	-	ctrl H
Cursor right	→	ctrl U
Cursor up	†	ctrl E
Cursor down	1	ctrl C
Cursor home	home	ctri D
Exit/finished	end	ctrl Z
Push right	ins	ctri P
Omit character	del	ctrl O
Kill line	page up	ctrl K
Line insert Field start/	page down	ctrl L
blank line	1	ctrl B

Copying disks

File-Fax's built-in copy program will automatically format the copy disk, before writing the contents of the other disk onto it. After using the copy program, you can copy more disks or return to the main menu by pressing the ESC key.

Note, however, that the File-Fax program disk is not copyable.

Inverse Video

The IBM version of File-Fax supports inverse video.

4.4 NEC PC-8001

Disk drive usage

The NEC version of File-Fax requires 64K of memory and a disk drive unit. Since the File-Fax program is completely memory-resident, all drives can be used for data disks; the primary disk is the disk located in drive 1. File-Fax only supports the 8012 I/O expansion unit and not the 8011.

You must never remove a disk from a drive unless you are in a menu screen. Doing so may cause damage to your database.

Cursor keys

The NEC has quite a number of special function keys, and File-Fax allows you to use them instead of using the control characters explained elsewhere in this manual. The keys and their equivalent control characters are shown below.

FUNCTION OR USE	NEC KEY	FILE-FAX EQUIVALENT
Help	f3	ctrl G
Back tab	fl	ctrl S
Forward tab	f5	ctrl F
Cursor left	or f2	ctrl H
Cursor right	→or f4	ctrl U
Cursor up	t	ctrl E
Cursor down	1	ctrl C
Cursor home	HOME	ctrl D
Clear to end of line	CLR	ctrl J
Push right	INS	ctel D
Omit character	·· - -	ctrl P
Omit character	DEL	ctrl O

Quit/escape	STOP	ctrl Q
Field start/		
blank line	[ctrl B

Printer selection (DEFINE SYSTEM CHARACTERISTICS)

The printer selection should be set to one. It has no special significance.

If you are trying to suspend or kill a printout by pressing the space bar or the ESC key, respectively, you will have to keep the key depressed until the computer notices it. This applies to stopping the sort as well.

Copying disks

File-Fax's built-in copy program will automatically format the copy disk, before writing the contents of the other disk onto it. After using the copy program, you can copy more disks or return to the main menu by pressing the ESC key.

Note, however, that the File-Fax program disk is not copyable.

Inverse Video

The NEC version of File-Fax only supports inverse video on the Title line of your Data Entry Screen.

OSBORNE 1

4.5 OSBORNE 1 (Single/Double Density)

Disk drive usage

Because the File-Fax program is completely memory-resident, all drives can be used for data disks; the primary disk is the disk located in the drive to the left.

You must never remove a disk from a drive unless you are in a menu screen. Doing so may cause damage to your database.

File-Fax will always leave the last disk accessed ON for a few extra seconds so that the disks don't have to be repetitively started up if rapidly used. However, when File-Fax is waiting to print information to your printer (see below), it does not pay attention to the disks and they may stay on if your printer is jammed or turned off. Therefore, if you are having problems with your printer and want to start over, but are hesitant because the disk light is on, carefully open the drives and remove the disks before turning the Osborne off. You will not lose any part of your data base.

File-Fax always uses the Osborne in single density mode; although File-Fax will operate on a double density machine.

Cursor keys

In order to use any of the cursor or other editing commands explained later in this manual, you will have to press a combination of two keys: CTRL and a letter. Since the Osborne does have some special keys, however, a few of these commands are directly accessible, without pressing the CTRL key:

OSBORNE KEY	FILE-FAX EQUIVALENT
[ctrl B
-	ctrl H
→	ctrl U
t	ctrl E
1	ctrl C
TAB	ctrl F
	KEY [1

Printer selection (DEFINE SYSTEM CHARACTERISTICS)

The printer selection number becomes the number of the physical device assigned to the console, to which File-Fax sends printouts. The possible numbers and their meanings are:

Printer Selection	Where printouts will be sent
1	Serial port: RS232C or Modem
2	Parallel port (Centronics)
3	IEEE port

If you connect your printer through the serial port, most Osborne computers require that the printer be set up for 8 bit data, otherwise you will be treated with reams of gibberish. In addition, make sure that the printer and the computer are operating at the same baud rate. Use the Osborne CP/M program SETUP to alter the Osborne's baud rate; most printers will have tiny switches somewhere inside or in back which control which baud rate the printer uses (remember that most printers only look at their switches when first turned on; subsequent alterations are ignored!)

If you are using a baud rate which is faster than your printer, then it will be necessary to set up a "protocol" which will allow the printer to tell the computer to stop momentarily so it can catch up. Of the three serial protocols usually used IETX/ACK, Xon/Xoff, and Data Terminal Ready) the Osborne will automatically respond to the latter, so if your printer can use the DTR protocol, you may use it to obtain higher baud rates and increase the "throughput" of your computer/ printer combination. If your printer cannot use the DTR protocol, then you will have to use a baud rate that is slow enough so that the Osborne cannot possibly exceed the printer's speed.

The Centronics option will allow you to print to a Centronics-type printer using a special cable connected to the parallel port.

Although File-Fax allows you to specify IEEE output, Osborne has had a few difficulties with their IEEE interface and its use is not recommended.

For more information, see the IOBYTE description in your Osborne reference guide.

If you are trying to suspend or kill a printout by pressing the space bar or the ESC key, respectively, you will have to keep the key depressed until the computer notices it. This applies to stopping the sort as well.

Copying disks

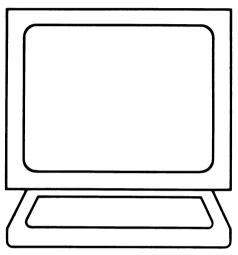
File-Fax's built-in copy program will automatically format the copy disk, before writing the contents of the other disk onto it. After using the copy program, you can copy more disks or return to the main menu by pressing the ESC key.

Note, however, that the Osborne version of File-Fax is copyable.

RESET key

The RESET key may not always reboot the computer under File-Fax, though it will always succeed in destroying what you are doing, including perhaps the information in your data base. If you want to stop File-Fax, get into a menu screen (by pressing ESC once or more) and turn the computer off. Then you may turn the computer back on if you wish to use another program.

TUTORIAL: CREATING AN APPLICATION



5.1 TUTORIAL INTRODUCTION

Welcome To File-Fax!

This tutorial will teach you how to create a database application.

Throughout this manual, we will use this figure as a graphic representation of the computer screen.

5.2 STARTING THE SYSTEM

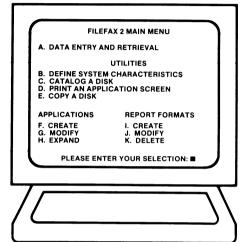
We will start with your computer system turned-OFF. For this tutorial, you will need two disks: The File-Fax Master Disk and a blank disk to store the application that you will create. We will call this blank disk the Data Disk.

Insert the File-Fax Master Disk into disk drive 1 (or Disk Drive A, depending upon your computer).

Turn your computer system on, following your computer's turning-on sequence.

When this screen appears, it means that the File-Fax program has been automatically loaded into the computer's memory. The program is completely memory resident (i.e. the whole File-Fax program is contained in your computer's memory).





Now, remove the File-Fax Master Disk. You will not need the Master Disk anymore as long as the computer remains turned on.

Insert the blank Data Disk into Drive 1. You must remember that File-Fax will format the Data Disk automatically when it creates an application, and this can destroy any file or program that you may have on the Data Disk. So, be sure that you are using a blank disk.

The bottom of the screen says: PRESS ANY KEY TO START

Now **press any key.** This screen will now appear.

5.3 MAIN MENU SCREEN

This is the MENU SCREEN. The MENU SCREEN gives you a selection of commands which you can make by typing the designated letter (A - K).

Do not press any key yet. At this point, just learn to recognize the Menu Screen.

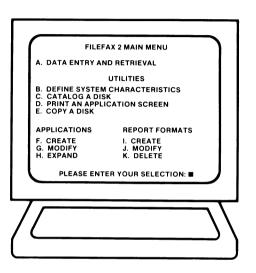
The following is a brief description of the commands in the Menu Screen:

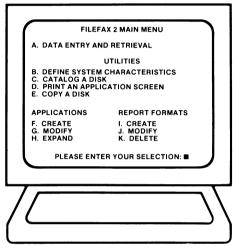
A. DATA ENTRY AND RETRIEVAL—

After an application has been created and the system characteristics have been defined, this command will allow you to enter, change, delete, or display the data stored in your database file. This command also allows you to query or print reports. Sorting is also accomplished under this command. This will be explained in more detail in future chapters.

B. DEFINE SYSTEM CHARACTER-ISTICS—This command allows you to select the characteristics that define the entry of data, the printing of reports, and the characteristics of your printer.

C. CATALOGA DISK—This command allows you to catalog or make a list of the application and report files on your database disk(s).





attributes that you have defined for your database application. The sort levels may also be changed here.

H. EXPAND AN APPLICATION—

Expanding an application means the addition of one or more disks to your database. To expand an application, you need one disk drive for each of your additional disk(s). Expanding an application gives you more storage space.

- **I. CREATE A REPORT**—This command allows you to create a report. You will design the format of the report. File-Fax allows you to store up to four report formats on your primary disk (the data disk located in drive 1).
- **J. MODIFY A REPORT**—This command allows you to modify a specific report that you already have on your primary disk.
- **K. DELETE A REPORT**—This command allows you to permanently delete a report from your primary disk.

Using the Menu Screen, we can now create a database application:

We want to create an application, so, **press F.**

This single-letter response gives File-Fax the command to create an application.

D. PRINT AN APPLICATION SCREEN—With this command, your printer will make a hard copy of the application screen.

E. COPY A DISK—This command is used to make copies, for back-ups, of your database disks.

F. CREATE AN APPLICATION-

File-Fax requires that you create an application before you attempt to use File-Fax to store and retrieve information. Selection F is used to create such an application.

G. MODIFY AN APPLICATION—
This command is used to modify the

This screen will appear after you have pressed F while you were in the Menu Screen:

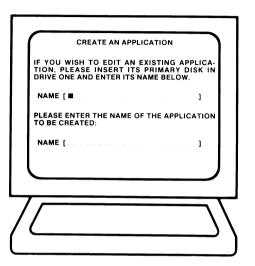
Study this screen. It gives you two options:

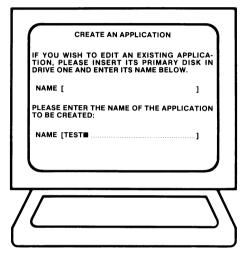
- 1. If you already have an existing database application, it gives you the option of editing an existing screen format to use when creating a new database.
- 2. To create a new application from scratch.

For this example, we want to create a new application from scratch.

The cursor is blinking on the first field. **Press RETURN** to move the cursor to the next field, which allows you to enter the name of the new application that you are creating.

After you have pressed the RETURN key, the cursor should be at the second field.





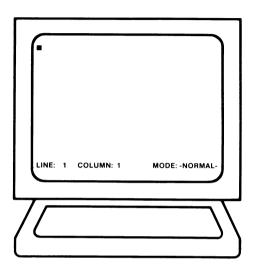
Type TEST. This will be the name of your sample database application. Now, your screen will look like this.

After typing TEST, **press the RETURN Key.**

5.4 DATA ENTRY SCREEN

After pressing the RETURN key, this screen will appear.

This is the DATA ENTRY SCREEN. It is your working space, like a blank sheet of paper. On this screen, using certain keyboard functions, you will design the format of your database. It is not difficult and can easily be learned. You will be thoroughly guided by the manual and the screen.



To access a Help Screen in File-Fax, press both the CTRL and G keys.

The CTRL key is on the left of the keyboard, next to the SHIFT key.



The CTRL key is used like a SHIFT key. For this example, to get help from File-Fax, you should **hold down the CTRL key and press the G key.** (The conventional notation for what you just did is "CTRL-G"). When this notation is used next time, you will know what to do.

After pressing a CTRL-G, this screen will appear.

5.5 CURSOR COMMAND SCREEN

This screen is called the CURSOR COM-MAND SCREEN. It is one of your Help Screens

WARNING! Do not press the ESC key while the Help Screen is displayed. Doing this will erase everything you have created on the data screen, and you will have to start over again.

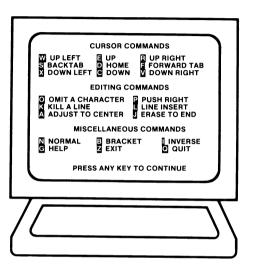
The CTRL key is used with every character on this screen.

Study the CURSOR COMMANDS. These keys (with the use of the CTRL key) will move the cursor around the screen. Note that the direction of movement for these keys is arranged relative to the D key.

WER SDF XCV

CTRL-D = This will move the cursor to the HOME position. The Home position is on the upper left-hand corner of the screen.

CTRL-E = This will move the cursor one line upward.

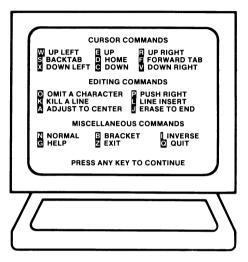


CTRL-C = This will move the cursor one line downward.

CTRL-S = Back Tab. This will move the cursor one zone (8 spaces) backwards.

CTRL-F = Forward Tab. This will move the cursor one zone (8 spaces) forwards.

CTRL-W = This will move the cursor one line upward and one space back. The total movement is diagonally to the left from the cursor position. Note the letterpattern displayed previously, and see how the direction of the cursor movement corresponds to the position of W relative to the position of D.



CTRL-R = This will move the cursor one line upward and one space forward. Again, see the letter-pattern.

CTRL-X = This will move the cursor one line downward and one space backward.

CTRL-V = This will move the cursor one line downward and one space forward.

It is helpful to remember the letterpattern, because it corresponds to the cursor movement direction.

Now, **press the SPACE BAR.** This will bring you back to your blank Data Screen. Practice moving the cursor around to familiarize yourself with all the cursor movement commands.

After you have practiced moving the cursor around the screen, **press CTRL-D** to move the cursor to the Home position.

Note the messages at the bottom of the screen. The numbers after LINE and COLUMN indicate the current line and column of the cursor positon. After MODE:, it says NORMAL. This means that you are now in the NORMAL screen print mode. The other available mode is the INVERSE screen print mode, where the characters appear dark in a light background.* Press CTRL-I to get into the INVERSE mode and the word INVERTED will appear after MODE:. Press CTRL-N and you are back to the NORMAL mode again.

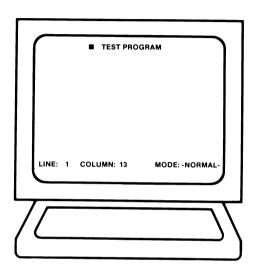
Now, press CTRL-D to return to Home position. Press CTRL-J to erase any characters you may have typed from the cursor to the end of the line.

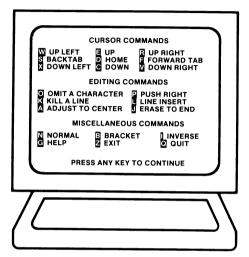
File-Fax has special uses for the 1st and 24th line on the screen. The 1st line is reserved for a title. **No fields may be placed on the first line.** The 24th or last line is the message line. This line will be used by File-Fax to display certain information or error messages.

For this example, the practice title will be TEST PROGRAM. So, type in the title (do not press the RETURN key), and press CTRL-A. The title that you typed will be adjusted to the center. Pressing CTRL-A will center any line that the cursor is on.

This is what should show up on the screen.

*See Chapter 4 for exceptions.





5.6 EDITING COMMANDS

Press CTRL-G and you will return to the Help Screen.

Under Editing Commands, here are Control Characters which are used to edit your program.

CTRL-A = This command centers a line on the screen. It is often used for titles.

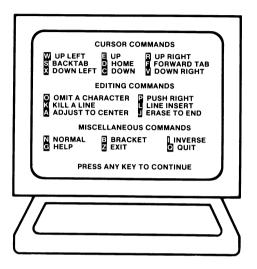
CTRL-P = This command moves all characters under and to the right of the cursor to the right.

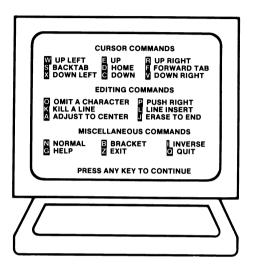
CTRL-O = This command omits the character or blank space under the cursor. This allows you to move words or letters to the left. To do so, station the cursor to the left of the words you wish to move and press CTRL-O until you find the best location.

CTRL-J = This command will erase all letters and words to the right of and under the cursor. This is useful when you want to erase the last segments of your lines.

CTRL-K = This command deletes a line. When the cursor is at any point on a line, CTRL-K will erase the entire line and move the lines below it up one.

CTRL-L = This command allows you to insert a line between two lines. When the cursor is at any point on a line, pressing CTRL-L will move that line down, leaving a blank line in its place for you to work on. By moving down one line, you are also moving all the lines below it. Be sure that you will not lose a line at the bottom of the screen when using CTRL-L.





5.7 MISCELLANEOUS COMMANDS

You must also use the CTRL key for these commands:

CTRL-Q = Same effect as ESC key. This command is used to exit from the current form design and return to the previous screen.

WARNING! Execution of this command will destroy all design work done on the form.

CTRL-Z = This command is used to exit from a data entry screen when you have completed its design, and saves the work done.

CTRL-G = This command will display a Help Screen. File-Fax has several Help Screens for different points in the program. When you want to leave the Help Screen and go back to the screen you were on just before you pressed CTRL-G, simply press any key (EXCEPT the ESC key). Pressing the ESC key while a help screen is displayed has the same effect as pressing the space bar and then the ESC key.

Press the SPACE BAR. This will bring you back to your Data Entry Screen.

5.8 OTHER USEFUL KEYS

ESC KEY

The ESC key is used to exit from the current form design and return to the previous screen. It has the same effect as CTRL-Q.

Here is something to remember when you will be creating your own database later. If you get to this point and decide that you want to abort what you are doing, pressing the ESC key will stop this process and bring you back to the Create an Application Screen. Pressing the ESC key once more will bring you back to the Main Menu. DO NOT DO THIS NOW!

WARNING! Pressing the ESC key will-destroy all design work done on the form.

RETURN KEY

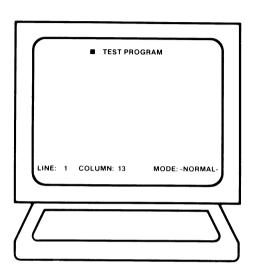
The Return key will advance the cursor to the beginning of the next line.

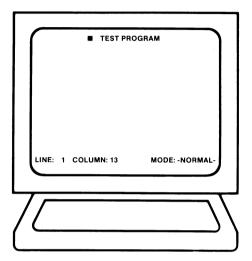
→-FORWARD ARROW KEY

Pressing this key will move the cursor forward one space without destroying the character it crosses.

→-BACK ARROW KEY

Pressing this key will move the cursor back one space without destroying the character it crosses.





5.9 DEFINING FIELDS

Let us define a **field** at this point as a certain number of spaces that will contain information you will put into the database.

Now we must learn how to define a field (or how to allocate a specific number of spaces for a specific type of information). We will call this field an INPUT FIELD, because it refers to an area of the screen where you will type in information to be filed in your database.

File-Fax uses five characters to specify fields. These are:

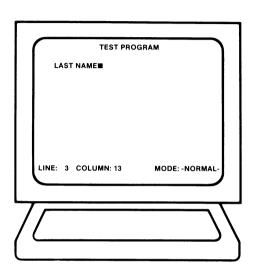
- 1. [Open Bracket*
- 2.] Close Bracket*
- 3. < Less-Than Sign
- 4. > Greater-Than Sign
- 5. # Pound Sign

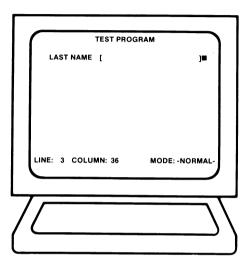
THE OPEN AND CLOSE BRACKETS []:

The brackets are used to define an Input Field. The Input Field includes only the spaces between the brackets.

^{*} See Chapter 4 for exceptions.

Now, move the cursor to line 3 column 4 (remember your cursor movement commands) and **type in LAST NAME.**





Press the SPACE BAR to move to column 14. Now, type the [key. This will place an open bracket ([]) on the screen. Space over to column 35 (you can tell when you have reached there by watching the column count on the bottom line of your screen). Press the] key. This will place a close bracket] on the screen. You have just defined a 20-character Input Field (the space between 14 and 35 less the 2 spaces for the brackets).

Now, press the RETURN key twice to move to line 5. Space over to column 3 and type in FIRST NAME. Leave a space after that. Press the [key to get an open bracket. Space over to column 25. Press the] key to get a close bracket. You have just defined a 10-character Input field.

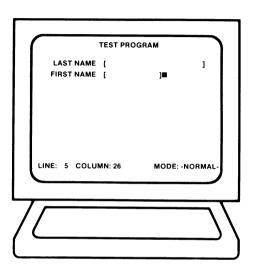
Your screen should look like this:

USING THE LESS THAN AND GREATER THAN SIGNS TO DEFINE FIELDS:

The < and > signs work like the brackets ([]). The main difference is that the < and > signs will not appear on the screen when the application is later used, unlike the brackets. The other difference is the length of the field. With the brackets, an input field only occupies the space between them. However, when used, the < and > signs become part of the input field instead of appearing on the screen. For example, the length of a field created by typing [, space, and] is one character; the length of another created by typing <, space, and > is three.

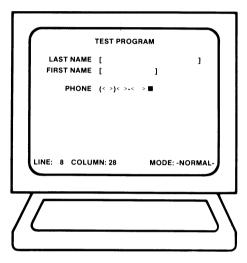
Let us define a phone number field and a date field to demonstrate the use of the < and the > signs in defining fields.

Press RETURN to move the cursor to line 8. Space over to column 8 and type PHONE. Leave a space and type an open parenthesis. Then type a < sign, leave one space and type in a > sign, followed by a close parenthesis. This represents the Area Code field. It is: 3 characters long, because the spaces occupied by the < and > signs count as part of the Area Code field.



Press the SPACE BAR once and type in a < sign, leave one space, then type the > sign. Type in a dash (-), another < sign, leave two spaces, and type in the > sign. This completes the Telephone Number field. File-Fax recognizes this as three separate fields because there are three pairs of < and > used.

So, on the screen, your Telephone Number Field should look like this:



Now move to line 10, column 3. Type in DATE HIRED. Leave a space and type in the Date Field as follows:

DATE HIRED <>/<>/.

Next, move the cursor to line 12, column 7 and type in SALARY. Leave a space and type in a dollar sign (\$), followed by a < sign. Type in six spaces, and then type the > sign. The > sign should be at line 12, column 22. The Salary Field should look like this:

SALARY \$< >

This is how the screen should be at this point.

THE # SIGN:

The pound sign (#) is used to designate a single-character input field. It is commonly used for Y or N input.

Move the cursor to line 17, column 3 and type PRESENTLY EMPLOYED (Y/N). Leave a space, and type in the # sign.

TEST PROGRAM

LAST NAME []

FIRST NAME []

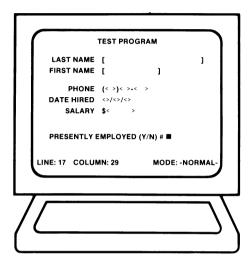
PHONE (<>)<>-< >
DATE HIRED <>/<>/>
SALARY \$< > ■

LINE: 12 COLUMN: 23 MODE:-NORMAL-

Your new entry should look like this:

PRESENTLY EMPLOYED (Y/N) #

At this point, you have completed the process of defining your fields. The necessary number of spaces have been allocated for each particular field.



When you prepare your own database later, anticipate the number of spaces you will need for each field, and allocate for the maximum anticipated number of spaces.

Your screen should now look like this.

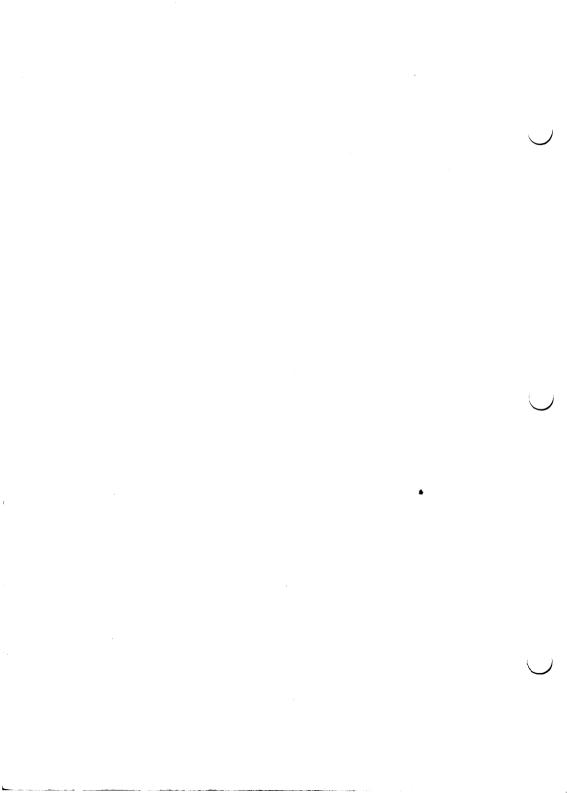
Functionally, you are through defining the fields. Now let us make our screen design a little more attractive.

Move the cursor up to line 9 and press CTRL-L once. This will insert a line. Then move the cursor to line 12 and again type CTRL-L. Move the cursor to line 15 and type in CTRL-K twice. You will note that this deletes lines while moving the bottom lines up.

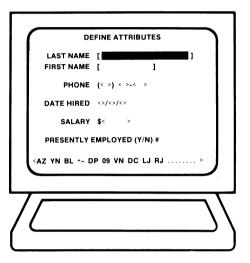
Now your screen design looks nicer.

To move on to the next stage of the database application development, **press CTRL-Z.**

File-Fax has a built in error handling function which will check for errors in the screen you have just developed. If you have made any errors, File-Fax will place the cursor at the point where the error occurred and display an appropriate error message at the bottom of the screen.



DEFINE ATTRIBUTES



An attribute is a description of the information which you may enter in a given field. Attributes include such designations as whether a field will contain alphabetic characters, numeric characters, etc. File-Fax now allows you to assign attributes to each of the fields you have defined.

Notice the pairs of characters at the bottom of the screen. They represent different attributes that can be assigned to each field. In order, you have AZ, YN, BL, +-, DP, 09, VN, DC, LJ, RJ.

The first six attributes control the type of characters that can be entered into a field. If none of these attributes are set, then any character (other than control characters) can be entered into your database in that particular field.

6.1 CHARACTER ATTRIBUTES

AZ—Alphabetic characters. These include any letters A through Z, but do not include blanks.

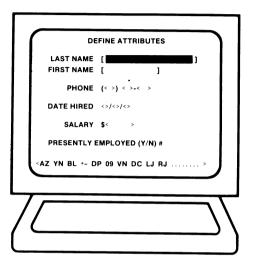
YN—allows "Y" or "N" to be typed. If you have defined a field that can be answered with either a Y or N (YES or NO), then this attribute may help.

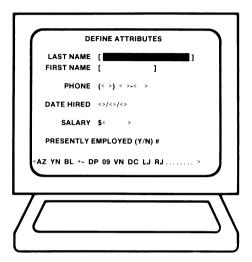
BL—Blank. Setting this attribute will allow a blank space to be typed into a field. It is highly recommended that you allow blank spaces for every field you define. If you do not allow blank spaces, then every position in the field must contain a character.

+-—This allows either the plus or minus sign to be typed.

DP—Decimal point. Allows "." to be typed.

09—Allows the digits 0-9 to be typed.





6.2 FIELD ATTRIBUTES

The next two attributes describe the entire field. After you enter information into the field, the following attributes will be checked if they are set.

VN - VALID NUMBER. This checks the validity of the number that was input into the field. For example, if "+-" was set, only one of these characters would be allowed in front of the numbers. If "DP" was set, only one "." would be allowed. No spaces can occur between digits in a field. If a field is to be used in sub-totals or totals in your reports, "VN" must be set. Setting this attribute will set the following attributes automatically: "BL", "09", and "RJ".

DC - DOLLARS AND CENTS. This checks for the valid entry of a money field. It does not allow fractions of a penny to be input. Setting this attribute will set the following attributes automatically: "BL", "DP", "09", "VN", "LJ" and "RJ" ("LJ" and "RJ" will be reviewed later).

Setting the "DC" attribute assumes a two digit entry past the decimal point. If you enter a number (say 56) followed by the return key, then File-Fax will add a ".00" onto the number (56.00). File-Fax will make sure the number always contains two decimal places. If you enter 6.3, File-Fax will give you 6.30.

6.3 JUSTIFICATION ATTRIBUTES

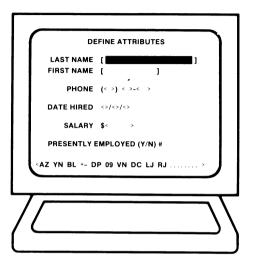
The last two attributes involve the justification of a field.

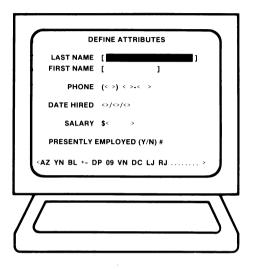
LJ—Left justify the contents of a field.

RJ—Right justify the contents of a field.

The left justify command will take the information in a field and place it up against the left end of the field. The right justify command will take the information in a field and place it up against the right end of the field.

If a field is specified as only LJ or RJ, then any character can be input into the field.





6.4 SETTING ATTRIBUTES

Notice how the first field is in inverse video. This indicates that you are ready to set the attributes for the first field.

The procedure for setting the attributes is to move the cursor at the bottom of the screen over the attribute you wish to set. Then the RETURN KEY is used to set the attribute. The special keys used to move the cursor are documented on the HELP screen.

Press CTRL G to get the HELP screen.

This screen is different from the help screen you used to develop your data entry screen. The help screen displayed when you press CTRL G will always reflect the stage of File-Fax you are in.

THE SPECIAL KEYS YOU NEED TO LEARN ARE AS FOLLOWS:

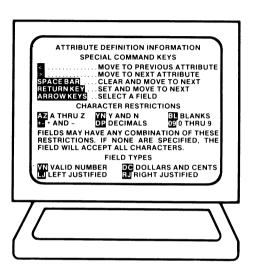
Pressing the **dot or greater than (>) key** will move the cursor to the right. If this key is pressed when the cursor is sitting on "RJ", then the cursor will wrap around to "AZ".

Pressing the **comma or less than (<) key** will move the cursor to the left.

The **RETURN key** is used to set an attribute. When the attribute is set, it will be displayed in inverse video.

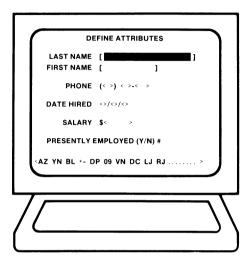
The **space bar** can be used to erase an attribute if it is set by accident. Using the Space Bar to advance the cursor (instead of the ">" key) is fine, but be careful not to wipe out any attributes you want to be set.

Pressing the **forward arrow key** will advance you to the next field to set its attributes. The **back arrow key** can be used to view the attributes of previous fields.



CTRL Q or the ESC Key can be used to end setting the attributes and return to the Data Entry screen. If CTRL Q is pressed, however, the attributes that you have set will be erased.

Press the space bar to return to the DEFINE ATTRIBUTES screen.



The first field should still be displayed in inverse video. Use the space bar to move the cursor to "L". We used the space bar instead of the ">" key because it was easier, and no set attributes were erased. Press RETURN to set the "L" attribute. Setting "L" allows us to enter any character into the field.

This is the first field, and also the primary key. It is recommended that the key field be left justified to make it easier to query information from the database. However, if your primary key is a number, then you may wish to right justify ("RJ") the field. The reasons for this will become apparent when you review the query section.

Now press the forward arrow key to advance to the next field.

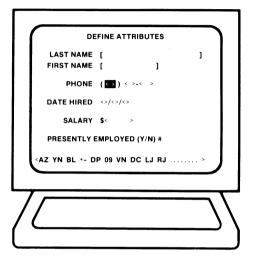
You are going to set the "L" attribute on this field also. To move back to "LJ", press the "<" key. Now press the RETURN key to set it.

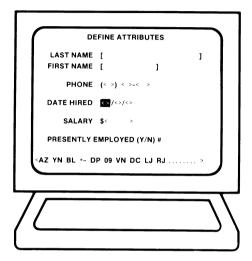
Press the forward arrow to advance to the next field.

Since the area code is a numeric field, you will set "09". "BL" should also be set to allow blanks to be entered. If "BL" was not set, and you didn't know the area code for one record, then you would be required to enter a number in each space of the area code field. Set "09" and "BL" for the area code field.

Press the forward arrow key and set the attributes "AZ", "BL" and "09" for this field. Press the forward arrow key again and set "BL" and "09" which completes the telephone number.

Press the forward arrow key to move to the month field in the "date hired" line.





For this field, you will probably want to set "BL", "09" and "RJ". Move to the next field and again set "BL", "09" and "RJ". The year field need only be set to "09" and "BL".

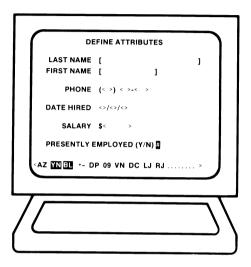
Press the forward arrow key to move to the salary field.

Press the space bar to move to "DC" and press RETURN to set the attribute. Notice how the "BL", "DP", "09", "VN", "LJ" and "RJ" attributes are also set. You may wish to set the "+–" attribute if you need to enter a "+" or "–" for your application.

When the "DC" attribute is set, all the attributes set with it are forced on. If you turn them off without turning off the "DC" attribute, they will still be set internally.

For our last field, set the "YN" and "BL" attributes. The "YN" attribute allows only the characters "Y" and "N" to be input.





6.5 SETTING THE 8 LEVEL SORT

The data stored in the database is kept in alphabetical (or numeric) order by the primary key. The primary key is the first field defined on your Data Entry Screen. Here the primary key is LAST NAME.

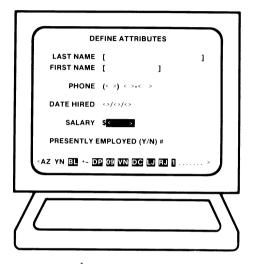
However, when you print a report (to the screen or to the printer), you have the option of printing the report in primary key order or a secondary order you can now define. To place the data in this secondary order, File-Fax has to SORT the data before it prints the report.

This sort can have up to 8 levels.

Let's set up a three level sort where SALARY will be the first level, LAST NAME will be the second level, and FIRST NAME will be the third level. Consequently, records will be sorted by SALARY; for those records where the salaries are the same, the records will be further sorted as in a telephone book.

The procedure for setting the sort levels is similar to setting the attributes. In fact, it can be done at the same time. The arrow keys are used to place the cursor over the field you wish to set. Then, by pressing a number between 1 and 8, you can set the level you wish for that field. The number will appear in inverse video over one of the dots located at the bottom right hand side of the screen.





Use the arrow keys to place the cursor on the SALARY Field and press the 1 key. Notice the 1 that appeared over the first dot.

Now place the cursor on the field for LAST NAME. Press the 2 key. Move the cursor to the FIRST NAME field and press the 3 key.

You have just set up a 3 level sort.

When a report is printed using this sort, records will be listed from lowest salary to highest salary. If more than one record has the same salary, for those records the last name will be in alphabetical order. The same holds true for first name if there is more than one record whose salary and last name are the same. This is what is meant by a 3 level sort.

The sort levels and the attributes can always be changed using option G on the main menu: MODIFY AN APPLICATION. This is explained in Chapter 7.

SPECIAL KEYS

There are two commands that can be used when setting the sort levels.

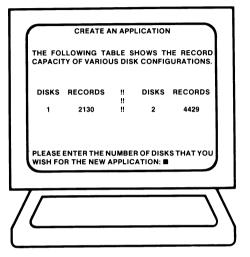
CTRL-O = Omit the field from the sort. If a field has a number assigned to it in the sort, pressing CTRL-O will omit that field from the sort. If there are higher numbers assigned than the sort level being omitted, those numbers will be shifted lower by 1 level.

CTRL-P = Push the sort levels 1 level higher. If you wish to insert a field as sort level 2 when 2, 3 and 4 have already been assigned, placing the cursor on the field that is presently set to 2 and pressing CTRL-P will move all the sort levels up one level.

CTRL-Z is used to exit this screen.

Press CTRL-Z to continue.





6.6 Creating the Database

This screen may be different depending on the computer system you are using. Chapter 4 explains how many disk drives your computer system can utilize for File-Fax. This will determine the number of disks displayed on this screen.

The number of records that can be stored on a disk will also vary, according to the computer system you are using.

Remember, the ESC key can be used here to return to the DEFINE ATTRIBUTES Screen.

For now, you will want to allocate 1 disk to the storage of your database. You can always expand the data base to include other disks in the future.

After you have entered the number of disks (press "1"), you will be asked to insert each of those disks into its correct drive. See Chapter 4 for the correct drive(s) to use.

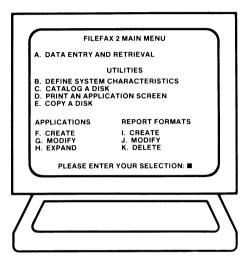
The disk that you will use to record your database should now be placed into drive 1. The warning message on the screen warns you that the information already on the disk (if any) will be totally destroyed. File-Fax will format the disk and place the necessary information about your application onto the disk. This disk is called the primary disk for this reason.

When your disk is inserted, **press the** "**Y**" **key** to start the creation process. This process will take several seconds. The main menu will appear when the creation process is complete.



CHAPTER

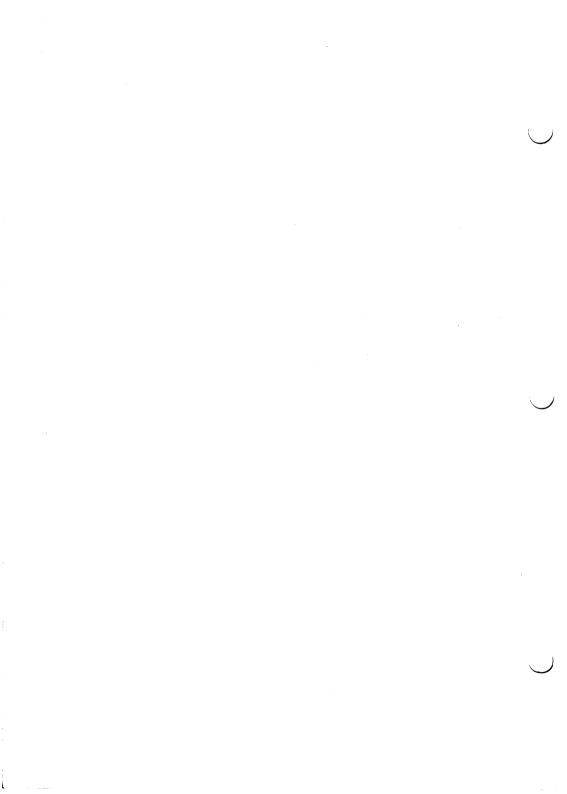
MODIFY AN APPLICATION



Pressing option G on the main menu allows you to modify the attributes and the sort levels for the fields in a specific application. Once the changes have been made, pressing CTRL Z will record the changes on the primary disk.

For example, this option is useful should you forget to allow blanks in a field. You can quickly change the attributes for that field to allow blanks without destroying any of the information in your database.

Should you need to sort the database using different criteria than those previously used, this option allows you to do .so.



SETTING SYSTEM **CHARACTERISTICS**

FILEFAX 2 MAIN MENU

A. DATA ENTRY AND RETRIEVAL

UTILITIES

- **B. DEFINE SYSTEM CHARACTERISTICS**
- C. CATALOG A DISK
 D. PRINT AN APPLICATION SCREEN
 E. COPY A DISK

APPLICATIONS

REPORT FORMATS

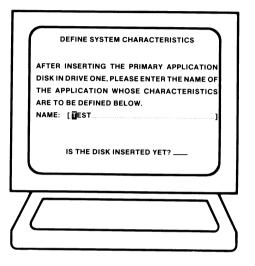
- F. CREATE G. MODIFY H. EXPAND
- I. CREATE J. MODIFY K. DELETE

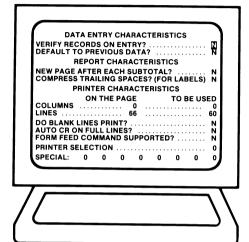
PLEASE ENTER YOUR SELECTION: ■

Now that you have created the primary disk for your application, you must first define the system characteristics before you can run the system.

Press "B" to define the system characteristics.

On this screen, File-Fax will print the name of the application you have just created. If the name is different, or the first field is blank, type in the correct name and be sure the disk is inserted properly. Press return to move to the next field. **Answer yes ("Y")** and continue.





The screen that should be displayed is the system parameter screen. On this screen you will be able to define parameters concerning the input of information, the printing of reports, and your printer's specifications. The cursor should be sitting on the first field. Below is a description of the parameters on this screen that can be set.

These parameters may be changed at any time in the future.

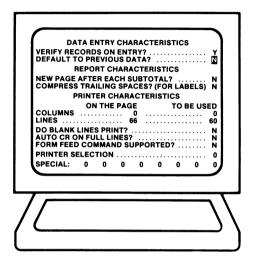
DATA ENTRY CHARACTERISTICS

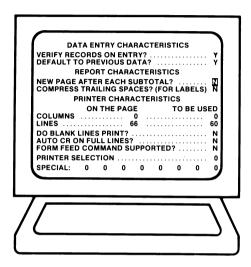
These are two very useful devices for entering records. Verifying records allows you to review each record after you enter it onto the screen, before you instruct File-Fax to accept it onto the disk. It does this by requiring you to press the RETURN key to accept the displayed information. If any other key is pressed, File-Fax will allow you to edit the information. Without this feature, File-Fax will store your record immediately after you complete the last field. If you want very rapid entry, you may say no ("N") to this feature. For more careful entry you should request this feature. For now, type "Y" over the "N" that is displayed for this question.

Default to previous data is useful if you are entering records with similar information in them. Default allows you to recall any or all of the information typed into the previous record in any field by pressing RETURN.

For example, if you are entering a group of records with the same last name, press RETURN whenever you are in the 'last name' field. This will recall the entry that was made in this field on the last record. Typing any other information (including spaces) into a field will cancel the default value.

For now, answer yes ("Y") into this field and continue with the report characteristics.





REPORT CHARACTERISTICS

File-Fax gives you a complete editor for designing your report formats. File-Fax allows you to print totals and sub-totals on fields. Sub-totals are printed after the primary key changes. For example, if you had 10 entries under the name Johnson, after the tenth Johnson was listed, a sub-total of a dollars and cents field could be printed for all the Johnson records.

The first question asked under the report characteristics is whether you want a new page to start after a sub-total is printed. For this application, type NO ("N").

The next question also concerns the printing of reports. If you were to use File-Fax's report capability to print out all the first and last names in our sample application, a part of the report might look like:

JOHN DOE CHRISTOPHER SMITH etc.

However, if you told File-Fax to compress trailing spaces, by answering "Y" to this question, the sample above would look like:

JOHN DOE CHRISTOPHER SMITH etc.

This feature is particularly valuable if you are printing mailing labels, where it is helpful to have all the parts of the name and address together, without blank gaps.

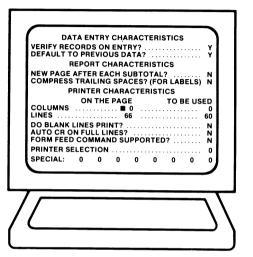
For now, however, type NO ("N").

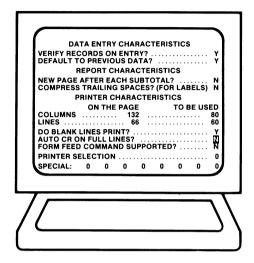
PRINTER CHARACTERISTICS

The first entry is for the number of columns your printer can handle. This will normally be 40, 80, or 132. For your example, place either 80 or 132 into this field. The next entry is the number of columns you wish to work with. This will determine the number of columns your report editor will allow you to handle for this example. Input 80 followed by a space bar or a carriage return (CR).

Under lines, the default values of 66 lines per page and 60 to be used are displayed. You may wish to change these at a later date, but for now, press RETURN twice to skip down to the next question. If you do change these numbers, the number of lines used must be at least three less than the number of lines per page.

When some printers receive a blank line (just a carriage return) they do not advance the paper. If your printer does this, enter an N here and File-Fax will send a line feed to advance the paper. However, almost all printers do advance the paper in this situation, so type a "Y" for now.





Some printers will automatically generate their own carriage return when a full line is printed on the printer. If yours does so, enter a "Y" to this question and File-Fax will not generate another carriage return. For now, however, enter an "N". If you later find that File-Fax double spaces your printouts for no apparent reason, you should probably change this to "Y".

In response to the question concerning form feed support, type "N". If you know for certain that your printer can accept form feed commands from the computer, entering a "Y" may help speed up a form feed at the bottom of a page. Remember, however, that form feed support is completely optional and File-Fax will always operate without it. If you are using an unusual size of paper, that is, other than 66 lines per page, it may even be necessary to answer "N".

The answer to the PRINTER SELECTION question may be different, depending on the computer you are using. Chapter 4 will explain the options for your computer. In most cases, the numbers 1, 2 or 3 will be valid.

At the bottom of this screen are spaces for 8 special characters that can be sent to the printer before printing starts (to enable or disable special features your printer may have.) Decimal numbers (representing ASCII characters) can be placed into these fields. For the correct values here, consult your printer manual or local dealer. If you are unsure of the proper values at this time, press CRTL Z to exit the screen quickly, or press RETURN 8 times to advance to the end of the screen.

NOTE: If you have trouble using these special functions, try adding 128 to your decimal numbers.

The instruction PRESS RETURN TO VER-IFY will be displayed at the bottom of your screen.

Pressing RETURN will enter this information onto your primary disk. Pressing any other key will allow you to modify the information on the screen.

Press RETURN to continue.



DATA ENTRY AND RETRIEVAL

FILEFAX 2 MAIN MENU

A. DATA ENTRY AND RETRIEVAL

UTILITIES

B. DEFINE SYSTEM CHARACTERISTICS
C. CATALOG A DISK
D. PRINT AN APPLICATION SCREEN
E. COPY A DISK

APPLICATIONS
REPORT FORMATS
F. CREATE
J. MODIFY
H. EXPAND
K. DELETE

PLEASE ENTER YOUR SELECTION:

Now that you have created an application, and defined the system characteristics, you may enter data into your database.

To run your application, **press A** on the main menu. This is labeled DATA ENTRY AND RETRIEVAL.

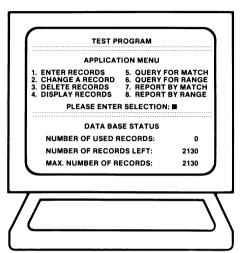
This screen should be displayed when option A is chosen. If the name displayed in field 1 is correct, press RETURN to move to the next field. If the first field is blank, or if the wrong application name is displayed, enter the correct name and press RETURN to move to the next field.

Insert your application disk(s) into their correct drives. If your application is more than a 1 disk database, then the primary disk goes into drive 1. The other disks (called secondary disks) can go in any order into the other disk drives.

Once the disk(s) have been inserted correctly, **enter a "Y"** for the question "Is each disk in the correct drive". File-Fax will now load in your application from the primary disk and run it.

Whenever File-Fax goes out to the disk. "***BUSY***" will appear at the bottom of your screen.

RUN	AN APPLICATION
AFTER INSERTIN	NG THE DISK(S) FOR THIS
APPLICATION IN	ITO THEIR DISK DRIVE(S)
PLEASE ENTER TH	E NAME OF THE APPLICATION
TO BE RUN BELOW	<i>i</i> .
NAME: [DEST]
IS EACH DISK IN	THE CORRECT DRIVE?
/	`



The application menu will now appear. At the top of the screen you will see the title of your application. Under the title is a list of all the options available to you, and under that is the database status. The DATABASE STATUS gives you information about your records: the number of records you have used, the number of records remaining to be used, and the maximum number of records possible for this application. If at any time you need more record capacity, you may use the File-Fax function EXPAND (on the main menu) to expand the number of disks for your application.

ESC can be used here to exit to the main menu. Never turn the computer off or take out your database disks unless this screen or the main menu is displayed. If you do, you may destroy your database because important information may not have been written to the disk yet.

Before explaining the options on the system menu, let's review the control key commands available to you.

Whenever you are entering information into fields in the File-Fax system, there are certain commands available to you. For example, **press CTRL G** to access the help screen.

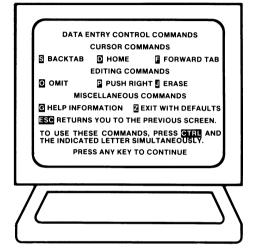
This screen lists the special commands available for entering information into fields. Except for ESC, these commands require the use of the CTRL key.

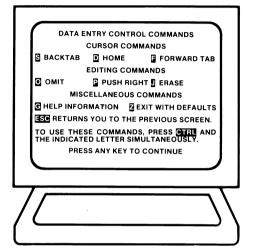
CURSOR COMMANDS

CTRL S — **Backtab key.** Pressing this key will move the cursor 8 characters back within the field you are in. If the beginning of the field is encountered, the cursor will remain at the first position in the field.

CTRL D — **Home.** Pressing this key will move the cursor to the first position of the first field on the screen.

CTRL F — Forward tab key. Pressing this key will move the cursor 8 characters forward within the field you are in. If the end of the field is encountered, the cursor will remain at the last position in the field.





EDITING COMMANDS

CTRLO — **Omit a character.** Pressing this key will delete the character under the cursor, and all other characters to the right of the cursor will be shifted left by one space. This will only affect characters within a field.

CTRL P — Push a character. Pressing this key will push the character under the cursor, and all other characters to the right of the cursor one space to the right. A blank space will be created in which you may wish to insert a character. It is possible to push a character off the field to the right and lose it, so watch this. This will only affect characters within a field.

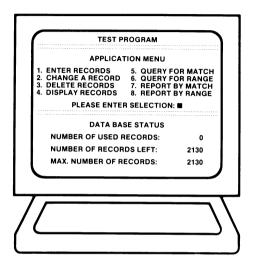
CTRL J — Erases all characters from the cursor to the end of the field.

CTRL G — Go for help. This command is used to access this help screen.

can be thought of as pressing the RETURN key as many times as it takes to complete the screen. If we selected the default option under system characteristics, all the fields remaining from the cursor position to the end of the screen will default to their previous value. If the default option was not selected, then these fields would be left blank. If the verify option was selected, then you would still have to verify the screen.

DATA ENTRY CONTROL COMMANDS
CURSOR COMMANDS
S BACKTAB HOME FORWARD TAB
EDITING COMMANDS
O OMIT PUSH RIGHT FRASE
MISCELLANEOUS COMMANDS
HELP INFORMATION EXIT WITH DEFAULTS
SO RETURNS YOU TO THE PREVIOUS SCREEN.
TO USE THESE COMMANDS, PRESS OTT AND
THE INDICATED LETTER SIMULTANEOUSLY.
PRESS ANY KEY TO CONTINUE

Press the space bar to return to the application menu.



You will notice that this screen contains only one field. That field is one character long. The commands just reviewed will not help very much on this screen, but they will on other screens that have more fields of longer length.

Besides these special commands, there are certain keys that will aid you in moving the cursor around from field to field.

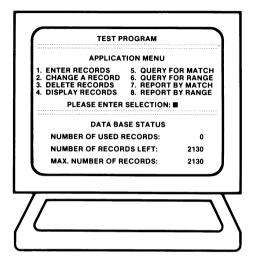
RETURN—The RETURN key will advance the cursor to the beginning of the next field. If no field exists, File-Fax will process the screen.

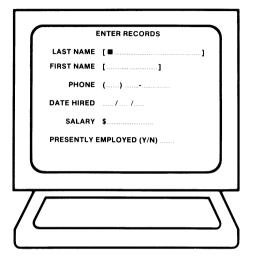
→ -FORWARD ARROW KEY. Pressing this key will move the cursor forward one space without destroying any characters. If the end of a field is reached, the cursor will jump to the beginning of the next field. If there are no other fields, File-Fax will process the screen.

←-BACK ARROW KEY. Pressing this key will move the cursor back one space without destroying any characters. If the beginning of a field is reached, the cursor will jump to the first position of the previous field. If there are no other fields to jump to, then File-Fax will cause the computer to "beep", alerting you that the cursor can go no further.

SPACE BAR—The space bar will destroy characters as it advances the cursor. If you enter information in a field that already contains some information, you may have to press the space bar a few times to wipe out any leftover characters at the end of the field, since pressing RETURN will accept the old information you don't want. CTRL J can also be used for this purpose.

You are now ready to enter records into your database. To do this, **press "1"** to enter your data.





9.1 ENTER RECORDS

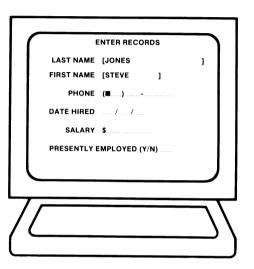
The application screen you developed will be displayed on the screen. The cursor will be positioned at the beginning of the key field. You are ready to enter your first record. To learn some of the capabilities of the File-Fax system, follow the directions here

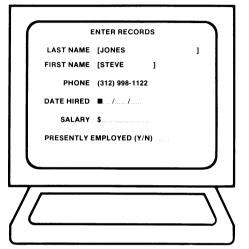
Press the space bar three times and enter "JONES," then press the RETURN key. Notice how the name was left justified. This is because when you created the application in the define attribute section, you specified this field to be left justified.

For first name, enter "STEVE". Remember to press the RETURN key.

The cursor should be positioned in the first position of the area code field of the phone number.

Try pressing the letter "K". Notice how the computer "beeps". You defined the attributes for this field as "BL" and "09". Therefore, File-Fax will not allow you to enter a letter here. Enter the area code "312". Notice how the cursor jumped to the beginning of the next field. Press the back arrow key and the cursor is now at the beginning of the area code field again. Now press the RETURN key and you are back at the first position of the prefix field for phone number. Enter "998", followed by "1122".





The cursor should now be positioned at the beginning of the month field under DATE HIRED.

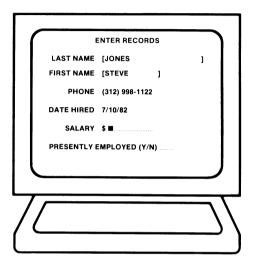
ENTER a "7" followed by a RETURN. Notice how the "7" was right justified. This is because you set the attribute "RJ" for this field.

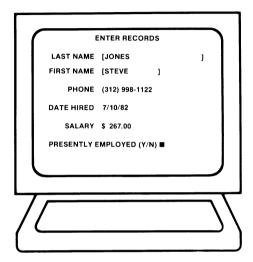
Next enter "10" for day and "82" for year.

Before you enter the salary field, here are some of the characteristics of a "dollars and cents" ("DC") field.

- 1. Leading zeros will be cleared, so 09.57 becomes 9.57.
- 2. The contents of the field will be checked for a decimal point and two decimal places. If anything is missing, File-Fax will automatically place a decimal point and/or one or two zeros at the end of the number.
- 3. The field will be right justified.
- 4. An error message will be displayed at the bottom of the screen if an invalid number is entered. This message will read "INVALID NUMBER".

Enter a "267" followed by a RETURN for the salary field. Notice the addition of the decimal point and two zeros.

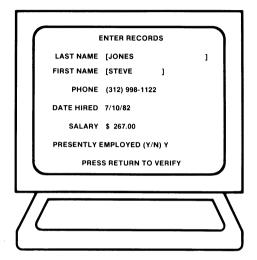


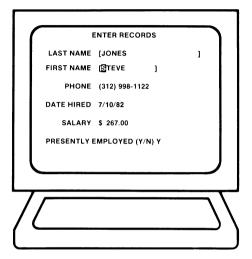


The cursor is now at the single character (Y/N) field. You defined the attributes "BL" and "YN" for this field. Try typing in the character "E" into this field. The computer "beeped" as you probably expected. **Enter a "Y"** to complete the screen.

The message at the bottom of the screen should now read "PRESS RETURN TO VERIFY". If you had not set the verify option in the system parameters, File-Fax would have automatically processed the screen after the completion of the last field. Pressing RETURN here will enter this information into the database. If you find any errors on this screen you can press the space bar (or almost any other key), and the cursor will jump to the first field on the screen to allow you to edit the information.

Press the space bar so that you may edit this screen. Then press the RETURN key once so that the cursor is sitting at the beginning of the first name field.





You forgot that Mr. Jones' first name is Sam, not Steve. Type in "SAM" over the other characters in this field.

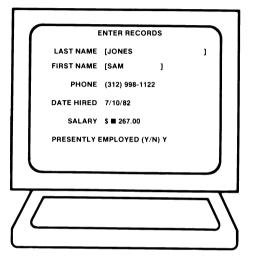
You must space over the "VE" with the space bar (or press CTRL J), or else the "VE" will be retained when RETURN is pressed.

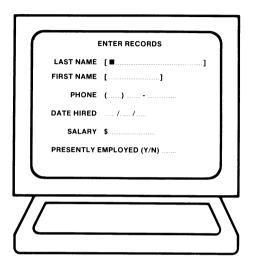
This is true of all fields except for VN and DC fields. If the cursor is at the first position of such a field when RETURN is pressed, then the information contained in the field will remain. Otherwise, all characters under and to the right of the cursor will be cleared and a normal check for a valid number and, in the case of a DC field, for a decimal point and two decimal places as well will occur.

Move the cursor to the salary field.

Enter "262.5" followed by a RETURN. Notice how File-Fax automatically entered the missing "0". Press RETURN to continue.

Press RETURN to enter this record into the database. File-Fax will enter the information into the database and return for another entry.





Press the RETURN key.

The last name "JONES" appears in the first field. This is because you set the default capability in the system characteristics. Whenever the cursor is on the first position of a field and RETURN is pressed, the information entered for that field on the previous record will be displayed. If any character is typed into a field, no other previous information will default for that field.

Under first name, enter "SY" followed by a RETURN.

Next type a CTRL Z. This will default all the previous entries for the rest of the screen. **Type the RETURN key** to enter this record into the database.

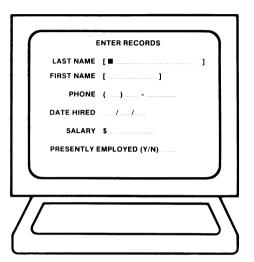
If the default capability was not set, blanks would be displayed instead of the previous data. Remember that this can always be changed by using the "B" option on the system menu ("DEFINE SYSTEM CHARACTERISTICS").

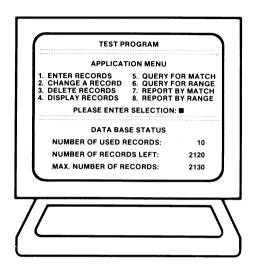
You have just entered two records with the same primary key. File-Fax allows you to do this whereas many database management systems do not.

So that you may have some data to work with for your sample application, type in 5 to 10 additional records.

When you have completed this, **press ESC** to return to the Application Menu.

Be careful. If you type ESC twice, you will return to the main menu. If this occurs, go back to the instructions at the beginning of this chapter.





9.2 CHANGE A RECORD

The second option of the application menu is used to change an existing record.

Press the "2" key.

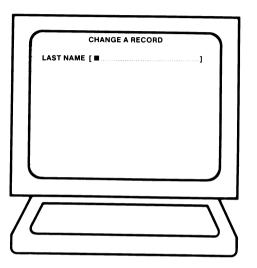
The key field of the application screen should be displayed.

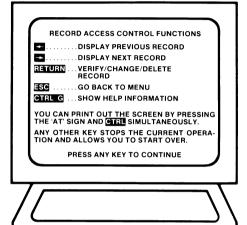
If you wish to search for a record of a person whose last name is "JONES", you can type in "J" followed by RETURN.

Type in J and press RETURN.

Did you notice the question marks that briefly appeared after the "J"? They stand for wild cards. This means that you were searching for a record whose primary key starts with "J", and contains any other information in the other spaces in the field.

You are currently in a special record search mode. This mode occurs in CHANGE A RECORD, QUERY FOR MATCH, and QUERY FOR RANGE. There is a special help screen associated with this. **Press CTRL G** to display this help screen.





If this is NOT the screen displayed, then you are not in an active search mode. To be in an active search mode, you have to access a record (not just type criteria into the key field).

The following is an explanation of the functions available to you in this record access mode.

←-BACK ARROW KEY. When this key is pressed, File-Fax will look for an entry located prior to the one displayed that meets the criteria specified. If such an entry exists, it will be displayed. If one doesn't exist, the message "NO MORE RECORDS" will be displayed at the bottom of the screen.

This key is pressed, File-Fax will look for an entry located after the one displayed in the database which meets the criteria asked for. If one exists, it will be displayed. If such an entry doesn't exist, the message "NO MORE RECORDS" will be displayed at the bottom of the screen.

RETURN—Pressing the RETURN key under change or delete a record will allow you to change or delete a record, depending on the selection you are in.

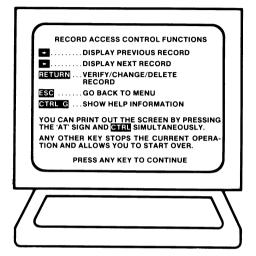
ESC—The ESC key will return you to the application menu.

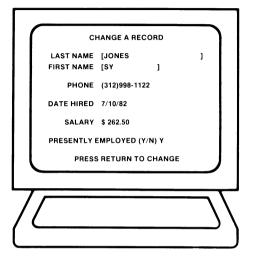
CTRL G—Pressing CTRL G will display this screen.

CTRL @—Pressing the @ key while the CTRL key (and the SHIFT key if necessary) is depressed will print the current screen onto the printer. If you use this command, make sure the printer is set up correctly (as selected under define system characteristics) and is turned on. This key will work only when you are in display or query for records. Some versions of File-Fax may use another key for this command. Check Chapter 4 for the correct key.

Pressing any other key while in this mode will cancel the mode and return you to the key field.

Press the space bar to return to the program.





Since you wish to change the record for "SAM JONES", press the forward arrow key to search for the next records. Once Sam Jones appears on your screen, **press** the **RETURN** key to change the record.

Notice that the cursor is at the first position in the field. File-Fax allows you to change any part of the record, including the key field. See if you can change "SAM" to "CHARLES". Once you have made the change, press CTRL Z to exit from the screen and then press RETURN to update the database.

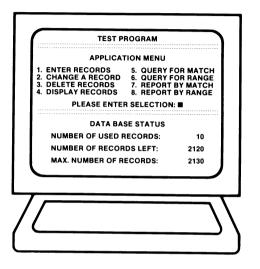
All the information on the old record will be erased. Only the information on the updated record will be stored.

Press the ESC key to return to the application menu. File-Fax will update the database before it returns to the application menu.

9.3 DELETE RECORDS

The third option of the application menu is used to permanently remove a record from your database. This option is selected by pressing the "3" key.

Press the "3" key.





As with CHANGE A RECORD, only the key field will appear. You can use the same search capabilities here as you did for CHANGE A RECORD.

Press the forward arrow key once. The question mark that is printed marks this position as a wild card. Next press the "O" key followed by a RETURN. You have just asked the system to find a record whose primary key has an "O" in the second position. The arrow keys can be used to search through the database to find all records whose primary key meets this criteria.

The message line reads "PRESS RETURN TO DELETE". Pressing the RETURN key here will permanently delete this record from your database.

After a record is deleted, it will remain displayed on the screen until another key is pressed. The arrow keys can be used to search for additional records to be deleted. Pressing the space bar allows you to enter another criteria for searching to delete a record. Pressing ESC will return you to the application menu.

Since you do not wish to delete a record now, **press the ESC key** to abort this process and return to the application menu.

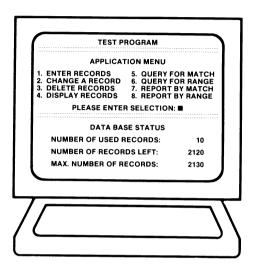
9.4 DISPLAY A RECORD

The fourth option of the application menu is used for reviewing your records. The display function does not allow you to enter, change, or delete records, only display them. This option is selected by pressing the "4" key.

Press the 4 key.

As with CHANGE and DELETE A REC-ORD, the key field of the application screen will appear. To start at the beginning of your records, **press the RE-TURN key.** This gives you an all wild card search. Use the forward arrow key to step through each record in your database. The back arrow key can be used to step backwards through your database.

As with CHANGE and DELETE A REC-ORD, you can specify criteria for searching through the database, such as all records whose primary key has an "O" in the second position and an "E" in the fourth position. Just make sure the other spaces in the field are filled with question marks. File-Fax will search for blanks as a valid character in a position if you enter any.



Pressing the ESC key will bring you back to the application menu. Pressing any other key will keep you in "DISPLAY RECORDS".

Press the space bar to return to the key field.



INFIELD SEARCH

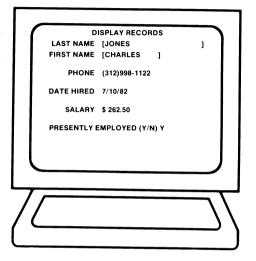
File-Fax also gives you the ability to search for a sequence of characters located anywhere within a field in any record. This is termed an **infield search**.

For example, if you wish to access all records whose last name contains the characters "NE", we would type in an exclamation point (!) followed by "NE".

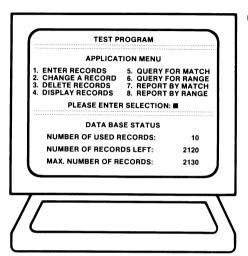
Type in an exclamation point (!) followed by "NE" and press RETURN. The forward and back arrow keys can be used to view all records in the database whose last name contains "NE".

When performing an infield search, the exclamation point must be located in the first position of the field. In any other position, it will act as a wild card, just like a question mark. Note, however, that infield searching will not work in a dollars and cents field.

Infield search will also work under CHANGE A RECORD, DELETE RECORDS, and QUERY FOR MATCH.



Press the ESC key to return to the Application Menu.



9.5 Query for Match

The fifth option of the application menu is used to query for records by any field. This works basically the same way as DISPLAY RECORDS except that you can enter search criteria for any field. The wild card and infield search capabilities that were used in DISPLAY RECORDS can be used here as well.

This option is selected by pressing the "5" key.

Press the "5" key.

The application screen should appear. In any field enter the information you want File-Fax to look for in your records.

As an example, let's search for records where the first name contains an "S" and the month of hire was "7".

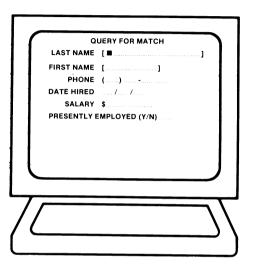
Press RETURN and enter "!S" in the second field.

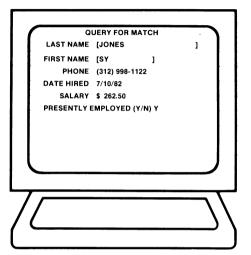
Press RETURN through the fields until the cursor is sitting on the month field.

Since we know that the month field is right justified, we want to place the "7" in the second position of the month field. Press the forward arrow key once. Now enter the "7".

Pressing CTRLZ will place question marks in all the remaining fields on the screen.

When searching for records using the query feature, it is important to make sure that question marks are located in ALL positions other than those into which you entered information.





Remember that blank spaces are also considered characters.

When doing a query on a dollars and cents ("DC") field, File-Fax will right justify and add a ".??" if needed. Therefore, you can do a search on dollar amounts.

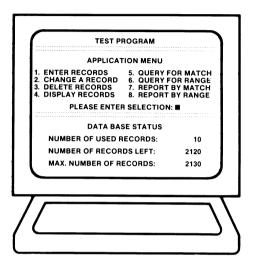
Try using the forward arrow key to search through your database. Remember that you may send any information on the screen to the printer at this point.

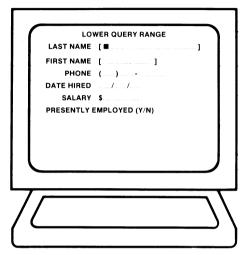
When you wish to continue the tutorial, **press the ESC key** to return to the application menu.

9.6 Query for range

File-Fax allows you to search for ranges of characters or numbers on any field. This capability can be accessed by pressing the sixth option on the application menu, "QUERY FOR RANGE".

Press the "6" key.



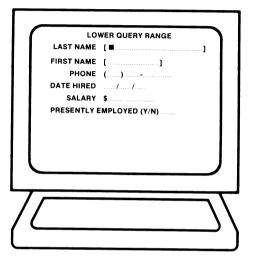


Notice the title displayed on the first line of this screen. It says "LOWER QUERY RANGE".

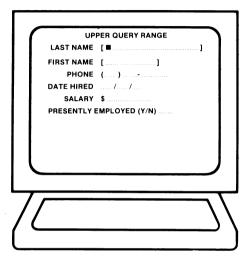
File-Fax allows you to define ranges by filling out two screens. Each screen is filled out using the same techniques used for QUERY FOR MATCH. The first screen is this one. This is the lower end of the range you are searching for. After this screen is filled out, an identical screen will be presented with the title "UPPER QUERY RANGE". On that screen you will fill out the upper limit of the range you are searching for.

If either the lower or upper query range is completely filled with question marks for a field, this will be thought of as an "open end" for that range. Thus you can create "greater than" and "less than" queries. Let us query the database for all records in which the first name begins with a letter between the range of "P" and "T", and the area code begins with a number less than "5".

Press RETURN to set the cursor at the start of the first name field. Enter a "P" followed by a RETURN. Since you are looking for area codes that are less than "5", leave the area code field filled with question marks to leave the lower limit open ended.



Press CTRL Z to exit from the screen.



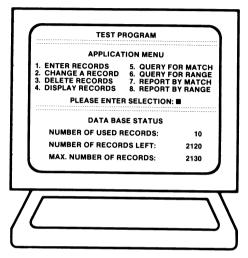
This is the UPPER QUERY RANGE screen. Press RETURN to place the cursor at the beginning of the first name field. Enter a "T" followed by a return. The cursor should be at the first character of the area code field. Enter a "5" for the upper limit of our range. Now **press CTRL Z** to exit this screen

If any records exist in our database that match this query, the first one will be displayed. Using the forward arrow key, you can access the others that may exist.

When you are done, **press ESC** to exit to the application menu.

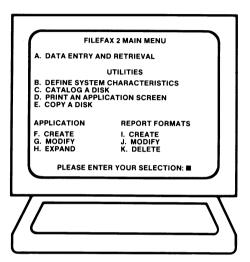
Since you have not specified any reports, you cannot review options 7 and 8. These are "REPORT BY MATCH", and "REPORT BY RANGE". You will review these options later in the manual under PRINTING REPORTS.

For now, **press ESC** to exit to the system menu.



CHAPTER 10

CREATE A REPORT



File-Fax has a built-in report editor which allows you to create reports of your own design. This chapter explains how to design your report formats.

File-Fax allows you to store up to four report formats on your primary disk. These reports can be from 10 to 132 columns wide. The column specification is established in the system characteristics. Internally the reports are stored in 132 column format. If you design a report in 132 column format, and then print in 80 column format, File-Fax will cut off all columns past column 80 from the report.

Press "I" on the system menu so that you may design a report format.

This screen allows you to name the report you are about to create.

The first field should contain the name of your application. If it is blank or the name is wrong, enter the correct name of the application.

Press RETURN to move the cursor to the next field. If you had a report format you wanted to use to create another format, you could enter its name in this field. For now, press RETURN to move down to the third field.

In this field, enter the name of the report you are about to create. Call this report TEST REPORT.

Enter this name into the field, and **press RETURN** to continue.

PLEASE ENTER THE NAME OF THE APPLICATION HERE: **IDEST***** IF YOU WISH TO USE AN EXISTING REPORT TO CREATE ANOTHER, PLEASE ENTER ITS NAME HERE: [
CREATE ANOTHER, PLEASE ENTER ITS NAME HERE: PLEASE ENTER THE NAME OF THE REPORT TO



File-Fax will get the original application design from the disk and present you with this screen.

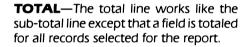
The lines divide the screen into five sections. These sections include TITLE, HEADER, PRINT, SUB-TOTAL and TOTAL. The bottom left hand corner of the screen indicates on which of these sections the cursor is currently positioned.

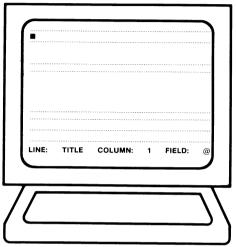
TITLE—This line is used to specify the title of the report. You can also specify page numbering here. Any text typed on this line will be printed at the top of each page of your report. If no title is specified, this line will not be printed on the report.

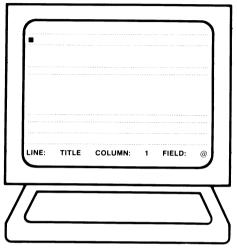
HEADER—There are three header lines. On these lines you can type in any text; one use would be to label columns. The headers you type will be printed at the top of each page of your report. If any line does not contain a character, it will not appear on the printed report. Examples of headers could be LAST NAME, PHONE, DATE STARTED, etc.

PRINT—There are 9 print lines specified in this section. Using special characters which will be described later, you can specify any field that appeared on your Data Entry screen to be printed on this report. Again, if only one line is specified, then only one line will be printed on the report.

SUB-TOTAL—This line can be used to print the sub-total of a field across records that have the same primary key. Any time the primary key changes, the sub-total will be printed and then reset to zero to start totaling the next group of records. Any text may be placed on this line as well. Any field sub-totaled on this line must have been declared a valid number ("VN") in the attributes. If the field was declared a dollars and cents ("DC") field, it will automatically be a valid number.







HOW A REPORT IS DESIGNED

The number of columns you specify to use for the reports in the system characteristics will be the number of columns available for your use on the screen. As you type, the screen will scroll from the center to allow you access to column numbers greater than your screen size, if necessary.

The ESC key can be used to flip back and forth between the data entry screen and the report screen. While on the data entry screen, the arrow keys can be used to select a field. Once selected, the ESC key brings you back to the report screen where a CTRL-T will allow you to tag the field selected anywhere you specify. These special keys will be reviewed in the next section.

For now, **press CTRL - G** to access the help screen for the report section.

SPECIAL KEYS

You may notice that the CTRL keys used in the report section are similar to those used when the data entry screen was designed.

CURSOR COMMANDS

CTRL W—Move the cursor up and to the left one space.

CTRL X—Move the cursor down and to the left one space.

CTRL R—Move the cursor up and to the right one space.

CTRL V—Move the cursor down and to the right one space.

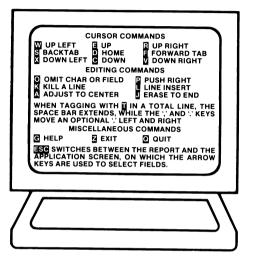
CTRL E—Move the cursor up one line.

CTRL C—Move the cursor down one line.

CTRL S—Back tab.

CTRL F—Forward tab.

CTRL D—Move the cursor to the home position, which is the upper left hand corner of the screen.





EDITING COMMANDS

CTRL O—Omit a character or field.

This command omits a character or a space. This enables you to move words or lines to the left. Position the cursor to the left of the characters you wish to move and use CTRL-O until you find the best position, or have deleted those characters you don't want. Pressing CTRL-O when the cursor is on a field will erase the field.

CTRL P—This command moves to the right all words, letters, or fields under or to the right of the cursor. File-Fax will not allow you to push a field off the report boundries.

CTRL A—This command centers a line on the screen.

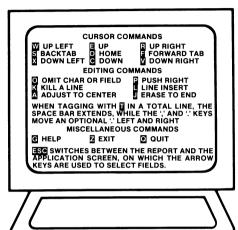
CTRL J—This command allows you to erase last segments of lines without erasing the entire line. Using CTRL-J will erase all characters and fields under and to the right of the cursor.

CTRL K—This command deletes a line. When the cursor is at any point on a line, using CTRL-K will erase the entire line and move the lines below it (in the same section) up one line. This will only work in the HEADER and PRINT sections.

CTRL L—This command allows you to insert a line. When the cursor is at any point on a line, using CTRL-L will move that line down (within its section), leaving a blank line in its place. By moving one line down, you will also move down all lines beneath it in that section. Be sure you will not lose a line at the bottom of the section. Don't forget that CTRL-K and CTRL-L only work in the HEADER and PRINT sections.

CTRL T—Tag a field. The CTRL-T key allows you to place a field anywhere in the print, sub-total or total sections. When CTRL-T is used on the TITLE or HEADER lines, a 3 character field is reserved for page numbering. After CTRL-T is used for a "VN" or "DC" field in the sub-total or total lines, pressing the space bar will extend the field, while the period (.) or comma (,) will move the decimal point around within the field. The greater than (<) or less than (>) keys may also be used for this purpose.





MISCELLANEOUS COMMANDS

CTRL G—This command will display this help screen.

CTRL Z-EXIT—Pressing CTRL-Z will cause File-Fax to save the report format specified on the disk and return to the main menu.

CTRL Q-QUIT—Pressing CTRL-Q will return File-Fax to the CREATE A REPORT Screen **without** saving any of the work done to the disk. However, if you were creating a new report, a completely blank report with the name you specified will be left on the disk. Option K (Delete a Report) on the main menu may be used to delete this report from the disk.

ESC—The ESC key is used to switch between the report screen and the data entry screen. While on the data entry screen, the arrow keys can be used to select fields.

Press the space bar to return to the report screen.

The cursor should be in the home position (upper left hand corner). If it is not, press CTRL-D to move the cursor there.

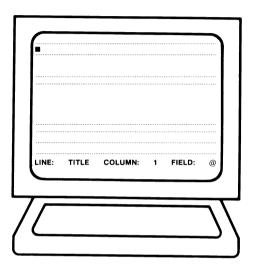
For the title line, type in the following:

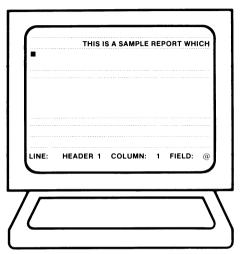
THIS IS A SAMPLE REPORT WHICH WE CALL TEST REPORT.

If your screen displays less than the 80 columns you specified for your reports in the system characteristics, then it will eventually start scrolling as you type in the above line in order to keep the cursor as close to the center as possible. This scrolling will occur whenever the screen width is less than the number of columns specified in the system characteristics.

Once you have typed in the title line, leave five spaces and PRESS CTRL-T. The three inverse pound signs represent a page number field.

Press CTRL-A and then RETURN. The CTRL-A adjusted the title line to the center of the 80 column "page". The RETURN key moved the cursor down one line to the first line of the HEADER section.





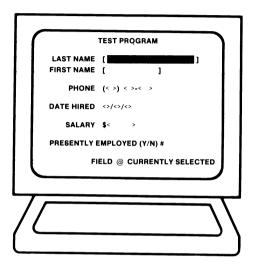
This section allows you to print headers for your columns in your reports. You want the report to print out last name, first name, phone number and salary.

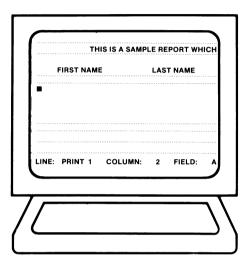
Press the RETURN key twice to move the cursor to the third line in the header section. Space over to column 5 and type FIRST NAME. Leave ten spaces and type LAST NAME. Leave ten spaces and type PHONE NUMBER. Finally, leave six spaces and type SALARY.

Press the RETURN key and you will be on the first line of the print section.

Now press the ESC key.

The ESC key allows you to alternate between your data entry screen and the report screen. While you are on the data entry screen, use the forward and backward arrows to move from field to field. When you have positioned yourself on the field labeled FIRST NAME, **press ESC** to return to the report screen.





Space over four spaces and press CTRL-T to tag the field selected onto the screen. Space over four spaces and press the **ESC** key to bring back the data entry screen. Use the arrow keys to select the last name field and then press the ESC key again. Press CTRL-T to tag the last name field onto the screen. Space over four spaces so that you may now place the phone number fields onto the screen. Enter an open parenthesis for the area code "(". Press ESC and select the area code field. Press ESC and CTRL-T followed by a close parenthesis ")". Leave a space and see if you can enter the rest of the phone number correctly. Leave four spaces and place the SALARY field onto the screen using these same techniques.

You are only placing fields on your first PRINT line. It is possible to use up to 9 lines for each record on your reports. All lines that are blank will not be printed. This includes blank lines between used PRINT lines, the TITLE line, and any of the HEADER lines. However, pressing CTRL-B in the first column of a blank line will display an open bracket character on the screen. which will signal File-Fax to print the blank line when printing reports. The bracket will not appear on the report.

Note that if you are designing mailing labels, you will want to leave the TITLE and HEADER lines blank.

Appendix A reviews the use of File-Fax for producing mailing labels.

Notice that the tagged fields have a character or letter displayed in the first position. File-Fax labels fields internally, and these symbols represent the internal labels. Thirty one fields are allowed on the data entry screen. They are labeled from top to bottom as:

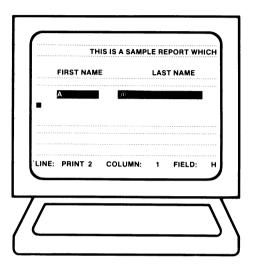
KEY FIELD — @
SECOND FIELD THROUGH 27TH
FIELD — A-Z
28TH THROUGH 31ST FIELD — [\(\lambda\),],^

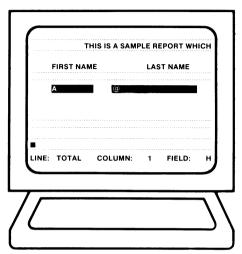
However, if you forget which field on the data entry screen is represented by the "B" field on the report screen, move the cursor on the report screen to the first character of the "B" field, which will then become the currently selected field. When you press the ESC key, the "B" field will be in inverse video on the data entry screen.

Because of this feature, if after selecting a field on the data entry screen you pass the cursor through an existing tagged field on the report screen, your desired field will no longer be selected. The currently selected field is always displayed on the bottom of both the data entry screen and the report screen.

Remember, the special function keys can always be used to move the characters and fields around the screen.

At this point, press the RETURN key until you have placed the cursor on the TOTAL line.





The TOTAL and SUB-TOTAL lines operate similarly in placing numbered fields onto the screen. Space over 10 spaces and type in:

THE TOTAL FOR THE AMOUNT FIELD IS \$

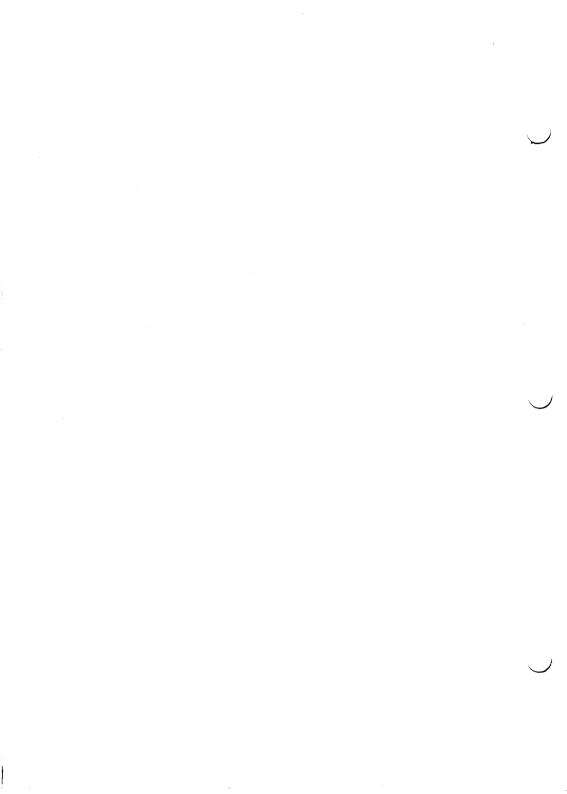
Press the ESC key and select the SALARY field.

Press the ESC key again and press CTRL-T to tag the field onto the screen. The exclamation point (!) in this field represents the decimal point. File-Fax allows you to fix the decimal point anywhere in the field. Here it is set to two decimal places because the SALARY field was specified as a dollars and cents field.

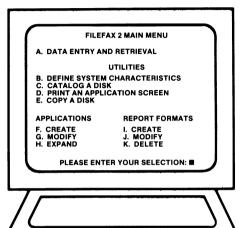
Right after a field is tagged in the total or sub-total lines, you stay in a certain mode until you move out of the field. While in this mode, the specified field may be extended by pressing the space bar. This is useful if the size of the fixed field will not hold the totaled information when calculating the proper size of a sub-total or total field. Remember that a space is reserved for a plus sign (+) or minus sign (-). The comma or period keys can be used to move the decimal point (exclamation point) within the field.

For now, press CTRL-O to erase this field, followed by CTRL-T to re-tag it onto the screen. Press the space bar twice to extend the field.

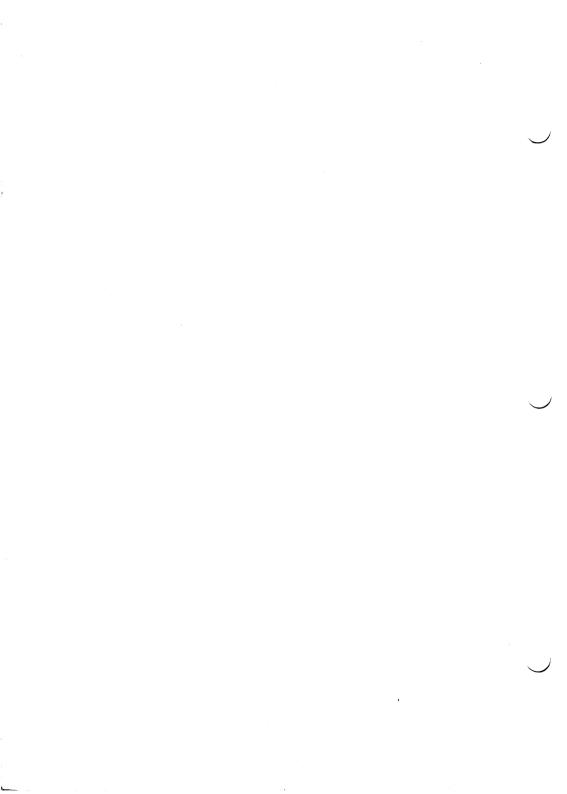
Now **press CTRL-Z** to exit. This will store the report information on the primary disk and return you to the main menu.



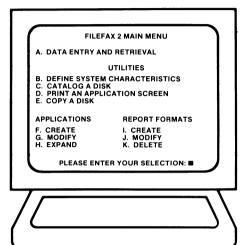
MODIFYING A REPORT



The J option on the main menu allows you to modify an existing report. It will load in the report specified and allow you to make any changes you wish. When you exit using CTRL-Z, File-Fax will replace the old report format under the name specified with this new updated version.



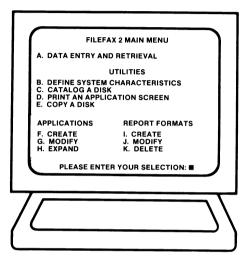
DELETING A REPORT



The K option on the main menu allows you to delete a report format stored on the primary disk. After selecting the report name, File-Fax will ask you to press the RETURN key to delete the report. After it is deleted, the ESC key should be pressed to return you to the main menu.



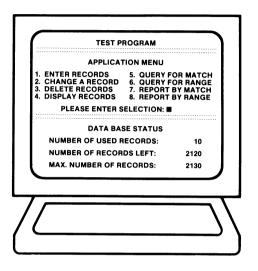
PRINT REPORTS



Now that you have developed a report for your application, you can print the report. Press A from the main menu for DATA ENTRY AND RETRIEVAL. Enter in the proper application name and enter a "Y" in the second field when the disk is properly inserted (if not already there).

Options 7 and 8 on the application menu, REPORT BY MATCH and REPORT BY RANGE, allow you to use the same search criteria as the query in options 5 and 6.

For now, Press "7".





The data base status at the bottom of the screen will be replaced by four selections of report formats you can choose. Since you have only developed one so far, only number 1 is available for our use. **Press the number 1** to select your report.

If you specified any sort levels when you defined the attributes, the question you just answered will now be replaced by yet another, asking you if you want a specially sorted report. If you answer yes, then the records printed in the report will be sorted according to those sort levels. If you answer no, then the records will be sorted according to primary key only, just as they normally are. For now, **press the RETURN key** so that the "N" File-Fax has already placed on the screen will be your answer. Later you may experiment with your own sort levels.

When the query screen is displayed, **Press CTRL-Z** to select all wild cards. This will select all entries in your database.

Notice the line at the bottom of the screen. You have four options available at this point.

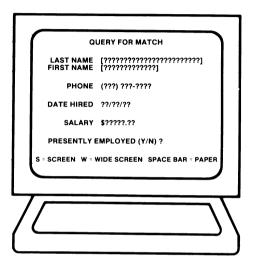
ESC—Pressing the ESC key will abort the report process and return you to the report query screen. Pressing ESC again will return you to the application menu.

\$—Pressing the "S" key will allow you to print this report on the screen. Only the first n columns will be printed on the screen, where n is the number of columns represented on your screen. The rest of the columns will be quietly disposed of.

W—Pressing the "W" key will also produce a report on the screen, only the additional columns over the screen size will wrap around on the screen. This is a bit difficult to read, but all of the information will be there.

SPACE BAR—Pressing the space bar (or almost any other key) will print the report to the printer.

If you selected the specially sorted report, don't be alarmed if the disk stays on for a very long time. The computer will be busy creating a list of your records, arranged according to the sort levels you defined along with the attributes. If you have a



very large data base, this process may take hours if you are sorting for the first time. If you tire of waiting for the sort to complete, pressing the ESC key will stop the sort and return you to the report query screen. On some computers, you may have to hold down the key until it takes effect. The next time the sort is run, it will automatically continue where it left off.

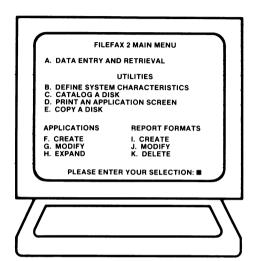


While a report is being printed on the screen, the space bar can be used to start and stop the listing. At certain points during the listing process, the ESC key can be used to abort the report, print out the current sub-total or totals, and return you to the report query screen. On some computers, you may have to hold down the key until it takes effect.

For now, **press the ESC key three times** to return to the main menu.



CATALOG A DISK



Option C on the main menu allows you to catalog a File-Fax disk.

Press the "C" Key.

The question asks you to choose the drive number you wish to catalog. **Pressing the RETURN key** will default this entry to "1". This is the drive in which your primary disk should be located.

When the disk is inserted, (if it is not already there) **press the "Y" key** to catalog the disk.



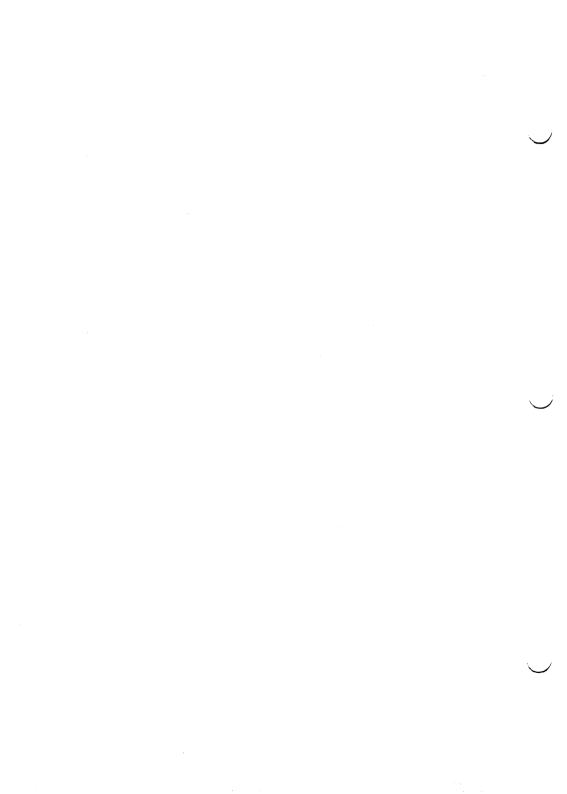
CATALOG A DISK THE DISK INSERTED IN THIS DRIVE IS DISK NUMBER 1 OF THE 1-DISK APPLICATION NAMED TEST THE FOLLOWING REPORTS HAVE BEEN STORED ON THIS PRIMARY APPLICATION DISK: 1: TEST REPORT 3: 2: 4: PRESS ANY KEY TO CONTINUE

File-Fax will tell you the name of the application stored on this disk, the number of disks associated with this application, and the names (if any) of the report formats specified for this application.

If your application is more than a one disk database, you may wish to catalog another drive. The same information will be displayed with the exception of the names of the reports.

Pressing any key will return you to the main menu.

Press the space bar to return to the main menu.



EXPAND THE DATABASE

FILEFAX 2 MAIN MENU

. DATA ENTRY AND RETRIEVAL

UTILITIES

- B. DEFINE SYSTEM CHARACTERISTICS C. CATALOG A DISK
 D. PRINT AN APPLICATION SCREEN

- E. COPY A DISK
- APPLICATIONS
- REPORT FORMATS
- F. CREATE G MODIEV H. EXPAND
- J. MODIFY K. DELETE
- PLEASE ENTER YOUR SELECTION:

Option H on the main menu will allow you to expand your database to as many disks as your system can handle. However, you must have as many drives as disks for your database.

After pressing the H option, you will be requested to enter the name of your application. When you have done this, File-Fax will calculate the record capacity for each disk you are capable of adding.

When you have entered the number of disks to be added, File-Fax will ask you to insert the specified additional disks into their drives. When you have done this, enter a "Y" and File-Fax will initialize the additional disk(s) for your application. None of the information stored on your database will be lost. However, any information on the new disks will be destroyed.

When the initialization is completed, File-Fax will return you to the main menu.

Since much of the information in your database must be rearranged during an EXPAND, it would be wise to make backups of your data disks before using this feature of File-Fax.



PRINT AN APPLICATION SCREEN

FILEFAX 2 MAIN MENU A. DATA ENTRY AND RETRIEVAL UTILITIES B. DEFINE SYSTEM CHARACTERISTICS C. CATALOG A DISK D. PRINT AN APPLICATION SCREEN E. COPY A DISK APPLICATIONS REPORT FORMATS F. CREATE G. MODIFY H. EXPAND K. DELETE PLEASE ENTER YOUR SELECTION:

Option D on the main menu allows you to print your application screen on the printer. Along with the picture of the developed screen are all the attributes of the specified fields. This allows you to keep a printed reference documenting your application.

If you printed your test application, it would appear as is shown on the following page.

This is a print-out of your sample application. The application name is printed at the top of the page. The screen is an exact copy of the screen you developed. At the bottom of the screen are specifications for each field on the screen. There are five columns of information for each field. S stands for the size of the field. L is the line number the field is on. C is the column number where the field starts. F is the internal field name given to that field, and there is a list of all the attributes that are set for each field.

```
TEST PROGRAM

LAST NAME [ ]

FIRST NAME [ ]

PHONE (< >) < >-< >

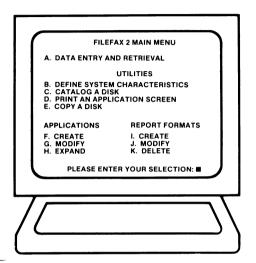
DATE HIRED <>/<>/>

SALARY $< >

PRESENTLY EMPLOYED (Y/N) #
```

```
S L C F ATTRIBUTES
20 3 15 F@ LJ
10 5 15 F@ LJ
3 8 15 F@ D9 BL
3 8 20 FC AZ 09 BL
4 8 24 FD 09 BL
2 11 14 FE 09 BL RJ
2 11 17 FF 09 BL RJ
2 11 20 FG 09 BL
8 14 15 FH 09 BL DP VN LJ DC RJ
1 17 28 FI BL YN
```

COPY A DISK



File-Fax contains a copy program to allow you to back up your database disks. Select option E to back up a disk.

The disk you are copying onto will automatically be initialized.

Before copying a disk, you may abort this process and return to File-Fax by pressing the ESC key. After you run the copy program, however, pressing the ESC key on this screen may reboot the system on some computers. While running the copy program, you may copy as many disks as you like.

It is suggested that whenever you finish adding any set of records during a session with File-Fax, you back-up your database disk(s). This is to protect yourself if anything ever happens to your disks.

If your computer system's version of File-Fax requires two drives during a copy and you only have one, you should be able to use the manufacturer's or another vendor's single-drive copy program. See Chapter 4 for additional details.

DISK COPY

PLEASE INSERT THE DISKS AS SHOWN BELOW:

"ORIGINAL" DISK IN DISK DRIVE "ONE", AND

PLEASE MAKE SURE THAT THERE IS NOTHING VALUABLE ON THE COPY DISK, AS IT WILL BE AUTOMATICALLY INITIALIZED AND ALL PRIOR CONTENTS WILL BE ERASED.

PRESS RETURN TO COPY, OR ESC TO RESTART FILEFAX.

ERROR SCREENS

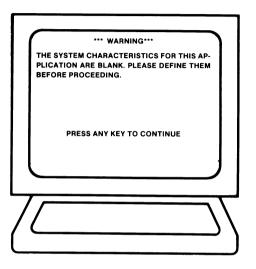
Error screens explain problems which have occurred and offer possible solutions. After you have corrected the problem, pressing the space bar will return you to where you were before the problem occurred.

Some of the error screens presented on the following pages contain underlines. These are used to represent display areas on the screen. File-Fax will display variable information in these areas. The system characteristics must be defined before:

- 1. Running an application (option A on the main menu)
- 2. Printing an application (option D)
- 3. Creating reports (option I)
- 4. Modifying reports (option J)

To define the system characteristics, select option B on the main menu and fill out the next two screens that appear.

See Chapter 8: **SETTING SYSTEM CHARACTERISTICS**



THIS APPLICATION IS COMPLETELY FULL. YOU MUST EITHER DELETE RECORDS OR EXPAND THE APPLICATION BEFORE MORE RECORDS MAY BE ENTERED. PRESS ANY KEY TO CONTINUE

This screen is displayed when you have filled all the available space on the data diskette(s) with information. If you have an available disk drive, option H (Expand an application) will allow you to create an additional data diskette. If you are not so lucky, however, deleting records will free up space in the database.

File-Fax displays this error message whenever you try to access a report that File-Fax cannot locate on the diskette. This message occurs under option I (create a report) or J (modify a report).





This error will occur if you try to create a report with the same name as one which already exists. Either use a different name, delete the old report (option K), or modify the old report (option J).

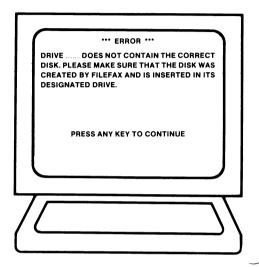
This error message will appear when you try to create a report (option I) for an application that already contains four reports on the diskette. You must use MODIFY REPORT (option J) or DELETE REPORT (option K.)





This error will occur if you misspell an application's name or enter one application's name when another is actually in the disk drive. Check your spelling and your disks, or take a catalog.

This error will occur if the specified disk is not a File-Fax created data disk, if the primary disk is not in the first drive, or if you changed or swapped the data disks while you were running an application. Please avoid or remedy the above situations.



*** DISK ERROR ***

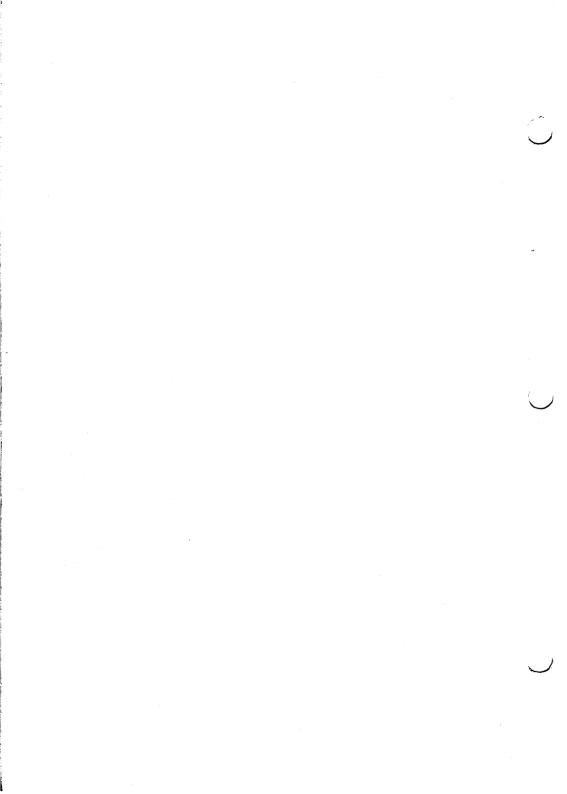
A SERIOUS DISK ERROR HAS OCCURRED ON DRIVE PLEASE MAKE SURE THAT:

- 1. THE DISK IS INSERTED CORRECTLY.
- 2. THE DOOR IS COMPLETELY CLOSED.
- 3. THE DISK IS NOT WRITE-PROTECTED.
- 4. THE DISK HAS BEEN INITIALIZED.
- 5. THE DISK IS A FILEFAX DISK.

THIS ERROR MAY BE NON-RECOVERABLE!
PRESS ANY KEY TO CONTINUE

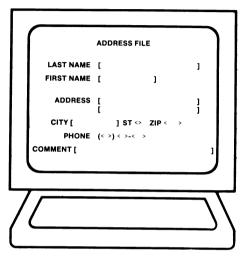
This message is displayed whenever File-Fax has trouble accessing a disk. Check all the suggested problems. Press the space bar and try again. If the disk was created by File-Fax, it is initialized as number four asks.

If a disk does not work, it may have gone bad. Make copies of your backup diskettes and use them from now on.



APPENDIX

PRODUCING MAILING LABELS



The key to using File-Fax is how creative you are when you set up your applications and reports. If you have a name and address file set up, then a report can be created to print out mailing labels for you.

An example of a name and address data entry screen may look like this screen does.

SYSTEM CHARACTERISTICS

After your data entry screen is set up, and you have defined the attributes and created the application, you are ready to define the System Characteristics. You should make note of the fourth question under Setting System Characteristics. It asks . . .

Compress trailing spaces? (For labels) ____

You should answer Yes (Y) to this question. If you answer No (N) here then a name on your mailing label may contain several spaces between the first and last names. This is because each blank character in a field will be printed. See the example given in Chapter 8 for this question.

DESIGN REPORT

When you are designing a report to be used to print mailing labels, you want to leave all lines blank except the print lines you are using. The sample report format shown here will print out mailing labels.

This report was created based on the screen shown on the previous page. Field A = FIRST NAME, @ = LAST NAME, B = ADDRESS1, C = ADDRESS2, D = CITY, E = STATE and F = ZIP CODE. The PHONE and COMMENT fields are not being used in this report.

LINE PRINT 4 COLUMN: 1 FIELD: @

Notice the open bracket on line PRINT 5. This tells File-Fax to skip a line between records when it prints the report. File-Fax will skip one line for each line that contains an open bracket. You may have to try modifying the report once or twice before you get the correct spacing for the mailing labels you are using.

PRINT MAILING LABELS

The procedure used to print mailing labels is the same used when printing reports.

First, option A on the Main Menu is used to run the application. Once loaded, the Application Menu should appear. Depending on your criteria for selecting records to be printed, you will use either option 7 or 8 on the Application Menu (see Section 9.5, Query for Match, and 9.6, Query for Range.)

The data base status at the bottom of the screen will be replaced by four selections of report formats you can choose. Select the one designed for Mailing Labels.

If you specified any sort levels when you defined the attributes, the question you just answered will now be replaced by yet another, asking you if you want a specially sorted report. If you answer yes, then the mailing labels will be printed according to those sort levels (possibly in ZIP CODE order). If you answer no, then the records will be sorted according to the primary key (here by LAST NAME).

It is recommended that you use standard single row mailing labels to print on. File-Fax does not allow you to print different mailing labels across the page, only down. You can however print the same mailing label across the page on your printer by designing the report format that way.

Depending on the type of labels you are printing to, you may have to adjust the printer characteristics under option B on the main menu (Define System Characteristics). Under lines, the default values of 66 lines per page and 60 to be used are normally used. You may need to change these numbers so that File-Fax will print on all the labels on a page. If you do change these numbers, the number of lines used must be at least three less than the number of lines per page.

If you do change the number of lines per page, you may have to answer No (N) to the question: FORM FEED COMMAND SUPPORTED? This is because your printer may internally be set to a form feed of 66 lines per page.

