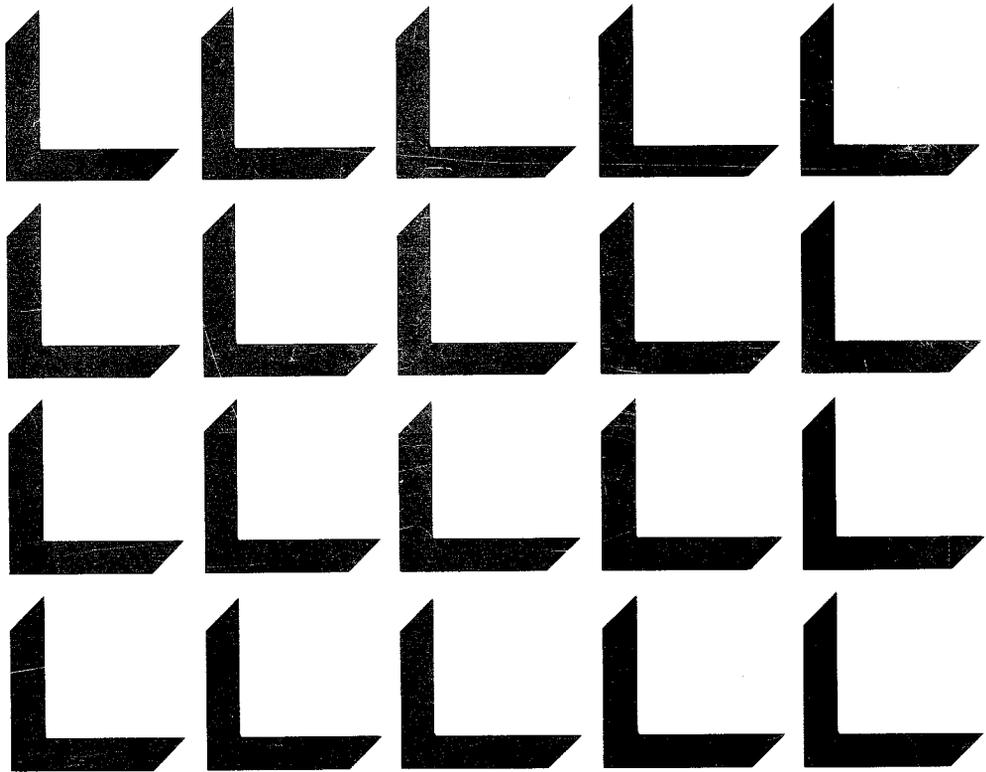


*pfs:*<sup>®</sup>  
*file*

---



*TRS-80<sup>®</sup> Model III*

*pfs:*  
*file*

---

*user's manual*

---

for the TRS-80® MODEL III

Program Authors: John Page and Don Williams  
Manual Author: Rose Mack

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# *preface*

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This manual explains how you can use the PFS:FILE computer program to help you organize and manage your information. It assumes you have the PFS:FILE package, a TRS-80 Model III computer system with two disk drives, and a basic knowledge of the operation of your TRS-80 Model III. Files that you create with PFS:FILE are not TRSDOS compatible.

The manual provides step-by-step instructions on how to get started and how to use each FILE function. Each chapter proceeds through one function in detail. The manual works with the same major example throughout to allow you to use your computer and experience FILE as you are reading about it. The best way to learn FILE is to read the manual and follow along with the examples.

Each chapter also has a summary section. This section reinforces what you have learned in the chapter, and it also serves as a quick reference to the important features of FILE—useful once you are somewhat familiar with how the program works.

The appendices contain information on error messages and corresponding corrective actions, FILE's special control keys, and estimating how many forms will fit in a file. A glossary explains words that may not be familiar to you. You may want to look at it before you read the rest of the manual. Finally, there is an index.

If you have not already done so, please take a moment to complete and mail the User Group Enrollment Card. Enrollment in the PFS User Group entitles you to receive product update information, new product announcements, and tips on using the PFS Family of Software.

---

---

## Protecting Your Files

By the time you have created a PFS file and entered the information in it, you have invested a good deal of your time. To avoid losing the data stored in that file (and the time you've spent entering it), follow these guidelines:

1. Never remove a PFS file from the disk drive or turn the computer off unless the PFS:FILE Main Menu is displayed on the screen. **IF YOU DO, YOUR FILE MAY BE PERMANENTLY DAMAGED.**
2. Use only high-quality, double-density diskettes.
3. Always keep at least one backup copy of each PFS file. See backup recommendations below.
4. Handle your diskettes carefully. Store away from heat, sunlight, and devices with strong magnetic fields (TVs, disk drives, etc.).
5. Print a copy of your files from time to time. See Chapter 5 for instructions.

## Recommended Backup Procedure

1. Back up your files on a regular basis using the PFS:FILE COPY function. If you update your files a lot during a single day, you might want to back up several times a day. If you update only a little each day, then back up once each day. If you update less often, then back up whenever you update.
  2. Make two backup copies initially and alternate the use of them. The first time you back up, use the first disk; the next day, use the second disk; and so on. This way, if a problem develops while making a backup, you will still have the data on the other backup disk.
  3. If you ever encounter problems with a file, and especially if you ever get an I/O ERROR message, discard the diskette at once and use the backup disk (make a copy of the backup disk first). If the problem recurs with the backup disk, ask your computer dealer for help.
-

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# I: *introduction*

## The PFS:FILE Program

PFS:FILE is a powerful, yet easy-to-use computer program that turns your personal computer into a personal filing system. Like a manual filing system, the FILE program provides a means of storing and retrieving information. Also like a manual system, it works with all kinds of information—about people, places, objects, ideas, and events.

PFS:FILE (or simply FILE) is useful in a wide range of applications, such as business, home, educational and professional environments. It organizes and stores information efficiently and provides easy access to any information you want. Retrieval is fast and reliable and is not limited by the order in which information is stored.

FILE operates on the principle that information is kept in forms. A form can have as much or little structure as you want. With FILE and your computer keyboard and screen, you design your own form, save it in a file on a diskette, and then use it to store your information.

Here are some examples of the kinds of forms you can design:

### Personnel Information

<b>Personnel Record Form</b>			
<b>Employee #:</b>	<b>Hired:</b>		
<b>Name:</b>			
<b>Address:</b>			
<b>City:</b>	<b>State:</b>	<b>Zip:</b>	
<b>Job Title:</b>			
<b>Salary:</b>			

```

EMPLOYEE #:                HIRED:
NAME:
ADDRESS:
CITY:                STATE:    ZIP:
JOB TITLE:
SALARY:
  
```

Customer List

CUSTOMERS		
ACCOUNT #:		
NAME:		
ADDRESS:		
CITY:	STATE:	ZIP:
PHONE:		
CREDIT RATING:		
METHOD OF PAYMENT:		
DATE OF LAST PURCHASE:		
PURCHASES:		
COMMENTS:		

NAME: ACCOUNT #:  
 ADDRESS: CITY: STATE: ZIP:  
 PHONE: STATE: ZIP:  
 CREDIT RATING:  
 METHOD OF PAYMENT:  
 DATE OF LAST PURCHASE:  
 PURCHASES:  
 COMMENTS:

File: CUSTLIST 02 Full FORM 1 Page: 1

Patient Records

AZUKI MEDICAL GROUP  
 1357 W. SHAW AVE  
 PETALUMA, CA 93711

**Patient Record**

Sex: M Age: 67  
 SSN: 565-66-2730

Name: Mr. San Miguel  
 Address: 3199 Frisco Drive  
 City: Palo Alto State: CA Zip: 94025

Chronic Conditions: Arthritis

Last Office Visit: 7/1/78  
 7/6/78

SSN: AGE: DATE:  
 NAME:  
 ADDRESS: CITY: STATE: ZIP:  
 HOME PHONE: BUSINESS PHONE:  
 OCCUPATION:  
 INSURANCE:  
 BILL TO:  
 LAST TREATMENT DATE:

File: PATIENTS 02 Full FORM 1 Page: 1

DRUG ALLERGIES:

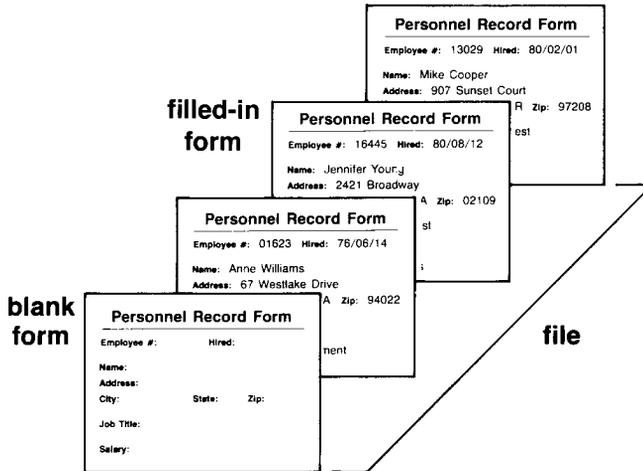
CHRONIC CONDITIONS:

HISTORY:

TREATMENT RECORD:

File: PATIENTS 02 Full FORM 1 Page: 2

After you have designed the form, you can recall it to the screen, add information to it, then store the filled-in form back in the file. You can enter data in any order you like, and FILE finds the information when you need it. Diskette storage is compact. The number of forms that will fit on a diskette depends on how many pages there are in the form, how many items per page, and how much data is entered in each item (see Appendix C).



Once you have information stored in the file, you can retrieve it in a variety of different ways. Using a retrieve spec form, you indicate what information you want to find by filling in retrieve specifications. You can ask for all items that exactly match a given set of characters:

“find the employee record form for Jeff Stribling”

```

EMPLOYEE #:           HIRED:

NAME: Jeff Stribling
ADDRESS:
CITY:                 STATE:       ZIP:

JOB TITLE:
SALARY:
    
```



FILE allows you to enter a retrieve specification for every item in the form. Only those forms meeting all the specifications are found. This feature gives you access to complex relationships between different items of information:

“find all patients over 65 who live in Palo Alto and suffer from arthritis”

```
SS#:          AGE: >65    DATE:

NAME:
ADDRESS:
CITY: Palo Alto      STATE:    ZIP:
HOME PHONE:
BUSINESS PHONE:

OCCUPATION:
INSURANCE:
BILL TO:

LAST TREATMENT DATE:

-----
File: PATIENTS 12 Full  RETRIEVE SPEC      Page: 1
```

DRUG ALLERGIES:

CHRONIC CONDITIONS: ..arthritis..

HISTORY:

TREATMENT RECORD:

```
-----
File: PATIENTS 12 Full  RETRIEVE SPEC      Page: 2
```

The requested forms can be displayed on the screen for quick viewing (and updating, if you wish) or printed. You can print the entire form or selected portions of it, formatted to your specifications (this feature can be used to generate mailing labels).

## How FILE Works

The following chart shows all the functions provided by PFS:FILE:

<b>1 DESIGN FILE</b> Create File Change Design	<b>4 SEARCH/UPDATE</b>
<b>2 ADD</b>	<b>5 PRINT</b> Print Forms Define Print Spec
<b>3 COPY</b> Copy Design Only Copy Selected Forms Copy Whole Diskette	<b>6 REMOVE</b>

### **WARNING**

Do not remove the diskette containing your PFS data file from the disk drive unless the FILE Main Menu is displayed on the screen. Removing it at other times may damage the data on the file.

---

The DESIGN FILE function enables you to create a new file (Chapter 1) or change a file that you previously created, even if this file already contains data (Chapter 7).

With the ADD function (Chapter 2), you store your information as forms in the file on a diskette sometimes called the data diskette.

You use the COPY function (Chapter 3) to make a duplicate copy of only the form design from a file, copy selected filled-in forms from a file, or copy an entire file; you can also merge or split files with COPY. Once you have created a file and have information in it, it is important to use the Copy Whole Diskette option of COPY to make a duplicate or "backup" copy of the file in case something happens to the original.

Once your data is stored on a file, you can retrieve it in a variety of different ways using the SEARCH/UPDATE function (Chapter 4). For example, you can locate a number that falls within a range of numerical values. Using this same function, you can also update any form after you have located it.

You can sort forms to print them alphabetically, format your information for printing, define a set of print specifications to use repeatedly, and PRINT any form (Chapter 5).

Finally, you can REMOVE any form from the file (Chapter 6).

---

## Getting Started

This section provides basic information about starting to use the PFS:FILE program. It talks about your computer system, loading the program into your computer, the FILE Main Menu, and the special control keys used in FILE.

### What You Need to Use PFS:FILE

To take full advantage of all the features of the FILE program, you need the following:

- a TRS-80 Model III computer system with
  - 48K of memory
  - two disk drives (see NOTE which follows)
  - a printer (see NOTE which follows)
- the PFS:FILE package, including
  - the PFS:FILE program diskette
  - the backup copy of the PFS:FILE program diskette (This copy is provided in case something happens to damage your original program diskette. Store it in a safe place.)
- blank, high-quality, double-density diskettes on which to store information

**NOTE:** FILE will operate without a second disk drive, but without the second drive it is not possible to make backup copies of your files. Backup copies protect the time and effort you invest in creating your PFS files, and so, we do not recommend using PFS:FILE with only one disk drive. FILE will also operate without a printer, but you cannot, of course, make a printed record of information in your files.

---

---

## Loading PFS:FILE

To load the FILE program into your TRS-80 Model III, follow these steps:

Step 1. Turn on your computer and wait until the disk drive motors stop.

Step 2. Insert the PFS:FILE program diskette into the bottom drive, Drive 0. To do this, first open the drive door by pulling outward on its bottom edge. (As you remove the FILE program diskette from its envelope, take a moment to read the precautions on the back of the envelope. Improper care could cause you to lose information.) Slip the diskette into the slot with the label upwards. The oval cutout in the diskette jacket should enter the drive first. The label should enter the drive last. Gently push the diskette until it is entirely inside the drive. Then close the drive door by pushing it down.

Step 3. Press the orange RESET button, and the red in-use light on the disk drive should come on. You can hear the drive as it loads the FILE program. (This takes approximately 30 seconds.) When it is finished, the in-use light goes off and FILE is ready to use. You should see the FILE Main Menu appear on the screen.

```
PFS:FILE MAIN MENU
-----
1 DESIGN FILE      4 SEARCH/UPDATE
2 ADD              5 PRINT
3 COPY            6 REMOVE

SELECTION NUMBER:
FILE NAME:

Version 01.00.00
(C) 1983 SOFTWARE PUBLISHING CORP., Licensed to TANDY CORP.
```

Step 4. Gently remove the FILE program diskette from the drive and put it back in its envelope. You shouldn't need it again until the next time you turn the power on.

---

## The PFS:FILE Main Menu

```
          PFS:FILE MAIN MENU
          -----
          1 DESIGN FILE      4 SEARCH/UPDATE
          2 ADD              5 PRINT
          3 COPY             6 REMOVE
```

```
SELECTION NUMBER:
FILE NAME:
```

You see the FILE Main Menu when you first load FILE, whenever you complete a function, and whenever you press BREAK.

### WARNING

Do not remove the diskette containing your PFS data file from the disk drive unless the FILE Main Menu is displayed on the screen. Removing it at other times may damage the data on the file.

You use this menu to select the function you want FILE to perform. It consists of a numbered list of the FILE functions, along with two items that you need to fill in:

**SELECTION NUMBER:** Enter the number corresponding to the function you want performed (1 selects DESIGN FILE, 5 selects PRINT). Each time the Main Menu appears, this item is cleared, indicating FILE is ready for you to enter a new selection.

**FILE NAME:** Enter the name of the file you are going to use. You initially give a file a name when you create it (see Chapter 1). Since it is possible to have several files (one for STOCK, one for CLIENTS, one for VENDORS, etc.), you need to indicate which one you want to use by typing the appropriate name in this item. Once you enter a name, it remains until you enter a new name.

---

---

## Keyboard Control Keys

These are the special control keys you use most often when working with FILE. Others are explained throughout the manual, and all are summarized in Appendix B.

-  The combination of the left SHIFT Key and the DOWN ARROW key (▼) is used as a Control Key. This combination is referred to throughout this manual as the CTRL key. You use the CTRL key with other keys to give special instructions to FILE. For example, CTRL C means press CTRL (SHIFT/DOWN ARROW) and, while holding these keys down, press C.
-  Use these keys together to begin (or continue) a specified function.
-  Use this key at any time to cancel the current function and return to the Main Menu.
-  Use this key to move the cursor to the beginning of the next line.
-  Use this key to move the cursor to the next item on a menu or form.
-  Use this key to move the cursor to the previous item on a menu or form.
-  Use this key to move the cursor back one space.
-  Use this key to move the cursor forward one space.
-  Use this key to move the cursor up one line.
-  Use this key to move the cursor down one line.
-

## Summary

- PFS:FILE is a computer program that helps you store and retrieve information in a way that is fast, reliable and compact.
- Make backup copies of your files using the COPY function to prevent the loss of valuable data.
- Keep the backup copy of your PFS:FILE program diskette in a safe place.
- To take full advantage of the capabilities of FILE, you should have a TRS-80 Model III computer system with 48K of memory, two disk drives, and a printer.
- You see the FILE Main Menu when you load FILE into your computer, whenever you complete a function, and whenever you press BREAK.
- The main control keys for FILE are:

**CTRL** (left SHIFT/DOWN ARROW) with other keys, gives special instructions to FILE.

**CTRL C** tells FILE to begin (or continue) a function.

**BREAK** cancels the current function and returns to the Main Menu.

**ENTER** moves the cursor to the beginning of the next line.

**SHIFT**  moves the cursor to the next item on a menu or form.

**SHIFT**  moves the cursor to the previous item on a menu or form.





}
 move the cursor one space in the direction shown by the arrow.

### WARNING

Do not remove the diskette containing your PFS data file from the drive unless the FILE Main Menu is displayed on the screen. Removing it at other times may damage the data on the file.

---

# 1:

# *design file*

---

With the DESIGN FILE function, you create a file in which to store your information. You select a diskette to hold your file (each diskette holds one file), give the file a name, design the form, and store this form in the file. Once you create a file, you can refer to it by name and use the form to store information in it and retrieve information from it.

## Selecting DESIGN FILE

Start the FILE program according to the directions in the Introduction, and the FILE Main Menu appears on the screen. The cursor is always positioned in SELECTION NUMBER when the Main Menu appears:

```
PFS:FILE MAIN MENU
-----
1 DESIGN FILE      4 SEARCH/UPDATE
2 ADD              5 PRINT
3 COPY             6 REMOVE

SELECTION NUMBER: █
FILE NAME:
```

To select the DESIGN FILE function, first enter a 1 in SELECTION NUMBER. Press SHIFT → to move the cursor to the FILE NAME item, and enter a name for your file that consists of between one and eight characters. It is advisable to give each file that you create a different name, though it is possible to give files on different diskettes the same name.

---

Press CTRL C, and the Design File Menu appears next:

DESIGN FILE MENU

1 CREATE FILE

2 CHANGE DESIGN

SELECTION NUMBER:

DESIGN FILE has two options. With Create File, you can design the form for a new file. With Change Design, you can change the design of a form from an existing file, whether or not the file contains data. This second option is discussed in detail in Chapter 7.

## Create File

To create a new file, enter a 1 in the SELECTION NUMBER item of the Design File Menu, and press CTRL C. The following message appears:

PUT DISKETTE IN DRIVE 0

WARNING

THE DISKETTE IN DRIVE 0

WILL BE COMPLETELY OVERWRITTEN

PRESS BREAK TO ABANDON THIS OPERATION

PRESS CTRL-C TO CONTINUE

---

Insert a blank diskette (or one containing information that you no longer need) in the lower disk drive. Creating a file involves preparing a diskette by erasing it and writing a new name on it, so make sure the diskette in Drive 0 is the one you want to use.

If, for some reason, you do not want to create a file now (you may have mistyped the selection number), you can return to the Main Menu by pressing BREAK. To continue with the Create File option, press CTRL C. You can hear the disk drive as FILE erases the diskette in Drive 0 and writes your file name on it. (This procedure might take up to 1 minute.) When the file has been prepared, the screen on which you design your form appears:

---

File: SAMPLE 0% Full      DESIGN      Page: 1

FILE uses the message area at the bottom of the screen to tell you:

- the name of the file you are creating (SAMPLE)
  - how much of the available space on your file has been used (0% Full).
  - what stage of file development you are in (DESIGN)
  - the page number (1)
-

## Designing a Form

When you design a form, you create a place to store your information. Using the keyboard and screen, you create an image of the form you want. You can use a ready-made form as a guide in designing your FILE form, or you can use the following guidelines to create your own form:

- Decide how to arrange the information you wish to store in your file.
- Choose names that best describe each section of information.
- Determine approximately how much space you should leave for each section of information.

Each section set aside for information (and later the filled-in section) is called an "item". As you are designing your form, keep in mind these important points about items:

- Leave plenty of space for each item. This does not take more space on your diskette and is important because your form is used for both storing and retrieving information. When you use it to retrieve something, the format necessary to retrieve the information may actually require more character positions than the data itself. For example, an item named PAGE may be expected to store a maximum of three digits. If you design your form with only three spaces following the PAGE item, you can not ask for all pages less than 100 because the necessary format would look like this: PAGE: <100.
  - Make the first item in your form the one you will look for most frequently. This provides the fastest possible retrieval. When FILE is searching for the first item on a form, it can go directly to the desired form in the file. When FILE is searching for other items in the form, it searches through each form in the file from the end of the file forward, which takes longer.
  - When FILE prints out information from your files, it prints items in the order in which they appear on the form. Design your form with this in mind. For example, suppose you want to print mailing labels from a file. Your forms must be set up in the order of a standard mailing address (NAME, ADDRESS, CITY, STATE, and ZIP), or you will not be able to print a mailing label with the items in that order. Note that the items you choose for printing do not have to be adjoining, just in the proper order on the form.
-

- If you would like to have the same information stored in two different ways for different purposes, set up two items with different names. For example, have a LAST NAME item for searching and sorting customers by last name, and have a NAME item for keeping names in the format you would use in a mailing address.
- Terminate each item name with a colon. Any character entered on the screen during the design process is part of some item name, and the colon identifies characters as item names for the FILE program. For example, suppose the form from the PATIENTS file mentioned in the Introduction looked like this:

```

SS#:                AGE:                DATE:
-----
NAME:
ADDRESS:
CITY:                STATE:            ZIP:
HOME PHONE:
BUSINESS PHONE:
-----
OCCUPATION:
INSURANCE:
BILL TO:
-----
LAST TREATMENT DATE:
-----
File: PATIENTS 02 Full    DESIGN                Page: 18

```

SS# is an item name, and so are AGE and DATE. The line of dashes inserted between the first and second lines of the form are a part of the NAME item. (Every character entered after the colon ending the DATE item and before the colon ending the NAME item is a part the NAME item.) Knowing exactly what characters an item name includes is very important if you want to change the design of your form after you enter data in it. Information is not copied unless the item names in both the old design and the new design match exactly (see Chapter 7).

## Entering Your Design on the Screen

When you are ready to enter the design for your form on the screen, the following keys allow you to move the cursor to different positions on the screen so that you can enter item names wherever you choose:



moves the cursor back one space.



moves the cursor forward one space.



moves the cursor up one line.



moves the cursor down one line.



moves the cursor to the beginning of the next line.

The combination of the SHIFT key and the 0 (zero) operates like the SHIFT LOCK key on a typewriter. If you wish to be able to easily distinguish your item names from the information entered in the items, use SHIFT 0 to lock your keyboard into all uppercase characters and enter your item names. Then, use SHIFT 0 again to return your keyboard to normal uppercase/lowercase characters when you add information to your file.

You can make changes to item names that you enter by either spacing over them to remove them or typing over them. You can put a maximum of 50 items on one screen.

## Multi-page Forms

Your form can consist of more than one page, though the screen can only show one page at a time. If you need more than one page for your items, you can create up to 31 additional pages in your form design. Then you can move back and forth between pages, like turning pages in a book, by using these control keys:



brings up the next page of the form on the screen (in Create File, a blank page). You can continue to enter more item names.



recalls the previous page of the form to the screen. You can review it and make changes if you wish.

As you move through your multi-page form, the current page number is displayed in the message area at the bottom of the screen. An asterisk (\*) to the right of the page number indicates there are additional pages in the form.

---

## Erasing a Page

You can press the CLEAR key to erase the currently displayed page of the form that you are designing. Other pages remain unchanged. Pressing this control key does not remove the page from the form, however, it merely turns it into a blank page. For example, if you design a four page form and decide to erase page two, you still have a four page form with a blank page two.

## Storing a Form

When you are satisfied that your form has all the right items in the right places, you are ready to store it in the file. To do this, press CTRL C, and FILE stores the form in the file and returns to the Main Menu.

FILE is now ready to accept another function selection. The cursor is positioned in SELECTION NUMBER. The FILE NAME remains unchanged, however, because FILE assumes you are working on the same file until you enter a new name.

### WARNING

If you press BREAK while designing a form, that form is not saved in the file. You must press CTRL C to save the form in the file.

## Leaving the DESIGN FILE Function

If at any time you want to terminate the DESIGN FILE function, you may do so by pressing the BREAK key. If you press BREAK while designing a form, however, that form is not saved in the file. The current page and any previous pages are permanently lost. You must press CTRL C to save the form in the file.

---

## Example of Designing a File:

Let's create the Staff file mentioned in the Introduction. First, return to the Main Menu (press BREAK, if necessary). Enter a 1 in the SELECTION NUMBER item. Use SHIFT → to move to the FILE NAME item and enter Staff. The screen should look like this:

```
          PFS:FILE MAIN MENU
          -----
          1 DESIGN FILE      4 SEARCH/UPDATE
          2 ADD              5 PRINT
          3 COPY            6 REMOVE

          SELECTION NUMBER: 1
          FILE NAME: Staff
```

Press CTRL C, and the Design File Menu appears. Enter a 1 in the SELECTION NUMBER item. Your screen should look like this:

```
          DESIGN FILE MENU

          1 CREATE FILE
          2 CHANGE DESIGN

          SELECTION NUMBER: 1
```

---

Press CTRL C, and the following message appears:

```
PUT DISKETTE IN DRIVE 0  
  
WARNING  
  
THE DISKETTE IN DRIVE 0  
WILL BE COMPLETELY OVERRITTEN  
PRESS BREAK TO ABANDON THIS OPERATION  
PRESS CTRL-C TO CONTINUE
```

If you have not already done so, remove your PFS:FILE diskette from Drive 0 and put in the diskette on which you want to create your file. Press CTRL C, and you can hear the disk drive as FILE erases the diskette and writes STAFF on it. Then, the following screen appears:

---

File: STAFF 0% Full      DESIGN      Page: 1

---

If you want your item names to be in all capital letters, use SHIFT 0 to lock the keyboard into all uppercase characters. Then using the cursor control keys to move the cursor around the screen, type in the form shown below (don't include the title):

<b>Personnel Record Form</b>		
<b>Employee #:</b>	<b>Hired:</b>	
<b>Name:</b>		
<b>Address:</b>		
<b>City:</b>	<b>State:</b>	<b>Zip:</b>
<b>Job Title:</b>		
<b>Salary:</b>		

NOTE: Since EMPLOYEE # is the item most frequently used in retrieving information, the form was designed with EMPLOYEE # as the first item. This speeds up the search process.

When you have entered all the items, your screen should look like this:

```
EMPLOYEE #:                HIRED:
NAME:
ADDRESS:
CITY:                STATE:    ZIP:
JOB TITLE:
SALARY:
```

---

File: STAFF 02 Full      DESIGN      Page: 1

Press CTRL C to store the STAFF form. Notice that when the Main Menu appears, the SELECTION NUMBER has been cleared, and the cursor is positioned there. Also notice that STAFF remains in the FILE NAME item.

---

PFS:FILE MAIN MENU  
-----

1 DESIGN FILE	4 SEARCH/UPDATE
2 ADD	5 PRINT
3 COPY	6 REMOVE

SELECTION NUMBER: ■  
FILE NAME: STAFF

## Summary

- The DESIGN FILE function has two options:
    1. Use Create File to create a new file.
    2. Use Change Design to change the design of a form from a file that already exists (see Chapter 7).
  - Each diskette holds one file.
  - A file name must be between one and eight characters in length.
  - Give each file that you create a different name.
  - The first item in your form should be the one you will look for most frequently.
  - Place a colon at the end of each item name.
  - Leave plenty of space for each item.
  - A page can hold a maximum of 50 items.
  - A form can have a maximum of 32 pages.
  - An asterisk to the right of the page number means there are additional pages in a form.
-

■ Summary of control keys and functions:

**CTRL C**

a combination of the left SHIFT key, the DOWN ARROW key, and C. Tells FILE to begin (or continue) a function. Tells FILE to store your form in your file and return to the Main Menu.

**SHIFT** 

moves the cursor to the next item on the menu.

**SHIFT** 

moves the cursor to the previous item on the menu.











moves the cursor one space in the direction shown by the arrow.

**ENTER**

moves the cursor to the beginning of the next line.

**SHIFT** **0**

acts like a SHIFT LOCK key—switches the keyboard between all uppercase characters, and uppercase/lowercase characters.

**CTRL** **N**

brings up the next page of the form.

**CTRL** **P**

brings up the previous page of the form.

**CLEAR**

erases the page displayed on the screen.

**BREAK**

stops the DESIGN FILE function and returns to the Main Menu. The form is not saved.

---

---

# 2:

---

# *add*

---

Once you have created a file, you use the ADD function to store information in it. Using ADD, you fill in a form with the information you want to keep, then add that form to the file. The actual number of forms that will fit in a file depends on how many pages there are in the form, how many items per page, and how much data is entered in each item (see Appendix C).

## Selecting ADD

To select ADD, return to the Main Menu (press BREAK, if necessary) and enter a 2 in the SELECTION NUMBER item. If you are adding to a file that you have already been using, the name of that file remains in the FILE NAME item. FILE assumes you are working on the same file until you enter a new name by typing over the old name.

For example, if you have just designed and stored the form for the STAFF file in Chapter 1, your screen should look like this:

```
PFS:FILE MAIN MENU
-----
1 DESIGN FILE      4 SEARCH/UPDATE
2 ADD              5 PRINT
3 COPY             6 REMOVE

SELECTION NUMBER:
FILE NAME: STAFF
```

To add to a different file, enter its name in the FILE NAME item. If you leave this item blank, FILE searches the disk drives and uses the first PFS file it finds.

---

Check to see that the diskette containing the file named in FILE NAME is in a drive, and press CTRL C. FILE begins the ADD function, and the form from your file appears on the screen. Using the STAFF file as an example, your screen would look like this:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:    ZIP:
JOB TITLE:
SALARY:

-----
File: STAFF 0% Full   FORM 1   Page: 1
```

The item names are now protected by FILE so you cannot inadvertently write over and destroy them, and if you typed them in all uppercase characters, they should be easy to distinguish from the information you are about to store in them.

FILE uses the message area at the bottom of the screen to tell you:

- the file to which you are adding forms (STAFF)
- how much available space has been used from your file (0% Full)
- the form you are adding to the file (FORM 1)
- the page number (1)

When your file is 95% full, you should start a new one. This will ensure that you have enough space for searching through the file or printing forms from the file.

## Filling in a Form

The following control keys allow you to move the cursor from item to item:

moves the cursor to the next item.

moves the cursor to the previous item.

---

As you are filling in the forms, follow these guidelines:

- If you know that your data will require more than one file (one file equals one diskette), presort it into groups according to your needs. For example, if you will want to sort your forms by zip codes, make sure that all forms from one zip code are in the same file; e.g., make sure that all forms with zip codes beginning with 0 are in one file, and all those beginning with 1 are in another, etc.
- Enter last names first to have FILE search your files or sort and print them in alphabetical order by last names. (See Chapter 5 for details.)
- Enter first names first if you want to keep your files in a standard address format—for printing mailing labels, for example.
- Enter dates in the format yy/mm/dd (year/month/day, with two characters for each part of the date) so FILE can search for them properly. For example, suppose you want FILE to search for forms dated between December 15, 1981 and January 1, 1982. This is the correct format:

=81/12/15 . . 82/01/01

When searching, FILE ignores the slashes and looks at the dates as numeric values. It sees 811,215 . . 820,101 and can find the forms you want.

- Enter numbers so that they are all the same length if you want FILE to sort by them. For example, if your highest numbers will be in the thousands, enter 9 as 0009. When sorting, FILE looks at numbers as simple character strings; thus, 1,000 would be sorted before 9 and after 0009.

## Multi-page Forms

Use CTRL N and CTRL P to move through a multi-page form, just as you did when designing the form. In ADD, however, you can also use these keys to add and move through attachment pages.

Attachment pages appear after the last page of your form. You can add attachment pages to a form until you run out of room on the diskette. This feature allows you to append information to any form. If you need to add some special information to a particular form, the information can be entered on an attachment page. If you forgot to include some item when you originally designed a form, however, use Change Design to add it (see Chapter 7).

---

## Storing the Filled-in Forms

When you have entered all your information and are ready to add a filled-in form to your file, press CTRL C. The current form (all pages) is stored in the file. A new form appears on the screen, with the next form number listed in the message area, and you are ready to fill it in. You can add forms in any order you like—FILE finds the desired information when you need it.

Back up your file frequently when adding forms to it to prevent the loss of information. (See our backup recommendations in Protecting Your Files which follows the Preface.)

## Leaving the ADD Function

You may press BREAK at any time to terminate the ADD function, but if you do it before storing your form, the information you entered into that form is not saved.

When you finish saving the last form, press BREAK to return to the Main Menu. FILE is now ready to accept another function selection.

### **WARNING**

You must complete the ADD function and return to the Main Menu before putting in another data diskette. If you change diskettes while still in the ADD function, you may damage the data on your diskette.

## Example of Adding to a File:

Let's add information to the STAFF file. Return to the Main Menu (press BREAK, if necessary) and enter a 2 in the SELECTION NUMBER item. If you have been working with the example file, STAFF should remain in FILE NAME. If it does not, enter it. Your screen should look like this:

---

PFS:FILE MAIN MENU

- 1 DESIGN FILE            4 SEARCH/UPDATE
- 2 ADD                    5 PRINT
- 3 COPY                   6 REMOVE

SELECTION NUMBER: 2  
FILE NAME: STAFF

Make sure that the STAFF diskette is in Drive 0 and press CTRL C. The form from the STAFF file should appear on the screen, with FORM 1 in the message area. If you used SHIFT 0 and entered the item names in all uppercase characters and now want to enter your information using uppercase and lowercase characters, press SHIFT 0 again. Starting where the cursor positions itself in each item, type in the information contained on the following screen:

EMPLOYEE #: 09883                    HIRED: 78/04/15  
NAME: Jeff Stribling  
ADDRESS: 437 Oak Street  
CITY: Palo Alto                    STATE: CA            ZIP: 94301  
JOB TITLE: Engineer  
SALARY: \$2500.00

Press CTRL C to store the form in the STAFF file. A new form (FORM 2) should appear on your screen:

EMPLOYEE #:                      HIRED:  
  
NAME:  
ADDRESS:  
CITY:                              STATE:                      ZIP:  
  
JOB TITLE:  
SALARY:

---

File: STAFF 0% Full              FORM 2                      Page: 1

Fill in the second form with the information shown here:

EMPLOYEE #: 16445                      HIRED: 80/08/12  
  
NAME: Jennifer Young  
ADDRESS: 2421 Broadway  
CITY: Boston                              STATE: MA                      ZIP: 02109  
  
JOB TITLE: Salesperson-East  
SALARY: \$1950

---

File: STAFF 0% Full              FORM 2                      Page: 1

---

For this form, there is some additional information to store. Since the STAFF form only contains one page, add an attachment page for this information. Press CTRL N and the following screen appears:

ATTACHMENT :

---

File: STAFF 02 Full      FORM 2      Page: 2

Type in the additional information. The screen should look like this:

ATTACHMENT : Has had two years of European experience.

---

File: STAFF 02 Full      FORM 2      Page: 2

---



---

After you fill in and save the last form, the following screen should appear:

EMPLOYEE #:                      HIRED:  
  
NAME:  
ADDRESS:  
CITY:                              STATE:              ZIP:  
  
JOB TITLE:  
SALARY:

---

File: STAFF 1% Full              FORM 7              Page: 1

Now press BREAK. FILE returns to the Main Menu, ready to accept another function selection.

## Erasing a Page

When filling in forms, you can press CLEAR to erase all the information entered on the displayed page. Only the item names remain. Information on other pages is unaffected.

For example, if you are entering information in a form and suddenly realize that you already entered it, simply press CLEAR. Everything on the page except the item names disappears, and the cursor is positioned back in the first item, ready for you to enter another set of information.

---

## Printing a Copy of a Single Form

You can print a copy of a single form from your file by using CTRL O in the ADD function. You might want to use this option to print a copy of your blank form, or to print a copy of each form that you fill in and add to an already established file. When the desired form appears on the screen, press CTRL O. The print options form appears. Press CTRL C, and FILE prints a copy of the form, using the default values in the print options.

Should FILE overprint the form on one line, return to the print options form and type an L over the P in the OUTPUT DEVICE (P/L) item. Your screen would look like this:

```

          PRINT OPTIONS
          PRE-DEFINED PRINT SPEC:
          PRINT ITEM NAMES (Y/N): Y
          OUTPUT DEVICE (P/L): L
          LINES PER PAGE: 66
          NUMBER OF COPIES: 1

```

Press CTRL C again, and FILE should print out the form properly. (See Chapter 5 for a complete description of the print options.)

---

---

## Summary

- Use the ADD function to store information in a file.
- You enter data in a file by filling in the form that you designed when you created the file.
- Item names are protected from overwriting.
- % Full tells you the amount of space you have used from your file. At 95% Full start a new file.
- Attachment pages allow you to add one or more pages to a particular form.
- Back up your files frequently to prevent the loss of information.
- **SHIFT**  moves the cursor to the next item on a form.
- **SHIFT**  moves the cursor to the previous item on a form.
- **CLEAR** erases all the information entered on the displayed page, but not the item names.
- **CTRL**  prints a copy of the displayed form.
- **BREAK** returns to the Main Menu. If you press **BREAK** before you store a filled-in form, the information entered into that form will be lost.

---

### WARNING

You must complete the ADD function and return to the Main Menu before putting in another data diskette. If you change diskettes while still in the ADD function, you may damage the data on your diskette.

---

---

# 3:

# *copy*

---

Once you create a file and have information in it, you can copy part or all of your file. It is important to make a copy of the whole file just in case you damage or lose the original, and it is a good idea to make at least two copies. (See our backup recommendations in *Protecting Your Files*, which follows the Preface.) You must have a second disk drive connected to your system to use the COPY function and, therefore, to make backup copies. This is why we do not recommend using PFS:FILE with a one-drive system.

You may also want to copy only the form design to a new file, copy selected filled-in forms, split a file into two or more files, or merge several files into one. The COPY function is used for all of these purposes.

## Selecting COPY

To select COPY, return to the Main Menu (press BREAK, if necessary). Enter a 3 in SELECTION NUMBER and the name of the PFS file you want to copy in FILE NAME.

Make sure the file you want to copy is in Drive 0. Press CTRL C, and the Copy Function Menu appears:

COPY FUNCTION MENU

- 1 COPY DESIGN ONLY
- 2 COPY SELECTED FORMS
- 3 COPY WHOLE DISKETTE

SELECTION NUMBER:  
NEW FILE NAME:

At this point, you can select among the three COPY functions: Copy Design Only, Copy Whole Diskette, and Copy Selected Forms.

---

## The Copy Design Only Option

With Copy Design Only, you can copy just the form design of an existing file to a new file. You use this function when your file becomes full, and you want to start a new file that uses the same form design. You also use it to provide a file with a form design before copying selected filled-in forms to it.

To select Copy Design Only, enter a 1 in SELECTION NUMBER on the Copy Function Menu and a name in NEW FILE NAME. The same rules used in the DESIGN FILE function apply to selecting a file name in the COPY function. Press CTRL C and the following message screen appears:

```
PUT FILE IN DRIVE 0
PUT DISKETTE IN DRIVE 1

WARNING

THE DISKETTE IN DRIVE 1
WILL BE COMPLETELY OVER-WRITTEN

PRESS BREAK TO ABANDON THIS OPERATION

PRESS CTRL-C TO CONTINUE
```

You have two choices here. If you do not want to copy a form design now for some reason, you can press BREAK and return to the Main Menu.

If you want to continue with Copy Design Only, insert the diskette on which you want to copy your form design in Drive 1, the upper drive. Make sure the diskette is the one you want to use, because Copy Design Only destroys any information stored on it. Press CTRL C, and you can hear the disk drive as FILE erases the diskette in Drive 1 and copies the form design from your file onto it.

After completing this function, FILE returns to the Main Menu, ready to accept another function selection.

---

## Example of Copying the Form Design:

Let's make a copy of only the form design from the STAFF file. Return to the Main Menu (press BREAK, if necessary) and enter a 3 in the SELECTION NUMBER item. If you have been working with the example file, STAFF should still be in FILE NAME. If it is not, enter it. Your screen should look like this:

```
PFS:FILE MAIN MENU
-----
1 DESIGN FILE      4 SEARCH/UPDATE
2 ADD              5 PRINT
3 COPY             6 REMOVE

SELECTION NUMBER: 3
FILE NAME: STAFF
```

If the STAFF file is in Drive 0, press CTRL C. The Copy Function Menu appears. Enter a 1 in SELECTION NUMBER and Staff1 in NEW FILE NAME. The screen should look like this:

```
COPY FUNCTION MENU

1 COPY DESIGN ONLY
2 COPY SELECTED FORMS
3 COPY WHOLE DISKETTE

SELECTION NUMBER: 1
NEW FILE NAME: Staff1
```

Press CTRL C, and the following screen appears:

```
PUT FILE IN DRIVE 0
PUT DISKETTE IN DRIVE 1

WARNING

THE DISKETTE IN DRIVE 1
WILL BE COMPLETELY OVER-WRITTEN
PRESS BREAK TO ABANDON THIS OPERATION
PRESS CTRL-C TO CONTINUE
```

Insert the diskette you want to use in Drive 1 and press CTRL C. FILE erases the diskette in Drive 1, copies the STAFF form design on it, and returns to the Main Menu. The cursor is positioned in SELECTION NUMBER, and STAFF remains in FILE NAME. FILE is ready to accept another function selection.

Take the diskette out of Drive 1, label it STAFF1, and put it aside for later use.

## The Copy Whole Diskette Option (Backing up a File)

With this option you can copy your entire file, including the form design and all the filled-in forms. This gives you an exact duplicate of the original file. You should use this option frequently to make backup copies of each of your files.

To select Copy Whole Diskette, enter a 3 in the SELECTION NUMBER item on the Copy Function Menu and a name in NEW FILE NAME. Press CTRL C, and the following screen appears:

---

PUT FILE IN DRIVE 0  
PUT DISKETTE IN DRIVE 1  
  
WARNING  
  
THE DISKETTE IN DRIVE 1  
WILL BE COMPLETELY OVER-WRITTEN  
PRESS BREAK TO ABANDON THIS OPERATION  
PRESS CTRL-C TO CONTINUE

Again, you have two choices. You can press BREAK and return to the Main Menu, or you can press CTRL C and continue with the Copy Whole Diskette option. If you proceed with Copy Whole Diskette, put the diskette you wish to copy in Drive 0, and the diskette you want to use for the backup copy in Drive 1. Press CTRL C, and you can hear the disk drive as FILE erases the diskette in Drive 1 and copies the entire file in Drive 0 onto it.

After completing this function FILE returns to the Main Menu, ready to accept another function selection.

## Example of Copying the Whole Diskette:

Let's make a backup copy of the STAFF file. Return to the Main Menu (press BREAK, if necessary) and enter a 3 in the SELECTION NUMBER item. Enter Staff in the FILE NAME item, if necessary, and press CTRL C. When the Copy Function Menu appears, enter a 3 in SELECTION NUMBER and StaffA in NEW FILE NAME. Your screen should look like this:

```
COPY FUNCTION MENU  
  
1 COPY DESIGN ONLY  
2 COPY SELECTED FORMS  
3 COPY WHOLE DISKETTE  
  
SELECTION NUMBER: 3  
NEW FILE NAME: StaffA
```

---

Press CTRL C, and this screen appears:

```
          PUT FILE IN DRIVE 0
          PUT DISKETTE IN DRIVE 1

          WARNING

          THE DISKETTE IN DRIVE 1
          WILL BE COMPLETELY OVER-WRITTEN
          PRESS BREAK TO ABANDON THIS OPERATION
          PRESS CTRL-C TO CONTINUE
```

Check to make sure STAFF is still in Drive 0 and insert the diskette you want to use for your backup file in Drive 1. Press CTRL C, and FILE erases the contents of the diskette in Drive 1 and copies your entire STAFF file on it.

FILE then returns to the Main Menu, ready for another function selection.

## The Copy Selected Forms Option

Copy Selected Forms allows you to choose among the filled-in forms in your file and copy selected ones to another file. You might want to use this option when a file becomes too large and you want to split it into two files, or you might want to split off a special interest group of forms to a new file. Also, you can use Copy Selected Forms to merge parts of several different files into one new file.

To select Copy Selected Forms, enter a 2 in the SELECTION NUMBER item on the Copy Function Menu and a name in NEW FILE NAME. Press CTRL C, and the following screen appears:

---

PUT 'FROM' FILE IN DRIVE 0

PUT 'TO' FILE IN DRIVE 1

PRESS BREAK TO ABANDON THIS OPERATION

PRESS CTRL-C TO CONTINUE

Put the diskette from which you are copying forms (the source file) in Drive 0, and the diskette to which you are copying the forms (the destination file) in Drive 1. The destination file must contain the form design before the copy can be made. You can copy the form design using Copy Design Only, or you can copy the selected forms to a partially-full file that already has a form design.

The layout of the form of the source file and the destination file need not be identical (the items can be arranged differently), but the item names must be identical in order for information to be copied. For example, if your source file has an item called EMPLOYEE NAME, and the equivalent item in the destination file is called NAME OF EMPLOYEE, the names of the employees will not be copied.

After you put the proper diskettes in Drive 0 and Drive 1, press CTRL C again, and a form from the source file (in Drive 0) appears on the screen. Using the STAFF file as an example, the screen looks like this:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:    ZIP:
JOB TITLE:
SALARY:
```

Notice that the message area at the bottom of the screen contains the words RETRIEVE SPEC. When you fill in items on a retrieve spec form, you describe information that you want FILE to find. FILE uses this description to search your file and find the forms you want. In COPY, FILE then copies these forms. If you leave the retrieve spec form blank, FILE copies all the forms. For a complete description of the various types of retrieve specifications, see Chapter 4.

After entering your retrieve specifications, press CTRL C, and FILE copies the selected forms, renumbering the forms as it copies them. A screen appears telling you how many forms were copied. After you press CTRL C again, FILE returns to the Main Menu, ready to accept another function selection.

### Example of Copying Selected Forms:

Let's copy some forms from STAFF to the file named STAFF1 that you created in the first part of this chapter. The STAFF form design was copied to STAFF1 with the Copy Design Only option, so it is ready to receive selected forms.

Return to the Main Menu (press BREAK, if necessary) and enter a 3 in the SELECTION NUMBER item. Enter Staff in the FILE NAME item, if necessary, and press CTRL C. When the Copy Function Menu appears, enter a 2 in SELECTION NUMBER and Staff1 in NEW FILE NAME. Your screen should look like this:

COPY FUNCTION MENU

- 1 COPY DESIGN ONLY
- 2 COPY SELECTED FORMS
- 3 COPY WHOLE DISKETTE

SELECTION NUMBER: 2  
NEW FILE NAME: Staff1

---

Press CTRL C, and the following screen appears:

```
PUT 'FROM' FILE IN DRIVE 0
PUT 'TO' FILE IN DRIVE 1

PRESS BREAK TO ABANDON THIS OPERATION

PRESS CTRL-C TO CONTINUE
```

Check to make sure STAFF is still in Drive 0, and put STAFF1 in Drive 1. Press CTRL C, and the retrieve spec form from STAFF (the source file) appears on the screen. You are now ready to indicate which forms you want copied. Suppose you want to create a separate file for your California office, so you want to copy the forms for these employees to STAFF1. Enter CA in the STATE item. Your screen should look like this:

```
EMPLOYEE #:           HIRED:
NAME:
ADDRESS:
CITY:                 STATE: CA   ZIP:
JOB TITLE:
SALARY:
```

---

```
File: STAFF 12 Full      RETRIEVE SPEC      Page: 1
```

Press CTRL C, and FILE copies the appropriate forms from STAFF to STAFF1. Then, the following screen appears:

FORMS COPIED: 3

PRESS CTRL-C TO CONTINUE

Press CTRL C, and FILE returns to the Main Menu. The cursor is positioned in SELECTION NUMBER and STAFF remains in FILE NAME. FILE is ready to accept another function selection.

## Splitting a File

When a file has grown in size, you may want to split off part to form a new file. Or, you may want to separate a special interest group of forms to a new file. To split a file, first copy the form design (using Copy Design Only) to a new file. Then, use Copy Selected Forms to select and copy the filled-in forms you want into your new file.

If you choose to change the design of the form in the new file, remember to keep the item names identical (FILE only copies information for items that have identical names).

---

## Merging Files

At some time, you may want to combine two PFS files into one file, or parts of two or more files into one new file. For example, suppose you have two customer files (A to L and M to Z). You want to form a new file containing information for customers that have not made any purchases for the last 3 months. You can copy the form design from your present customer file, or design a new form that uses only some items from the present file. (Items that you do not use are not copied.) Then, you can copy the filled-in forms (and the items) you want into the new file from the other two files.

To merge files, follow these guidelines:

- Use a file that already has a form design, or copy the appropriate form design (using Copy Design Only) to another diskette, creating a new file.
- Design a form for a new file by eliminating item names of items you do not want copied to your new file and making sure that item names are identical for items that you do want copied.
- Use Copy Selected Forms to select and copy the filled-in forms you want into your new file.
- Before merging files, make sure you estimate their combined size so that you do not exceed the storage capacity of the diskette used (see Appendix C).

## Leaving the COPY Function

If at any time you want to terminate the COPY function, press BREAK. If you do so while FILE is copying, however, the destination file receives only the information transferred from the source file before you pressed BREAK.

---

## Summary

- To use COPY, you must have two disk drives.
  - COPY has three options:
    1. Use Copy Design Only to copy the form design of a file to a new file.
    2. Use Copy Selected Forms to copy selected filled-in forms from a file; this option is particularly useful for splitting or merging files.
    3. Use Copy Whole Diskette to make an exact duplicate of a file.
  - Items must have identical names to be copied from one file to another, but they do not have to be in the same location on the two forms.
  - Before merging files, estimate their combined size so you will not exceed the storage capacity of the diskette (see Appendix C).
  - |       |
|-------|
| BREAK |
|-------|

 returns to the Main Menu. The file is copied only to the point where BREAK was pressed.
-

---

# 4: *search/update*

---

After you store information in a file, you can use the SEARCH/UPDATE function to search through your file and find forms that are of interest to you. FILE can search for forms based on the contents of any page, including attachment pages. Once you find a particular form, you can review it, update it, print it, or remove it from the file.

## Selecting SEARCH/UPDATE

To select SEARCH/UPDATE, return to the FILE Main Menu (press BREAK, if necessary). Enter a 4 in SELECTION NUMBER and the name of the file you wish to search through in FILE NAME. If you leave the FILE NAME item blank, FILE searches the disk drives and uses the first PFS file it finds.

Make sure the file you named in FILE NAME is in a drive. Press CTRL C, and a form from this file appears with the words RETRIEVE SPEC in the message area at the bottom. This form is referred to as the retrieve spec form. The STAFF file retrieve spec form looks like this:

```
EMPLOYEE #:           HIRED:
NAME:
ADDRESS:
CITY:                 STATE:   ZIP:
JOB TITLE:
SALARY:
```

---

File: STAFF 12 Full      RETRIEVE SPEC      Page: 1

---

## Using Retrieve Specifications

With SEARCH/UPDATE, you describe the forms you want FILE to find by filling in items on the retrieve spec form. The items that you enter on this form are called "retrieve specifications". You can enter a retrieve specification in as many items of the form as you wish. Only those forms in the file meeting all the specifications are found. If no retrieve specifications are entered, FILE retrieves every form in the file.

There are five categories of retrieve specifications: the full item match, partial item matches, numeric item matches, the numeric range match, and the "not" match. The following sections describe these five categories:

### 1. Full Item Match

For the fastest possible retrieval, use this type of retrieve specification. If you use a full item match in the first item of your form, any form can be found in 3-5 seconds.

In a full item match, FILE looks for forms on which the characters in an item exactly match the characters that you entered in the same item on the retrieve spec. (A character can be either a letter or a number.) To determine whether there is a match, FILE uses the following rules:

- FILE ignores spaces before the first character and after the last character.
- FILE treats multiple spaces within the items as a single space.
- FILE ignores the difference between uppercase and lowercase characters.

For example, suppose you want to recall the John Andrews form of the STAFF file to the screen. If you enter this retrieve specification,

---

EMPLOYEE #:                      HIRED:  
NAME: John Andrews  
ADDRESS:  
CITY:                              STATE:                      ZIP:  
JOB TITLE:  
SALARY:

---

File: STAFF 12 Full                      RETRIEVE SPEC                      Page: 1

NAME: John Andrews                      will be a match.  
NAME: John                      Andrews                      will be a match.  
NAME: JOHN ANDREWS                      will be a match.  
NAME: Mr. John Andrews                      will not be a match.  
NAME: John Andrews Jr.                      will not be a match.  
NAME: John                      will not be a match.  
NAME: Andrews, John                      will not be a match.  
NAME: JohnAndrews                      will not be a match.

---

## 2. Partial Item Matches

Use a partial item match if you do not remember exactly how an item of information is entered in a file, or if you want to find occurrences of specific pieces of information in your files. There are two kinds of partial item matches: the `.. match ..` and the `@ match`.

The `.. match ..` uses either two or four dots with a word or group of words (number or group of numbers) to search for an occurrence of certain information within an item. It works like this:

- `.. Word` tells FILE to ignore whatever characters occur before Word.
- `Word ..` tells FILE to ignore whatever characters occur after Word.
- `.. Word ..` tells FILE to ignore whatever characters occur before or after Word; i.e., to look for Word anywhere in the item.
- `..` tells FILE to find all forms with any characters in this item.

For example, suppose you want to recall Jeff Stribling's personnel form to the screen. Jeff's full name is Jeffrey Stribling, Jr., and you don't know exactly how the name was entered in the file. Using the `.. match ..`, there are three ways you can find Jeff's form. If you enter this retrieve specification,

```
EMPLOYEE #:          HIRED:
NAME: Jeff..
ADDRESS:
CITY:                STATE:    ZIP:
JOB TITLE:
SALARY:
```

NAME: Jeff will be a match.  
NAME: JEFF STRIBLING will be a match.  
NAME: Jeffrey Stribling Jr. will be a match.  
NAME: Jeff Warner will be a match.  
NAME: Mr. Jeff Stribling will not be a match.

If you enter this retrieve specification,

```
EMPLOYEE #:          HIRED:
NAME: ..Stribling
ADDRESS:
CITY:                STATE:    ZIP:
JOB TITLE:
SALARY:
```

---

File: STAFF 11 Full RETRIEVE SPEC Page: 1

NAME: Mr. Stribling will be a match.  
NAME: J. STRIBLING will be a match.  
NAME: Mr. Jeff Stribling will be a match.  
NAME: Sara Stribling will be a match.  
NAME: Jeff Stribling Jr. will not be a match.

---

If you enter this retrieve specification,

EMPLOYEE #:                      HIRED:  
NAME: ..Stribling..  
ADDRESS:  
CITY:                              STATE:              ZIP:  
JOB TITLE:  
SALARY:

---

File: STAFF 12 Full              RETRIEVE SPEC              Page: 1

NAME: Mr. Jeff Stribling Jr.    }  
NAME: JEFFREY STRIBLING    } will all be matches.  
NAME: Tom Stribling, Jr.       }

Now suppose you want to look at the forms of all the employees who have work experience in Europe. You know that this information was entered as an attachment page. If you enter this retrieve specification,

ATTACHMENT : ..Europe..

---

File: STAFF 12 Full              RETRIEVE SPEC              Page: 2

both of the following will match:

ATTACHMENT: Has had two years of European experience.

ATTACHMENT: Worked in Europe for two years.

---

The @ match uses the "at-sign" as a "wild-card" character to search for items that are almost an exact match. This symbol can be substituted for any single character in an item in a retrieve spec form (except a space), and any character in that same position in any form in a file is accepted as a match.

For example, suppose the third digit of a part number indicates its color, and you want to retrieve all records of a certain part regardless of its color. The following retrieve specification finds all records of the part:

PART NUMBER: H3@711D

As another example, suppose you know that there are two people in the STAFF file who were hired in June of 1977, and you want to find their forms. You would use the following retrieve specification:

```
EMPLOYEE #:                HIRED: 77/06/00
NAME:
ADDRESS:
CITY:                STATE:        ZIP:
JOB TITLE:
SALARY:
```

---

File: STAFF 1% Full      RETRIEVE SPEC      Page: 1

### 3. Numeric Item Matches

There are two ways to use numbers as information. One way is to use a number as a set of characters that identifies an item. In this case the number has no numeric value—one number is not typically thought of as larger or smaller than any other. Phone numbers, part numbers, and social security numbers are examples of numbers used as identifiers. FILE treats the numbers as it would treat a word or any string of identifying letters. You use either a full item match or one of the partial item matches to look for such a number.

For example, if you want to search through the STAFF file for employee number 13029, the retrieve specification would look like this:

```
EMPLOYEE #: 13029          HIRED:
NAME:
ADDRESS:
CITY:                      STATE:      ZIP:
JOB TITLE:
SALARY:
```

-----  
File: STAFF 1X Full RETRIEVE SPEC Page: 1

The other way to use a number as information is to use it to represent an arithmetic value—something that has a meaning of larger or smaller. Numbers associated with quantity or cost are examples of numbers used to represent arithmetic values. When searching through forms for such a number, it is possible to look for all items less than, greater than, or equal to that given number. The retrieve specification consists of one of three special symbols ( <, >, and = ) followed by the desired number. In determining the value of a number, FILE uses the following rules:

- FILE ignores all characters other than -, +, 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9.
- A minus sign (-) appearing before the first digit or after the last makes the value negative. FILE ignores multiple minus signs.
- If multiple decimal points are encountered, FILE ignores all but the first.

Some examples of how FILE assigns a number an arithmetic value are:

Item	Value	
\$1,706.22	1706.22	FILE ignores the \$ and ,
13 MAY 1980	131980	FILE ignores MAY
70-06-29	700629	In order to be a negative, a minus sign must appear before the first digit or after the last. (This is a convenient way to numerically represent dates.)
20:45	2045	FILE ignores the colon. (This is a convenient way to numerically represent times.)
FIVE	0	FILE ignores letters. If no digits are found, the value is zero.

For example, suppose you want to search through the STAFF file for all the employees with salaries greater than \$2000.00. The retrieve specification should look like this:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:      ZIP:
JOB TITLE:
SALARY: >2000.00
```

## 4. The Numeric Range Match

The numeric range match allows you to search for numeric values within a certain range. To do this, use an equals sign followed by the lowest of the numeric values, two dots, and then the highest numeric value. The dot-dot with the equals sign means "through".

For example, to find all the employees in the STAFF file hired between January 1, 1978 and December 31, 1979, the retrieve specification should look like this:

```
EMPLOYEE #:                HIRED: =78/01/01..79/12/31
NAME:
ADDRESS:
CITY:                      STATE:      ZIP:
JOB TITLE:
SALARY:
```

---

File: STAFF IZ Full RETRIEVE SPEC Page: 1

NOTE: You can put spaces anywhere except between the dots.

## 5. The "NOT" Match

Any of the different types of retrieve specifications can have its intent reversed by preceding it with a slash (/).

- /=3.1            Finds all those values which are NOT equal to 3.1.
  - /John           Finds all those items that are NOT John.
  - /B . .          Finds all those items that do NOT begin with B.
  - /. .er          Finds all those items that do NOT end with er.
  - /=31 . .100     Finds all those items less than 31 or greater than 100.
  - /. .            Finds all those items that are blank.
-

For example, suppose you want to search through the STAFF file for all employees with salaries less than \$1500.00 or more than \$2000.00. The retrieve specification would look like this:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:      ZIP:
JOB TITLE:
SALARY: /=1500..2000
```

---

```
File: STAFF 12 Full      RETRIEVE SPEC      Page: 1
```

## Searching through Files

When you finish entering retrieve specifications, press CTRL C, and FILE searches for the desired forms, starting with the most recent form added. While FILE is searching, the screen is blank except for the message area at the bottom where the form numbers change as FILE checks each form in the file.

When FILE finds a form meeting the retrieve specifications, it displays it on the screen and pauses. You can do any of the following:

### 1. Update the Form.

You can make any changes to information stored in the form by positioning the cursor in the item you want to change and entering new information. Then, press CTRL C, and FILE stores the updated form in the file and continues its search.

### 2. Review the Form.

You can browse through the form, using CTRL N and CTRL P if you have multiple pages. When you finish, press CTRL C, and FILE continues its search.

---

### 3. Print the Form.

You can print the form (all pages) by pressing CTRL O. After reviewing a form, press CTRL O, and the print options form appears. Press CTRL C, and FILE prints a copy of the form, using the default values in the print options.

Should FILE overprint all of the information in the form on one line, return to the print options form and type an L over the P in the OUTPUT DEVICE item. Press CTRL C again, and FILE should print the form properly. (See Chapter 5 for a complete description of the print options.)

### 4. Remove the Form.

You can remove the form (all pages) from the file by pressing CTRL R. Before the form is removed, the following screen appears:

CURRENT FORM ABOUT TO BE REMOVED

PRESS SPACE TO KEEP THE FORM

PRESS CTRL-C TO REMOVE THE FORM

If you do not want this form removed (you may have pressed CTRL R by mistake), press the space bar, and FILE returns the form to the screen. If you want the form removed, press CTRL C, and FILE removes the form and continues its search. (See Chapter 6 for other removal capabilities.)

### Example of Searching through a File:

Suppose you want to search through the STAFF file for all employees in sales with salaries more than \$1850.00. There are two items you are interested in: JOB TITLE and SALARY.

---

First, return to the Main Menu (press BREAK, if necessary) and enter 4 in SELECTION NUMBER. If you have been working with the example file, STAFF should remain in FILE NAME. If it does not, enter it. Your screen should look like this:

```
PFS:FILE MAIN MENU
-----
DESIGN FILE      4  SEARCH/UPDATE
ADD              5  PRINT
COPY             6  REMOVE

SELECTION NUMBER: 4
FILE NAME: STAFF
```

Press CTRL C, and the retrieve spec from STAFF appears on your screen. Use SHIFT → to move the cursor to the JOB TITLE item. Since you want any person in sales, enter Sales . . , and FILE will ignore any characters after the word sales when searching. Move the cursor to the SALARY item, and enter >1850.00. Your screen should look like this:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:      ZIP:

JOB TITLE: Sales..
SALARY: >1850.00
```

```
-----
File: STAFF 12 Full      RETRIEVE SPEC      Page: 1
```

Press CTRL C, and FILE begins searching. There are two employees in sales who earn more than \$1,850.00. As the first of the forms is found, FILE displays it:

EMPLOYEE #: 13029                      HIRED: 80/02/01  
  
NAME: Mike Cooper  
ADDRESS: 907 Sunset Court  
CITY: Portland                      STATE: OR              ZIP: 97208  
  
JOB TITLE: Salesperson-West  
SALARY: \$1900.00

---

File: STAFF 1Z Full              FORM 4                      Page: 1

Suppose there is an error in the date that Mike Cooper was hired. It should be 80/02/07, not 80/02/01. Update the form by first using SHIFT → to move the cursor to the HIRED item. Then, use → to move the cursor to the 1 without destroying any of the correct characters. Type a 7, and then press CTRL C. The updated form is stored, and FILE continues its search.

The next form that meets the retrieve specification appears:

EMPLOYEE #: 16445                      HIRED: 80/08/12  
  
NAME: Jennifer Young  
ADDRESS: 2421 Broadway  
CITY: Boston                      STATE: MA              ZIP: 02109  
  
JOB TITLE: Salesperson-East  
SALARY: \$1950

---

File: STAFF 1Z Full              FORM 2                      Page: 1\*

The asterisk (\*) after the page number indicates there are more pages in this form. To see the second page, press CTRL N. After you review this form, press CTRL C, and the following screen appears:

---

FORMS FOUND: 2

PRESS CTRL-C TO CONTINUE

Press CTRL C, and FILE returns to the Main Menu. The cursor is positioned in SELECTION NUMBER, and STAFF remains in FILE NAME. FILE is ready to accept another function selection.

## Leaving the SEARCH/UPDATE Function

You can terminate SEARCH/UPDATE at any time by pressing BREAK. FILE returns to the Main Menu. If you are updating a form when you press BREAK, however, the changes to the form may not be recorded in the file.

In SEARCH/UPDATE, any changes you make to a form are actually written in the file when the updated page disappears from the screen; that is, when you press either CTRL N, CTRL P, or CTRL C. If you make changes to a form, but press BREAK before the page disappears, those updates are not written in the file.

## Summary

- Use the SEARCH/UPDATE function to search through files, find desired forms, and display them on the screen.
  - You tell FILE what forms you want to find by filling in a form called a retrieve spec.
  - FILE can search for forms based on retrieve specifications you enter in any combination of items on any page of the retrieve spec form.
-

- Retrieve specifications must be constructed as follows:

characters (letters or numbers)	FULL ITEM MATCH
..characters	PARTIAL ITEM MATCH – ignore beginning
characters..	ignore end
..characters..	ignore both
..	matches any filled-in item
@	matches any single character
<number	NUMERIC ITEM MATCH –less than
>number	greater than
=number	equal to
=number 1 . .number 2	NUMERIC RANGE MATCH – inclusive
/retrieve spec	NOT MATCH – not equal to retrieve spec
/..	matches blank items

- For fastest possible retrieval, use a full item match in the first item of your form.
  - If no retrieve specifications are entered, FILE finds and displays every form in the file.
  - CTRL  O prints a copy of the displayed form.
  - CTRL  R removes the displayed form from the file.
  - BREAK returns to the Main Menu. Any updates not yet saved are lost.
-

---

# 5:

# *print*

---

FILE gives you the ability to print selected forms or portions of forms from a PFS file according to a format that you specify. (This format might include printing the forms in sorted order; for example, in alphabetical order for an item called CITY.)

With the PRINT function, you indicate which forms you are interested in, which items of the form you are interested in, and how you want these items printed. FILE searches through the file, automatically printing all selected information.

## Selecting PRINT

To select PRINT, return to the Main Menu (press BREAK, if necessary). Enter a 5 in SELECTION NUMBER and the name of your file in FILE NAME. If you leave this item blank, FILE searches the disk drives and uses the first PFS file it finds.

Check to make sure the diskette containing your file is in a disk drive. Then, press CTRL C, and the Print Menu appears:

```
PRINT MENU  
  
1 PRINT FORMS  
2 DEFINE PRINT SPEC  
  
SELECTION NUMBER:
```

At this point, you can select from the two PRINT options: Print Forms and Define Print Spec.

---

## The Print Forms Option

Print Forms lets you choose which forms you want to print, which items from each form you want to print, and how you want to print these items. You supply this information by filling in three forms.

To select the Print Forms option, enter a 1 in the SELECTION NUMBER item on the Print Menu. Press CTRL C, and the first form, the retrieve spec, appears. The STAFF file retrieve spec form looks like this:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:      ZIP:
JOB TITLE:
SALARY:

-----
File: STAFF 1% Full      RETRIEVE SPEC      Page: 1
```

## Filling in the Retrieve Spec

You indicate which forms you want to print by filling in the retrieve spec form with specifications just as you did in the SEARCH/UPDATE function. (See Chapter 4 for a detailed description of retrieve specifications.) If no retrieve specifications are entered, FILE retrieves and prints every form in the file.

When you finish filling in the retrieve spec, press CTRL C, and the second form, the print options form, appears:

## PRINT OPTIONS

PRE-DEFINED PRINT SPEC:

PRINT ITEM NAMES (Y/N): Y

OUTPUT DEVICE (P/L): P

LINES PER PAGE: 66

NUMBER OF COPIES: 1

## Filling in the Print Options

This screen appears whenever FILE is about to start printing something. It allows you to control the format. Type the desired value for each option over the default value shown on the screen, or press CTRL C to print your form using the default values.

**PRE-DEFINED PRINT SPEC:** (Optional) If you previously defined a print specification and stored it, you can enter its name here, and FILE begins printing immediately using this specification. If you do not have a pre-defined specification, leave this item blank.

**PRINT ITEM NAMES (Y/N):** This item specifies whether or not the item names are to be printed along with the information in the items. If you do not want the item names printed, type N over the Y.

**OUTPUT DEVICE (P/L):** This item allows you to choose between two types of printers:

- P — for printers with auto-linefeed.
  - L — for printers without auto-linefeed. If your printer overprints the items from the form on the same line without advancing, it does not have auto-linefeed.
-

**LINES PER PAGE:** This item specifies how many lines you want to have between the first line of one form and the first line of the next form. The default value of 66 is the full size of a normal printer page. You can adjust this value to accommodate the size of your printer paper, the size of your form, and the number of lines you want to have between forms. For example, if you want to print 30 lines from your form, want one form per printer page, and have printer paper with 66 lines; leave the lines per page at 66. If you want two forms per printer page with 3 lines between each form, change the lines per page to 33. The number you enter should divide evenly into the total number of lines on your printer page, or you will print over the perforation.

**NUMBER OF COPIES:** This item specifies how many copies FILE prints of each form. If you specify more than one copy, FILE prints all copies of the first form, then all copies of the second form, etc.

FILE temporarily stores any changes that you make in the print options. The next time you start the program, the default values will again be in effect. The print options can be updated at any time.

When you finish with your print options, press CTRL C, and the third form to fill in appears with the words PRINT SPEC in the message area at the bottom. This form is referred to as the print spec form. The STAFF file print spec form looks like this:

EMPLOYEE #:                      HIRED:  
NAME:  
ADDRESS:  
CITY:                              STATE:              ZIP:  
JOB TITLE:  
SALARY:

---

## Filling in the Print Spec

On the print spec form, you choose which items you want to print and how you want to arrange them (on the same line, or different lines, etc.). If you leave this form blank, each form is printed exactly as it appears on the screen, using the print options you just selected. To select items for printing, use these three characters:

- X            print this item, then advance the printer to the next line.
- +            print this item, but do not advance the printer to the next line after printing it—skip 2 spaces instead. (This allows you to print more than one item per line.)
- T            print the item as text. The item is printed 80 columns wide with word wrap at the end of each line.

In addition, you can have FILE print the forms in a particular order by combining the following character with the X, the +, or the T:

- S            sort the printout based on this item. Using the first ten characters in this item, FILE sorts the printout into ascending order. You can sort on one item only.

*Letter sorts:* If FILE sorts an item that consists of letters, the forms are printed out in alphabetical order according to that item. For example, if you place an S next to an X or a + in the CITY item of your STAFF file, the forms are printed out alphabetically by city. The CITY item does not appear first on the forms, however; the items on each form are always printed in the order in which they appear on the screen.

*Number sorts:* FILE treats numbers as character strings for the purposes of sorting. Just as AZ is sorted before Z, 19 will be sorted before 9. For this reason, sorting the printout into numerical sequence is not feasible unless all the numbers are the same length, as with zip codes. To sort numbers of different lengths, enter zeros to the left of the numbers to make them the same length. For example, 09 will be sorted before 19 not after.

- NOTE:** Remember, an S does not automatically cause an item to be printed. It must be used with an X, a +, or a T.
-

## Example of Printing Mailing Labels from Forms:

Let's use the PRINT function to generate mailing labels for everyone in the STAFF file.

First, return to the Main Menu (press BREAK, if necessary), and enter a 5 in the SELECTION NUMBER item. If you have been working with the example file, STAFF should still be in FILE NAME. If it is not, enter it. Your screen should look like this:

```
          PFS:FILE MAIN MENU
          -----
1 DESIGN FILE          4 SEARCH/UPDATE
2 ADD                  5 PRINT
3 COPY                 6 REMOVE

          SELECTION NUMBER: 5
          FILE NAME: STAFF
```

Press CTRL C, and the Print Menu appears. Enter a 1 in SELECTION NUMBER. Your screen should look like this:

```
          PRINT MENU

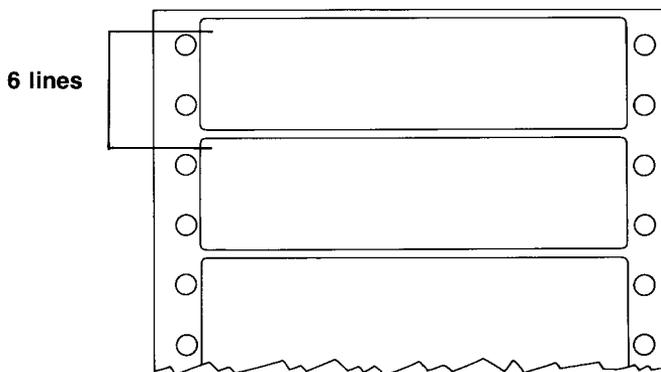
          1 PRINT FORMS
          2 DEFINE PRINT SPEC

          SELECTION NUMBER: 1
```

---

Press CTRL C again, and the retrieve spec appears. Since you want a label for each employee in the file, leave the retrieve spec blank. Press CTRL C, and FILE displays the print options for you to fill in. (The options show the current default values.)

To select the desired print options, press SHIFT → and skip the PRE-DEFINED PRINT SPEC item. Then move the cursor to the PRINT ITEM NAMES item. Since you would not want item names on mailing labels, change the Y to N. Press SHIFT → again, and leave the P or enter L in the OUTPUT DEVICE item according to what type of printer you own. Move to the next item. At this point, you need to determine the spacing between the mailing labels and make sure the labels are properly inserted in the printer. (If you have questions about loading paper or mailing labels, refer to the printer manual or see your dealer.) To determine the proper spacing, count the number of lines between the top of one mailing label and the top of the next. This is the number you want to enter in the LINES PER PAGE item.



For the mailing labels in this example, there are 6 lines from the start of one label to the start of the next. Either type a 6 or press → to move over the 6 that is there. Then, space over the second 6 to remove it. You only need one mailing label per STAFF form, so use the default value for the NUMBER OF COPIES item. Your screen should look like this:

```
PRINT OPTIONS

PRE-DEFINED PRINT SPEC:

PRINT ITEM NAMES (Y/N): N

OUTPUT DEVICE (P/L): P

LINES PER PAGE: 6

NUMBER OF COPIES: 1
```

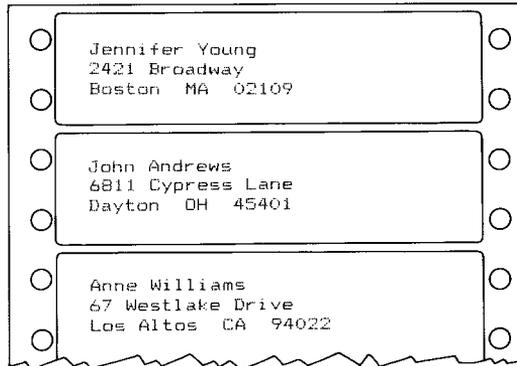
When you finish entering your print options, press CTRL C, and the print spec form appears. The items that you want to select for printing your mailing labels are NAME, ADDRESS, CITY, STATE, and ZIP. Use the SHIFT → key to move the cursor to NAME and enter X. Also enter X in ADDRESS. The CITY and STATE items each receive a + sign to put them on the same line. Move the cursor to ZIP and enter SX. (The mailing labels will be sorted by zip codes.) When you are finished, the screen should look like this:

```
EMPLOYEE #:          HIRED:

NAME: X
ADDRESS: X
CITY: +             STATE: +     ZIP: SX

JOB TITLE:
SALARY:
```

Press CTRL C again, and FILE prints the mailing labels. They should look like this:



**NOTE:** If nothing happens here, check to make sure the printer is turned on and the paper is properly loaded.

After the last form is printed, the following message appears:

FORMS PRINTED: 6

PRESS CTRL-C TO CONTINUE

Press CTRL C one more time. FILE returns to the Main Menu, ready to accept another function selection.

## The Define Print Spec Option

The Define Print Spec option allows you to specify the way you want to print forms from a particular file, give a name to that set of specifications, and repeatedly use the specifications to print forms by simply referencing the name. You can store eight print specs in a file at one time.

To select Define Print Spec, enter a 2 in the SELECTION NUMBER item on the Print Menu and press CTRL C. The following screen appears:

CURRENT PRE-DEFINED PRINT SPECS

(NONE)

PRINT SPEC NAME:

Enter in the PRINT SPEC NAME item on this screen a name (one to eight characters) for the print specification that you want to define. Press CTRL C, and a print spec form from your file appears. Indicate the items you want printed by filling them in with an X, a +, or a T. Also, enter an S if you want to sort your printout.

When you finish, press CTRL C. The print specification and its name are stored in the file to use for future printings. FILE then returns to the Main Menu, ready for a new function selection.

### Example of Defining and Using a Print Spec:

Let's define a print specification for doing mailing labels and call it MAILABEL.

First, return to the Main Menu (press BREAK, if necessary) and enter a 5 in SELECTION NUMBER. Enter STAFF in the FILE NAME item, if necessary. Press CTRL C, and the Print Menu appears. Enter a 2 in SELECTION NUMBER and press CTRL C again.

---

The screen indicating the current pre-defined print specs appears. Enter Mailabel in the PRINT SPEC NAME item. Your screen should look like this:

CURRENT PRE-DEFINED PRINT SPECS

(NONE)

PRINT SPEC NAME: Mailabel

Press CTRL C, and the print spec form from your STAFF file appears. Indicate the items you want printed by filling in this form to look like this:

EMPLOYEE #:                      HIRED:  
NAME: X  
ADDRESS: X  
CITY: +                              STATE: +              ZIP: SX  
JOB TITLE:  
SALARY:

-----  
File: STAFF 12 Full              PRINT SPEC              Page: 1

Press CTRL C one more time, and the print specification and its name are stored in the STAFF file to use for future printings. FILE returns to the Main Menu.

Now let's try using MAILABEL. You are in the Main Menu, so enter a 5 in SELECTION NUMBER to return to the Print Menu. Enter a 1 to select the Print Forms option, and press CTRL C. When the retrieve spec form appears, again press CTRL C since you want all the forms in the file. The print options form appears. Enter Mailabel in the PRE-DEFINED PRINT SPEC item. The other items on the form should already be correct, since the changes you already entered in the print options are still stored in FILE:

PRINT OPTIONS

PRE-DEFINED PRINT SPEC: Mailabel

PRINT ITEM NAMES (Y/N): N

OUTPUT DEVICE (P/L): P

LINES PER PAGE: 6

NUMBER OF COPIES: 1

Press CTRL C, and FILE immediately begins printing the mailing labels. After it finishes, the following message appears:

FORMS PRINTED: 6

PRESS CTRL-C TO CONTINUE

Press CTRL C again, and FILE returns to the Main Menu. The cursor is positioned in SELECTION NUMBER and STAFF remains in FILE NAME. FILE is ready for another function selection.

---

## Changing or Removing a Pre-defined Print Spec

To change or remove a pre-defined print spec, you select Define Print Spec from the Print Menu. The screen that displays the names of any print specs that you have already designed appears:

CURRENT PRE-DEFINED PRINT SPECS

MATLABEL

PRINT SPEC NAME:

To change a pre-defined print spec, enter its name in the PRINT SPEC NAME item. Press CTRL C, and FILE displays the stored print specifications on the screen. You can make changes by typing over any entries on the form, or you can press CLEAR to erase all the entries on that page of the print spec and start over.

---

To remove the print spec from the file, enter its name in the PRINT SPEC NAME item. Press CTRL C, and when FILE displays the stored print specifications on the screen, press CTRL R. A warning screen appears, giving you an opportunity to change your mind:

CURRENT PRINT SPEC ABOUT TO BE REMOVED

PRESS SPACE TO KEEP THE PRINT SPEC

PRESS CTRL-C TO REMOVE THE PRINT SPEC

If you change your mind and want to keep the print spec, press the space bar. The print spec appears on the screen again. Now press CTRL C, and FILE returns to the Main Menu. The print spec remains in your file.

If you want to remove the print spec, press CTRL C. FILE removes the print spec from your file and returns to the Main Menu, ready for another function selection.

## Reviewing Forms before Printing

If you wish to review each form before you print it, use the SEARCH/UPDATE function and CTRL O. The entire form can be printed just as it appears on the screen, or formatted using the print options (see Chapter 4).

## Leaving the PRINT Function

If at any time you want to terminate the PRINT function, press BREAK to return to the Main Menu. If you press BREAK while FILE is in the middle of printing a form, it finishes printing that form before it leaves the function.

---

## Summary

- Use the PRINT function to print a copy of part or all of the information in a PFS file.
  - PRINT has two options:
    1. Use Print Forms to print a copy of all or part of a form.
    2. Use Define Print Spec to create a set of print specifications and store them for repeated use (maximum number of eight per file).
  - To print a form, follow these three steps:
    1. Fill in the retrieve spec form to tell FILE which forms in the file you want printed. (See Chapter 4 for a detailed description of retrieve specifications.)
    2. Fill in the print options form to tell FILE how you want the information printed.
    3. Fill in the print spec form to tell FILE which items in the form to print, whether to put items on the same or a different line, whether to treat the information as text, or whether to sort the forms according to a certain item.
  - Use these characters to fill in the print spec form:
    - X print this item and advance the printer to the next line.
    - + print this item but do not advance the printer to the next line—skip two (2) spaces instead.
    - T print the item as text.
    - S sort the printout based on the first ten characters of this item (must be used with an X, a +, or a T).
  - If you do not enter any print specifications, FILE prints forms just as they appear on the screen.
  - FILE always prints items in the same relative order in which they appear on the screen.
-

- To review a form before printing it, use the SEARCH/UPDATE function with the CTRL O option.
  - **CTRL R** removes the currently displayed pre-defined print spec.
  - **BREAK** returns to the Main Menu after FILE finishes printing the form it is currently printing.
-

---

# 6:

# *remove*

---

With the REMOVE function, FILE gives you the ability to remove forms you no longer want from your file. You indicate which forms you no longer want, and then FILE searches through the file, automatically removing all appropriate forms. (If you want to see each form before it is removed, use the SEARCH/UPDATE function with the CTRL R option, as explained in Chapter 4.)

## Selecting REMOVE

To select the REMOVE function, return to the Main Menu (press BREAK, if necessary). Enter a 6 in SELECTION NUMBER and the name of the file from which you want to remove forms in FILE NAME. If you leave the FILE NAME item blank, FILE searches the disk drives and uses the first PFS file it finds.

Check to see that the file named in the FILE NAME item is inserted in a drive. Press CTRL C, and a retrieve spec form from this file appears on the screen. The STAFF file retrieve spec form looks like this:

```
EMPLOYEE #:           HIRED:
NAME:
ADDRESS:
CITY:                 STATE:   ZIP:
JOB TITLE:
SALARY:
```

---

```
File: STAFF 1% Full      RETRIEVE SPEC      Page: 1
```

---

## Removing Selected Forms from a File

You are now ready to indicate which forms you want to remove from the file. To do this, you fill in the retrieve spec form with retrieve specifications. (See Chapter 4 for a detailed description of retrieve specifications.)

When all retrieve specifications are entered, press CTRL C. Removing a form involves erasing information from your file. Before FILE removes any forms, it displays the following screen, giving you the opportunity to change your mind:

```
SELECTED FORMS ABOUT TO BE REMOVED  
  
PRESS BREAK TO ABANDON THIS OPERATION  
  
PRESS CTRL-C TO CONTINUE
```

You have two choices here. If you decide you do not want to remove the forms, press BREAK, and FILE returns to the Main Menu. No forms are removed. If you choose to proceed with the REMOVE function, press CTRL C, and FILE removes all forms meeting your retrieve specifications. After the last form is removed, FILE displays the following message to indicate how many forms were removed:

```
FORMS REMOVED: 1  
  
PRESS CTRL-C TO CONTINUE
```

---

Press CTRL C again. FILE returns to the Main Menu, ready to accept another function selection.

Once a form is removed, the disk space occupied by the form is automatically re-used. However, its form number is never used again. If you want to renumber the remaining forms in your file so they are numbered consecutively, use the Change Design option of DESIGN FILE (see Chapter 7).

## Example of Removing Forms:

Let's suppose you have created a separate file for the Ohio sales office, and now you want to remove any Ohio employees from the STAFF file. First, return to the FILE Main Menu (press BREAK, if necessary) and enter 6 in SELECTION NUMBER. If you have been working with the example file, STAFF should still be in FILE NAME. If it is not, enter it. Your screen should look like this:

```

PFS:FILE MAIN MENU
-----
1 DESIGN FILE      4 SEARCH/UPDATE
2 ADD              5 PRINT
3 COPY            6 REMOVE

SELECTION NUMBER: 6
FILE NAME: STAFF
```

Press CTRL C, and the retrieve spec form from STAFF appears on your screen. Using SHIFT → move the cursor to the STATE item. Enter OH to identify which employee forms you want to remove. The screen should look like this:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE: OH   ZIP:
JOB TITLE:
SALARY:
```

-----  
File: STAFF 1% Full RETRIEVE SPEC Page: 1

Press CTRL C, and FILE displays the following screen, giving you the opportunity to change your mind before it removes any forms:

```
SELECTED FORMS ABOUT TO BE REMOVED

PRESS BREAK TO ABANDON THIS OPERATION

PRESS CTRL-C TO CONTINUE
```

Press CTRL C again to proceed with the function, and FILE removes all forms with OH in the STATE item. When it finishes, FILE displays the following message to indicate how many forms were removed:

FORMS REMOVED: 1

PRESS CTRL-C TO CONTINUE

Now press CTRL C one more time, and FILE returns to the Main Menu.

## Removing All Forms from a File

If you want to remove all the forms from a file, leave the retrieve spec blank. Press CTRL C, and the following message appears:

WARNING

ALL FORMS ARE ABOUT TO BE REMOVED

PRESS BREAK TO ABANDON THIS OPERATION

PRESS CTRL-C TO CONTINUE

If you change your mind at this point, press BREAK to return to the Main Menu. If you choose to proceed with deleting all the forms from the file, press CTRL C, and FILE removes all the filled-in forms, leaving only the form design.

---

## Leaving the REMOVE Function

If at any time you want to terminate the REMOVE function, press BREAK, and FILE returns to the Main Menu. If you press BREAK while FILE is in the middle of removing a form, it finishes removing that form before returning to the Main Menu.

### Summary

- Use the REMOVE function to remove any unwanted forms from a file.
  - Indicate which forms you want to remove by filling in a retrieve spec form with retrieve specifications.
  - To remove all forms from a file, leave the retrieve spec form blank.
  - If you want to see each form before it is removed, use SEARCH/UPDATE and CTRL R (see Chapter 4).
  - BREAK returns to the Main Menu after FILE finishes with the form it is currently removing.
-



## Using Change Design with a File Containing No Data

If your file does not contain data or a pre-defined print spec, you can simply insert it in Drive 0. It is not necessary to have a diskette in Drive 1. When you select Change Design from the Design File Menu and press CTRL C, the form appears immediately for you to edit.

Suppose that the STAFF file contained no data. With the STAFF file in Drive 0, you would select Change Design. The following screen would appear:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:      ZIP:
JOB TITLE:
SALARY:
```

---

```
File: STAFF 0Z Full      DESIGN      Page: 1
```

The item names are no longer protected from overwriting. You can type in new items, delete items by typing spaces over them, or move items by removing them from their original locations and typing them into new locations. Use the cursor control keys (see Appendix B) to move the cursor around the screen.

After making all the desired changes in the form, you would press CTRL C, and FILE would store the redesigned form in the file and return to the Main Menu.

---

## Using Change Design with a File Containing Data

When changing the design of a form from a file that contains data, there are several things you need to know:

- First make a backup copy of your file (see Chapter 3, *COPY*). This is important in case you change your mind later, or inadvertently damage the file during the redesign process.
  - The item names in the old and new designs of the form must match exactly. If they do not, FILE does not transfer the data belonging to the item to the redesigned form. For example, if the NAME item on the PATIENTS form mentioned in Chapter 1 is moved to a new location during the redesign process without the line of dashes which is a part of the item name, the data belonging to that item will not be transferred. (FILE ignores leading and trailing blanks when matching names, and treats more than one blank between words as a single blank. See Chapter 1 for a complete explanation of item names.)
  - You can move items to different places on the form, without affecting the data for those items (as long as the names match exactly).
  - The redesigned form can have more or fewer items than the original form. When you delete items from the form, however, the data for those items will not be copied. It is permanently lost from the file.
  - Leave enough space for the information in the item on the original form to fit into the item on the redesigned form. (See *When the Data Doesn't Fit into the New Design* in this chapter.)
  - Only four pages (maximum) can be redesigned at one time. (See *Changing Forms with Multiple Pages* in this chapter.)
  - It may take a long time for FILE to reorganize your files. Depending on the complexity of the file and the amount of data in it, the reorganization can take from 5 minutes to a few hours.
  - The forms in your file are renumbered in reverse order during the redesign process.
-

After you select Change Design from the Design File Menu and press CTRL C, the following screen appears:

```
PUT FILE IN DRIVE 0
PUT DISKETTE IN DRIVE 1

WARNING

THE DISKETTE IN DRIVE 1
WILL BE COMPLETELY OVER-WRITTEN
PRESS BREAK TO ABANDON THIS OPERATION
PRESS CTRL-C TO CONTINUE
```

You have two choices here. If you do not want to change the design of your form now for some reason, you can press BREAK and return to the Main Menu. If you want to continue with the Change Design function, insert a diskette in Drive 1 for FILE to use to temporarily store data during the Change Design process. Be sure the diskette is the one you want to use, because Change Design destroys any information stored on it. Press CTRL C, and you can hear the disk drive as FILE erases the diskette in Drive 1 and prepares it for use.

FILE now displays the form from your file as you originally designed it. The item names are no longer protected from overwriting. You can type in new items, delete items by typing spaces over them, or move items by removing them from their original locations and typing them into new locations (you must type the item names exactly as they originally appeared). Use the cursor control keys (see Appendix B) to move the cursor around the screen.

When you have made all the desired changes, and the form appears exactly as you want it, press CTRL C and FILE changes the design on all the filled-in forms, briefly showing each form. FILE then stores all the changes in the file and returns to the Main Menu, ready for another function selection.

---

## Example of Changing the Form Design:

Let's change the STAFF form to include an EXPERIENCE item and to delete the SALARY item. Before you begin, make a backup copy of STAFF, if you have not already done so. You might also want to enter another form for John Andrews, since you deleted his form while using the REMOVE function.

First return to the Main Menu (press BREAK, if necessary) and enter a 1 in the SELECTION NUMBER item. If you have been working with the example file, STAFF should still be in FILE NAME. If it is not, enter it. Your screen should look like this:

```
PFS:FILE MAIN MENU
-----
1 DESIGN FILE      4 SEARCH/UPDATE
2 ADD              5 PRINT
3 COPY            6 REMOVE

SELECTION NUMBER: 1
FILE NAME: STAFF
```

Press CTRL C, and the DESIGN FILE Menu appears. Enter a 2 in the SELECTION NUMBER item. Press CTRL C again, and the following screen appears:

```
PUT FILE IN DRIVE 0
PUT DISKETTE IN DRIVE 1

WARNING

THE DISKETTE IN DRIVE 1
WILL BE COMPLETELY OVER-WRITTEN
PRESS BREAK TO ABANDON THIS OPERATION
PRESS CTRL-C TO CONTINUE
```

Your STAFF file should already be in Drive 0. Insert a diskette in Drive 1. Be sure that this diskette is the one you want to use, because Change Design destroys any information stored on it.

Press CTRL C, and FILE prepares the diskette in Drive 1 and then displays the form from the STAFF file as you originally designed it:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:      ZIP:
JOB TITLE:
SALARY:
```

---

File: STAFF 02 Full      DESIGN      Page: 1

To change the STAFF form, use the down arrow key or ENTER to move the cursor down the screen to the SALARY item. Replace it with EXPERIENCE. Since you are not making any further changes, press CTRL C, and FILE changes all the forms and stores the changes in the file.

## Using Change Design to Renumber Forms

When you remove a form from your file, its form number is never used again, although the disk space occupied by the form is automatically re-used. If you have removed a number of forms from a file and want to renumber the remaining forms consecutively, use the Change Design option. When FILE displays the form from your file for you to redesign, press CTRL C without making any changes. FILE recopies the forms in your file and renumbers them in consecutive order.

Since FILE recopies the forms starting with the last form entered in the file, using Change Design to renumber forms reverses their order in the file. If this is not acceptable for some reason (perhaps you search the most recently entered forms most often, and having them at the beginning of the file slows down the search process), use Change Design to renumber them again. This will get them back in their original order.

---

## Changing Forms with Multiple Pages

You can change only four pages of a multiple page form at any one time. Thus, if you want to change six pages, you have to change four of them first, complete the Change Design function (transferring data if there is data in the file), then repeat the operation for the other two pages.

When transferring data, FILE looks for the item name first on the equivalent page of the new form, then on the other pages consecutively, so the data is transferred regardless of the page the item appears on. For example, in the redesign shown in the diagram below, the data in ITEM 3 now appears on the second page of the new form, while the data in ITEM 1 and ITEM 2 remains on the first page.

	OLD DESIGN	NEW DESIGN
Page 1	ITEM 1: ITEM 2: ITEM 3:	ITEM 1: ITEM 2:
Page 2	ITEM 4:	ITEM 3: ITEM 4:

## When the Data Doesn't Fit into the New Design

When transferring data from the original form to the redesigned form, if the information in an item does not fit into the space for that item on the redesigned form, FILE stops and displays the following message:

```

          PROBLEM
          AN ITEM IS TOO LONG
          PRESS BREAK TO ABANDON THIS OPERATION
          PRESS CTRL-C TO CHANGE ITEM AND CONTINUE

```

You have two choices. If only one form has an item that is too long, it is probably better to shorten the information in that item so that it fits in the new design (or, if the form is not vital to the new file, delete it).

If you press CTRL C, the offending form appears with the cursor located at the first character that does not fit into the redesigned form. You can then edit the information in the overlong item. When you finish, press CTRL C again to continue copying.

If many of the forms in the file have an item that is too long for the redesigned form, you might want to cancel the operation and redesign the form again to accommodate the data. When you press BREAK, you return to the Main Menu. FILE does not save the redesigned form. The file remains in its original state, and you must begin the redesign process again.

---

---

## Entering Data in Redesigned Forms

Use the SEARCH/UPDATE function to enter information in an item that you added to a form in the redesign process.

After entering SEARCH/UPDATE, leave the retrieve spec form blank so that FILE retrieves every form in the file. As each form appears on the screen, enter the new information into the new item and press CTRL C to store the updated form in the file.

Repeat this procedure until every form in the file has been updated. After you store the last form, FILE displays a screen to tell you how many forms it found. Press CTRL C one more time. FILE returns to the Main Menu, ready for another function selection.

### Example of Entering Data in a Redesigned Form:

Let's add information in the EXPERIENCE item you added when you redesigned the form for the STAFF file.

First, return to the Main Menu (press BREAK, if necessary) and enter a 4 in SELECTION NUMBER. Since you just redesigned your STAFF form, STAFF should still be in FILE NAME. Press CTRL C, and the retrieve spec from STAFF appears:

```
EMPLOYEE #:          HIRED:
NAME:
ADDRESS:
CITY:                STATE:      ZIP:
JOB TITLE:
EXPERIENCE:
```

---

```
File: STAFF  IX Full      RETRIEVE SPEC      Page: 1
```

---

Since you have information to enter in the EXPERIENCE item of each STAFF form, you want to leave the retrieve spec blank. Press CTRL C again, and the first of your STAFF forms appears on the screen. Use SHIFT → to move the cursor to the EXPERIENCE item, and enter the appropriate information from the list below. After you finish with each form, press CTRL C, and the next form appears. Continue entering information until you have updated all the forms.

NAME	EXPERIENCE
Jeff Stribling	Metal fusion
Jennifer Young	Electronic parts, International Sales
Anne Williams	Division Management
Mike Cooper	Machine tools
Sara Brown	Executive
John Andrews	Computer terminals, time sharing

When you finish the last form and press CTRL C, the following screen appears:

FORMS FOUND: 6

PRESS CTRL-C TO CONTINUE

---

Press CTRL C one more time, and FILE returns to the Main Menu. The cursor is positioned in SELECTION NUMBER, and STAFF remains in FILE NAME. FILE is ready to accept another function selection.

## Leaving the Change Design Option

If at any time you want to terminate the Change Design option, press **BREAK** to return to the Main Menu. If you press **BREAK**, however, **FILE** does not save the redesigned form. The form remains in its original state.

### Summary

- Use the Change Design option to change the design of the form for a file.
  - You can add items to the form, delete items, or move items from one location to another.
  - You can change the form of an empty file or of a file that contains data.
  - If changing the form of a file that contains data, remember these guidelines:
    1. Make a backup copy before you change the form.
    2. Item names in the redesigned form must match exactly the item names in the original form if data is to be transferred.
    3. Leave enough space for the information in an item on the original form to fit into the item on the redesigned form, or edit the information to fit.
    4. Only four pages of a multiple-page form can be changed at one time.
    5. Transferring the data can be a lengthy operation.
    6. Forms are renumbered in reverse order.
  - **BREAK** returns to the Main Menu. **FILE** does not save the redesigned form. The form remains in its original state.
-

# A:

# appendix

FILE displays a message whenever it encounters an error condition. Certain errors are the result of mistakes made when you enter information (filling in the Main Menu items, PRINT or COPY functions, or retrieve specifications). These messages are displayed in the message area at the bottom of the screen:

```
PF5:FILE MAIN MENU
-----
1 DESIGN FILE      4 SEARCH/UPDATE
2 ADD              5 PRINT
3 COPY             6 REMOVE
```

```
SELECTION NUMBER: 4
FILE NAME: Sample
```

```
CAN'T FIND FILE
```

Other errors are the result of physical limitations or problems with certain elements of your computer system. These messages are displayed on a separate screen that looks like this:

```
PROBLEM
```

```
SEARCH LIST TOO LONG
```

```
PRESS BREAK TO RETURN TO MAIN MENU
```

```
(SEE MANUAL APPENDIX A)
```

When you encounter one of these messages, simply locate the message in the following list and follow the instructions in the Corrective Action column. To restart normal FILE operation, press BREAK. Following is the list of FILE error messages, arranged in alphabetical order:

<b>MESSAGE</b>	<b>DESCRIPTION</b>	<b>CORRECTIVE ACTION</b>
CAN'T ACCESS DRIVE	Disk drive door is open.	Close the door.
	Diskette is inserted incorrectly.	Remove the diskette, then re-insert it properly.
	Diskette has been removed.	Insert the diskette.
CAN'T FIND FILE	FILE cannot find the PFS file specified in the FILE NAME item of the Main Menu in either Drive 0 or Drive 1.	Check to make sure you entered the name of the file correctly in the FILE NAME item and that the corresponding diskette is properly inserted in Drive 0 or Drive 1. (Pull diskette out and re-insert.)
CAN'T FIND PRINT SPEC	FILE cannot find a pre-defined print spec with the name entered in the PRINT SPEC NAME item.	Check to make sure you have entered the print spec name correctly.  Check to make sure the print spec name is listed on the pre-defined print specs form.
DISKETTE ERROR	Dirty head	If the disk drive has been in use for some time, the head may need cleaning. See your disk drive manual.
	Diskettes have been switched.	Diskettes can only be removed or switched when the Main Menu is displayed on the screen. Switching diskettes at other times may destroy the information on the diskette.
	Worn out diskette	After 40-50 hours of use, the diskette may need replacing. Try using a different diskette.
DISKETTE FULL	FILE attempted to write some information on a diskette and found that there was no room left.	If you have some unnecessary forms in the file, you can create some space by removing them (see Chapter 6).  You can also use the COPY function to copy the form design from the current file to a second file, then continue adding information to that new file.

MESSAGE	DESCRIPTION	CORRECTIVE ACTION
DISKETTE IS WRITE-PROTECTED	FILE cannot use diskettes that are write-protected. FILE uses certain areas of the diskette to store temporary information, even when you select a retrieve function.	Remove the write-protect tab.  To protect the information that could now be overwritten, use the COPY function to make a backup of your file.
FILE NAMES CAN HAVE ONLY 8 CHARACTERS	You entered a name with too many characters in either the FILE NAME item of the FILE Main Menu or the NEW FILE NAME item of the Copy Function Menu.	Re-enter a file name with eight or fewer characters.
'FROM' FILE MUST BE IN DRIVE 0	FILE always copies from the diskette in Drive 0 to the diskette in Drive 1. FILE checked and found the wrong diskette in Drive 0.	Check to make sure that you entered the name of the file you want to copy in the FILE NAME item of the Main Menu, and that the corresponding diskette is properly inserted in Drive 0. (Pull diskette out and re-insert).
INVALID SELECTION NUMBER, RE-ENTER	You entered a number for the SELECTION NUMBER item of a menu that is invalid.	Re-enter a number that is shown on the menu.
I/O ERROR	Dirty head  Malfunction  WARNING: Once an I/O ERROR has occurred, your file is probably damaged. The file contains extensive data that you do not normally see which FILE uses to control access to the forms and to manage free disk space. An I/O ERROR usually corrupts this data and causes unpredictable results the next time you try to use the file. IT IS ESSENTIAL, therefore, to switch to a backup file as soon as an I/O ERROR occurs. Before you switch to a backup file, however, be sure to make another backup copy of your backup disk.	If the disk drive has been in use for some time, the head may need cleaning. See your disk drive manual.  There is a physical problem with the disk drive or disk controller. See your dealer for service.
MUST GIVE A FILE NAME	You selected the DESIGN FILE or COPY function, but you did not enter a name in the FILE NAME item of the Main Menu.  You did not enter a name in the NEW FILE NAME item of the Copy Function Menu.	Enter the name of the file you want to use. Both the DESIGN FILE and COPY functions require that a name be entered in the FILE NAME item of the Main Menu.  Enter the name of the file you are going to create or use.

---

<b>MESSAGE</b>	<b>DESCRIPTION</b>	<b>CORRECTIVE ACTION</b>
MUST GIVE A PRINT SPEC NAME	You have tried to define a print spec without giving it a name.	Enter a name from one to eight characters.
ONLY 4 PAGES CAN BE CHANGED	You have tried to change the form design on more than four pages of the form at one time.	Complete the Change Design process for no more than four pages of a form design at one time. Repeat the process for each additional four pages.
ONLY 8 PRINT SPECS ARE ALLOWED	You have already defined eight print specifications for the file.	Remove an existing print spec using CTRL R, then define the new one.
PRINT SPECS CAN HAVE ONLY 8 CHARACTERS	Your print spec name is too long.	Re-enter a print spec name with eight or fewer characters.
PRINTER NOT READY	Your printer is either unplugged, turned off, off-line, or out of paper.	Check to make sure your printer is set up properly.
SEARCH LIST TOO LONG	The retrieve specifications will not fit in FILE's internal storage space.	Specify fewer requests in the retrieve specifications.
'TO' FILE MUST BE IN DRIVE 1	FILE always copies from the diskette in Drive 0 to the diskette in Drive 1. In the Copy Selected Forms option of COPY, FILE checked and found the wrong diskette in Drive 1.	Check to make sure that you entered the correct name in the NEW FILE NAME of the Copy Function Menu, and that the corresponding diskette is inserted in Drive 1.
<del>OVERPRINT</del>	Printer overprints information on the same line and does not linefeed.	Enter L in the OUTPUT DEVICE item on the print options form.

---

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# B:

# appendix

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## Special Control Keys

### Cursor Control Keys



Move the cursor to the left one space.



Move the cursor to the right one space.



Move the cursor up one line.



Move the cursor down one line.



Move the cursor to the beginning of the next line.



Move the cursor forward to the next item on the form or menu.



Move the cursor back to the previous item on the form or menu.

### FILE Control Keys



The combination of the left SHIFT key and the DOWN ARROW (↓) key.



Begin or proceed with the specified function.



Display the next page of the form.



Display the previous page of the form.



Erase all entries from the currently displayed page.



Print the currently displayed form (all pages).



Remove the currently displayed form.



Return to the FILE Main Menu.

---



- A blank item takes 1 byte (in addition to the five bytes used by the FILE parameters for each item name).

After figuring the total number of bytes used by each page of a form, use these steps to estimate how many forms will fit in a file:

1. Divide the total number of bytes for a page by 128.
2. Round up to the next largest whole number. (This gives you the number of 128-byte blocks used by the page.)
3. Add the number of blocks for all pages of the form to give you the total number of blocks required for an average form.
4. Divide 1300 by the total number of blocks required by one form to arrive at the approximate number of forms you can fit in your file.

It is necessary to figure page by page because FILE uses space on a per-page basis. For example, if you use 30 bytes on a page, FILE assigns 128 bytes to that page in that file, and those 98 empty bytes are not used anywhere else. Estimating an entire form at once, instead of each page individually, will cause you to think that you have more empty space in your file than you actually do.

## Example:

Let's figure the number of bytes used by the following example of a telephone directory form:

NAME: Michael Badagliacca  
HOME PHONE: 408-258-0841  
BUSINESS PHONE:  
ADDRESS: 19502 Foot Hill Av  
CITY: San Jose                      STATE: CA      ZIP: 95132

- 14 — FILE uses the first 14 bytes on a page
- 35 — 7 items using 5 bytes each (FILE internal parameters)
- 19 — Michael Badagliacca = 18 characters, 1 space
- 12 — 408-258-0841 = 12 characters, 0 spaces
- 1 — BUSINESS PHONE: empty item = 1 space
- 18 — 19502 Foot Hill Av = 15 characters, 3 spaces
- 8 — San Jose = 7 characters, 1 space
- 2 — CA = 2 characters, 0 spaces
- 5 — 95132 = 5 characters, 0 spaces

---

114 TOTAL number of bytes used by this completed form

$114 \div 128 = .89$  Step 1. The total number of bytes for the page divided by 128.

$.89 = 1$  Step 2. Round .89 up to the next largest whole number, which is 1.

1 Step 3. Since this form has only one page, there is nothing to add to the 1. This form will require one storage block.

$1300 \div 1 = 1300$  Step 4. Since one form requires only one storage block, you can probably fit 1300 of these forms in one file.

---

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# *glossary*

---

byte	the space taken up by one character in a computer's memory or in a diskette storage area.
character	a letter, number, or symbol.
control keys	an ordinary keyboard key which has been designated to perform a particular function in a computer program for the purpose of making the program easier to use. (In FILE, CTRL C tells the program to continue.)
cursor	the blinking white rectangle displayed on the screen. It indicates where the next character typed will appear.
default value	a value that is automatically assigned to something if no other value is chosen to replace it.
diskette	a removable magnetic recording media used to store information. Diskettes can contain programs (the PFS:FILE program diskette) or data (your PFS files). Diskettes should be treated with care.
file	a collection of forms that are of the same type. (In PFS:FILE, it is a diskette that contains the form design, along with all the forms that you fill in with data.)
form	any combination of items arranged in a chosen order, and created to store information about one particular thing, person, or subject area. (In PFS:FILE, you design a form then use it to store and retrieve information. Forms are kept in a file.)
format	the general layout or arrangement of something, such as the design of a form from a PFS file.
item	the basic element of a form. An item consists of a name, followed by a colon, then followed by an area where information is entered.

---

load	the process of transferring a program from a diskette into the computer's memory.
menu	the list of functions that you can choose at a given time. (The Main Menu appears when you first load the FILE program.)
word wrap	if the end of the line is reached in the middle of a word (or any string of characters), that word is automatically moved to the beginning of the next line.
write-protect	to prevent a diskette from being written on. A diskette is write-protected by placing an adhesive tab over the small notch on its side.

---

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