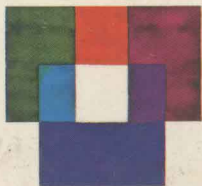
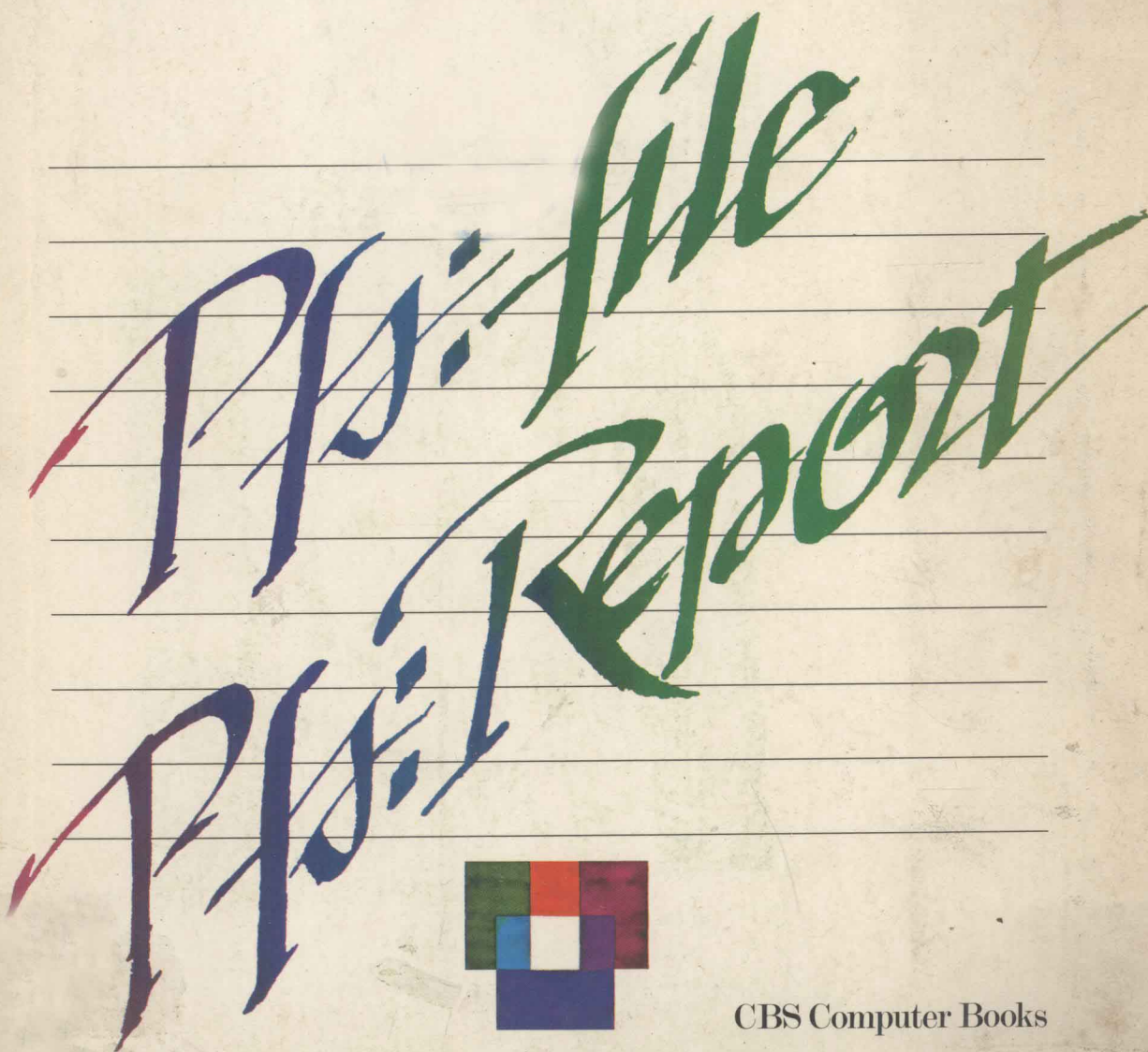


Using the IBM PC: Pfs[®]: File/Pfs[®]: Report

W. Robert Crowley



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Using the IBM PC: PFS: File[®]/ PFS: Report[®]

W. Robert Crowley

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PREFACE

Using the IBM PC: PFS: File[®]/ PFS: Report[®]

This book will provide you with a good idea of the class of problems the PFS:FILE and PFS:REPORT are designed to solve. Each chapter presents several useful systems for the home or business and guides the reader through the steps for setting these systems up under PFS:FILE and REPORT. There is a set of exercises in each chapter to allow you to practice the procedures discussed. Their solutions are on an optional practice diskette (available with this book) that will allow you to compare your solution with mine. This book may be used as a self-study guide for those interested in using these programs at home or in their business, or it can be used as a text in a course discussing the use of computers and data base systems in a business.

If you take a close look at the field of data processing, you will see that the vast majority of systems used in business today involve simple storage and retrieval of data. The reason that data base management systems have been the most popular software systems on the

market for the past ten years is that they allow a business to store records of information that include such facts as name, age, birthdate, and salary and then retrieve that information in any manner desired. For example, you can call up all records of people making more than \$15,000 per year, or anyone born before 1950, or everyone between the ages of 21 and 30, records meeting any other criteria you might want to impose—as long as the data exists in the file.

The IBM-PC and PFS:FILE and REPORT allow a novice to quickly write, organize, and access files in exactly this way. The number of useful file formats that can be addressed by these programs is limitless. This book presents some samples of these formats to help you get started creating your own files.

The book is divided into two parts. The first part (Chapters 1 through 4) deals with PFS:FILE, and the second section (Chapters 5 through 9) discusses PFS:REPORT. Within each section the first chapter introduces program menus and describes how to prepare the diskette and use the program menus. The next chapters in each section deal with applying that particular system to household and business problems.

The best way to learn a new system is by using it, so I suggest that you not only follow the steps to building the files in each chapter, but that you also make use of the exercises at the end of each chapter. And if you have it, use the practice diskette to check your work.

If you are not familiar with the IBM-PC, I suggest that you read *Your IBM Personal Computer: Use, Applications, and BASIC*, by Donald E. Cortesi (Holt, Rinehart & Winston). This will make it easy for you to take advantage of PFS almost immediately.

I hope you find PFS:FILE and REPORT as useful a set of tools as I have and that this book will stimulate you to find your own applications for these programs.

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1

Introduction to the IBM-PC and PFS:FILE

INFORMATION STORAGE AND RETRIEVAL

Many of the data processing systems in use today simply provide the ability to store large amounts of data efficiently and retrieve it rapidly based upon various criteria.

The software product PFS:FILE from Software Publishing Corporation allows you to generate a system of this type quickly and easily on your IBM-PC. Here's a list of just a few systems that fall into this category:

1. Calendar systems. You might want to devise a system for keeping track of important dates, such as birthdays, anniversaries, deadlines for projects, and so forth. PFS:FILE would allow you to store not only these dates but also any other important information pertaining to them. For example, you could store the birth

dates of family and friends, along with their addresses, telephone numbers, and what you gave them as a present last year or what they gave you for your birthday. PFS:FILE also would allow you to retrieve this information in a variety of ways. For example, you could retrieve all the birthdays that fall between two dates, all important events that occur tomorrow, or information that meets any other criteria you might care to specify—as long as the data that answers your question has been stored.

2. Menu systems. You could categorize your menus according to dish type—for example as desserts, meat dishes, vegetable dishes and casseroles—as well as by main ingredient. You might also wish to keep track of the last date on which you served a particular dish and which guests were present to eat it. Then, when you were having company, you could prepare a menu by retrieving separate items from the system.
3. Record libraries.
4. Mailing lists.
5. Records of important documents (insurance policies, deeds, wills, and so forth).

As you can see, the list could go on and on, and so far we've only mentioned systems used in the home. If you also use your computer in your business, your list might include systems such as a contract renewal system, customer information files, inventory information, personnel records, equipment lists, and so on.

PFS:FILE is a menu-driven system that guides you through designing a file (and the associated screen that you'll use to enter information into that file), adding forms to the file, copying forms from one file to another, searching for and updating specific forms in a file, and printing and removing forms from a file. The term *menu driven* means that PFS:FILE presents you with a screen (menu) describing the options available to you. It then allows you to select the desired function from the menu by entering the number associated with that function. PFS:FILE will then either perform that step immediately (if it has all of the information it needs) or present another screen requesting that you enter additional information or select an additional step. If you get lost, you can always return to the main menu by pressing the Esc (escape) key in the upper lefthand corner of the keyboard.

The three most important software packages used on the IBM-PC today would have to include a spreadsheet system like VisiCalc, a word processing system like WordStar, and a filing system like PFS:FILE.

GETTING STARTED

Preparing Your PFS:FILE Diskette for Use

Before you can start using PFS:FILE, you will need to perform the preparatory steps outlined in the PFS:FILE user's guide on pages I-4 through I-10. These steps make the program diskette self-loading (so that any time you turn on the computer with the program diskette in drive A you will automatically come up in PFS:FILE with the main menu on the screen), install the PFS:FILE software, and—if you are using the version of PFS:FILE published by IBM—provide you with a backup copy of the system. (If you are using the Software Publishing Corporation version of PFS:FILE, you'll receive two copies of the system and you won't be able to make a backup.)

The required steps are:

1. Remove the write-protect tab from the PFS:FILE diskette and save it for later use.
2. Boot PC-DOS, enter the date, and wait for the A> prompt.
3. Remove the PC-DOS diskette from drive A and put it in drive B.
4. Place the PFS:FILE diskette in drive A, type INSTALL, and press return.
5. PFS:FILE will display the following prompt:
 PAUSE—Place your DOS diskette in drive 'B' and
 leave the PFS:FILE series diskette in drive 'A'
 Strike a key when ready . . .
6. Type Y and press return.
7. Remove the two diskettes and place the PC-DOS diskette in drive A and a blank diskette in drive B.
8. Type FORMAT B:/S and press return. (This will format the blank diskette as a system diskette.)
9. Remove the PC-DOS diskette from drive A.
10. Place the PFS:FILE diskette in drive A, type BACKUP, and press return.
11. PFS:FILE will respond with the following prompt:
 PFS SERIES PROGRAM BACKUP UTILITY
 Have your PFS series program diskette and a blank, DOUBLE
 DENSITY, HIGH QUALITY diskette ready.

Place the blank diskette in drive B and press F10 when ready. If you are not ready for this operation, turn machine off.

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12. If you have followed the first 11 steps, you should be ready to proceed—by pressing F10. If for any reason you are not ready (for example, you do not have a formatted blank diskette in drive B), turn the machine off and start the backup procedure over at step 7.
13. When the A> prompt returns, remove the two diskettes, place write-protect tabs on each of them, and label them PFS:FILE and PFS:FILE Backup.

You can now use the diskette labeled PFS:FILE to run your system and save the diskette labeled PFS:FILE Backup in case anything should happen to the primary diskette.

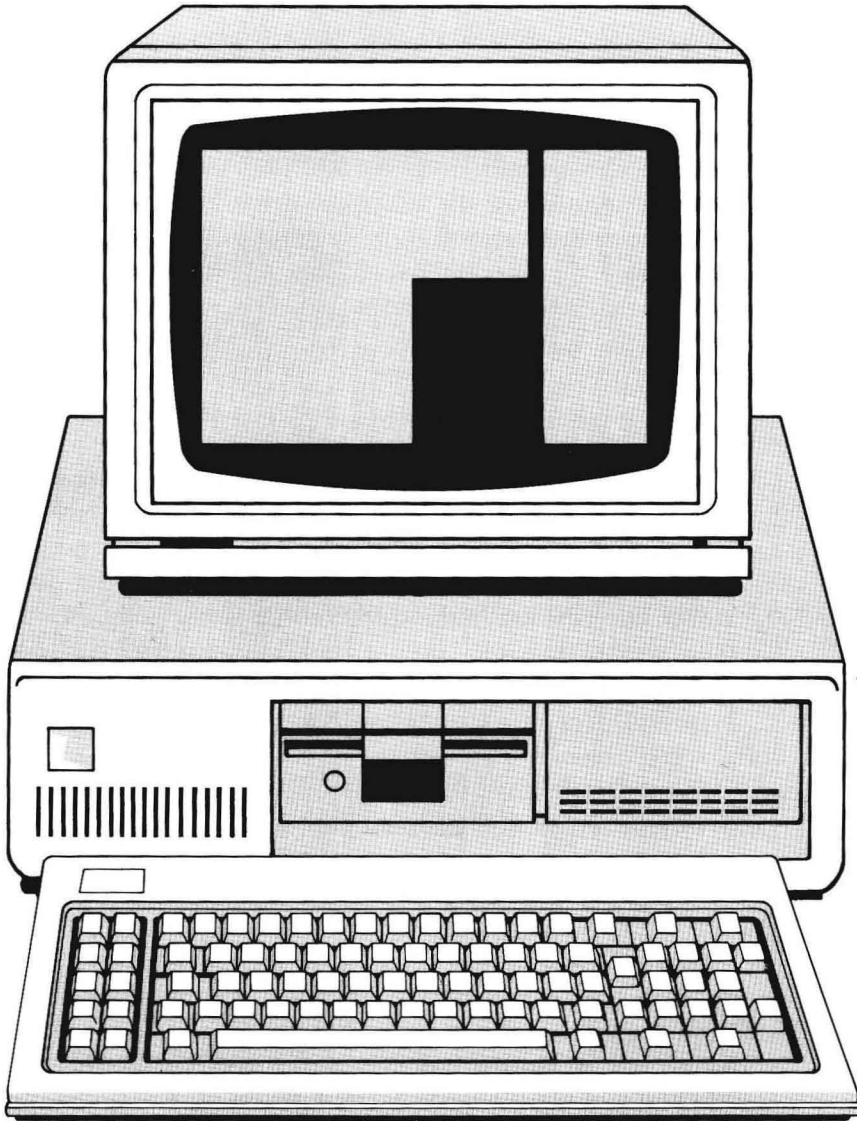
Using the IBM-PC Keyboard with PFS:FILE

PFS:FILE makes use of the IBM keyboard to simplify command entry and to allow you to move the cursor from one screen location to another. Refer to the IBM-PC keyboard in figure 1.1 as you read the description of the functions performed by the special keys.

Let's start at the left side of the keyboard. The function keys labeled F1 through F10 are used to issue commands to PFS:FILE. When any of these keys is available to you, it will be listed at the bottom of the screen followed by a word describing its function. In general, the functions of these keys are as follows:

- F2** Prints all pages of the form that currently appears on the screen.
- F3** Deletes all pages of the form that currently appears on the screen.
- F5** Enters the current date at the cursor location (this is the date that you provided when you logged on to the system).
- F6** Enters the current time at the cursor location (this option is available only if your IBM-PC has a clock and the time has been properly set).
- F10** Begins or continues a specified PFS:FILE function.

Figure 1.1



Moving to the center portion of the keyboard, the escape key, labeled Esc, in the upper lefthand corner is used to cancel the current operation and return you to the main menu.

The tab keys directly under the escape key move the cursor from one item to the next on a menu or screen. If you press the shift key,

located two keys below the tab key, at the same time as you press the tab key, you will tab the cursor backward from item to item. Pressing the tab key without the up arrow will tab you forward from item to item.

Moving to the righthand side of the keyboard, the backspace arrow between the equals and Num Lock keys moves the cursor one space to the left and erases the character in that space. This key is the one to use in correcting an entry.

The key just below the backspace arrow is the enter key; when pressed, it returns the cursor to the beginning of the next line.

Just below the enter key is a key labeled `PrtSc`. Holding down the up arrow to the left of the `PrtSc` key and at the same time pressing the `PrtSc` key tells PFS:FILE to print a copy of whatever is currently on the screen.

When you press the Num Lock key in the upper righthand corner of the keyboard, the set of keys beneath it becomes a numeric keypad. Num Lock works as an on/off toggle switch. When you press it the first time it converts the set of keys to a numeric keypad; press it again, and the keys return to their normal cursor movement functions.

The cursor-movement keys just below the Num Lock key move the cursor one position in the direction the arrow points. Unlike the backspace arrow key, they do not erase any characters; they simply reposition the cursor.

The `PgUp` (or page up) key recalls the previous page of a particular form to the screen.

The `PgDn` (or page down) key brings the next page of a given form onto the screen. If the current page is the last page of a form, the page down key brings up a blank attachment page (provided the form has attachments). An asterisk in the message area of the form indicates that the form has more than one page.

The `Ins` (or insert) key, located at the bottom right of the keyboard, is an on/off toggle switch. The first time you press the `Ins` key, it switches the keyboard to insert mode and changes the cursor from an underline to a rectangular box. The next time you press `Ins`, the keyboard returns to normal mode and the cursor once again becomes an underscore. In insert mode, characters are inserted at the cursor location and all other characters to the right on that line are moved farther to the right to make room for the new characters.

The `Del` (or delete) key, in the lower righthand corner of the keyboard, deletes the character at the cursor location and moves all other characters to the right on the line one position to the left.

PFS:FILE MENUS

In the next three chapters we are going to use PFS:FILE to generate some actual application systems. Before we do this, however, let's look at the menus available to us in PFS:FILE and at the functions that each performs.

The Main Menu

Insert the program diskette in drive A and a formatted blank diskette in drive B. If the IBM-PC is off, turn it on and PFS:FILE will automatically come up with the PFS:FILE function menu on the screen. If the IBM-PC is already on, you can simulate turning the machine off and then on again (reset the machine) by holding down the Ctrl and Alt keys on the left side of the keyboard and at the same time pressing the Del key on the righthand side of the keyboard just below the numeric keypad. (If following either of these procedures does not get you to the PFS:FILE function menu, go back to section B1 and check to see that you prepared the PFS:FILE diskette properly.) At this point, your screen should look like figure 1.2.

PFS:FILE FUNCTION MENU

- | | |
|-----------------|-----------------|
| 1 DESIGN FILE | 5 PRINT |
| 2 ADD | 6 REMOVE |
| 3 COPY | 7 EXIT PFS:FILE |
| 4 SEARCH/UPDATE | |

SELECTION NUMBER:

FILE NAME:

F10-Continue

The PFS:FILE function menu is the main menu for PFS:FILE. From this menu you can get to any of the functions available in PFS:FILE. When you have completed a function, pressing the function key F10 will return you to the main menu. If at any time you wish to cancel a

function, just press the escape key in the upper lefthand corner of the keyboard. This will cancel the function and return PFS:FILE to the main menu. When you have completed a PFS:FILE session, be sure to return to the main menu and select menu item 7 to exit from the program. Menu item 7 returns you to DOS.

To begin any of the other functions in PFS:FILE, simply type the number beside the menu item you want and press return.

The Design File Function

To select the Design File menu item, type a 1 in the first entry area. Then press the tab key and type a file name of your choice in the second entry area. File names must be eight or fewer characters in length, and the first character must be a letter. If you wish, you may also add a three-character extension to the file name to further identify the file. PFS:FILE makes no distinction between uppercase and lowercase letters in a file name. Therefore, TESTFILE, testfile, and TeStFiLe would all identify the same file. You can also specify the disk drive where you wish to store the file by preceding the file name with the drive specification followed by a colon (B:TESTFILE). I recommend that you put all your files on drive B and use drive A for the program diskette.

After you have entered the file name, your screen should look like figure 1.3. If it does, press function key F10 to continue to the Design File function.

PFS:FILE FUNCTION MENU

- | | |
|-----------------|-----------------|
| 1 DESIGN FILE | 5 PRINT |
| 2 ADD | 6 REMOVE |
| 3 COPY | 7 EXIT PFS:FILE |
| 4 SEARCH/UPDATE | |

SELECTION NUMBER: 1

FILE NAME: B:TESTFILE

After you have pressed function key F10, PFS:FILE will display the Design File menu. At this point, your screen should look like figure 1.4.

DESIGN FILE MENU

- 1 CREATE FILE
- 2 CHANGE DESIGN

SELECTION NUMBER:

F10-Continue

The Design File menu allows us two options: We can create a new file or change an existing one. Besides enabling us to create the file we want, this function allows us to design the screen used for entering the data for the file.

If we type a 1 and press F10 to select the Create function, PFS:FILE will present us with a blank screen. The bottom two lines of this screen contain the file name in use, the word "design" to indicate that we are the Design File mode, the page number of the screen we are building, and the function keys available to us. The available function keys are F5 (which will insert the current date at the cursor location), F6 (which will insert the current time at the cursor location), and F10 (which will store the screen design and the empty file and return you to the main menu).

To build the file, use the cursor-positioning keys on the numeric keypad to move to the screen location you want, and enter item names followed by a colon. Be sure to leave enough room between item names to enter the longest data item for that particular field and also any retrieval specifications (>, <>, or /=). Later, when we start entering data for this file, we will be presented with this same screen and will

tab through the fields, entering the appropriate data for the file. If you need more than one page for a particular screen/file, press the PgUp key on the numeric keypad and PFS:FILE will present you with another blank screen for page 2 of the file.

Once we have created a screen, we might, for a variety of reasons, decide that we want to change it. But before you start to change a file, there are several points to remember:

1. If you have already entered data in the old file, PFS:FILE will transfer data from the old file to the new file only if the data item exists on both files under exactly the same name.
2. You can move items to different places on the form without affecting the data for those items (as long as the names remain exactly the same).
3. The new file can have more or fewer items than the old file. Remember, if you delete items from the file, the data for those items will be permanently lost from the file. If you want to change the file but retain the data for deleted items, be sure to back up the old file on another diskette before starting the change design function. You can use the DOS copy command to accomplish this.
4. Finally, it may take from five minutes to a few hours to change a file and transfer the data, depending on the complexity of the file and the amount of data.

To select the Change Design function from the design file menu, type a 2 and press F10. PFS:FILE will respond with a prompt, reminding you that you might want to back up the current file before continuing. This warning screen should look like figure 1.5. If you do want to abandon the current operation and back up the file, press the Esc key in the upper lefthand corner of the keyboard and PFS:FILE will abandon the change function and return you to the main menu. If you want to continue the change operation, press F10.

W A R N I N G

THE CONTENTS OF THE FILE WILL BE CHANGED BY THIS OPERATION

MAKE A BACKUP OF THE FILE BEFORE CONTINUING

Press ESC to abandon this operation

Press F10 to continue