pfs: ®

report

TRS-80® *Model III*

pfs: ®
report

user's manual

for the TRS-80® MODEL III

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preface

This manual explains how to use the PFS:REPORT program with your existing PFS files to produce tabular reports. It assumes that you already know how to create files using PFS:FILE. If you have not used FILE before, please read the FILE manual and work through the examples before continuing further. The best way to learn both FILE and REPORT is to read the manuals and follow along with the examples.

To take advantage of the full capabilities of REPORT, you need a TRS-80 Model III computer system with two disk drives and a printer, the PFS:REPORT package, and your PFS file. (REPORT can operate in a limited way with a single drive system and without a printer.)

The manual is organized in the same way as the FILE manual, with step-by-step instructions on how to get started and how to use each REPORT function. It provides a variety of examples of types of reports that you can create using REPORT and one major example file for you to work with that illustrates how the functions work and allows you to experience REPORT as you are reading about it.

Each chapter proceeds through one function in detail and has a summary section to reinforce what you learn in the chapter. The summary also serves as a quick reference to the important features of REPORT—useful once you are somewhat familiar with the program.

The appendices contain information on error messages and corrective actions, REPORT's special control keys, commands used in report specifications, and the example file used throughout the manual. 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 this group entitles you to receive product update information, new product announcements, and tips on using the PFS Family of Software.

table of contents

I: *introduction*

The PFS:REPORT Program

PFS:REPORT (or simply REPORT) is a computer program that enables you to produce reports, in the form of tables, from your existing PFS files. Like PFS:FILE, it is designed to be easy to use. If you are familiar with FILE, you already know a lot about how to use REPORT.

A PFS report can have up to twelve vertical columns. In processing the information in your files, REPORT plans the layout of the report to take the best advantage of the space available. It can sort the information in your files alphabetically or numerically, and it can perform calculations on numerical information.

Suppose you have the purchase history of all the items in your inventory stored in a PFS file. The blank form might look like this:

```
PART #:                DATE PURCHASED:

DESCRIPTION:



QUANTITY:              PRICE:

SUPPLIER:




------------------------------------------------------------
File: PARTLIST  0% Full    RETRIEVE SPEC        Page: 1
```

The following report lists all items purchased in the last month, and is an example of a report that can be produced from the PARTLIST file using PFS:REPORT:

```
                    INVENTORY LISTING    3/12/82

        PART #       DESCRIPTION      QUANTITY    PRICE    SUPPLIER
        -------      ----------------  --------    -----    ------------
        1678        4" lag bolts          200     1.25     Johnson Mfg.
        2234        Cedar shingles      4,000     0.53     Rooftex
        3987        4 inch bricks       3,000     0.70     Brickmart
        5677        Ceramic tile          600     1.07     Tilecomp
```

Notice the title line. One appears on each page of a PFS report. Notice also that the name at the top of each column of the report corresponds to an item name from the PARTLIST form. Each horizontal row in the report contains information from one form in the PARTLIST file.

Let's look at another report generated from PARTLIST:

```
                         PARTS IN STOCK

        PART #       DESCRIPTION      QUANTITY    PRICE
        -------      ----------------  --------    -----
        1678        4" lag bolts          200     1.25
        2234        Cedar shingles      4,000     0.53
        3987        4 inch bricks       3,000     0.70
        5677        Ceramic tile          600     1.07

        ----------------
        COUNT:      4
        ----------------
```

This is a fairly simple report. PART # again appears as the first column. REPORT has arranged the rows in ascending order (smallest to largest) by part number and has also counted the entries in the first column to give you the number of different parts. (When REPORT sorts the rows of a report alphabetically or numerically, it does so according to the information in the first two columns. If the first column is the same for two or more rows, REPORT sorts those rows by the information in column two.) REPORT can total, average, or count the number of items in a column. It can also give subtotals, subaverages, and subcounts.

The following report contains a vertical column name that does not correspond
to an item name in the PARTLIST form:

```
                    TOTAL VALUE OF INVENTORY

    PART #       DESCRIPTION      QUANTITY    PRICE      VALUE
    -------      ----------------  --------   -----    ----------
    1678         4" lag bolts          200    1.25       250.00
    2234         Cedar shingles      4,000    0.53     2,120.00
    3987         4 inch bricks       3,000    0.70     2,100.00
    5677         Ceramic tile          600    1.07       642.00

                                              -------------------
                                              TOTAL:   5,112.00
                                              -------------------
```

In this report, PFS:REPORT calculated the VALUE column by multiplying the
PRICE and QUANTITY columns together. You can have up to three such
"derived" columns in a PFS report.

When designing a report, you may want to change the column names to
something other than the item names. This is especially desirable when an
item name is substantially longer than any of the entries in the column.
REPORT makes it easy to change any column heading in the report. For
example, in any of the above reports you might want to change the column
heading from QUANTITY to QTY.

If you want to use the same report design more than once, you can store a
design for future use. You can store up to eight report designs for each PFS
file. For instance, you could store the three report designs shown above and
use them to print periodic, up-to-date reports on your inventory.

Getting Started

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

What You Need To Use PFS:REPORT

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

■ a TRS-80 Model III computer system with

— 48K of memory

— two disk drives, and

— a printer

■ the PFS:REPORT package

— the PFS:REPORT program diskette

— the PFS:REPORT SORTWORK diskette

— the backup copy of the PFS:REPORT program diskette (This copy is provided in case something happens to damage your original program diskette. Store it in a safe place.)

■ your PFS files

PFS:REPORT can display your reports on the monitor of your TRS-80 Model III system, but it is really designed to produce printed reports. It can also work in a limited way with a single disk drive.

Using PFS:REPORT with a Single Disk Drive

You can use REPORT with a single disk drive, but this imposes the following limitations on the program:

— You can't sort the report. This means that the rows of the report will usually be printed in the order the forms were entered in your PFS file, with the most recent form first.

— Columns 1 and 2 (the sorted columns) cannot be used. This means you are limited to ten columns (numbered 3 through 12).

— You can use the column total, average, and count functions, but not the subtotal, subaverage, subcount, keyword, or page break, since these are dependent on sorting.

The other functions of REPORT, including calculating derived columns, are available to the single drive system user.

The SORTWORK File

REPORT needs a PFS file called SORTWORK to use for temporary storage while it is sorting information from your PFS file and preparing a report. REPORT specifically looks for a file called SORTWORK so that it will never accidentally destroy one of your PFS files by using it for sorting.

A SORTWORK diskette is part of your PFS:REPORT package. If this diskette wears out or is somehow damaged, you can create another using the DESIGN FILE function of PFS:FILE. Name the file SORTWORK, and when the screen appears for you to design your blank form, enter any character (i.e., a single :) and press CTRL C.

When you receive your REPORT package, there is a sample file stored on the SORTWORK diskette to use in following the examples throughout the manual. Before you begin to use REPORT the first time, use the COPY function of PFS:FILE, option 3 (COPY WHOLE DISKETTE), to copy this file (originally called SORTWORK) onto another diskette and rename it STAFF.

The first time you use the SORTWORK diskette the example file will be destroyed. Be sure to copy it before you start using REPORT. If you accidentally destroy this file before copying it, you can recreate it using the instructions in Appendix C of this manual.

Loading PFS:REPORT

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

Step 1. Turn on your TRS-80 Model III computer and wait until the disk drive motors stop.

Step 2. Insert the REPORT program diskette into Drive 0, the bottom disk drive. To do this, first open the drive door by pulling outward on its bottom edge. (As you remove the 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 comes on. You can hear the drive as it loads the PFS:REPORT
         program. (This takes approximately 30 seconds.) When it is finished,
         the IN-USE light goes off, and REPORT is ready to use. You should
         see the PFS:REPORT Main Menu appear on the screen:

```
                          PFS:REPORT MAIN MENU
                          --------------------

                          1  PRINT A REPORT

                          2  PRE-DEFINE A REPORT

                          3  SET NEW HEADINGS


                          SELECTION NUMBER:
                          FILE NAME:

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

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

Step 5. Insert the REPORT SORTWORK diskette into Drive 1. This diskette is
         used by REPORT for temporary storage of information during sorting.
         It should stay in Drive 1 all the time you are using REPORT. If you
         have a single drive, ignore this step and see the section titled *Using
         PFS:REPORT with a Single Disk Drive* in this chapter.

Step 6. Insert the PFS file from which you want to produce reports into Drive
         0. Although PFS:REPORT uses the information contained in your PFS
         file to produce reports, it does not alter or rearrange the existing
         information on the diskette in any way. It does store information on
         your file diskette when you pre-define reports (function 2 on REPORT
         Main Menu) and change column headings (function 3).

The PFS:REPORT Main Menu

The REPORT Main Menu lists the three main functions of the REPORT
program:

```
PFS:REPORT MAIN MENU
---------------------

1  PRINT A REPORT

2  PRE-DEFINE A REPORT

3  SET NEW HEADINGS


SELECTION NUMBER:
FILE NAME:
```

You see this menu when you first load REPORT, when you complete a
function, and whenever you press BREAK. You select functions from the
menu by filling in the following two items:

SELECTION
NUMBER:

Enter the number corresponding to the function you
want REPORT to perform.

FILE NAME:

Enter the name of your PFS file. REPORT checks to
see that the name matches the one on the diskette in
Drive 0. If you omit this item, REPORT uses the file in
Drive 0, provided it is a PFS file.

WARNING

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

Keyboard Control Keys

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

| CTRL | | The combination of the left SHIFT key and the DOWN ARROW Key (↓) is used as a CONTROL key (abbreviated CTRL). You use the CTRL key with other keys to give special instructions to REPORT. For example, CTRL C means press CTRL (left SHIFT/DOWN ARROW) and, while holding these two keys down, press C. |

CTRL C   Use these keys together to begin (or continue) a specified function.

BREAK   Use this key at any time to cancel the current function and return to the Main Menu.

ENTER   Use this key to move the cursor to the beginning of the next line.

SHIFT →   Use these keys to move the cursor to the next item on a menu or form.

SHIFT ←   Use these keys 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:REPORT is a computer program that produces tabular reports from the information stored in a PFS file.

- Keep the backup copy of the REPORT program diskette in a safe place.

- To take full advantage of the capabilities of REPORT, you should have a TRS-80 Model III computer system with 48K of memory, two disk drives, and a printer.

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

- The main control keys for REPORT are:

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

| CTRL | | C | tells REPORT to begin (or continue) a function.

| BREAK | cancels the current operation 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 file from the disk drive unless the REPORT Main Menu is displayed on the screen. Removing it at other times may damage the data on the file.

1: *print a report*

You use the PRINT A REPORT function to prepare and print a report from a PFS file. This function consists of three steps. First, you indicate which forms from the file you want to include on the report. Next, you specify the printer that you want to use, the page size, and the title for the report. Finally, you choose the items from the PFS:FILE form that you want to have appear as columns in the report and the order in which you want them to appear. In this final step, you can also choose to sort the report, total, average or count any column, print derived columns, or identify items by keywords.

Selecting PRINT A REPORT

Start the REPORT program according to the directions in the *Getting Started* section of the Introduction, and the REPORT Main Menu appears on the screen:

```
PFS:REPORT MAIN MENU
--------------------

1  PRINT A REPORT

2  PRE-DEFINE A REPORT

3  SET NEW HEADINGS


SELECTION NUMBER:
FILE NAME:
```

Remove the REPORT diskette from Drive 0 and replace it with the diskette containing your PFS file. From this point on, do not remove your file from the disk drive, or turn off the computer, unless the Main Menu is on the screen.

Place your SORTWORK diskette in Drive 1. If you have not already copied the sample file stored on the SORTWORK diskette onto another file and named it STAFF, stop and do so now. Once you use SORTWORK, the sample file will be destroyed.

In the Main Menu, the cursor should be positioned in the SELECTION NUMBER item. Type in a 1 to select PRINT A REPORT. Press the SHIFT ➔ key to move the cursor to the FILE NAME item, and type in the name of the file you are using. Press CTRL C to continue, and the retrieve spec form appears on the screen for you to choose which forms you want to include on the report. The retrieve spec form from the STAFF file looks like this:

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

DEPT:                    PHONE EXT:
JOB TITLE:
MONTHLY SALARY:




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

Step 1: Filling in the Retrieve Spec Form

You fill in the retrieve spec form to choose which *forms* from the file you want to include in the report. If you want to include all the forms, leave the retrieve spec form blank and press CTRL C. If you want to include only certain forms, enter retrieve specifications exactly as you would for the PFS:FILE SEARCH/UPDATE function.

Note that the *items* you fill in on the retrieve spec do not appear on the report unless you select them when filling in the report spec form (the third step in the process). Filling in items in this first step is only to select which forms you want included in the report.

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 next few pages summarize these categories. For a more detailed explanation of retrieve specifications, see Chapter 4 of the PFS:FILE manual.

1. Full Item Match

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

■ REPORT ignores spaces before the first character and after the last character.

■ REPORT treats multiple spaces within the items as a single space.

■ REPORT ignores the difference between uppercase and lowercase characters.

For example, if you enter the following retrieve specification,

```
NAME: Tom Seal
ADDRESS:

PHONE NO:




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

NAME: TOM SEAL   will be a match.

NAME: Tom Seal   will be a match.

NAME: Tom   Seal   will be a match.

NAME: TomSeal   will not be a match.

NAME: Thomas Seal   will not be a match.

NAME: Seal, Tom   will not be a match.

2. Partial Item Matches

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 REPORT to ignore whatever characters occur before
Word.

Word . .   tells REPORT to ignore whatever characters occur after
Word.

. . Word . .   tells REPORT to ignore whatever characters occur before or
after Word; i.e., to look for Word anywhere in the item.

. .   tells REPORT to find all forms with any character entered in
this item.

To illustrate the . . match . . , suppose you enter the following specification in
the retrieve spec form for a stockbroker's customer file:

```
NAME:                         ACCT #:
ADDRESS:
CITY:                         STATE:    ZIP:
PHONE (BUS):
PHONE (HOME):
EMPLOYER:
                              INCOME:
OBJECTIVES: ..tax shelter..


PORTFOLIO:


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

You will find a match for all customers with "tax shelter" as an objective. (REPORT ignores any objective listed before or after "tax shelter".)

To find only those customers with "tax shelter" as their first objective, the retrieve specification would look like this:

```
NAME:                              ACCT #:
ADDRESS:
CITY:                         STATE:    ZIP:
PHONE (BUS):
PHONE (HOME):
EMPLOYER:
                              INCOME:
OBJECTIVES: Tax shelter..



PORTFOLIO:


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

Similarly, to find only those customers with "tax shelter" as their last objective, the retrieve specification would look like this:

```
NAME:                              ACCT #:
ADDRESS:
CITY:                         STATE:    ZIP:
PHONE (BUS):
PHONE (HOME):
EMPLOYER:
                              INCOME:
OBJECTIVES: ..tax shelter



PORTFOLIO:


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

The @ match uses the @ sign as a "wild-card" character to search for items that are almost an exact match.

To illustrate the @ match, suppose you have a file that lists phone messages, and you are unsure of the spelling of one person's name for whom you want to retrieve messages. If you enter this retrieve specification,

```
NAME: Bill Andersən
ADDRESS:

PHONE NO:




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

NAME: Bill Andersen   will be a match.

NAME: Bill Anderson   will be a match.

NAME: BILL ANDERSON   will be a match.

NAME: Andersen, Bill   will not be a match.

NAME: W.F. Andersen   will not be a match.

Or, if you have stored dates in a file as year, month, and day, in the form yy/mm/dd, you can find all forms with dates in October of 1982 by entering the following retrieve specification:

82/10/@@

3. Numeric Item Matches

There are two ways to use numbers as information. One way is to use the number as a set of characters that identify an item. Phone numbers, part numbers, and social security numbers are examples of numbers used as identifiers. When searching for such numbers, use either a full item match or one of the partial item matches.

For example, suppose you want to find the form for part number 14307. The retrieve specification would look like this:

<div align="center">

PART #: 14307

</div>

The other way to use numbers as information is to use the number to represent an arithmetic value—something associated with the meaning of larger or smaller. Numbers associated with quantity or cost are examples of numbers used to represent arithmetic values. When searching for numbers used in this way, 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 the special symbols (<, >, =) followed by the desired number.

For example, suppose you want to print a report using the BROKER file that lists all customers with incomes over $50,000 who are interested in tax shelters. This is what the retrieve specification would look like:

```
NAME:                        ACCT #:
ADDRESS:
CITY:                        STATE:    ZIP:
PHONE (BUS):
PHONE (HOME):
EMPLOYER:
                             INCOME: >50000
OBJECTIVES: ..tax shelter..



PORTFOLIO:


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

4. The Numeric Range Match

You can also search for numeric values in a certain range. To do this, give the lowest and highest values, separated by two dots and preceded by the equals sign. The dot-dot with the equals sign means "through".

For example, suppose you want a report to include all the customers in the BROKER file whose incomes fall between $50,000 and $100,000. The retrieve specification would look like this:

```
NAME:                        ACCT #:
ADDRESS:
CITY:                   STATE:    ZIP:
PHONE (BUS):
PHONE (HOME):
EMPLOYER:
                        INCOME: =50,000..100,000
OBJECTIVES:



PORTFOLIO:


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

5. The "NOT" Match

You can include all forms that do NOT match a given specification by preceding the retrieve specification with a slash (/). For example,

/John	finds all forms that do not have the word John for this item.
/ . .er	finds all the forms that do not end with the letters "er" for this item.
/=33	finds all forms that do not have the number 33 for this item.
/ . .	finds all forms that have this item blank.

When you have entered all the retrieve specifications necessary to identify the forms you want to include in the report, press CTRL C. The report options form appears next:

REPORT OPTIONS

TITLE:

PRE-DEFINED REPORT NAME:

OUTPUT DEVICE (P/D/L): P

LINES PER PAGE: 66   PAGE WIDTH: 80

Step 2: Choosing the Report Options

The second step when preparing a report is to fill in the report options form. You use this form to assign a title, select the printer, and specify the printed page size; or to print the report according to a previously defined report specification. Fill out the form as follows:

TITLE:
Enter the desired report title (up to 55 characters). This title appears centered at the top of each page of your report.

PRE-DEFINED
REPORT NAME:
If you want to use a report specification that you have previously saved with the PRE-DEFINE A REPORT function, enter its name here. (See Chapter 2 for details.) If not, leave this item blank.

OUTPUT DEVICE
(P/D/L):
Choose whether you want the report printed or displayed, and enter one of these three letters:

P — Printer (with auto-linefeed). This is the default.

D — Display. A report up to 64 characters wide can be sent to the display screen by entering a D in this item. If you attempt to send a report wider than 64 characters to the screen, REPORT automatically displays as much of the report as will fit.

L — Printer (without auto-linefeed). If your printer overprints on the same line without advancing, you need to select L. REPORT then sends a linefeed character at the end of each row of the report.

LINES
PER PAGE:
Enter the number of lines on each page of your printer paper, perforation to perforation. (REPORT automatically leaves a top and bottom margin.) Standard 8-1/2 x 11 fanfold printer paper has 66 lines per page, which is the default value.

PAGE WIDTH:
Enter the width of your paper (between 6 and 255 characters). The default value is 80, the width of standard 8-1/2 x 11 fanfold paper. Note that if you enter a width greater than 80 characters or if you want to print a wider than 80-character report in compressed mode so that it fits on an 80-character page, you might have to send special characters to your printer to set it up.

When you complete the report options form, press CTRL C, and the report spec form appears. The STAFF file report spec form looks like this:

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

DEPT:                    PHONE EXT:
JOB TITLE:
MONTHLY SALARY:




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

Step 3: Filling in the Report Spec Form

The last step before your report starts printing is to fill in the report spec form. This step determines which items appear as columns in the report and in which order they appear. You also define several special features of REPORT at this time.

Each report can have up to 12 columns. They are numbered from 1 to 12, starting with the lefthand column. To print an item as a column in the report, enter the desired column number next to the item name in the report spec form.

REPORT sorts the report into alphabetical or numerical order based on the information in column 1. To sort the report according to a certain item, simply make that item column 1. If the information in column 1 is the same for more than one row, REPORT sorts those rows according to the information in column 2.

If you do not want to sort your report, number your first column as column 3. If your report is long or complex, eliminating the sort in this way can save you some time. However, this does limit your report to 10 columns (numbered 3 through 12).

When you finish entering the report specifications, press CTRL C, and REPORT begins preparing the report. First, it selects the forms that match the retrieve specifications. While doing this, it displays a message that says "Selecting Forms". Next, if you specified columns 1 or 2 for the report, REPORT sorts the forms, displaying the message, "Sorting". Finally, it prints the report, displaying the first page of each form as it prints information from that form in the report. When it finishes printing, it returns to the Main Menu.

Alphabetical Sorts

When you specify that a report have a column 1 and/or column 2, REPORT automatically sorts it alphabetically according to the information in these columns. For example, suppose you have a file that contains abstracts of recent publications. The form looks like this:

```
AUTHOR:
TITLE:
PUBLISHER:

DATE OF PUBLICATION:              PRICE:
ABSTRACT:




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

You could prepare a report that shows publisher, author and title for each of these publications, by using this report specification:

```
AUTHOR: 2
TITLE: 3
PUBLISHER: 1

DATE OF PUBLICATION:              PRICE:
ABSTRACT:




------------------------------------------------------------------
File: CATALOG   1% Full   REPORT SPEC          Page: 1
```

Since REPORT sorts the information in the report according to columns 1 and 2, the publications report would look like this:

```
                          A LIST OF BOOKS

        PUBLISHER              AUTHOR                    TITLE
-------------------------  --------------------  -------------------------------------
Edwards and Son, Inc.      Peterson, Dorothy     How to Mother an Entire Corporation
Michon Publishing          Buss, P. Terry        The Joys of Flying
                           Tucker, Jeff          The Private Pilot

Silicon Valley Publishers  Ericka, Nancy         The Future of Word Processing
                           Page, J.P.            Writing Simple Software
                           Rader, C. Christine   Good Technical Writing
```

Now suppose you want the same report, but would like to start a new page whenever the publisher changes. You can do that by entering a P (for page break) next to the column number (P will only work in column 1):

```
AUTHOR: 2
TITLE: 3
PUBLISHER: 1P

DATE OF PUBLICATION:              PRICE:
ABSTRACT:




-----------------------------------------------------------------
File: CATALOG   1% Full    REPORT SPEC              Page: 1
```

The modified report would look like this:

```
A LIST OF BOOKS

   PUBLISHER              AUTHOR                    TITLE
-------------------    -----------------    -----------------------------------
Edwards and Son, Inc.  Peterson, Dorothy    How to Mother an Entire Corporation




                         PAGE 1
```

```
A LIST OF BOOKS

   PUBLISHER              AUTHOR                    TITLE
-------------------    -----------------    -----------------------------------
Michon Publishing      Buss, P. Terry       The Joys of Flying
                       Tucker, Jeff         The Private Pilot




                         PAGE 2
```

Alphabetical Sorts When the Item Contains Numbers

When REPORT is sorting an item alphabetically and that item contains numbers, REPORT automatically treats these numbers non-numerically. The numbers are printed in the report exactly as they are entered in the file, and they are sorted as simple character strings. For this reason, sorting the report into a logical order by numbers when using an alphabetical sort is not usually feasible unless all the numbers are the same length, as with zip codes. (For example, just as AZ is sorted before Z, item 19 will be sorted before 9.) If the numbers are the same length, however, REPORT can sort them into correct ascending order. (If you want to use the alphabetical sort to sort numbers of different lengths into ascending order, place zeros to the left of the numbers to make them the same length when entering them in the PFS file. For example, 09 will be sorted before 19 not after.)

One frequent application of using an alphabetical sort with its non-numeric treatment of numbers is having REPORT sort rows in a report by date. To make this possible, when you intially enter the data using PFS:FILE, enter year, month, and day in the form yy/mm/dd. Always use two digits in each position. For example, 79/06/12 stands for June 12, 1979.

Numeric Sorts

If you choose to have REPORT treat a column of numbers numerically, you put a letter N next to the column number (any column) on the report spec form. If you put the column of numbers in column 1 or 2, REPORT then sorts the numbers into descending order (highest number first). When printing numeric columns, REPORT observes the following rules:

- it ignores all characters (including spaces) other than —, ., 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 (be sure to use the number 1, not lowercase l, and zero, not the letter o).

- a minus sign (–) before the first digit or after the last gives the number a negative value.

- if there are multiple decimal points, it ignores all but the first.

- it inserts commas where necessary.

- it adjusts all entries in a column to the highest number of decimal places found in that column.

The following example shows how you might fill in the same item on different forms in a file, and how REPORT would list the information in a numeric column in a report. The following numbers are treated numerically, but they are not sorted numerically:

File Item	Numeric Column	
$1000	1,000.00	it ignores the $ and adds the comma and 2 decimal places.
112.5	112.50	it adds 1 decimal place.
1.37 dollars	1.37	it ignores DOLLARS. This item has the highest number of decimal places. All other entries are adjusted to it.
2,000.137	2,000,137.00	it adds 2 decimal places.

Comparing Numeric Sorts and Alphabetical Sorts with Numbers

When you are dealing with numbers used as identifiers, you need to use an alphabetical sort, so that REPORT treats the column of numbers non-numerically. For example, in an inventory control system where the part numbers consist of a letter followed by numbers, you might have the following parts: A1679, B0334, B1772, C0009. Compare the following numeric and alphabetical sorts of the part numbers. Notice the associated treatment of the numbers:

Numeric	Alphabetical/non-numeric
1,772	A1679
1,679	B0334
334	B1772
9	C0009

You would want to use an alphabetical sort with its non-numeric treatment of numbers in this situation, but if you had an item called PRICE in the inventory control system, you would probably want REPORT to sort and treat it numerically.

The columns below show how some entries in a file for the same item are sorted both numerically and alphabetically. Notice the difference in the numeric and non-numeric treatment of the numbers. Also notice that the numbers appear in different order in the two columns and that the numbers in the numeric column are right-justified, whereas the numbers in the alphabetical column are left-justified.

File Item	Numeric	Alphabetical/non-numeric
$1,000	1,000.00	$1,000
87 dollars	100.00	100
33.75	87.00	33.75
100	33.75	87 dollars

In this case, having REPORT sort and treat the numbers numerically makes it easier to compare the prices of the items in the inventory.

Example of Printing a Report:

The examples in this manual use the PFS file called STAFF. The STAFF file is stored on the SORTWORK diskette in your PFS:REPORT package. If you have not already copied it onto another diskette using the COPY function of PFS:FILE, stop and do so now. If you accidentally destroy this file, you can re-create it using the instructions in Appendix C.

Let's use the STAFF file to produce a printed phone directory for the employees in manufacturing. First, make sure that the REPORT Main Menu is on the screen and that SORTWORK is in Drive 1. Remove your REPORT program diskette from Drive 0 and insert the diskette containing STAFF. Enter a 1 in the SELECTION NUMBER item. Press the SHIFT ──► key to move the cursor to the FILE NAME item, and type in Staff. The screen should look like this:

```
PFS:REPORT MAIN MENU
--------------------

1  PRINT A REPORT

2  PRE-DEFINE A REPORT

3  SET NEW HEADINGS


SELECTION NUMBER: 1
FILE NAME: Staff
```

Press CTRL C, and the retrieve spec form appears. Since you want to include only manufacturing employees in the directory, enter MANUFACTURING in the DEPT item. The screen should look like this:

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

DEPT: MANUFACTURING      PHONE EXT:
JOB TITLE:
MONTHLY SALARY:




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

Press CTRL C, and the report options form appears. Fill in the items as follows:

```
                        REPORT OPTIONS

      TITLE: MANUFACTURING PHONE DIRECTORY

      PRE-DEFINED REPORT NAME:

      OUTPUT DEVICE (P/D/L): P

      LINES PER PAGE: 66        PAGE WIDTH: 80
```

Press CTRL C again, and the report spec form appears. You want the directory to have the employees' names in alphabetical order in the first column, with job title and phone extension next to each name. To accomplish this, enter a 1 in the NAME item, a 3 in the PHONE EXT item, and a 2 in the JOB TITLE item. Your screen should look like this:

```
EMPLOYEE #:              HIRED:
NAME: 1
ADDRESS:
CITY:                    STATE:    ZIP:

DEPT:                    PHONE EXT: 3
JOB TITLE: 2
MONTHLY SALARY:




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

Press CTRL C one more time, and REPORT prepares and prints the directory. The selecting and sorting processes should take less than a minute in this example, but it would take longer for a long and complicated report.

When the printer completes the report, the program returns to the REPORT Main Menu. Your directory should look like this:

```
                MANUFACTURING PHONE DIRECTORY

        NAME              JOB TITLE          PHONE EXT
    ----------------  ----------------------  ---------
    Calvin, Curt      Process Engineer        188
    Fawley, Susan     Engineering Associate   195
    Peters, Marvin    Technician              167
    Sanchez, Enrico   Design Engineer         189
```

Reports with Column Calculations

REPORT can total, count or average the numbers in a column. It can also give a subtotal, subcount, or subaverage every time the item in column 1 changes.

For example, a teacher with three classes of students in the same subject could set up a file in which the form looks like this:

```
STUDENT:

SUBJECT:

CLASS:

TEST SCORE:




------------------------------------------------------------------
File: STUDENTS  0% Full    RETRIEVE SPEC          Page: 1
```

When all these students took the same test, the teacher could get the average score for each class and the average score for all the students. The report would look like this:

```
                    TEST SCORE SUMMARY REPORT

          CLASS         STUDENT          TEST SCORE
          -----    -------------------   ----------
          A        James, Kurt                78
                   Lawrence, Arnold           89

                              AVERAGE:         84

          B        Austin, Peter              85
                   Church, Jill               59

                              AVERAGE:         72

          C        Clayton, David             79
                   Trapp, Iris                94

                              AVERAGE:         87


                              -------------------
                              AVERAGE:         81
                              -------------------
```

You specify the column calculations by entering the following commands beside the column number on the report spec form:

T   Total. The program automatically treats this item numerically, adds all the numbers in the column, and prints the total at the end.

ST   Subtotal. This produces a subtotal for each new item in column 1, and a grand total at the end of the report.

A   Average. The program automatically treats this column numerically and prints the average at the end.

SA   Subaverage. This produces a subaverage for each new item in column 1, and prints an average of all the numbers at the end.

C   Count. This counts the number of entries in a column. (It does not consider their value.)

SC   Subcount. This gives a subcount for each new item in column 1, and a complete count at the end.

The count and subcount commands count the number of items actually printed in a column. For example, look at the following phone directory prepared from the entire STAFF file:

```
                     CORPORATE PHONE DIRECTORY


              DEPT              NAME            PHONE EXT
         ----------------   ----------------   ---------
         Administration     Bennet, Liza       119
                            Thomson, John      155
                            Woodhouse, Emma    179
                            Woolf, James       143

         Manufacturing      Calvin, Curt       188
                            Fawley, Susan      195
                            Peters, Marvin     167
                            Sanchez, Enrico    189

         ----------------------               ---------
         COUNT:          2                            8
         ----------------------               ---------
```

Only two items were counted in the DEPT column because each department name was only printed once. The PHONE EXT column has an entry for every line so the count for that column is eight. This report, therefore, tells you that you have two departments and eight phones.

When you use T, ST, A, or SA, the program automatically assumes that the information in the column is numeric. When you use C and SC, however, you must also enter N if you want the column treated numerically, since C and SC can also be used with non-numeric information. For example, compare these two specifications,

        PRICE: 3C   PRICE: 3CN

and then compare their results:

PRICE	PRICE
$100	100.00
4 DOLLARS	4.00
3.99	3.99

COUNT: 3   COUNT: 3

You can have REPORT perform more than one calculation in the same column; i.e., you can have it calculate both the total and the average of a column.

For example, if you have a file containing information on sales, the form might look like this:

```
NAME:
REGION:
PRODUCT SPECIALTY:

SALES:

COMMENTS:




-----------------------------------------------------------
File: SALESTAF  0% Full    RETRIEVE SPEC         Page: 1
```

By entering a 1 in the NAME item, and a 2TA in the SALES item on your
report spec form, you can get a report that looks like this:

```
                        SALES REPORT


              NAME                SALES
         ----------------      -----------

         Abrams, Art            12,001.00
         Beachamp, Fred         34,007.98
         Button, L              56,120.00
         Still, Stanley              0.00
         Wilkes, Jim            20,987.00


                         -------------------
                         AVERAGE:  24,623.20
                         TOTAL:   123,115.98
                         -------------------
```

This report shows the average sales per salesperson and the total sales.
Notice the order in which REPORT prints the two calculations at the bottom of
the report. If you use more than one of the column calculations, the average
appears first, the total next, and the count last. You can enter the commands
themselves in any order. For example, 2AT, A2T, and 2TA would all produce
the same result.

Using Zeros and Blanks

When you plan to use the calculation commands, think carefully about the
difference between a 0 (zero) and a blank in your file. In the test score
example, for instance, the difference between a score of zero and no score is
very significant. It is especially important when using average or count. An
item that contains no information is not included in the calculation, but an item
that contains a zero is included. For example:

The average of 4 and 2 is $\dfrac{4+2}{2}$ = 3

The average of 4, 2, and 0 is $\dfrac{4+2+0}{3}$ = 2

Example of Report with Column Calculations:

Let's use some column calculations with the STAFF file to produce a report on total salaries, subtotaled by department.

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 remain in FILE NAME. If it does not, enter it. Press CTRL C, and the STAFF retrieve spec form should appear on your screen. Since you want all the forms in the file included in the report, leave the retrieve spec blank and press CTRL C again. The report options form should appear. Fill in the items as follows:

```
                        REPORT OPTIONS


        TITLE: SALARY COSTS BY DEPARTMENT

        PRE-DEFINED REPORT NAME:


        OUTPUT DEVICE (P/D/L): P

        LINES PER PAGE: 66      PAGE WIDTH: 80
```

Press CTRL C again, and the report spec form appears. Using the SHIFT—▶ key to move from item to item, enter the report specifications shown below:

```
        EMPLOYEE #:             HIRED:
        NAME: 2
        ADDRESS:
        CITY:                   STATE:    ZIP:

        DEPT: 1                 PHONE EXT:
        JOB TITLE:
        MONTHLY SALARY: 3ST



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

When you are finished, press CTRL C. REPORT sorts the forms in the file
and begins printing the report. The printed report should look like this:

```
                        SALARY COSTS BY DEPARTMENT


                DEPT              NAME              MONTHLY SALARY
            ----------------   ----------------   --------------
            Administration     Bennet, Liza                1,200
                               Thomson, John               5,000
                               Woodhouse, Emma             3,200
                               Woolf, James                1,000

                                       TOTAL:             10,400

            Manufacturing      Calvin, Curt                3,600
                               Fawley, Susan               2,100
                               Peters, Marvin              1,100
                               Sanchez, Enrico             3,250

                                       TOTAL:             10,050


                                                   ----------------------
                                       TOTAL:             20,450
                                                   ----------------------
```

You can see that REPORT prints the subtotal in the MONTHLY SALARY
column every time it prints a new department in column 1. This gives the total
salaries for each department. You also get a grand total at the end of the
column.

Reports with Derived Columns

A derived column is calculated from information in other columns of a report
(including other derived columns). It does not correspond to an item name in a
file, as do other report columns. You can have up to three derived columns in
a report.

For example, suppose you want to calculate a 17% bonus for each employee
in the STAFF file. You can prepare a report in which REPORT calculates 17%
of the monthly salary of each employee from a MONTHLY SALARY column
and puts this amount in a new column called BONUS. Then, REPORT can
add the amount of the bonus to the monthly salary and place this amount in
another derived column called TOTAL PAY.

You tell REPORT what calculations to perform for a derived column by developing a formula using these rules:

1. Columns in the formula are identified by # followed by the column number. For example, #1-#5 means column 1 minus column 5.

2. Use a combination of the following mathematical operators and numbers to tell REPORT what calculations to perform:

   +   add

   —   subtract

   *   multiply

   /   divide

   ( ) indicate that the calculation within the parentheses should be done before others in the formula. Parentheses can only be nested two deep.

3. REPORT evaluates the formula from left to right, evaluating the expressions in parentheses first. For example:

   #3 + 4 * #1   means add 4 to column 3 and multiply the result by column 1.

   #3 + (4 * #1)   means multiply column 1 by 4 and add the result to column 3.

4. Since REPORT works from left to right across the report, a formula must not use the values of any derived columns that are printed to its right. For example, if columns 1 and 4 of a report were derived columns, column 1 would be calculated before column 4. If column 1 tried to use the value in column 4 in its calculation, there would not yet be a value in that column to use.

5. A formula can include a reference to itself. For example, a formula used in column 7 is #3 + #7. In such a case, the value used for #7 is that from column 7 of the previous row. This calculation produces, in column 7, a running total of whatever is in column 3.

You tell REPORT where and how to create a derived column by filling in a special derived columns form. To reach this form, press CTRL D when the report spec form is showing. The form looks like this:

```
                          DERIVED COLUMNS

          HEADING:
          FORMULA:
          REPORT SPEC:

          HEADING:
          FORMULA:
          REPORT SPEC:

          HEADING:
          FORMULA:
          REPORT SPEC:

          ---------------------------------------------------------
          File: STAFF    1% Full    REPORT SPEC
```

Filling in the Derived Columns Form

Since you can have a maximum of three derived columns in one report, there are three identical groups of items on the derived columns form. You fill in one of these groups for each derived column on a report. The items are:

HEADING: Enter the heading you want printed above the derived column. If you leave this blank, REPORT prints the formula of the column as a heading.

FORMULA: Enter the formula for your derived column.

REPORT SPEC: Enter the column number for your derived column and any column calculations you want. For example, entering a 7T tells REPORT to print this column in column 7 and total it. You can even put a derived column in column 1, which means that the program sorts on the results of the derived column calculation. Note that this takes much longer to sort than a less complex report.

If you want to return to the report spec form, press CTRL D again. This key enables you to switch between the two screens. When you have entered both the report specifications and the derived columns information, press CTRL C to have REPORT prepare and print your report.

Example of Report with Derived Columns:

Let's prepare the employee bonus report discussed earlier. Return to the Main Menu (press BREAK, if necessary), and enter a 1 in the SELECTION NUMBER item. Enter Staff in the FILE NAME item, if necessary, and press CTRL C. The retrieve spec form appears. Since everyone gets a bonus, leave it blank and press CTRL C again.

When the report options form appears, type in the title EMPLOYEE BONUS REPORT. The PRE-DEFINED REPORT NAME item should remain blank, and the default values can be left in the other items. Your screen should look like this:

```
                          REPORT OPTIONS


           TITLE: EMPLOYEE BONUS REPORT

           PRE-DEFINED REPORT NAME:


           OUTPUT DEVICE (P/D/L): P

           LINES PER PAGE: 66        PAGE WIDTH: 80
```

Press CTRL C, and the report spec form appears. Enter a 1 in the NAME item to make it the first column of the report and a 2 in the MONTHLY SALARY item to make it the second column. Your screen should look like this:

```
           EMPLOYEE #:              HIRED:
           NAME: 1
           ADDRESS:
           CITY:                    STATE:    ZIP:

           DEPT:                    PHONE EXT:
           JOB TITLE:
           MONTHLY SALARY: 2




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

Now you are ready to define the derived columns. Press CTRL D, and fill in the derived columns form that appears on your screen as follows:

```
                        DERIVED COLUMNS

          HEADING: BONUS
          FORMULA: #2 * 0.17
          REPORT SPEC: 3

          HEADING: TOTAL PAY
          FORMULA: #2 + #3
          REPORT SPEC: 4T

          HEADING:
          FORMULA:
          REPORT SPEC:

          -------------------------------------------------------
          File: STAFF    1% Full    REPORT SPEC
```

Press CTRL C, and REPORT prepares and prints your report. It should look like this:

```
                    EMPLOYEE BONUS REPORT

          NAME        MONTHLY SALARY    BONUS     TOTAL PAY
      ----------------  --------------   ------    ----------
      Bennet, Liza           1,200      204.00     1,404.00
      Calvin, Curt           3,600      612.00     4,212.00
      Fawley, Susan          2,100      357.00     2,457.00
      Peters, Marvin         1,100      187.00     1,287.00
      Sanchez, Enrico        3,250      552.50     3,802.50
      Thomson, John          5,000      850.00     5,850.00
      Woodhouse, Emma        3,200      544.00     3,744.00
      Woolf, James           1,000      170.00     1,170.00

                                      --------------------
                                      TOTAL:    23,926.50
                                      --------------------
```

Note that REPORT rounds derived columns to two decimal places before printing.

When REPORT produces a report containing derived columns, its performance, especially during the form selection stage, is somewhat slower.

Reports Using Keywords

When you store information in the form of text in your PFS files, you may want to identify such information by means of subject keywords. You can identify the same form by several different keywords if it is of interest for several different reasons.

To identify text using subject keywords, create an item on your file form to contain your keywords. When you enter more than one keyword into the item, separate them from each other with a space (Smith Jones Brown). If you have a keyword that is really more than one word, either do not space between the words (PersonalComputers), or use a hyphen (Personal-Computers).

To print a report using keywords, make the item containing your keywords column 1 of the report and enter K as part of the report specification for the item. (The K specification only works for column 1.) REPORT then prints the report, sorted alphabetically by keyword, with each form appearing once for every keyword listed.

Note that processing a keyword report can be a fairly time-consuming task, depending on the complexity of your form and the number of keywords entered for each form.

Suppose you keep a file of technical information from the magazines you read and use an item named KEYWORDS for your keywords. The form might look like this:

```
MAGAZINE:
DATE:              PAGE:
KEYWORDS:

ABSTRACT:




---------------------------------------------------------------
File: ABSTRACT  0% Full   RETRIEVE SPEC         Page: 1
```

The KEYWORDS item includes all the subjects for which the article is of
interest. The ABSTRACT item gives a brief description of the article. By using
the following report specification,

```
MAGAZINE: 2
DATE:                    PAGE:
KEYWORDS: 1K

ABSTRACT: 3




-----------------------------------------------------------------
File: ABSTRACT  0% Full    REPORT SPEC           Page: 1
```

you could get this report:

```
                              KEYWORD SORT OF ABSTRACTS

        KEYWORDS     MAGAZINE                        ABSTRACT
        ---------   -----------   -----------------------------------------------------
        ECL         Datamation    This article describes the use of a new ECL process
                                  to fabricate 16K RAMs for less than $4 each.

        Failure     Elec Times    An unsuspected cause of RAM failure has been traced.
                                  People have found that gamma radiation causes random temporary
                                  bit faults.

                    Elec Weekly   A problem is discussed which causes premature failure
                                  of memories due to warpage of the PCBoards, especially at high
                                  temps.

        Memory      Datamation    This article describes the use of a new ECL process
                                  to fabricate 16K RAMs for less than $4 each.

                    Elec Weekly   A problem is discussed which causes premature failure
                                  of memories due to warpage of the PCBoards, especially at high
                                  temps.

        PCBoards    Elec Weekly   A problem is discussed which causes premature failure
                                  of memories due to warpage of the PCBoards, especially at high
                                  temps.

        RAMs        Datamation    This article describes the use of a new ECL process
                                  to fabricate 16K RAMs for less than $4 each.

                    Elec Times    An unsuspected cause of RAM failure has been traced.
                                  People have found that gamma radiation causes random temporary
                                  bit faults.
```

As you can see, REPORT prints the abstract once for each keyword. If you made the KEYWORDS item column 1 but omitted the K command, you would get this report from the same information:

```
                              A NORMAL REPORT

    KEYWORDS              MAGAZINE                        ABSTRACT
------------------------  ----------  ----------------------------------------------------------------
Failure RAMs              Elec Times  An unsuspected cause of RAM failure has been traced.
                                      People have found that gamma radiation causes random temporary
                                      bit faults.

Memory PCBoards Failure   Elec Weekly A problem is discussed which causes premature failure
                                      of memories due to warpage of the PCBoards, especially at high
                                      temps.

RAMs Memory ECL           Datamation  This article describes the use of a new ECL process
                                      to fabricate 16K RAMs for less than $4 each.
```

Summary

■ Use the PRINT A REPORT function to create a report from a PFS file.

■ There are three steps in creating a report:

1. Fill in the retrieve spec form to choose the forms you want to include in the report.

2. Fill in the report options form to describe how the report is to be presented.

3. Fill in the report spec form to choose the items you want to appear as columns in the report and the order in which you want them to appear.

■ You can have up to 12 columns in one report.

■ REPORT sorts your report, alphabetically or numerically, according to the information in columns 1 and 2.

■ Use the following commands on the report spec form to have REPORT perform calculations on a column:

N   Numeric. Treats the column numerically and lines up the decimal points.

A   Average. Treats the column numerically and prints an average at the end.

SA   Subaverage. Gives a subaverage whenever column 1 changes.

C   Count. Counts the number of entries printed in a column, whether the information in the column is numeric or alphabetical.

SC   Subcount. Gives a subcount whenever column 1 changes, whether the information in the column is numeric or alphabetical.

T   Total. Treats the column numerically and prints a total at the end.

ST   Subtotal. Gives a subtotal whenever column 1 changes.

P   Page break. Starts a new page each time the entry in column 1 changes (can only be used in column 1).

K   Keyword. Prints the same form once for every keyword in the item containing keywords (can only be used in column 1).

- REPORT can calculate up to three derived columns in a report. Use the following symbols to create the formula for a derived column:

  +   add

  —   subtract

  *   multiply

  /   divide

  #   identifies a column number

  ( ) indicate that the calculation within the parentheses should be done first. Can only be nested two deep.

- REPORT can sort a file according to special "keywords" used to identify different subjects within the file.

- |CTRL| |D| Switches between the report spec form and the derived columns form.

2: *pre-define a report*

You use the PRE-DEFINE A REPORT function to save a report design for repeated use. You can save up to eight different report designs for each PFS file and use them to print periodic reports in the same format. You give each design a name up to eight characters long, and REPORT stores the design in the file. When you want to use one of these report designs, you enter the name in the PRE-DEFINED REPORT NAME item of the report options form. REPORT then produces the report without your having to fill in the report spec form.

This function is also useful for experimenting with a variety of report designs before you decide which one you want to use. Since REPORT saves the report designs in the file, you can try out several different ones, using different names, until you find one that you like. Then, you simply remove the unwanted designs.

Selecting PRE-DEFINE A REPORT

To select the PRE-DEFINE A REPORT function, first return to the Main Menu (press BREAK, if necessary). Then enter a 2 in the SELECTION NUMBER item and the name of your file in the FILE NAME item. Press CTRL C, and REPORT displays, on a pre-defined reports form, the names of any pre-defined report designs stored for that file. The form for the STAFF file looks like this:

FILE 'STAFF' PRE-DEFINED REPORTS:

(NONE)

REPORT NAME:

Creating a New Report Design

To create a new report design, enter the name you want to give the design in the REPORT NAME item on the pre-defined reports form, then press CTRL C. The report spec form from your file appears, with the design name written in the message area at the bottom of the form. Enter the report specifications exactly as you would if you were using the PRINT A REPORT function. When you finish, press CTRL C, and REPORT stores the report design in the file and returns to the Main Menu.

Example of Pre-defining a Report:

Let's create a report design for STAFF that shows total salaries by department. You can use this to track your monthly salary expenses.

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 still remain in FILE NAME. If it does not, enter it. Your screen should look like this:

```
                    PFS:REPORT MAIN MENU
                    --------------------

                    1  PRINT A REPORT

                    2  PRE-DEFINE A REPORT

                    3  SET NEW HEADINGS


                    SELECTION NUMBER: 2
                    FILE NAME: STAFF
```

Press CTRL C, and when the pre-defined reports form appears, enter Salaries in the REPORT NAME item. This screen should look like this:

```
                    FILE 'STAFF' PRE-DEFINED REPORTS:

                              (NONE)




                    REPORT NAME: Salaries
```

Press CTRL C again, and a form from the STAFF file with REPORT
'SALARIES' at the bottom appears. You fill in this form the same way you fill
in a report spec form. For SALARIES, enter a 2 in the NAME item, a 1 in the
DEPT item, and 3t in the MONTHLY SALARY item. Your screen should match
the following screen:

```
          EMPLOYEE #:              HIRED:
          NAME: 2
          ADDRESS:
          CITY:                    STATE:    ZIP:

          DEPT: 1                  PHONE EXT:
          JOB TITLE:
          MONTHLY SALARY: 3t




          ------------------------------------------------------
          File: STAFF    1% Full    REPORT 'SALARIES'      Page: 1
```

Press CTRL C, and REPORT saves the report design named SALARIES in
the STAFF file and returns to the REPORT Main Menu.

Printing a Report Using a Pre-defined Report Design

Once you have a design for a report stored in a file, you can use this design repeatedly to print out reports from that file. You choose the PRINT A REPORT function and enter the name of the design in the PRE-DEFINED REPORT NAME item on the report options form. REPORT then skips the report spec form and prints the report.

Example of Using a Pre-defined Report Design:

Let's print a report called 'MONTHLY SALARIES, MARCH' using the design stored in the STAFF file.

Return to the Main Menu (press BREAK, if necessary), and enter a 1 in the SELECTION NUMBER item. Enter Staff in the FILE NAME item, if necessary. Press CTRL C, and the retrieve spec form appears. Since you want to include all the forms from the file in your report, leave the retrieve spec blank and press CTRL C again. The report options form appears, and you should fill it in so your screen looks like this:

```
                              REPORT OPTIONS


          TITLE: MONTHLY SALARIES, MARCH

          PRE-DEFINED REPORT NAME: SALARIES


          OUTPUT DEVICE (P/D/L): P

          LINES PER PAGE: 66          PAGE WIDTH: 80
```

Press CTRL C, and the program takes the pre-defined report design from your STAFF file and prepares the report according to that design. It should look like this:

```
                         MONTHLY SALARIES, MARCH


        DEPT                NAME              MONTHLY SALARY
   ----------------    ----------------       --------------
   Administration      Bennet, Liza                 1,200
                       Thomson, John                5,000
                       Woodhouse, Emma              3,200
                       Woolf, James                 1,000

   Manufacturing       Calvin, Curt                 3,600
                       Fawley, Susan                2,100
                       Peters, Marvin               1,100
                       Sanchez, Enrico              3,250


                                           ----------------------
                                           TOTAL:        20,450
                                           ----------------------
```

Modifying a Pre-defined Report Design

To modify an existing report design, first select the PRE-DEFINE A REPORT function. When the pre-defined reports form appears, enter the existing design's name in the REPORT NAME item and press CTRL C.

The report specifications appear on the screen for you to modify. You can add new specifications, type over existing ones, or press CLEAR to erase all the specifications on the displayed page and start over. When you have entered all the modifications you want to make, press CTRL C, and REPORT stores the revised design in the file.

Example of Modifying a Pre-defined Report Design:

Suppose you want to revise the SALARIES report design to have it include the JOB TITLE item and to have it subtotal the salaries by department.

Return to the Main Menu (press BREAK, if necessary), and enter a 2 in the SELECTION NUMBER item. Enter Staff in the FILE NAME item, if necessary. Press CTRL C, and the following screen appears:

```
                    FILE 'STAFF' PRE-DEFINED REPORTS:

                        SALARIES




                        REPORT NAME:
```

Enter Salaries in the REPORT NAME item, and press CTRL C. Your SALARIES report design should appear. Change the form to look like this:

```
        EMPLOYEE #:              HIRED:
        NAME: 2
        ADDRESS:
        CITY:                   STATE:    ZIP:

        DEPT: 1                 PHONE EXT:
        JOB TITLE: 3
        MONTHLY SALARY: 4ST




        ------------------------------------------------------
        File: STAFF    1% Full    REPORT 'SALARIES'    Page: 1
```

Press CTRL C, and REPORT stores the revised design in the STAFF file and returns to the Main Menu.

Removing a Pre-defined Report Design

To remove a pre-defined report design, first select the PRE-DEFINE A REPORT function. When the pre-defined reports form appears, enter the name of the report design that you want to remove from your file in the REPORT NAME item and press CTRL C. After the report specifications appear on the screen, press CTRL R. The following warning appears, giving you a chance to change your mind:

REPORT 'SALARIES'

ABOUT TO BE REMOVED

PRESS 'SPACE' TO ABANDON THIS OPERATION

PRESS CTRL-C TO CONTINUE
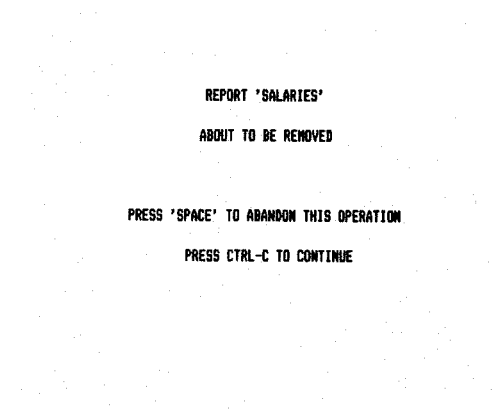
If you decide not to remove the design, press the space bar. REPORT returns to the design. Then, press CTRL C, and REPORT returns to the Main Menu. The report design remains in your file.

If you want to remove the pre-defined report design, press CTRL C, and REPORT removes it and returns to the Main Menu.

Summary

- Use the PRE-DEFINE A REPORT function to save the design of a report that you want to use more than once.

- You can store up to eight different report designs for any PFS file. REPORT stores them in the file under a name that you assign.

- The name of a pre-defined report design can be up to eight characters long.

- Each of the eight stored designs must have a unique name.

- You can modify any pre-defined report design in the same way that you change any information in a PFS:FILE form.

- CLEAR   Erases all entries from the currently displayed page.

- CTRL R Removes the currently displayed report design.

3: *set new headings*

You use the SET NEW HEADINGS function to change the headings that are printed at the top of each column of a report. By using this function, you can retain the full item name on the form, but store a different version of the item name to use when you print reports.

When you print a report without using this function, REPORT uses the first line of each item name as a column heading. Since REPORT determines the width of a column in a report by the widest entry in that column (heading or column entry), changing a heading can sometimes save space.

For example, suppose you have an item in a file named SOCIAL SECURITY NUMBER, and REPORT uses it as a column heading in a report. This item name is 22 characters long. A social security number itself is only 11 characters long. Unless the heading is shortened, this column would be twice as wide as it needs to be to accommodate the numbers.

Selecting SET NEW HEADINGS

To select the SET NEW HEADINGS function, return to the Main Menu (press BREAK, if necessary). Enter a 3 in the SELECTION NUMBER item and the name of your file in the FILE NAME item. Press CTRL C, and a form from your file appears on the screen with the word 'HEADINGS' in the message area at the bottom of the screen. The headings form from the STAFF file looks like this:

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

        DEPT:                 PHONE EXT:
        JOB TITLE:
        MONTHLY SALARY:



        ----------------------------------------------------
        File: STAFF    1% Full    HEADINGS         Page: 1
```

Entering New Headings

You enter a new heading for an item by simply typing it on the headings form the same way you type information in an item in a PFS:FILE form.

When you have entered all the new headings, press CTRL C, and REPORT stores them in the file and returns to the Main Menu. REPORT then uses these column headings in all future reports from that file, unless you change them again.

Example of Setting New Headings:

Let's make some changes to the column headings for the STAFF file. The entries in the MONTHLY SALARY item are typically only a few characters, so let's change that item to SALARY. Also, let's change DEPT to DEPARTMENT, since the names of the departments are typically quite long.

First, 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. Press CTRL C, and the headings form from the STAFF file appears. Use the SHIFT ──► key to move the cursor from item to item and enter the changes in column headings so that your screen looks like this:

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

DEPT: DEPARTMENT             PHONE EXT:
JOB TITLE:
MONTHLY SALARY: SALARY




---------------------------------------------------------
File: STAFF    1% Full    HEADINGS              Page: 1
```

Press CTRL C, and REPORT stores your changed headings on the STAFF file. Now, every time you print a report from the STAFF file, REPORT uses these headings. For example, if you print the revised pre-defined report named SALARIES, it will look like this:

```
                         MONTHLY SALARIES, MARCH


        DEPARTMENT          NAME              JOB TITLE          SALARY
        ----------------  ----------------  ----------------------  -------
        Administration    Bennet, Liza      Secretary                1,200
                          Thomson, John     Company President        5,000
                          Woodhouse, Emma   Purchasing Manager       3,200
                          Woolf, James      Personnel Clerk          1,000


                                                        TOTAL:      10,400


        Manufacturing     Calvin, Curt      Process Engineer         3,600
                          Fawley, Susan     Engineering Associate    2,100
                          Peters, Marvin    Technician               1,100
                          Sanchez, Enrico   Design Engineer          3,250


                                                        TOTAL:      10,050


                                                     ----------------
                                                        TOTAL:      20,450
                                                     ----------------
```

Modifying Headings

To modify headings that you have already changed once, enter the SET NEW HEADINGS function again by entering a 3 in SELECTION NUMBER of the Main Menu and your file name in FILE NAME. When the headings form appears on the screen, column headings previously stored for this file are on it.

At this time, you can change headings by typing over them, or insert new ones by typing them in. You can erase headings by either typing spaces over them or by pressing CLEAR, which erases all the headings entered on the page.

Removing Headings

To remove all the report headings stored in a file and revert to the item names as they are on the form, first select the SET NEW HEADINGS function. When the filled-in headings form appears on the screen, press CTRL R. The following warning screen appears to give you a chance to change your mind:

HEADINGS

ABOUT TO BE REMOVED

PRESS 'SPACE' TO ABANDON THIS OPERATION

PRESS CTRL-C TO CONTINUE

If you change your mind and decide not to remove the headings, press the space bar. REPORT returns to the headings form. Then, press CTRL C, and REPORT returns to the Main Menu. The headings are not removed.

If you want to remove the headings, press CTRL C, and REPORT removes the headings from the file and returns to the Main Menu.

Summary

- Use the SET NEW HEADINGS function to enter column headings for a report that are different from the item names in your file.

- You enter new column headings on a headings form.

- REPORT stores column headings in the file and uses them on future reports for that file until they are changed or removed.

- You can change or remove stored headings in the same way that you change any information in a PFS:FILE form.

A: *appendix*

Messages

PFS:REPORT displays a message whenever it encounters an error condition.
Certain errors are the result of mistakes you make when you enter information
(filling in the Main Menu items, the report options, or the report spec). These
messages are displayed in the message area at the bottom of the screen:

```
                    PFS:REPORT MAIN MENU
                    --------------------

                    1  PRINT A REPORT

                    2  PRE-DEFINE A REPORT

                    3  SET NEW HEADINGS


                    SELECTION NUMBER: 1
                    FILE NAME: Sample

                  CAN'T FIND FILE IN DRIVE 0
```

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


                  CAN'T FIND REPORT 'SAMPLE'


                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 use the instructions in the Corrective Action column. To restart normal REPORT operation, press BREAK. Following is the list of REPORT error messages, arranged in alphabetical order:

MESSAGE	DESCRIPTION	CORRECTIVE ACTION
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 IN DRIVE 0	REPORT cannot find the PFS file specified in the FILE NAME item of the Main Menu in Drive 0.	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. (Pull diskette out and re-insert.)
CAN'T FIND SORTWORK DISK IN DRIVE 1	(a) You specified a report that uses column 1 and/or column 2. REPORT sorts the information in columns 1 and 2, and it needs the SORTWORK diskette (supplied with the program) to be in Drive 1 in order to perform the sort.	Specify a report that does not use columns 1 or 2, or insert the SORTWORK diskette in Drive 1.
	(b) You only have one drive connected to your computer.	You cannot produce sorted reports. Avoid using columns 1 and 2.
	(c) The SORTWORK diskette has become damaged, worn out, or overwritten—making it impossible for REPORT to read the diskette name.	Prepare a replacement SORTWORK diskette. Use PFS:FILE to create an ordinary PFS file called SORTWORK and enter a colon (:) as the design of the form.
CAN'T FIND REPORT "xyz"	You requested a report using the pre-defined report name "xyz". REPORT cannot find a report with that name in the PFS file.	Make sure the report you request is one of those listed on the PRE-DEFINED REPORTS screen.

MESSAGE	DESCRIPTION	CORRECTIVE ACTION
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.
		If you get a DISKETTE ERROR on a SORTWORK diskette in Drive 1, you should prepare a new one as follows: Use PFS:FILE to create a file called SORTWORK and enter a single colon (:) as the design of the form.
DISKETTE FULL	REPORT attempted to write information on a diskette and found that there was no room left.	If you have some unnecessary forms in the file, use the PFS:FILE REMOVE function to remove them.
DISKETTE IS WRITE- PROTECTED	Report cannot use diskettes that are write-protected because it uses certain areas of the diskette to store temporary information (such as retrieve or report specifications).	Remove the write-protect tab. To protect your information you can use the COPY function of PFS:FILE to make a backup copy of your file.
ERROR IN FORMULA	The formula for a derived column is incorrect due to: (a) an unrecognizable or out-of-sequence character. (b) parentheses nested more than two deep. Allowed: (1 + (2−3)) + 4 Not Allowed: 1 + (2+ (3 + (4)))	The cursor is over the character causing the trouble. Over-type the formula to correct it and try again.

MESSAGE	DESCRIPTION	CORRECTIVE ACTION
INVALID SELECTION NUMBER	The number you entered for the SELECTION NUMBER item of the Main Menu is invalid.	Re-enter a number between 1 and 3.
I/O ERROR	Dirty head	If the disk drive has been in use for some time, the head may need cleaning. See your disk drive manual.
	Malfunction	There is a physical problem with the disk drive or disk controller. See your dealer for service.
	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 and REPORT use 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 make regular backup copies of your files, and 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 diskette.	
NO MATCHING FORMS	REPORT cannot find any forms in the PFS file in which information matches the retrieve specifications entered on the retrieve spec form.	Check to make sure you entered your retrieve specifications correctly. Check to make sure the information requested is actually contained in the PFS file.
NO REPORT NAME ENTERED	You did not enter a report name when attempting to use a pre-defined report.	Enter a name.
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.
REPORT IS TOO LONG TO SORT	The SORTWORK diskette filled up.	Specify a shorter report by filtering out unneeded forms using the retrieve spec form. Do not use column 2. By sorting only on column 1, the SORTWORK diskette will not fill up so quickly.

MESSAGE	DESCRIPTION	CORRECTIVE ACTION
REPORT TOO WIDE	The report you specified will not fit in the page width. A frequent cause of this is that the item names are very long, which forces the columns to be correspondingly wide.	Press BREAK. This returns you to the Main Menu, and you can restart the report, this time specifying a wider page. Press CTRL C. The program will print out as much of the report as fits in the page width that you specified.
SEARCH LIST TOO LONG	The retrieve specifications will not fit in the internal storage space.	Specify fewer requests in the retrieve specifications.
YOU CAN PRE-DEFINE 8 REPORTS MAXIMUM	You attempted to create a pre-defined report when eight were already stored on your file.	Delete an unwanted report design by using CTRL R.
** (in the report itself)	PFS:REPORT was unable to calculate the numeric value of this item because:	
	(a) OVERFLOW. The value to be printed exceeded 20 digits either in its original form in the file, or during processing.	Use smaller numbers (less than 20 digits).
	This can be due to an error in a derived column specification, or to a form in the file having an exceptionally large number of trailing decimal places which causes all values to be given that number of places and possibly exceed 20 digits.	Correct the formula. Reduce the number of decimal places.
	(b) A derived column formula referred to another derived column printed to its right. Since they are evaluated from left to right across the report, its value is not yet known.	Re-arrange the derived columns so that they can be calculated from left to right.
	(c) An attempt was made to divide by zero in a formula.	Correct the formula.
OVERPRINT	Printer overprints information on the same line and does not linefeed.	Select L in OUTPUT DEVICE (P/D/L) on report options form.

B: *appendix*

Special Control Keys and Commands

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. |

| ENTER | Move the cursor to the beginning of the next line. |

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

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

REPORT Control Keys

| CTRL | The combination of the left SHIFT key and the DOWN ARROW (↓) key.
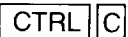
| CTRL | C | Begin or proceed with the specified function.
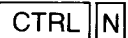
| CTRL | N | Display the next page of the form.

| CTRL | P | Display the previous page of the form.

| CLEAR | Erase all entries from the currently displayed page.
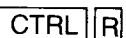
| CTRL | R | Remove the currently displayed form. (Applies to pre-defined report specifications or changes in column headings.)

| CTRL | D | Switch between the report spec form and the derived columns form.

| BREAK | Return to the REPORT Main Menu.

Special REPORT Commands

(n stands for any column number from 1 to 12)

Report Specification Commands

nT	Total all numbers in column n.
nST	Subtotal column n whenever the item in column 1 changes.
nA	Average all numbers in column n.
nSA	Subaverage column n whenever the item in column 1 changes.
nC	Count all items in column n.
nSC	Subcount column n whenever the item in column 1 changes.
1K	Sort column 1 by keyword (column 1 only).
1P	Begin a new page whenever the item in column 1 changes (column 1 only).
nN	Treat the column numerically (line up decimals, ignore other characters, etc.).

Derived Column Formula Operators

+	Add
–	Subtract
*	Multiply
/	Divide
( )	Parentheses
#n	Use the value in column n.

C: *appendix*

Example File

This manual uses a series of examples based on a PFS file named STAFF.
When you receive your PFS:REPORT package, you will find this file stored on
the SORTWORK diskette. You need to copy it to another diskette, because
the first time you use SORTWORK, you will destroy the example file. (For
instructions on how to copy a file see Chapter 3 of the PFS:FILE manual.) If
you do accidentally destroy the file before copying it, you can create another
like it by following these instructions:

First, load PFS:FILE into your computer. When the Main Menu appears, select
the DESIGN FILE function, enter STAFF as the file name, and press CTRL C.
Then, type in the following design:

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

DEPT:                    PHONE EXT:
JOB TITLE:
MONTHLY SALARY:




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

When you have completed the form design, press CTRL C to continue. You should see the Main Menu on the screen. Select the ADD function and enter information for the eight employees listed below. Enter the information exactly as it is shown, even though some of the items are inconsistent. This file can then show you how PFS:REPORT deals with these inconsistencies.

EMPLOYEE #: M8877   HIRED: 74/11/05

NAME: Calvin, Curt

ADDRESS: 254 Greentree Lane

CITY: Woodville   STATE: CA   ZIP: 93137

DEPT: Manufacturing   PHONE EXT: 188

JOB TITLE: Process Engineer

MONTHLY SALARY: $3600

EMPLOYEE #: M3245   HIRED: 78/06/22

NAME: Sanchez, Enrico

ADDRESS: 7831 Parkside Place

CITY: Ridgewood   STATE: CA   ZIP: 93132

DEPT: Manufacturing   PHONE EXT: 189

JOB TITLE: Design Engineer

MONTHLY SALARY: $3,250

EMPLOYEE #: A3476   HIRED: 80/10/15

NAME: Thomson, John

ADDRESS: 869 Valley View Road

CITY: Ridgewood   STATE: Ca   ZIP: 93132

DEPT: Administration   PHONE EXT: 155

JOB TITLE: Company President

MONTHLY SALARY: $5,000

EMPLOYEE #: A0765   HIRED: 76/09/21

NAME: Bennet, Liza

ADDRESS: 754 Granville Place

CITY: Ridgewood   STATE: Ca   ZIP: 93132

DEPT: Administration   PHONE EXT: 119

JOB TITLE: Secretary

MONTHLY SALARY: 1,200

EMPLOYEE #: M0934   HIRED: 77/09/30

NAME: Fawley, Susan

ADDRESS: 5634 Ridgewood Way

CITY: Woodville   STATE: CA   ZIP: 93137

DEPT: Manufacturing   PHONE EXT: 195

JOB TITLE: Engineering Associate

MONTHLY SALARY: 2100

EMPLOYEE #: M5524   HIRED: 81/04/27

NAME: Peters, Marvin

ADDRESS: 3224 Valley View Road

CITY: Ridgewood   STATE: CA   ZIP: 93132

DEPT: Manufacturing   PHONE EXT: 167

JOB TITLE: Technician

MONTHLY SALARY: $1100

EMPLOYEE #: A1265   HIRED: 76/04/23

NAME: Woodhouse, Emma

ADDRESS: 425 Oakview Way

CITY: Ridgewood   STATE: CA   ZIP: 93132

DEPT: Administration   PHONE EXT: 179

JOB TITLE: Purchasing Manager

MONTHLY SALARY: $3,200

EMPLOYEE #: A0139   HIRED: 72/09/16

NAME: Woolf, James

ADDRESS: 9732 Sunrise Place

CITY: Ridgewood   STATE: CA   ZIP: 93132

DEPT: Administration   PHONE EXT: 143

JOB TITLE: Personnel Clerk

MONTHLY SALARY: 1,000

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 REPORT, 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:REPORT 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 or the design of a report.
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 REPORT program.)
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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