

 Digital
Solutions
Inc.

Pocket Filer™ 2

Professional Database
for the Commodore 128 and 64

Reference Guide

Serious software that's simple to use.

Pocket Filer™ 2

**Database Manager
for the Commodore 128 and 64**

Reference Guide

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Computers by their very nature are highly technical; however, you do not need to be a mechanical engineer to drive a car. Likewise, you do not need to be a computer scientist to use our software. Eric Mills was the talented journalist who wrote the Reference Guide to allow you to take advantage of our software in an easy-to-read and understandable fashion.

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*Victor E. Kass, President
Digital Solutions Inc.*

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Note: *Pocket Filer 2* contains two separate database management programs:

* Side A—an 80-column program for the Commodore 128

* Side B—a 40-column program for the Commodore 64 (and the 128 in 64 mode)

Because of memory requirements, the 128 program (side A) doesn't have a 40-column mode. 128 users who wish to work in 40 columns can load the 64 program.

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Items with special information for 128 users are preceded by an asterisk

Introduction

Welcome to *Pocket Filer 2*: all the power of *Pocket Filer*—a sophisticated, inexpensive and easy-to-use database program for the Commodore 64 and 128—plus enhancements that make database management easier and better than ever!

More easily than ever, you can use *Pocket Filer* to organize mailing lists, addresses, telephone numbers and other information in an easily accessible form. In addition, it works with *Pocket Writer* and other popular word processing programs to create individually customized form letters.

The philosophy behind *Pocket Filer 2*—and every software product of Digital Solutions Inc.—is to enable you to start using it as soon as it's loaded into the computer's memory.

The program loads with a Main Menu. After that, it operates by commands, with help for each function always present, or available, at the top of the screen at the touch of the < **f7** > key (or < **HELP** > on the Commodore 128). If you want more detail about the functions, just press < **f7** > (or < **HELP** >) again, and the screen displays a description of the options currently available.

The result? You really don't need a manual that takes you away from the screen; use this Reference Guide only to clarify functions you don't understand, to utilize advanced features or to solve problems.

Pocket Filer for the Commodore 128: Making full use of the doubled memory, faster speed and 80-column capability of the 128, *Pocket Filer 2* makes working with a database manager easier than ever. The program on side A of *Pocket Filer 2*, which loads automatically, adds several new features to the earlier powerful program. You can choose 25 or 50 lines on the screen, use a mouse or RAM expander, and easily handle multiple disk drives.

Because of memory limitations, some new features for the 128 program are not available on the 64 program.

The program on side B of *Pocket Filer 2* will run on the Commodore 64 and also the 128, but only in 64 mode. On the 128, it won't use the 128's extra speed and capabilities, although the numeric keypad, < **ESC** >, < **TAB** > and < **HELP** > keys will function.

Registered owners of version 1 *Pocket Filer 64* and *Pocket Filer 128* can upgrade to *Pocket Filer 2* for \$19.95 U.S. plus \$3 for shipping and handling. Write Digital Solutions Inc.

Backup: To protect the copyright, the *Pocket Filer* disk cannot be copied. However, you can purchase an inexpensive backup copy when you send in your registration card (in the disk envelope) or at a later date. The backup sent to you will be the most up-to-date version available.

Note: Also because of the protection system, don't validate the *Pocket Filer* disk.

Support: If you can't get some of the options to work, check the Trouble-Shooting section and the Index of this guide for help. If you still have problems, ask the retailer who sold you the program. If you can't get satisfaction from the retailer, users who have mailed in the program registration card may write Digital Solutions Inc. at the address in the front of this guide.

What's a Database?

At its simplest, a database is a *list* of information—such as names, addresses, phone numbers, recipes, expenses, sales, accounts, personnel files, indexes of record collections, stamps, books and articles—that has a consistent *form*. Computers are ideally suited to storing these lists because they can enter the information consistently and with a minimum of effort, and more important, can retrieve and use the information in a wide variety of ways.

A database management program like *Pocket Filer* enables you to set up a consistent form for entering information, and to retrieve it. From a database of recipes, for example, database managers let you find all dessert recipes that use eggs, or from a database of mailing labels you can determine club members who live in your telephone area code and have attended a meeting in the last year.

Terms: Imagine a list of 50 club members. The list as a whole is a *database*, i.e. the raw data. The information for each member is a *record*; in this example the database consists of 50 records. Each record is divided into *fields* for information such as the members' names, addresses and phone numbers.

Floppy disks store everything in what are called *files*. The database (the list) is stored as a *sequential* file. The form that each record takes, including a space allowance for each field, is stored as a *screen layout* file. A separate form to arrange a print-out (hard copy) of some or all of the list is a *print layout* file.

Databases Made Easy

Mailing lists, addresses, telephone numbers, recipes, inventories and other information can be stored and easily retrieved with *Pocket Filer 2*. And like all software programs from Digital Solutions Inc., *Pocket Filer* has extensive on-screen help, sensible and easy-to-learn commands and a surprisingly low price.

Fast, sophisticated and easy to use, *Pocket Filer 2* offers standard database manager features, plus...

- up to **255 fields per record** (maximum 2,000 characters in a record)
- number of records virtually **unlimited** (except by storage capacity on a disk)
- optional **password protection** that can limit access to 7 different functions, including viewing, modifying, adding and printing records
- optional **hidden passwords**
- **configuration file** to let you set editing options when you load the program
- choice of **16 colors** on-screen
- flexible full-screen editing of screen layouts, including **move, copy** and **delete**
- formatting including **centering, left or right alignment** of data in a field; setting **dollar signs, commas, percentages** and **decimal places** in numbers
- **French and other characters**, enabling operation in several languages
- **restore a field or record** in case you enter data incorrectly
- search records with **wild cards, fast searches** and **slide searches**
- editing controls including **delete record** and **go to record**
- **delete batch of records** with matching search criteria
- **memorize** selected fields to **add similar data**
- full-featured **calculator**
- **expanded math language** in entering records and in reports
- **sorts** by up to 9 criteria with an optional **high speed sort**; can save 9 different sorts
- **automatic index update** as records are added or changed
- **update records to disk** automatically or with a key
- display number of **free records available on disk**
- **subtotalling** on any sorted field
- **text comparisons** within math language
- **print** customized reports **on paper** or **on the screen**, including from any record to any record, and selected subfiles
- **headers** and **footers** in reports
- print **labels** in multiple columns
- **arithmetic** and **trigonometric** functions in reports with **16-digit accuracy**
- **two databases** in the same format **can be merged**
- easily customized to any printer; prints **multiple copies**
- **loads quickly** on 1541 and 1571 disk drives

Extra features for Commodore 128 users:

- ■ twice the **speed** and more **memory**
- ■ **automatic load**
- ■ **80-columns** on-screen
- ■ **second drive** can be used for **fast restructure** and **physical sort**
- ■ **mouse compatibility**, with **pull-down menus**
- ■ **RAM disk** for systems with a 1700 or 1750 memory expander
- ■ choice of **25 or 50 lines** on the screen, with independent color choice
- ■ **disk drive assignment** for easy handling of extra drives

Using This Guide

Two factors make *Pocket Filer* easy to use: commands are simple (usually using the first letter of the function) and help screens are available for major functions. That means you can learn the program on the computer rather than by studying a long manual. We suggest reading all the Getting Started section. But after that, use the help screens; refer to this guide only when you want more detail.

Major sections of the guide are:

Getting Started: how to begin working with *Pocket Filer*, and how to create a work disk for your data files. A typical use—a mailing list—is outlined to give an idea of what functions you'll employ.

General Functions (features common to working in any of the four modules):

First Glance—the keyboard, the command line and the cursor.

Configuration—options you can change after loading, or set for when the program loads again.

Commodore Key Functions: functions common to all modules—load files, directories of disks, disk commands, install printer file, quit and exchange modules. Commodore Key functions particular to one module are described under the module.

Create: how to create a new screen layout or modify an existing layout, using editing tools and ranges. Field options—controls over data entry—are described, plus loading and saving files, and math files that will perform calculations in Enter/Edit.

Enter/Edit: how to enter data into a database's records, move between records, search for particular records, and delete records. Protection of files, by setting up password privileges or by encoding data, are covered, as well as sorting files and a calculator.

Report: how to establish a form for printing out records from a database, including for labels. A large variety of mathematical and other logical functions are available in generating reports, and sophisticated search and sorting tools can be used to select records from a database. Print options, including creating selected subfiles and disk files, are also covered.

File Utilities: how to make backup copies of your files quickly and easily, and how to restructure a database, including the ability to convert Commodore Sequential databases to use in this program. Also how to use database files created by other programs, and how to merge records from two databases.

RAM Expansion Disk: how 128 users with a RAM expander can easily and quickly copy files and perform other functions.

Mouse with Pull-Down Menus: how 128 users with a mouse or joystick can run the program using menus.

Appendices: *Trouble-Shooting* explains disk errors and how to solve problems that aren't dealt with elsewhere.

Creating a Printer File ensures all your printer's capabilities are used.

Integrating Pocket Software outlines how to get the most out of using *Pocket Filer* with Digital Solutions Inc.'s *Pocket Writer* word processor and *Pocket Planner* electronic spreadsheet.

Command Summary provides a quick guide to all the major commands.

Index lists functions and commonly understood terms in alphabetical order. Use it to quickly find functions in this guide and to clarify terms.

128 Users: Sections in this guide explaining special features for Commodore 128 users are enclosed in a box like this for easy recognition (except for small points mentioned in text). In the Contents and Index, items with special information for 128 users are marked with asterisks (*).

Getting Started

What you need

Pocket Filer 2 is designed for the Commodore 64 or 128 computers, using a 1541 or 1571 disk drive and a TV or monitor. The manuals for your hardware tell you how to connect these components.

If you have two single drives, it's common to load the program (see below) on device 8 (drive 0) and assign drive number 1 to device 9 in the "configure" file to work with storage disks (page 21) on the 128. With two single drives on the 64, you can load the program on device 8 and switch to device 9 to use storage disks (page 19).

You'll also need at least one 5 1/4-inch floppy diskette (called a disk) to store data files, in addition to the disk containing *Pocket Filer*.

128 users may run the program with a Commodore 1350 or 1351 mouse or a joystick instead of the keyboard. 128 users may have a 1750 RAM Expansion Module (512 kilobytes) or a 1700 expander (128K), both of which serve as a fast internal disk drive.

To print your data files on paper (called hard copies), you'll need a compatible printer.

To create individually customized form letters, you'll need a compatible word processing program such as *Pocket Writer 2*, a powerful Digital Solutions Inc. program designed to work with *Pocket Filer 2* (see page 86).

Let's Go!

On the 64 — Side B

The following instructions are for loading *Pocket Filer* on the Commodore 64 (or the 128 in 64 mode). To load *Pocket Filer* on the Commodore 128, see the box on the next page.

Load the Program: When the disk drive, monitor and Commodore 64 keyboard are properly connected, put the *Pocket Filer* disk in the disk drive (in drive 0 if you have a dual drive) with Side B facing up.

Now type: **load "*" ,8** (which appears in capitals) and press < **RETURN** >.

The screen should show: **"SEARCHING FOR *"**
"LOADING"
"READY."

Now type: **run** (also appearing in capitals) and press < **RETURN** >.

(If the screen shows **"?FILE NOT FOUND"** after you enter **load "*" ,8** and press < **RETURN** >, or if another file loads, enter **open 1,8,15,"i"** and press < **RETURN** >. Now, try to load again.)

Now the screen shows **"Pocket Filer 2"** and the Main Menu:

"f1 — Create"
"f3 — Enter/Edit"
"f5 — Report"
"f7 — File Utilities"

If you want to: *create or modify a layout* for a database –press < **f1** >
view, add, change or sort data –press < **f3** >
generate or print a report from a database –press < **f5** >
alter a database or backup (copy) a data disk—press < **f7** >

After you press a function key, it's highlighted. Then the screen flashes for about 15 seconds as the program module you've chosen is loaded and "**Pocket Filer 2**" appears in large type, along with a list of printer files.

If you load the program on the 64 computer with Side A up (the 128 program), "**Turn disk over for 64 version. Hit a key**" appears on the screen. Remove the program disk from the drive and re-insert it with Side B facing up. Then press a key and after the computer returns to BASIC, enter **load"★",8** as above.

Choose a Printer: When the module you chose loads, a title page appears with a list of printer files. To be able to print (page 66), you need to load a printer file.

Move the cursor to the name of your printer (choose any if you don't intend to print) and press < **RETURN** >. After the printer file is installed, you're never again asked to choose a printer file as long as the program is loaded.

Timesaver: If you're not planning to print, you can save time by holding down the Commodore key (< **C** >, at the bottom left of the keyboard) when the program is loading. Even after the title page is displayed with the choice of printers, you can save a few seconds by pressing < **C** > instead of choosing a printer. In either case, you arrive directly in the Main Menu.

To print later on without reloading the program, install a printer file (page 27).

On the 128—Side A

Side A of the *Pocket Filer 2* disk contains an 80-column program, employing the full capabilities of the Commodore 128 computer and all the features available. It loads automatically on the 128 if the program disk is in the drive, with Side A up, when the computer is turned on or reset.

Before turning the Commodore 128 on, make sure the < **40/80 DISPLAY** > key is in the *down* position. This tells the computer you want the screen to show 80 columns.

Also before turning the computer on, put the program disk in the disk drive. Now turn the power on and the program loads automatically, displaying "**BOOTING POCKET FILER 2...**".

If the computer is already on when the program disk is put in the drive, load the program by typing **boot** (which appears in capital letters) and pressing < **RETURN** >. "**BOOTING POCKET FILER 2...**" is displayed, but this time with a list of printer files. Move the cursor to the name of your printer and press < **RETURN** > (or use the timesaver above).

Next, the screen shows the title "**Pocket Filer 2**" in large type, and the Main Menu:

"**F1—Create**"
 "**F3—Enter/Edit**"
 "**F5—Report**"
 "**F7—File Utilities**"

If the < **40/80** > key on the 128 computer is *up* (to use 40 columns), "**Turn disk over for 64 version**" appears on the screen. Only Side B has a 40-column program.

—To use the 128 program (80 columns), press the < **40/80** > key *down* and press the computer's reset button (or turn it off and then on).

—To use the 40-column version (64 program), remove the program disk from the drive and re-insert it with Side B facing up. Then enter **load"★",8** as described above, or press the reset button.

RAM Expanders: If you have a RAM expander for a 128 computer, all four modules are normally loaded into it when the program loads. Loading takes a few seconds longer this way, but from then on, switching modules is almost instantaneous because you won't have to insert the program disk. (The modules are in the RAM disk; even though they're not listed in a directory of drive 2, they reduce the number of free blocks on the RAM disk.) If you *don't* wish to load modules into RAM the next time you load the program—to save memory for long files—use the "**configure**" file. See page 20.

On the 128—Side B (64 mode)

If you wish to work with 40 columns on-screen on the 128 computer, you may use Side B of *Pocket Filer 2*—the program for the Commodore 64—but only in 64 mode, employing none of the 128's extra speed or the program's extra features. To load the 64 program in 40 columns, switch to 64 mode: enter **go64** and press < RETURN > and follow the usual procedure described above.

The 40-column version loads automatically if the < 40/80 > key is *up* and the program disk (side B up) is in the drive when the computer is turned on or reset. It also loads if you enter **boot** and press < RETURN >. You'll arrive at the same Main Menu as described above for the 64 program.

The 128 uses different connections to the monitor when in 64 mode. See your hardware manuals to find the proper connection, usually a different cable or a switch on the monitor.

Creating a Storage Disk: If a work disk has never been used on a 1541 or 1571 disk drive, it must be formatted. *Caution: formatting erases all information stored on the disk.* It only needs to be done once unless the disk is not functioning correctly.

While in a module, press < **C** > and then type **c**. Place the disk to be formatted (never the program disk) in the drive (in this case, drive 0). Choose a name for the disk and a two-character identifier ("id").

Type: **n0:name,id** and press < RETURN >.

"Format disk in drive 0?N" appears as a safety check. To format the disk, enter **y** and press < RETURN > (to stop formatting, simply press < RETURN >).

Disk Drive Error Message: After about a minute, the disk drive light (red on a 1541 drive; green on a 1571) should go out, indicating that the disk is formatted.

If it flashes, an error is indicated. To read the error, press < **C** >, then type **c** and press < RETURN >—and see the Trouble-Shooting section of this guide.

Sample Database: The *Pocket Filer* disk contains a sample database layout and data file called "address book". To load it, make sure the program disk is in the drive, press < **C** > and type **l** (the letter L). Now enter **address book** and press < RETURN > (or press < **C** >, **d** to get a directory from the disk, put the cursor on "address book" and press < RETURN >).

Using the Program

Create/Modify: If you selected < **f1** > to create or modify a screen layout for a database, "CREATE MODULE" appears on the screen.

The screen has a line at the top for entering commands and displaying information about the program, several lines of help, and the rest is blank. 40 columns appear on the screen (80 on the 128 program), but you can scroll rightward up to the 160th column.

To start a new database, you must create a screen layout for it. Enter any text you want to see on the screen in each record (usually a description of the fields beside them), and press < **f1** > to obtain the character that represents a space in each field for entering data. For example, **First name:** **l l l l l**

When what you want for each record is on the screen, you can control the data entered in each field by pressing < **f5** >. Then a series of questions appears at the top to establish formatting for each field.

Then save the screen layout onto the disk so data can be entered using it. Press < **C** > (the Commodore key at lower left), type **s**, enter a name for the file and press < RETURN >. If the question "Drive number:0" appears, press < RETURN > if you have a single disk drive or if the number of your disk drive is 0, or enter the number of the drive with the disk where the layout is to be saved and press < RETURN >.

To print the layout currently on the screen, simply press < CTRL > **P**.

Ask for HELP—advice on your options—at almost any time by pressing < **f7** > (or < HELP > on the Commodore 128). The first time you press it, you'll get fast but limited help from memory. To get more detailed help from the *Pocket Filer* disk, press < **f7** > again (replace the storage disk with program disk if necessary). Return from HELP by pressing < **f8** > (shift < **f7** >) or < SHIFT > < HELP > on the 128.

If you now want to enter data in the database file whose layout you've created and saved, press < **C** > and type **x** . After the Main Menu appears, press < **f3** > for Enter/Edit. (You may be required, before or after the Main Menu appears, to put the program disk in the drive and to press a key.)

Entering/Editing/Sorting: If you selected < **f3** > to enter, edit or sort a database file, "Load:" appears on the screen. To establish a file or work on an existing file, you must load a record from the database into the computer's memory. (If it's new, the record will be blank.)

First, if the *Pocket Filer* disk is in the disk drive, remove it and insert the storage disk with the screen layout.

Now enter the name of the database you wish to enter or edit and press < **RETURN** > .

The first record of the file appears, with the fields—where data is to be entered—highlighted. If you're establishing the file or adding a new record, the fields are blank.

Enter data in the appropriate fields, pressing < **RETURN** > or < **CRSR down** > to move the subsequent fields and < **HOME** > (twice, if necessary) or < **CRSR up** > to move the top. Press < **f1** > for the next record, < **f2** > for the last record, < **f3** > for the previous record and < **f4** > for the first record. Pressing any of these keys saves the current record if its content has changed.

New data is also automatically saved if you leave Enter/Edit.

To print the record and layout currently on the screen, simply press < **CTRL** > **P** (shift p).

If you wish to enter or edit another file, press < **C** >, type **l** (the letter L), enter the file's name and press < **RETURN** > . (To see a directory of files on the disk, press < **C** > and then **d** . Now you can load a file by putting the cursor on its name and pressing < **RETURN** > .)

To sort a database file on a disk, press < **C** >, **s** . Now "Sort:" appears on the screen. Enter the name of the file you wish to sort and press < **RETURN** > .

Next, the layout appears with the cursor in the first field. Move the cursor to the first field you wish to sort by and press < **f1** >, and do the same for the second and/or subsequent fields (to establish criteria in case the data in two or more records are identical in the chosen fields). To move the cursor around, use the < **HOME** >, < **RETURN** > and cursor keys. While the cursor's in a field, press < **f1** > to sort by it, < **f3** > to stop a field from being used in sorting, and < **f5** > (or < **ESC** > on the 128) to start the sort.

To leave Enter/Edit—to print a report from a database file, for example, or to create a new layout—press < **C** > and type **x** . The Main Menu reappears; this time press < **f5** > to print or < **f1** > for Create.

Generating Reports/Printing: If you selected < **f5** > to print a report from a database file, "Load:" appears on the screen. To generate a report or print it, you must load it into the computer's memory.

Also, you must establish a layout for printing in much the same way as in Create. You can change the text surrounding the fields, rearrange the order of the fields and omit selected fields, and print selected records. You can also establish mathematical and logical functions to update fields and provide data for overall calculations, such as a total of sales.

Then you can print the database, choosing options such as multiple columns (eg. for mailing labels), selective records and using indexes; you can also create a selective subfile.

File Utilities: If you selected < **f7** > to backup a data disk, you're asked to choose between backup, restructure, convert or merge files. Backup lets you copy a selection of files onto a new disk without individually loading and saving them. Restructure lets you change the order, number and size of fields in a screen layout and saves the data according to the new layout. Convert permits loading of database files created by other programs, and Merge puts two databases together.

Each proceeds from a series of questions on the command line.

Typical Use—A Mailing List

Pocket Filer has many uses, but the most frequent application is to create a mailing list, both to print labels and to individualize form letters. The following example of a mailing list is in a sequence also used (approximately) in this guide. It uses a sample file named "address book" that is on the program disk.

To protect the program disk, we recommend transferring the “address book” files onto a storage disk before using them. See File Utilities module, page 71.

The “address book” database consists of several *fields* (types of information, set up in a form) including: first name, last name, street address, city, state, zip code and phone number. It has five *records*, i.e. data has been entered for five people.

After loading the program and arriving in the Main Menu, you may *display* the first record by selecting Enter/Edit and you can edit records or enter new ones. You can move forward or backward one record at a time, or move immediately to the file's first or last record. You can *search* for records with particular data in one or more fields (such as last name), or *go to* a specific record if you know its identifying number. Then you can *edit* (change) a record or *add* a new record.

If you want to *create a new file* of records, you need a *layout* (plan) that defines each field in a record, including its length and position. You can use or modify the layout of “address book”, or create a completely new layout.

You can *sort* a file's records alphabetically by last name, or numerically by zip code, to facilitate mailing. You can generate a *report* on a file, arranging fixed data, choosing particular (or all) fields and calculating information from the file. Then you can *print* a report onto paper, perhaps in the form of mailing labels or a list. By sorting a file first, you can select the order in which it is printed—for instance by zip or postal code.

When finished working with your database, you may wish to *backup* (copy) files for safety. If you need more fields, longer fields or fields in a new order, you can *reconstruct* the database in a new form. You can also arrange to load databases created by other programs, and to merge two databases into one.

Help

You can get help—advice on your options—at almost any time simply by pressing the < f7 > key, or < HELP > on the Commodore 128. While you're getting assistance, the data on the screen is safe: as soon as you return to the current module, the data returns to the screen.

In most cases, you can press < f7 > or < HELP > again for more detailed help from the program disk, which may require replacing a storage disk in the drive with the *Pocket Filer* disk. *Warning: don't change disks if the disk drive activity light is on.*

To exit help and resume work, press < f8 > (shift < f7 >) or < SHIFT > < HELP > on the 128, and replace the program disk with your storage disk, if appropriate.

Create offers help with cursor movement, editing, ranges, and loading, saving and verifying files. *Enter/Edit* has help with cursor movement, editing tools, movement between records (including searching), and password protection, after a record is loaded. There's also help for sorting records after < C >, s.

Report contains help on creating a print layout, mathematical and other logical functions after a layout is loaded. After pressing < C >, help is available on loading, saving and verifying layouts. For printing options (including subfiles), help is automatically displayed.

File Utilities automatically displays help for backing up (copying) files, restructuring (altering) or converting (from other programs) a database, or merging two databases.

To get help on *other major functions and switching modules*, press < C > before < f7 >. Also, after pressing < C > and i or c (to install a printer file or send a disk command), you can get further help. For directories, help appears automatically while you're entering and in a directory.

When *Pocket Filer* is first loaded, six lines at the top of the screen are used to display help. If you want to use these lines to display more of a file—while losing the ability to get help—hold < CTRL > and press h. When you want help, press < CTRL > h again before < f7 >.

If you prefer to have the help not appear when you load the program, turn it off in the “configure” file (page 18). At any time, of course, you can still obtain help by pressing < CTRL > h and < f7 >.

General Functions

First Glance

The Keyboard

Pocket Filer uses every key on the Commodore 64 keyboard as indicated on top of the key, with one exception: The leftwards arrow key at the top left is used for tabs.

Characters that you may type include letters, numbers, punctuation and # \$ % + - @ * ↑ ↓ < > = (and others—see “French and Other Characters”, page 16). Note the difference between 0 (the number zero) and O (capital letter o). Holding down a character key will repeat it until the key is released.

Function keys—< f1 > through < f8 >—and the Commodore key < ⌘ > have special duties.

Other functions are performed using the < CTRL >, < SHIFT > and other keys in various combinations.

In this reference guide, function keys are enclosed by < and > and boldfaced when they are to be pressed. Most of these should be pressed once and released, but the < INST/DEL > and two < CRSR > keys may be held down to repeat their functions. < CTRL > and < SHIFT > don't activate anything by themselves, and should be held down (sometimes together) while other keys are pressed.

To press an even-numbered function key—< f2 >, < f4 >, < f6 > or < f8 >—press < SHIFT > and the corresponding odd-numbered key—< f1 >, < f3 >, < f5 > or < f7 >.

The two keys at the upper right each have two functions. To perform the *lower* function on the keys—< HOME > and < DEL >—simply press them. To perform the *upper* functions—< CLR > and < INST >—press < SHIFT > at the same time.

128 Keyboard Changes

All of the Commodore 64's keys are included in the 128 keyboard, and they all—except for one function, capitals mode—operate in the same way in this program. In addition, the 128 keyboard has several new keys which save time and effort, and a numeric keypad.

These keys:

< HELP >
 < SHIFT > < HELP >
 < ESC >
 < ENTER >
 < TAB >
 < SHIFT > < TAB >

gray arrow keys
 numeric keypad

< CAPS LOCK > replaces

perform the same function as:

< f7 > (obtains help)
 < f8 > (exits help)
 < f5 >
 < RETURN > (enters data/executes functions)
 < ← > (moves one tab rightward)
 < SHIFT > < ← > (moves one tab leftward)

< CRSR > keys
 numbers on top row

< CTRL > C (enters/exits capitals mode)

This guide uses < CTRL > instead of the 128 keyboard's < CONTROL >, and lower case for function keys < f1 > through < f8 > instead of the 128's upper case.

Command Line

The line at the very top of the screen is called the *command line*.

At the left, it identifies the program as *Pocket Filer* (on the Commodore 128 the program name is always present; on the 64 it disappears as soon as a file name appears) and displays the name of the current file on the screen, if any. At the right, it displays the cursor's position on the screen (see below).

The command line also contains other data specifying the state of some functions, such as if you're in insert or capitals mode (page 16).

When required, the command line displays other information, such as questions to answer before a function is performed and space to enter answers. The cursor then appears on the command line as a flashing one-character block, indicating exactly where to enter data. It can be moved right, left or HOME (see Cursor Movement, page 30).

If a question requires an answer using letters (often y or n for Yes or No), you may enter UPPER case or lower case letters. Whatever you enter, the letters appearing on the screen will be upper case. In this reference guide, lower case letters are used.

Usually, the answer is registered with the computer only after you press < RETURN >.

128 Command Line: Instead of one area of the command line indicating editing mode changes (insert or capitals mode, or reversing the delete character direction—below), the 80-column version on the Commodore 128 reserves space for each one. Thus, each editing mode you enter is indicated on the screen—and stays there until you exit the mode.

In the 40-column version on the 128, as above, an indicator of one mode may overwrite another when a new editing mode is selected.

The Cursor

The flashing square that appears when you arrive in *Pocket Filer* module is the cursor. It shows exactly where you can enter or delete text or define certain commands. It changes form as needed, and also can be altered by the user when it's a one-character block (page 20).

In Create and Report, the *cursor location* in a screen or print layout is indicated on the command line (see above) as follows:

“C=” shows the Column (horizontal) position (from 1 to 160)

“L=” shows the Line (vertical position from 1 to 160 in a screen layout, unlimited in a print layout)

In Enter/Edit, the cursor remains within defined fields when it's in a record. Then:

“R=” shows the Record number

“F=” shows the Field number

In the Password Table, the cursor is a solid block covering the words when it's moving among them.

In File Utilities, the cursor is a screen-wide solid block when you're selecting files for backup (copying); otherwise it's a one-character block.

Editing Modes

These modes, which can make editing text on the screen easier and faster, are similar to those in *Pocket Writer 2*. All are toggle functions: the same keystrokes that turn them on also turn them off. They don't operate on the command line.

Note that the insert mode command is different than in the word processor.

To enter/exit these modes:

press these keys:

Insert on (inserts every character)

—< CTRL > i (“INS” appears on the command line)

Insert off (overwrites each character)

—< CTRL > i again (“INS” disappears)

Capitals on (enters letters as Capitals)

—< CTRL > C (shift c) on the 64 (“CAP” appears)

< CAPS LOCK > on the 128

Capitals off (reverts to normal again)

—< CTRL > C or < CAPS LOCK > again

Edit delete on (deletes space cursor is on)

—< CTRL > e (“EDT” appears)

Edit delete off (deletes space before)

—< CTRL > e again (“EDT” disappears)

On the Commodore 64's command line, “INS” takes priority and overrides “CAP”, which overrides “EDT”. That is, if you're in insert mode and then enter capitals mode, “CAP” will not replace “INS” on the command line.

The Commodore 128's command line reserves separate space for each editing mode indicator.

French and Other Characters

A set of characters from the French alphabet is available on the screen (including on the command line) and can be printed if your printer has them.

You can substitute different characters by entering new dot patterns in the “french chars” file on the program disk, saving the file and re-installing the printer file (page 28) or reloading the program. To print substitute characters, change the appropriate codes in the printer file (page 85).

Press < CTRL > and 1 2 3 4 5 6 7 8 9 0 ← or £
 to get: é è ê à â û ô î ú ç ë or ï

Other characters are also available, although again not all printers can produce them. Note the underline character produced by < **SHIFT** > * . π (shift \uparrow) is the mathematical value pi.

Press < **SHIFT** > and + - £ @ * or \uparrow
to get: { } | , _ or π

Configuration

Pocket Filer offers several controls over the screen and various functions. All of these have default settings, but you can change them at any time while in one of the three main modules. Also, you can change them for future use when you load the program by changing the "configure" file on the *Pocket Filer* disk.

Below this section is a copy of the "configure" file with the default settings, which you can load from the *Pocket Filer* disk while in Create. (If you try to load it in another module, "File not found" appears.)

Since the "configure" file is a Commodore Sequential file, you must be in Commodore Sequential ("SEQ") file mode to load it (page 37). Press < **CTRL** > a, enter s (for Sequential), and press < **RETURN** >.

Now press < **C** >, l (the letter L), enter "configure" and press < **RETURN** >. (Or you can load it from a directory of the *Pocket Filer* disk—by pressing < **C** >, d, moving the cursor to the line with "configure" and pressing < **RETURN** >.)

After changing any option you want, save the file. While it's still on the screen (and you're still in Commodore Sequential file mode), press < **C** >, s and press < **RETURN** >.

The following is the list of options in the "configure" file and instructions on how to change the settings, at any particular time while using the program, or on the "configure" file for future use.

Display Help=ON	(help display lines are ON; can be OFF)
Dump Help=OFF	(help in memory is available; can be ON to clear extra memory for files—64 only)
Printer=	(installs any named printer file—see page 28)
Color1=3	(characters in the file cyan)
Color2=1	(command line and other fixed data white)
Color3=0	(file background black)
Color4=9	(border brown)
Color5=6	(background in help area blue)
Color6=14	(text in help area light green)
Color11=12	(cursor medium grey)
Color12=3	(bottom line of help cyan)
Password display=ON	(passwords appear on screen; can be OFF to hide them)
Disk=	(identifies disk drive device number in the 64 program, from 8 to 31; default is 8)
Drive=	(sets the particular drive number to avoid query in the 64 program; can enter 0 or 1)
Default File=	(sets any named file as the default)
Auto index=ON	(automatically updates index when records added/changed; can be OFF—page 45)
Bell=ON	(sets error bell ON; can be OFF)
Delete=NORMAL	(< DEL > removes character left of cursor; to reverse direction, enter EDIT; see page 16)
Flash=ON	(cursor flashes; can be OFF)
Cursor=BLOCK	(cursor is block; can be UNDERLINE)

128 Configuration

The following are additional configuration options for 128 users:

Modules to RAM disk=ON (loads all four modules into a 128's RAM expander at start-up; can be OFF to save memory for files)

Video Display=25	(25 horizontal lines are displayed; can be 50 on the 128)
Vcolor1=3	(characters in the file in 50-line display)
Vcolor2=1	(command line and other fixed data in 50-line display)
Vcolor3=0	(file background in 50-line display)
Vcolor4=9	(border in 50-line display)
Vcolor5=6	(background in help area in 50-line display)
Vcolor6=14	(text in help area in 50-line display)
Vcolor11=12	(cursor in 50-line display)
Vcolor12=3	(bottom line of help in 50-line display)
Assign0=0,8	(assigns numbers to drives)
1=0,9	
2=RAM	(memory expansion used as internal RAM disk drive)
3=1,8	
4=	
5=	
6=	
7=	
8=	
9=	
Memory buffer=ON	(the file is buffered in internal memory; can be OFF. See page 45)
Buffer update=	(can enter a number from 1 to 255; will update to disk after specified number of additions/changes to records; can be OFF—page 45)

Help Display

When *Pocket Filer* is first loaded, six lines at the top of the screen are used to display help.

If you want to use these lines to display more text instead of help, press < **CTRL** > **h** again to turn help on (a toggle function).

Configure File: Replace “ON” with **OFF** if you want the maximum space on the screen used for layouts, files, etc. After the program is loaded, you can still get help by pressing < **CTRL** > **h** before < **f7** >.

Dump Help (64 only)

If you want extra memory made available to be able to handle indexes of long files or long math files, enter **ON**. When you re-load the program, about 5K (kilobytes) more of memory will be available. However, you will not be able to obtain help, even disk-based.

The help is not dumped from the program disk; it is dumped from the computer’s memory when the program loads.

If you have dumped the help and later want to be able to get it, load the “**configure**” file and enter **OFF** after “**Dump Help**=”. Then quit the program and re-load it; this time you can get help.

Display Help: “Dump Help” is independent of “Display Help”, which determines whether help already in memory is displayed.

- Suggestion:**
1. If you are learning the program, leave “Display Help” ON and “Dump Help” OFF (the default settings). The program loads with help on the screen at all times.
 2. If you know the program well and regularly need extra memory, set “Dump Help” to ON (which makes “Display Help” irrelevant). Help is now unavailable unless you change the setting in the “**configure**” file, save it and reload the program.

Color Control

You can change the color of almost everything on the screen—command and input lines, characters, the border, cursor, background and help.

Sixteen colors are available by pressing < **CTRL** > and a function key whenever you can edit text on the screen (not if the cursor is on the command line). Each time this combination is

pressed, a part of the screen appears in a new color (including black), until the 16th pressing brings you back to the beginning of the cycle.

<u>To change the color of:</u>		<u>press < CTRL > and:</u>
1. characters in the file	—	< f1 >
2. command line (and other fixed data)	—	< f2 >
3. file background	—	< f3 >
4. border	—	< f4 >
5. background in help area	—	< f5 >
6. text in help area	—	< f6 >
11. cursor	—	< f7 >

Configure File: The numbers representing available colors are:

0: black	4: purple	8: orange	12: medium grey
1: white	5: green	9: brown	13: light blue
2: red	6: blue	10: light red	14: light green
3: cyan	7: yellow	11: dark grey	15: light grey

To change the color of a screen part when the program loads, enter the desired color number (0 to 15) after “=” opposite the number representing the part you wish to change.

Password Display

When you enter a password to deal with a protected file, it normally shows up on the screen like any other text. For extra security, you can hide them.

After “Password display=”, enter **OFF**. The next time you load the program, password characters will appear on the screen as hyphens (-), except for spaces.

Device Number

The computer identifies devices attached to it, such as disk drives and printers, by a number.

If your device has a number other than the defaults (see its manual) or—more commonly—if you have more than one device attached, you may direct the computer to deal with a particular device. In the 64 program, you can change either the printer or disk drive device number using the command given below. In the 128 program, this command changes only the printer number; to change the disk drive device number, see Drive Assignment (page 21).

If you have two single drives, you may wish to load the program on device 8 and then change the device number to 9 to work with storage disks. You’d need to switch back to 8 probably only to install a different printer file or get help from the program disk.

Press < CTRL > D (shift d). Now:

“**Disk device number:8**” appears on the command line in the 64 program, referring to the usual number that identifies a device as a disk drive. Change the number if your drive device needs a different identifier and press < RETURN >. (If your disk device number is other than 8, you must load *Pocket Filer* using that number in place of 8 in the line load“*”,8.) Now:

“**Printer device number:4**” appears, referring to the usual number assigned to a printer device. Change the number if you wish (to one from 4 to 7, inclusive) and press < RETURN >. You then return to the current module.

Drive: The default number for the drive number is 0 or the most recently accessed drive.

Normally, you’re asked to specify the drive number when saving, loading or performing a disk function. To specify a different drive in a disk function, enter 0 or 1 followed by a colon before the file name. (You must do this each time; there’s no query on the drive number.)

If you’ve set the drive number in the “configure” file, and want to specify a different drive in a disk function, as above, enter the number followed by a colon before the file name.

Configure File: If the computer identifies the disk device number as other than 8, enter the number (from 8 to 31, inclusive) after “Disk=” to set a default.

If you have two single drives, set this to the number of the second drive (usually 9). Then after loading the program on one drive (usually 8), the computer goes to device 9 to deal with data. You won’t need to switch back to 8 except to install a different printer file.

You can also specify the particular drive to access. Single-drive systems use the number 0; dual systems use 0 and 1. If you wish the normal drive accessed to be 1, replace 0 with 1.

The Printer Device Number can't be changed on the "**configure**" file. Use **< CTRL > D** as needed.

At any time while the program is loaded, you can change these numbers, as described above. (To change the particular drive number from that set in the "**configure**" file or from the most recently accessed drive, enter the number followed by a colon before the file name.)

Default File

If you wish the command line to display a particular file name the first time you're required to enter one (after you choose a module when the program loads), enter the name after "**Default File=**". This is useful mainly if you normally use *Pocket Filer* with one database. (Of course, you can enter a different file name if you wish to use a different database.)

Error Bell

Most monitors make a bell sound when an error is made, such as a "**Syntax error**" in a formula, overfilling the memory, or when a disk error occurs.

If you don't want to hear the bell, press **< CTRL > B** (shift b). "**Bell OFF**" appears on the command line.

To turn it on again, press **< CTRL > B** again (toggle). Now "**Bell ON**" appears on the command line.

Configure File: Replace "**ON**" with **OFF** if you don't want to hear the error bell. At any time while the program is loaded, you can turn the bell on or off by pressing **< CTRL > B**.

Cursor Type

When the program is first loaded, the cursor appears as a single-character, flashing block whenever it's in the command line, a layout or a record (i.e. when you can edit). However, you have options.

When you press **< CTRL > *** (the asterisk key)

<i>once</i>	the cursor becomes a solid block
<i>twice</i>	it becomes a flashing underline
<i>thrice</i>	it becomes a solid underline
<i>a fourth time</i>	it returns to a flashing block

Configure File: To make the normal cursor solid rather than flashing, make **Flash=OFF**. If you want the normal cursor to be an underline, make **Cursor=UNDERLINE**. To change back, make **Flash=ON** and/or **Cursor=BLOCK**. At any time while the program is loaded, you can change the cursor type.

Modules to RAM Disk

The 128 program loads one module into the computer's memory, the one chosen from the Main Menu (page 11). The other three modules are loaded from the program disk when you switch to them.

But if you have a RAM expander for the 128, all four are usually loaded into the RAM disk (drive 2), which makes switching between them fast. They don't appear in a directory of drive 2, but are present and occupy memory.

If you wish to preserve RAM expander memory for long files, enter **OFF** after **Modules to RAM disk=**. The number of blocks free in drive 2 will increase (shown in a directory), but switching between modules will be slower.

Video Display (50/25 lines)

The Commodore 128 can display 50 horizontal lines on the screen at once instead of the normal 25, allowing you to see more of the current layout or record without scrolling. However, the characters are smaller and some flickering may result.

To minimize the flickering, change the colors as usual (page 18); they're independent of the colors in 25-line display. You can also set colors for 50-line display in the "**configure**" file, where they're identified as "**Vcolor=**".

To display 50 lines on the video screen, press **< CTRL > V** (shift v). If the characters are flickering, try changing some of the colors (page 18).

To change back to 50 lines on the video screen, press **< CTRL > V** again (it's a toggle function).

To change the video setting in the “configure” file, enter 50 or 25 after “Video Display=”. The default setting is 25.

Colors for Video Display (50 lines)

A completely independent set of colors is available for 50-line display on the 128 computer (see above). These are obtained, as usual, by pressing < CTRL > and < f1 > to < f7 > (which doesn't change the colors set for 25-line display).

You can also set colors for 50-line display in the “configure” file, where they're identified as “Vcolor=”.

Drive Assignment

Whatever your combination of disk drives (single, two singles, dual and/or RAM disk), this feature simplifies identification of each drive by assigning it a number. Up to 10 drives may be assigned single-digit numbers.

The number *before* the colon (“AssignN”, where “N” is 0 to 9) is the number used to identify a particular drive; the two numbers *after* the colon (except for the RAM disk) refer to the standard drive number and device number. Standards for different equipment are:

- Single (and first) drive —drive 0, device 8
- Second of two single drives —drive 0, device 9 (different device number)
- Second drive of a dual drive—drive 1, device 8 (different drive number)

Default settings given are likely the simplest (and thus the best) for users with only one drive, two single drives and/or a RAM expander. The first drive is identified as 0; the second (if any) is 1; and the RAM disk (for those with RAM expanders) is always 2. A change is recommended below for a dual drive.

Note: For this configuration option, you can't change the disk assignment after the program is loaded (< CTRL > D now changes only the printer device number). To change the assignment, load the “configure” file, change the numbers in it, save it and reload the program.

Default settings—the numbers you'll use to identify drives—are:

- SINGLE DRIVE: 0 (no change from current assignment)
- TWO SINGLE DRIVES: 0 and 1 (the second drive is identified as 1, in effect treating two single drives as a dual drive.)
- RAM EXPANDER DISK DRIVE: 2

DUAL DRIVE: for this system, a change is recommended for simplicity:

- Assign0=0,8 (unchanged)
- 1=1,8 (the other drive of the dual)
- 2=RAM (unchanged)
- 3=0,9 (an extra single drive, if any)

Directories from assigned drives are obtained as follows:

< C >, d obtains the directory of all drives assigned and present.

< C >, D loads into memory as a file the directory of all drives assigned and present (in Create).

< C > followed by a number obtains the directory for the drive assigned the number.

“Directory N Pattern:*” appears on the command line, with “N” being the number.

To see all files on the drive, simply press < RETURN >; or enter a pattern and press < RETURN >. See page 24.

Drive Accessed: As usual, “Drive=” sets a default drive to be accessed in performing a disk function (to specify another drive, inserting its number and a colon before the file name). If you have:

- one drive, you can avoid queries by setting it to 0.
- two single drives or a dual drive, it's convenient to load the program on one drive and set this to the assigned number of the second drive, which will access storage disks.
- a RAM expander, which is used as a second drive with a 128 computer, it's usually preferable to leave this blank so it's easier to switch between disks. If you don't specify the drive number, the most recent number will appear as a default.

Commodore Key Functions

When *Pocket Filer* is loaded into the memory of your Commodore 64 or 128, you choose one of four modules: Create, Enter/Edit, Report or File Utilities. These enable you to perform specific functions: to design or modify a layout, enter and change data in a database, print a report, or copy or revamp a database on a disk.

Switching between modules, and functions within a module that access an external device—such as saving or loading a file, seeing a directory of files on a disk, or printing a report—are performed using the Commodore key at the keyboard's lower left, represented by < **C** >. The major functions this key operates are usually selected by pressing the first letter of their name. For example, when you want to install a printer file, press < **C** > and type *i*.

This section describes Commodore key functions that are common to all (or nearly all) modules: Load, Directories, Disk Commands, Install Printer File, Quit and Exchange Modules. Variations in these functions are described under the appropriate module.

The following Commodore key functions are described under particular modules:

Save is under Create and Report (in Enter/Edit, save is automatic—page 42).

Verify is under Create and Report.

Sort is under Enter/Edit.

Print (a report) is under Report.

Calculator is under Enter/Edit and Report

Help: For general help on Commodore key functions—to see the range of available functions—press < **C** > and then < **f7** > (or < **HELP** > on the 128). For help on specific Commodore key functions, press < **C** >, the appropriate letter for the desired function (such as **i s v c** or **i**) and then < **f7** >.

Most Commodore key functions require information entered on the *command line* (page 16). When the cursor is on that line, you can usually move the cursor left, right or HOME to edit the information. Usually the function starts when you press < **RETURN** >; until the function begins, you can return to the previous module by pressing < **C** >.

Timesaver: Whenever you must *enter a file name* on the command line during a Commodore key function, the < **RUN/STOP** > key may help if the file is on the disk in the disk drive. First obtain a directory (see below), and put the cursor on the desired file name. Now press < **C** >, the letter that indicates the function you wish (eg. **c** for disk command, **i** for install printer file or **v** for verify) and then < **RUN/STOP** >. The file name now appears on the command line.

It doesn't matter if the name has an appendix beginning with a slash mark, indicating the file is a screen layout (*/s*), math file (*/m*), index (*/i*) or print layout (*/p*). After you press < **RETURN** >, the program performs the function on the correct file according to the module you're in.

While using a 40-column screen, you'll find that the top lines of the screen that are normally blue change to black when information is being sent to or received from the disk drive or the printer. (On a monochrome monitor, the background color turns darker.) Until the normal color is restored, the computer is busy and can't be used. The disk drive's activity light goes on while it is being accessed.

Exiting: Pressing the Commodore key usually exits from the current function. Before removing a storage disk, be sure to wait for the disk drive's activity light to go out, so that no data is lost.

Loading Files

In order to use a database file that's on a disk, you must load it into the computer's memory, which also displays it on the screen. A loaded file remains in memory until you load another file into memory or exchange modules, although it may temporarily disappear from the screen during other functions (such as obtaining a directory).

A general description of loading and common characteristics between modules are described below; differences are described under each module.

To load non-database files, such as printer files and "**configure**" on the program disk, you must be in Create module and alter the file mode (page 37).

Each module varies in what type of files it loads, and how it loads them:

Create loads screen layouts. Loading is optional: you can create a layout from a blank screen or load an existing screen layout.

Enter/Edit loads database records into a screen layout. It asks what to load as soon as you arrive in the module, and whenever some functions (such as sort) are completed and no record appears on the screen.

Report loads a print layout, which may use fields from the screen layout. It asks what file to load as soon as you arrive in the module.

File Utilities loads a screen layout and records (in restructuring the database) or a variable number of files of all types (in backing them up, i.e. copying them). In both cases, you're asked what to load.

Loading takes a variable amount of time, depending on the length of the file and the type of your disk drive. *Pocket Filer 2* takes advantage of Commodore's 1571 disk drive and 128 computer to "burst" load files about twice as fast as usual. This operates in loading layouts in Report and Create, and in copying files into RAM, for 128 computers with RAM expanders. When loaded, the file (layout or record) appears on the screen with its name on the command line.

Methods

There are two methods of loading files:

- **From a Directory:** obtain a directory of the disk by pressing < **C** > and then **d** . Now put the cursor on the name of the file you wish to load and press < **RETURN** > . The file loads automatically.

The type of file loaded doesn't depend on whether the file name you specify has an appendix; it loads correctly according to the module you're in (see below). An exception is File Utilities, which cannot load from a directory.

See also page 24.

- **By Name:** In Create, and in Report after a print layout is already on the screen, the load function begins with < **C** > and **l** (the letter L). Then the process is the same as when the question is posed automatically (as in Enter/Edit, restructure in File Utilities and Report before a print layout is on the screen).

"Load:" (or "File name:" in restructuring) appears on the command line.

Enter the file's exact **name** (with or without appendices) and press < **RETURN** > . Only when loading a math file in Create must the appendix be included.

File Name

Files that appear in the directory with the appendix **/s** after the name are screen layouts, used in Create. That is, the file containing the data (the records) has the basic name for the file, and the screen layout uses the same name with **/s** appended. Similarly **/l** indicates an index file (used in Enter/Edit), **/m** indicates a math file (used in Enter/Edit), **/p** indicates a print layout (used in Report) and **.pf** indicates a printer file.

When loading (or saving), for example, a screen layout in Create, the name you enter doesn't have to have **/s** appended; the layout with the basic name you enter (or select in a directory) loads in any case. In other words, the current module appends the appropriate suffix before performing the function. (The exception is math files in Create, which must have the correct appendix.)

But if that basic name you have entered—of the database itself—is not exactly the same *before* the slash mark (if any) as one on the disk, "**File not found**" appears on the command line. Try again with the proper name, or load from a directory.

Default Name: After < **C** >, **l** is pressed, the name of the last file that has been accessed from the disk, if any, appears on the command line (after "Load:" or "File name:"). This is often the name of the file you wish to load, in which case there's no need to overwrite it.

Password Protection

If the database whose file you are trying to load is protected with a password other than the Master password (page 47), "**Enter password:**" appears on the command line before the file appears on the screen.

Enter the Master password, or a password with appropriate privileges (page 48), and press <RETURN>; the file now appears. To load a file, Create requires "Modify" privileges, Enter/Edit requires "View" privileges and Report requires "Print" privileges. You can add, change or delete subordinate passwords after loading a record of the database in Enter/Edit (page 47). If you enter a password without the right privileges, "Insufficient privileges. Press a key." appears on the command line. If what you enter is not a password, "Invalid password. Press a key." appears. In either case, the file does not appear and you're returned to the "Load:" question, i.e., as if you had just pressed <C>, I.

Directories

To display at a glance the names of all the files on a disk, press <C> and then d. A directory (list of files) of the disk in the drive appears on the screen, with the disk's name and identifier (which were assigned when it was formatted—see page 27) at the top.

If you have a dual drive, the directory is of both drives.

If you have two single drives, the directory is from the most recently accessed drive or from the drive specified in the "configure" file (page 17). To obtain a directory from the other drive, change the device number (page 19) before pressing <C>, d.

Directories in the 128 Program

Directories from assigned drives are obtained as follows:

<C>, d obtains the directory of all drives assigned and present.

<C>, D loads into memory as a file the directory of all drives assigned and present (in Create module).

<C> followed by a number obtains the directory for the drive assigned the number. "DirectoryN Pattern:★" appears on the command line, with "N" being the number.

To see all files on the drive, simply press <RETURN>; or enter a pattern and press <RETURN>.

If the list of files is longer than one screen, they will scroll up until the bottom of the directory is reached, during which the cursor disappears.

Stop Scrolling: To stop the directory from continuing to scroll, press <C> or <RUN/STOP>. Now you can load the files listed on the screen.

To make the directory pause while scrolling—so you can see the part on the screen and load the visible files—press any other key. To resume scrolling, press another key again.

Each file is displayed on its own line, starting with its name and its type, always "seq" for sequential (which doesn't indicate whether a screen layout is in *Pocket Filer*, *Datafax* or Commodore Sequential mode—page 37). Some may have an appendix beginning with a slash mark: "/s" indicates a screen layout, "/IN" indicates a numbered index file of the database, "/mN" indicates a numbered math file, and "/pN" indicates a numbered print layout ("N" refers to a number). The appendix ".pf" indicates a printer file.

Also displayed is the number of blocks the file occupies on the disk. A block is a unit of 254 bytes, which is equivalent to about the same number of characters.

At the end of the directory (if it hasn't been stopped or made to pause before reaching the end), "BLOCKS FREE = N" is displayed, in which "N" is a number. Each single-sided floppy disk normally has 664 blocks of storage space available when formatted for *Pocket Filer* (a double-sided disk has 1328 blocks available on a 1571 drive). Do not confuse the number of storage blocks free on the disk with the on-screen memory (RAM—random access memory).

Once the directory has reached the bottom or stopped scrolling, basic cursor movement functions (including the <HOME> key but not some rapid movements) function again. Now you can:

load a file by putting the cursor on the file's line and pressing <RETURN>. It doesn't matter if the cursor is on the name with the exact appendix you want; the file will load correctly according to the current module.

scratch a file by putting the cursor on the file's line and pressing **s**. Then "**Scratch [file name] on drive 0?Y**" appears on the command line (1 will appear instead of 0 the file is on the disk drive 1). To scratch the file, simply press **< RETURN >**. If you change your mind, enter **n** and press **< RETURN >**.
Scratching a file erases the line in the directory with the file name. The number of free storage blocks increases, but isn't displayed differently until a new directory is obtained.

return to the current module by pressing **< C >** and then **e**. In Create and Report, you return to the previous layout on the screen (which means that if you just want to look at the directory, you won't have to save the layout first). In Enter/Edit you're asked to load a file, and in File Utilities a question appears.

File Name

In a directory, the original name, with no appended characters, is reserved for the data file itself (the raw data entered as records).

A screen layout saved in the Create module has **"/s**" (for "screen layout") automatically appended to the file name. For example, a layout named as **"addresses"** when the file was saved will appear as **"addresses/s"** on a directory of the disk.

Index files have **"/iN"** appended, where **"N"** is a number from 1 to 9, allowing up to 9 sorted indexes to be stored for each database and used in Enter/Edit.

Print layout files have **"/pN"** appended, where **"N"** is a number from 1 to 9, allowing up to nine print layouts to be stored for each database and used in Report.

When loading a file, the program ignores any slash mark and any following characters: it loads a screen layout in Create, data (records) in Enter/Edit (according to an index, if one is specified) and a print layout in Report, all according to the basic name entered before the slash.

Therefore, whether loading from the directory directly, via the **< RUN/STOP >** key or by typing a file name, you may enter a file name with any appendix after a slash mark or leave one out. (To specify an index file when loading a file in Enter/Edit, you simply answer a question asked before loading any indexed file.)

Directories with Patterns

If a disk contains many files, the directory of them may not all fit on one screen and you may want to see just a portion of them. For the 64 program, if you want to see a directory of just the files with similar names (a pattern) or to load a directory as a file into memory, instead of **d** after **< C >**, press:

- 0 for the directory of *drive 0* (zero) with a pattern
- 1 for the directory of *drive 1* (one) with a pattern
- 2 for the directory of *both drives* with a pattern
- 3 to load a directory into memory (only in Create)

128 Users: the directory commands depend on the assignment of drives. See page 21 in Configuration.

"Directory Pattern:★" appears on the command line (the specified drive number is also displayed if just one drive is being accessed). You may use the asterisk and simply press **< RETURN >** for a complete directory, or enter a different pattern using the *wild cards* **?** and *****.

This may save time if you want a directory from both drives in a dual drive (if you have two single drives, you'll have to change the device number—page 19—before obtaining a directory from the second drive).

If you simply press **< RETURN >** (after **< C >** and **2**), you'll get a complete directory of both drives on the 64 program (see page 21 for the 128 program). Or you can specify a pattern:

***** (asterisk) tells *Pocket Filer* to match only what's typed before it.

For example, to get a directory of every file whose name starts with **"h"** on the disks in drive 0 and 1, press **< C >**, then **2** and enter **h***. All such files appear in the directory with their correct name.

? (question mark) tells *Pocket Filer* to allow any one character or space to substitute.

To get a directory of every file on the disk in drive 0 with one character varied, eg. files names "**May N report**", where N indicates dates from May 1 to May 9, press < **C** >, 0 and then **May ? report** and < **RETURN** >.

Load a directory into memory if you want to record, on disk or on a hard (printed) copy, what files a disk has.

Disk Commands

If you want to scratch (erase) a file from a disk (which frees up storage space), rename a file or format a new disk to store database files, use a disk command—which directly accesses the disk from the program. Also, when a flashing disk drive activity light indicates an error, disk commands are used to view the error.

Press < **C** > and then **c** . Then enter precise instructions as explained below, including the name of a file or disk, before executing the function.

The disk command must specify the drive number, whether or not it's set in the "configure" file.

Entering File Names: When you need to enter the exact name of a file (or disk) on the command line, you may type it or enter it directly from a directory to text using the < **RUN/STOP** > key. This shortcut is known as reading from the screen.

Obtain a directory and put the cursor at the first letter of the file name before pressing < **C** > and **c** . Now press < **RUN/STOP** >, which duplicates the file name onto the command line.

Next, insert three spaces (use < **SHIFT** > < **INST** >) between ">" and the file name to make room for the disk command. If you enter the command before pressing < **RUN/STOP** >, the command is overwritten.

Unlike in Load, Save or other Commodore key commands, the name of any file accessed by a disk command must be precise. That is, you can't ignore an appendix beginning with a slash mark (/) in a disk command. The reason is that disk commands go directly from the program to the disk drive, without taking into account the on-screen file or which module you're currently in.

If the disk drive activity (error) light flashes during a disk function, press < **C** >, **c** and < **RETURN** > to display a description of the error on the command line. See Trouble-Shooting (page 80) for remedies.

Scratching (deleting) Files

Probably the easiest way to erase a file from the disk is from a directory (page 24). The other method is to use the scratch command.

Scratching a file frees the storage blocks that the erased file occupied so that more data may be stored, either new files or longer versions of current stored files. *Scratched files cannot be restored.*

After pressing < **C** > and then **c**, enter:

sN:[file name] in which "N" is the disk drive number (usually 0), and press < **RETURN** >.

For example, entering **s0:letters/s** (and pressing < **RETURN** >) will erase the screen layout file called "letters/s" from the disk in drive 0.

The file name must be exact, i.e. to scratch just a screen layout when other files using the same basic name are on the disk, you must enter the name with the "/s" appendix.

To scratch more than one file in one operation (except on a RAM disk), enter the second file's name (and subsequent names) after the first, separating them with a comma, the drive number and a colon (:) but no spaces. For example, **s0:letter/s,0:reports/s** will erase the screen layout files called "letter/s" and "report/s" on the disk in drive 0.

Pattern Matching: Use the asterisk or question mark wild cards (see Directories with Patterns, above) if you want to scratch more than one file at a time or to scratch a file without entering its full name. For example, entering **s0:i*** would scratch every file whose name begins with the letter "i", and **s0:May ? report/s** would scratch all "May N report" screen layout files (where "N" might represent a date). Be careful; remember that scratched files cannot be restored.

If you scratch a database file (i.e. the records), the associated files are likely of little use. Scratch these too if you won't need them, though you may wish to keep layouts in order to set up other files.

Renaming Files

To change the name of a file on the disk, rename it.

After pressing < **C** > and then **c** , enter:

rN:[new name] = [old name] where “N” is the drive number (usually 0), and press < **RETURN** >.

The file name must be exact; i.e., to rename a screen layout when other files using the same basic name are on the disk, you must enter the name with the “/s” appendix. If you change the name of a layout, the data won’t load into the new layout unless you also change the name of the data file.

For example, if you want to change a screen layout file names “**report/s**” on drive 0 into “**letter/s**”, enter **r0:letter/s=report/s** and press < **RETURN** >.

If the new name (“**letter/s**”) is already on the disk, the disk drive’s activity light flashes and the old name (“**report/s**”) remains. The screen returns to Create with nothing changed.

The name changes only on the disk. If “**report/s**” is on the screen during the change, its name doesn’t alter—if you then save it, both “**letter/s**” and “**report/s**” will be on the disk.

Validate a Disk

To ensure that a disk is storing files compactly, and to update the remaining free disk space, validate it. This function may also help if a disk does not appear to be storing files correctly.

After pressing < **C** > and **c** , enter:

vN in which “N” is the number of the drive containing the disk, and press < **RETURN** >.

Validating takes longer than most functions because all files on the disk are checked.

Note: Do not validate the *Pocket Filer* program disk. Because of the protection system, validating this disk will prevent you from saving any new printer files onto it.

Format a Disk

Before a disk can be used, the whole disk must be formatted by the disk drive (see also page 12 of Getting Started). Formatting maps out the disk into blocks for storage.

It erases the whole disk, so be sure nothing you want is stored on it. Formatting only needs to be done once, unless the disk is not functioning correctly or you intend to erase all files.

After pressing < **C** > and **c** , enter:

nN:[disk name],**ID** where “N” is the drive number and “ID” is any two-character identifier, and press < **RETURN** >.

As a safety check, “**Format disk in drive X?N**” appears on the command line, where “X” is the specified drive number. To format the disk, enter **y** and press < **RETURN** > (to stop the formatting, simply press < **RETURN** >).

Now the disk spins and the current file returns to the screen. During formatting, the file can be edited but you can’t access the disk (except drive 2, the RAM expander on a 128, when the disk being formatted is in another drive). When the disk drive activity light goes out, the disk is formatted and you’re returned to the module you were in. Sometimes you’ll have to repeat the function to format a disk.

When a disk is already formatted, you may use this function to clear it. You may also format a disk to clear repeated disk errors. But first, make sure you have saved every file that you want onto a different disk.

Install a Printer File

When you load *Pocket Filer* to begin work, you’re usually asked to choose the name of your printer from a supplied list. This tells the computer how to implement many of the advanced text formats and enhancements that your specific printer may employ.

If you selected the wrong printer, want to use another printer or decide to create a disk file in ASCII code (usually to communicate with other computers), this function lets you switch printer files without quitting and reloading the program. You can also install a printer file from Digital Solutions’ *Pocket Writer* or *Pocket Planner* program disks.

Also, if you didn’t select a printer but pressed < **C** > as a timesaver (page 11), this function lets you print later on without quitting and reloading.

Put the disk with the printer file (usually the *Pocket Filer* disk) into the drive, press < **C** > and then **i**.

"Install Printer File:" appears on the command line. Enter the name of the printer file and press < RETURN >.

In a directory, printer file names always ends in ".pf". However, you don't need to enter ".pf"; the program assumes this appendix whenever installing a printer file.

There's a shortcut to installing a printer file from a directory: use < RUN/STOP > to read the file name onto the command line as on page 22. After obtaining a directory of the disk the file is on (by pressing < C >, d), move the cursor to the desired printer file name. Now press < C >, i and < RUN/STOP > (which reads the name onto the command line) and then < RETURN >.

If the file you chose isn't on the disk, "File not found" appears on the command line. Otherwise, the file you selected is installed and you can print using that printer (or create a disk file using the selected printer file). The previous printer file, whether selected at the time of loading the program or by installing a printer file later, is replaced by this one.

You're returned to the module you were in.

If your printer isn't listed on the *Pocket Filer* disk, you can try different printer files to see if one works, or create your own printer file, which you can save onto the *Pocket Filer* disk (page 82). As supplied, the disk contains room for one more printer file (up to six blocks are needed). If you wish to add a second, scratch a printer file you don't need (or save it onto another storage disk for future use) to create room.

Never validate the *Pocket Filer* disk, or you won't be able to save new printer files onto it.

The 128 side (A) of the *Pocket Filer 2* disk may contain a useful printer file that the 64 side (B) doesn't, or vice-versa. You can transfer a printer file to the other side—or to any program disk by loading and saving it while in Create module.

A printer file on any *Pocket* program from Digital Solutions Inc. (*Writer*, *Planner* and *Filer*) can be used with any other. That means you can install a printer file from one program disk when using another program. And you can load a printer file from one program (in Create) and save it onto another program disk, after which it will be listed with all the printer files when you load the program.

Once installed, on both the Commodore 64 and 128, the printer file remains installed when you exchange modules (see below).

You can also specify the printer file in the "configure" file (page 17), which installs it automatically when the program is loaded. Simply enter the name of the printer file after "Printer=".

Quit the Program

To leave *Pocket Filer* at any time, quit the program. *Quitting clears the memory*, so before quitting be sure to save the current file, if any, if you want to keep it.

Press < C > and then q . Now:

"Quit?N" appears on the command line as a safety feature. To quit the program, enter y and press < RETURN >. Automatically the computer takes you out of the program into BASIC.

If you change your mind and want to stay in the program, simply press < RETURN >. You're returned to the module you were in.

Exchanging Modules

Once you have chosen a module, you can change to any other. For instance, if you're in Create and want to enter data in the layout's file (probably after saving the layout), you can switch to Enter/Edit. Or if you've entered data and want to print a report of the database, switch from Enter/Edit to Report.

Press < C > and then x .

If you're in Create and attempt to switch modules, you will be asked "Save layout?Y" if you have changed the current layout. To save it, simply press the < RETURN > key. If you don't wish to save the current layout, enter n and press < RETURN >.

"Put program disk in drive. Press a key" appears on the command line in the 64 program.

Put the *Pocket Filer* disk in the drive (if it isn't already), press any key but < C > and the Main Menu (page 10) reappears, with the following choice:

Create/Modify a layout	—press < f1 >	Report/Print	—press < f5 >
Enter/Edit/Sort a database	—press < f3 >	File Utilities	—press < f7 >

The choices are described on page 11, and under Using the Program on page 12.

Exchanging on the 128

In the 128 program, you arrive at the Main Menu immediately after pressing < **C** >, **x** (and answer the “Save layout?Y” question if it appears). After you then press a function key to choose a module, “Put program disk in drive. Press a key” appears (unless all four modules are loaded into a RAM expander). After you do so, the module loads.

If all modules of the *Pocket Filer* program are loaded into a RAM expander disk (page 75), there’s no need to insert the program disk into the drive when switching modules. The Main Menu reappears as soon as you press < **C** > and **x** (and answer the “Save layout?Y” question if it appears.)

If you were in Report or Create, the layout or report in memory is retained if you return to the same module you just left. If you enter a different module, the layout or report is lost (eg. if you switch from Create to Enter/Edit, then the Create layout is gone). And if you return to the same module and load another layout or report, it will replace the previous one. So it’s wise practice to save the current layout before switching modules.

Create Module

A database consists of *files* which you name (such as the “address book” sample file on the *Pocket Filer* disk) with numbered *records* (usually one for each person), which in turn contain *fields* (such as Name, Address, Phone Numbers, etc.).

For the computer to deal efficiently with a database, its records must be set up with fields in a standard form. This also makes it possible to print standardized labels and lists, and to transfer standard lists to other computers and programs.

To establish a form for a file of records, you must *create a layout* of fields in a standard form. This may be done by creating a new layout, or by using or modifying the layout of an existing file (which is often easier).

While data entered on records are stored in a data file, the layout is stored separately as a layout file.

To create a screen layout, you must select the Create module from the Main Menu. Press < **f1** >. When you arrive in Create, the screen displays the command line, six lines for help and blank space to create a new layout.

Creating a Screen Layout

A screen layout must include at least one *field*, consisting of a series of continuous characters on one line. A line may contain more than one field, but a field cannot continue from one line to the next (if you want the field to continue below, simply create a second field).

In Create module, a field appears on the screen as a series of markers (■), produced by pressing < **f1** > once for each space desired for a character. (To repeat, hold < **f1** > down.) If you want to search the database records using logical operators (page 42), make the fields longer than the data they will contain. However, the more markers used in each record, the fewer records can be stored on a disk.

In Enter/Edit module, a field will appear as a highlighted series of spaces, or highlighted characters if data has been entered.

When you print a file, any data entered in a field may be produced on paper according to a print layout that you design (see Report, page 53). Also, the Report module can generate mathematical calculations based on the data in some fields, and enter the data in a separate field in a layout.

A layout may also include text that will appear with each record on the screen. For example, you may want a description for each field, such as “Street:”, immediately before the field.

The text on the screen, in both Create and Enter/Edit modules, may consist of any combination of available characters, usually preceding a field.

When printed, the descriptive text you enter in the layout is not produced unless you specifically enter it in the print layout—see page 54. The descriptive text is saved only in a layout file, not the data file, and is put on the screen each time you see a record purely for your convenience.

Dimensions: Up to 160 characters per line, and up to 160 lines are available to create the layout. The screen can be thought of as a "window" on a square of 160 columns and 160 lines. The screen scrolls sideways and up/down to view any part of the square (see Cursor Movement, below).

Help, from memory and the program disk, is available as soon as you enter the module.

Modify (or Use) and Existing Layout

Instead of creating a new screen layout for each new database file, you can often save effort by using or adapting an existing layout. Of course, to keep the old and the new databases distinct, you'll have to give the new layout a new name when you save it (page 37) for use with the new database.

You may also modify the screen layout for an existing database—within limits. You can safely alter the descriptive constant text, the position (but not order) of fields on the screen and perhaps some field definitions. But if you modify the fields themselves—change their order, length, number or perhaps some definition options—records in the database won't load properly. If you wish to substantially alter a screen layout for an existing database—i.e. change the fields' number, order or major field options—see File Utilities (page 73), which lets you restructure databases onto new layouts.

To use or modify an existing layout, load it as described on page 36. If the database is protected with a subordinate password, you'll need "Modify" privileges (page 48).

Example: to see a sample file on the program disk, press < **C** >, **L** (the letter L), type **address book** and press < **RETURN** > (twice, if necessary).

Below a boxed title at the top of the screen is a list of field descriptions (text) down the left side, with corresponding fields to their right. The layout uses 23 lines, the bottom section of which can be viewed by scrolling downward if they're not all on the screen.

In Enter/Edit module this form appears on the screen for each record, but the record itself consists only of data entered in its fields.

If you wish to modify to modify the layout, change it using the editing controls described below.

When you're satisfied with the layout, save it (page 37) if you want to be able to enter data using it. *Be sure to change its name, even* if the layout you want for the new database is identical to the old layout. If you don't change the name, you really have only one database, not two. And if you've modified the fields—changed the order, length, number or definition options—data in the original database probably won't load properly in the layout.

If the original database was password protected, the protection is carried into the new layout. To alter or remove subordinate passwords, see page 47 in Enter/Edit.

Cursor Movement

To move the cursor:

- right one space* —press < **CRSR right** >. To repeat, hold it down.
- left one space* —press < **CRSR left** > (shift < **CRSR right** >). To repeat, hold both keys down.
- down one space* —press < **CRSR down** >. To repeat, hold it down.
- up one space* —press < **CRSR up** > (shift < **CRSR down** >). To repeat, hold both keys down.
- last character on line* —hold down < **CTRL** > and press < **CRSR right** >
- first character on line* —hold down < **CTRL** > and press < **CRSR left** >
- beginning of next line* —press < **RETURN** >
- right one tab* —press < **←** > at the keyboard's top left (or < **TAB** > on the 128).
Tabs are set every 10 characters, unless you change them.
- left one tab* —press < **SHIFT** >< **←** > (or < **SHIFT** >< **TAB** > on the 128)
- top left of screen* —press < **HOME** >
- top left of layout* —press < **HOME** > twice (or once, if the cursor is at the top left of the screen)
- bottom of layout* —press < **f2** >
- down one screen* —hold down < **CTRL** > and press < **CRSR down** >
- up one screen* —hold down < **CTRL** > and press < **CRSR up** >

Tab: To set or clear a tab, put the cursor at the desired location and press < CTRL > t (it's a toggle function: pressing the same keys turn it on and off).

To clear all tabs, press < CTRL > T. (Tabs aren't saved with layouts, so they don't occupy any disk space. They're a tool to help set up the layout.)

The current cursor location is shown on the command line by "L=" for the line number and "C=" for the column number.

Scrolling: Since the screen can show only part of the potential 160 columns and 160 lines at one time, you need to scroll sideways or up/down to see anything that doesn't appear on the screen. To scroll, simply use the appropriate cursor commands.

For example, if the cursor is at the column at the right side of the screen, press < CRSR right > or < TAB > (or, if there's text further right, < CTRL > < CRSR right >) to move further right.

Editing Screen Layouts

To:

overwrite a character

delete character left of cursor

insert a space left of cursor

enter a field marker

delete a field marker

delete a line

insert a blank line

clear the layout from the current line down—press < CLR > (shift < HOME >). Now "Erase text from cursor?N" appears on the command line; enter y and press < RETURN >.

—put the cursor on it and type the desired character.
—press < DEL >. To repeat, hold < DEL > down.
—press < INST > (shift < INST/DEL >). To repeat, hold both keys down.

—press < f1 > for each character that may be entered in a particular field. To repeat, hold < f1 > down. A field must be continuous.

—put the cursor right of the marker and press < DEL >
—press < CTRL > < DEL >. To repeat, hold both keys down.

—press < CTRL > < INST > (< CTRL > shift < INST/DEL >). To repeat, hold all three keys down.

See also Editing Modes and French and Other Characters (page 18).

Printing the Layout

At any time in Create, you can print a hard copy of the current layout (in the computer's memory). First, however, a printer file must be installed, either by selecting one when you load the program (page 11) or by installing one later (page 27).

Simply press < CTRL > P (shift p), no matter where the cursor is, and the current file (in this case a screen layout) is printed. If a range is defined (see below), it will appear in normal print. If the layout is wider than your printer's capacity, each line that is wider continues (wraps) onto the next line.

Ranges (blocks)

Ranges, sometimes known as blocks, let you delete, move or copy variable amounts of text in Create.

Define a Range

To define a range, put the cursor on the character (or space) where you want the range to begin and press < CTRL > r. Now move the cursor to where you want the range to end and press < CTRL > r again.

The range, a rectangular block defined by the locations you specify, is highlighted in reverse (letters appear dark on a lighted background). A range can be a single row or column.

Clear a Range

If you decide *not* to proceed with a range after defining one, you can clear it by pressing < CTRL > r.

Inserting or deleting anything also clears the range, and performs the insert or delete as if the range never existed.

Move a Range

To move a defined range to another location, put the cursor on the character or space where the upper left character (or space) of the range is to go.

Now press < CTRL > m . The range (highlighting and text) disappears from its previous location and the text reappears with the top left corner corresponding to the cursor position.

Existing text is overwritten by the range (as in Digital Solutions' *Pocket Planner* spreadsheet program, but unlike the *Pocket Writer* word processing program). So before moving the range, make sure you don't want the data where the range will reappear.

Copy a Range

To copy a defined range, put the cursor on the upper left character or space where the copy is to go and press < CTRL > c .

While the original text remains where it was, a copy of it also appears at the cursor. Any text previously at the cursor is overwritten (the same as in Move a Range, above). So before copying the range, make sure the location where the copy is to go doesn't contain any data you want to keep.

Delete a Range

To delete a defined range, press < CTRL > d . The range disappears from the screen and the space it occupied is left blank. The range isn't memorized—it can't be recovered.

Shortcut: Start defining the range (with < CTRL > r), put the cursor on the bottom right space or character and press < CTRL > d—instead of pressing < CTRL > r twice and then < CTRL > d.

Lines and Boxes

To create a line or box on the screen (which may make the layout more attractive and easier to read), define a range where you want the line or box to appear and press < CTRL > b .

Or use a shortcut: press < CTRL > r to start defining the range, move the cursor to its end and press < CTRL > b .

Now a line appears according to the co-ordinates of the range:

- If the beginning and end of the range form a vertical or horizontal line, that line appears on the screen. For example, if the range begins at line 9, column 10 and ends at line 9, column 35, a line appears on the screen on line 9 from column 10 to column 35.
- If the beginning and end of the range don't form a vertical or horizontal line, lines appear around all four sides of the range you defined. For example, suppose the range begins at line 3, column 10 and ends at line 30 and column 35. The box is formed by a vertical line in column 10 from line 3 down to line 30, across (rightward) to column 35, up to line 3 and across (leftward) to column 10.

To subdivide a box, simply form a line using co-ordinates that begin and end on the box. In the box example above, to put a line across line 9 define the same range as for the line above.

For example, the sample file "address book" on the program disk contains a box at the top and horizontal lines further down.

Printing Lines and Boxes: All printers print lines and boxes as a series of asterisks (*).

Field Options

In addition to establishing a field's description, position and length in the layout, you can exercise control over the data entered in it. As shown below, defining field options can help:

- ensure that desired information is entered.
- cut down on typing errors by rejecting unacceptable entries, and
- save typing by making the computer help you enter information.
- enable calculations of numbers and manipulation of text into fields.

All Fields: To define or alter the field options for every field in a layout, press < f5 > (or < ESC > on the Commodore 128) and a sequence of questions appears for each field.

From the Current Field: To avoid defining fields at the top of the layout, put the cursor on the first field you wish to define and press < f6 > . Now answer the questions for this and the remaining fields.

Default settings appear for each option in the following series, i.e. the settings that will result if you don't enter anything and simply press < **RETURN** >. The description below gives the defaults as they originally appear; once one is changed, the new setting appears as the default for that field (to switch back, you must enter the original default setting and press < **RETURN** >). When you've answered the last question for the last field, you're returned to editing the layout. To stop sooner, press < **C** > and you'll exit from defining field options into the Commodore key options. If you press < **C** > twice, you return to Create. The options you've changed are retained in memory; i.e., they'll show up as the defaults if you define the options for the same fields again. Any time you're satisfied with all the option settings following the current field, you can exit this way.

"Field name:"—If you want to be able to refer to the field by name in math files in Enter/Edit (page 35) or in math statements in a Report layout (page 56), choose and enter a **name** up to 10 characters and press < **RETURN** >.

—If you don't wish to name the field, simply leave it blank and press < **RETURN** >.

"Field type (Alpha/Num/Logic/Date/Time):A"—If you want the field to be:

ALPHANUMERIC (A: any combination of letters and numbers)—simply press < **RETURN** >. To be able to perform text comparisons and assignments of text into fields (page 57), the fields must be defined as alphanumeric.

For example, the field following **"First Name"** in the sample file **"address book"** is alphanumeric.

NUMERIC (N: only numbers)—enter **n** and press < **RETURN** >. This is particularly useful if the field contains telephone numbers (as in the **"address book"** file), or money or zip codes. To be able to perform calculations (in Report, or in Enter/Edit using math files) using numbers in a field, the field must be defined as numeric.

"Trailing decimal places (0-14/N)?N"—If you want the numbers to be left as entered, simply press < **RETURN** >. (If a number appears and you wish to return to this default, enter **n** (for None) and press < **RETURN** >.)

—If you wish to specify the number of digits past the decimal of any number entered in the field, enter a **number** from **0** to **14** and press < **RETURN** >.

If a field contains prices, entering **2** may save typing effort. For example, if **1.4** is entered as the data in the field, the program will produce **"1.40"**. If **1** is entered as data, the program will produce **"1.00"**.

Warning: any numbers entered (in Enter/Edit) past the specified number of decimal places are truncated once you exit the field. For example, if **0** is left as the number and you enter **5.95** as data, the program produces **"5"**. (For a rounding function, see "Integer" on page 63.) If you specify 2 decimal places and enter 3.1415926535897932, **"3.14"** is produced.

If you enter **0**, the decimal point is omitted.

"Place \$ before number(Y/N)?N"—If you want a dollar sign in front of the number entered in this field, enter **y** and press < **RETURN** >.

—Otherwise, simply press < **RETURN** >.

"Insert comma every third place (Y/N)?N"—If the field contains large numbers and you want commas dividing them, enter **y** and press < **RETURN** >. Now if you enter **1234567890**, it will appear as **1,234,567,890**.

—If you don't want commas, simply press < **RETURN** >.

LOGICAL (L: only one of two values; any other character entered will not appear)—enter **l** (the letter L) and press < **RETURN** >. The answer:

"Logic type: Y/N, T/F, 1/0—(Y/T/1)?Y"—If you want the field's data to be Yes or No, simply press < **RETURN** >.

—If the data is to be True or False, Enter **t** (the letter T) and press < **RETURN** >.

—If the answer is to be 1 or 0, enter **1** (the number 1) and press < **RETURN** >.

"Expand to full words (Y/N)?N" (skipped if you chose the 1/0 logic type)—If you want **y** and **n** produced as **"YES"** and **"NO"**, or **t** and **f** to be produced as **"TRUE"** and **"FALSE"**, enter **y** and press < **RETURN** >.

—Otherwise, simply press < **RETURN** >.

DATE—(D: usually the date of entry) enter **d** and press < **RETURN** >. All subsequent questions are skipped.

The date is automatically entered when data in the record is first entered, or when it's updated (page 45 in Enter/Edit) unless you enter a date in the field before you leave the record. If you intend to enter a date (other than the current date) for each record, it's probably wiser to make the field alphanumeric or numeric.

In creating the layout for a date field, make this field large enough for whatever form you wish. You can use, for example, digits (such as "01/10/87") short forms ("May 1, 1987") or spelled out ("Saturday, July 19, 1987").

If used in calculations, date fields are presumed to be numeric; any text (such as "May 1") will be given a value of 0. This also means text in the date field can't be moved in math into another field or display position (the field would have to be alphanumeric).

TIME—(T: usually the time of entry) enter **t** and press < **RETURN** >. All subsequent questions are skipped.

The time is automatically entered when data in the record is first entered, or when it's updated by < **f6** > (page 46 in Enter/Edit) unless you enter a time in the field before you leave the record. If you intend to enter a time for each record, it's probably wiser to make the field alphanumeric.

In creating the layout for a time field, leave 5 field markers for hours, a colon and minutes in a 24-hour clock ("00:01" for a minute past midnight to "12:00" for noon to "23:59" for a minute to midnight).

"Make all letters UPPER case (Y/N)?N" (skipped for date and time fields, or if you've previously answered Yes to the "lower case" question)—If you wish all letters entered to be automatically converted to UPPER case, enter **y** and press < **RETURN** >. Now the following (lower case) question is skipped.
—Otherwise, simply press < **RETURN** >.

"Make all letters lower case (Y/N)?N" (skipped if you've answered Yes to the "UPPER case" question)
—If you wish all letters entered to be automatically converted to lower case, enter **y** and press < **RETURN** >. Now the previous (UPPER case) question is skipped the next time you define field options for this layout file.
—Otherwise, simply press < **RETURN** >.

"Allow only certain characters (Y/N)?N" (for alphanumeric and numeric fields; skipped if any characters were previously entered after the following question, "Disallow:")—To restrict data entered in the field to specified characters, enter **y** and press < **RETURN** >. Next, **"Enter ALLOWED characters:"** appears; enter them after the colon (in any order) and press < **RETURN** >.

Now any character entered other than the specified ones will be ignored, and the following ("Disallow:") question is skipped.

UPPER case and lower case are considered different, so to allow either version of the alphabet's first three letters, for example, enter **abcABC** (in any order). You can enter up to the entire character set (upper and lower case letters, punctuation, symbols, French and other characters). If you plan to allow many characters, you may find it easier to enter the ones you *don't want allowed* after the "Disallow:" question.
—Otherwise, simply press < **RETURN** >.

"Disallow certain characters (Y/N)?N" (for alphanumeric or numeric fields; skipped if any characters are entered after the "Allow only:" question)—If you wish to disallow specified characters from the field, enter **y** and press < **RETURN** >. Next, **"Enter DISALLOWED characters:"** appears; enter them after the colon and press < **RETURN** >. Now, if any of these characters is entered, they are rejected, and the previous ("Allow only:") question is skipped the next time you define field options for this field.

As above, upper case and lower case are different, and you can enter up to the entire character set. If you plan to disallow many characters, you may find it easier to enter the ones you *will permit* after the "Allow only:" question.
—Otherwise, simply press < **RETURN** >.

"Left or Right align (N/L/R)?N" (skipped for date and time fields)—If you want the data to appear in the same position as it's entered, simply press < **RETURN** >.

- If you want the field to show up on the screen and in print with the first character at the left side, enter **l** (the letter L) and press < **RETURN** >. This is common when the field is alphanumeric.
- If you want the last character of the field to line up at the right, enter **r** and press < **RETURN** >. This is common when the field is numeric, and is advised if you want to be able to sort records by fields that contain numbers. (Otherwise, you'd have to standardize entry numbers using zeros, eg. put **0** before **9**—entered as **09**—so it's ordered before “**32**”).

“Require field to be entered (Y/N)?N” (skipped for date and time fields)—If it doesn't matter whether the field has data in it, simply press < **RETURN** >.

- But to insist that the field contain some data, enter **y**, press < **RETURN** > and answer:

“Force entry of entire field (Y/N)?N”—If you want to require every space in the field to be filled (eg. if it contains phone numbers or zip codes), enter **y** and press < **RETURN** >. Now if you fail to completely fill the field with acceptable characters, **“This field must have no spaces in it”** appears and you can't exit the current record until every character in the field is filled.

–If you want to require some, but not necessarily all, of the field to be entered, simply press < **RETURN** >. Now if the field is left completely blank, **“This field must have data entered in it”** appears and you can't exit the current record until at least one acceptable character in the field is entered.

When the last field has been defined or if you press < **C** > twice, you are returned to Create. When you are finished editing the layout, save it (see page 37) so you can use it when entering data in records.

Math Files (used in Enter/Edit)

This feature lets you perform instant calculations within records in Enter/Edit module. Math files are entered in Create module, and then the results are displayed in the records in Enter/Edit.

On a blank screen layout in Create module, first alter the file type mode to sequential (page 38). Then enter any math calculations available in Report (page 56), including references to fields. For example, to display the total of the sale price (field 1) and a seven-per-cent sales tax (field 2) in a field (3) in a record, enter **put F1 * .07 into F2** and **put F1 + F2 into F3**.

Then, still in sequential mode, save the file. Now when you save a sequential file, **“Is this a math file?N”** appears on the command line—enter **y** and press < **RETURN** >.

“Math file number (1-9):1” appears next, displaying the most recently used math file number. If a math file using that number already exists on the disk, you'll be asked whether to replace the existing file as a safety precaution.

In a directory, a math file appears with the same name as the database, with **“/mN”** appended. **“m”** (in lower case) represents Math, while **“N”** is the math file number from 1 to 9 you've chosen.

Any field used to calculate numbers in math files must have been defined as numeric in Field Options (page 33). Any field used to manipulate text must be alphanumeric.

To load a math file in Create by name, the correct appendix (**/mN**, where **N** is the math file number) must be included. Loading from a directory, however, is normal: simply put the cursor on the file name and press < **RETURN** >.

“Trap” statement (in math file)

To automatically perform calculations or other functions when a specific field is entered and changed in Enter/Edit, then moved off, use a trap statement. The command **“trap”**, followed in the same line by field identifiers (by number such as **F6** or by name), executes statements in the following lines whenever the identified fields change. To end the trap statement, enter **“endtrap”**.

For example, this sequence rings the bell whenever the named fields change:

```
trap f6, f1, sales, salary
    bell
endtrap
```

This example calculates a seven-per-cent sales tax in F6 and a total in F7 whenever a sale price (in F5) is entered or changed:

```
trap f5
  put f5 * .07 into f6
  put f5 + f6 into f7
endtrap
```

Move Cursor statement (in math file)

The command "**moveto**" in a math file (used in a "**trap**" statement) moves the cursor to a specified field in Enter/Edit. This can be used to prevent errors and speed up data entry.

Example 1 skips one field when another is changed, which may speed data entry and make it more accurate:

```
trap f6
  moveto f8
endtrap
```

As soon as something is entered in F6 and you move to another field (using a normal command, page 41), the cursor moves to F8, skipping F7. You can still cursor back to F7.

Example 2 prevents the entry of a number greater than 1,000:

```
trap f9
  if f9 > 1000
    message "too large"
    bell
    moveto f9
  endif
endtrap
```

When you enter a number greater than 1,000 in F9 and move to another field, the bell rings, "**too large**" appears on the command line and the cursor moves back to F9.

Example 3 allows three product names to be entered as text using short codes, and prevents other codes from being entered.

```
trap f3
  if f3=1
    put "Product A" into f4
    moveto f5
  elseif f3=2
    put "Product B" into f4
    moveto f5
  elseif f3=3
    put "Product C" into f4
    moveto f5
  else
    message "invalid item"
    bell
    moveto f3
  endif
endtrap
```

When you enter one of 1, 2 or 3 in field 3, the appropriate name ("**Product A**", "**Product B**" or "**Product C**") appears in field 4 and the cursor moves to field 5 for the next entry (you can move it back if you want). But if you enter other data, the bell rings, "**invalid item**" appears on the command line and the cursor returns to F3. You can make a valid entry or cursor to another field without changing anything.

Loading Files in Create

Loading a screen layout is performed by pressing < **␣** >, I (the letter L). Full details are on page 22 of Commodore Key Functions; only aspects particular to Create are described here. Screen layouts appear in a directory with "/s" appended, but you don't have to put the cursor on the layout name to load from a directory. As long as the cursor is on line with the correct name of the database (with or without appendix), the screen layout will load in Create when you press < **RETURN** >.

Other Files: Create is the only module in which files such as “configure” and printer files (which are on the program disk) and layouts from other database programs can be loaded. To do so, you have to alter the file mode of the computer to match the file; see below.

Create is also the only module which can load a directory as a file (page 24), which allows you to save or print a list of files on a disk. Press < **C** >, **3** on the 64 or < **C** >, **D** on the 128.

When loading math files by name, the correct appendix must be included.

If a layout is protected with a subordinate password (page 48), you must enter a password with “Modify” privileges.

Alter File Type and Mode

Pocket Filer 2 can load and save three types of sequential files:

- *Pocket Filer* (a layout created by *Pocket Filer*)
- *Datafax* (a layout created by the *Datafax* database program)
- *Commodore Sequential* (a database or printer file or other special file like “configure”)

To work with each file type, the computer must be in a corresponding file mode. In other words, a file on the screen is saved in the current file mode, and a file on the disk can't be loaded (see below) unless the computer is in the same file mode.

While working on screen layouts, you'll nearly always be working in *Pocket Filer* mode, which is the default when the Create module is loaded. Because *Pocket Filer* mode is so common, the command line indicates what file mode you're in only when it's different.

(The database file itself is always a Commodore Sequential file. In Enter/Edit and Report, the program assumes the layout is a *Pocket Filer* file and the database is a Commodore Sequential file. To enter data into a *Datafax* layout, you'll first have to convert it to a *Pocket Filer* file in Create module.)

To switch modes, press < **CTRL** > **a** before loading (see above) or saving (page 38) the file.

“Change to Pocket/Datafax/Sequential?P” appears on the command line, with the letter after the question mark indicating the current mode. Enter the letter of the mode you want, and press < **RETURN** >:

s for <i>Commodore Sequential Mode</i>	(“ SEQ ” appears on the command line)
d for <i>Datafax mode</i>	(“ DFX ” appears on the command line)
p for <i>Pocket Filer mode</i>	(nothing appears on the command line).

Switching file modes automatically switches the file type of the current file on the screen. If you switch the mode and save the current layout, it is saved in the new mode and can be loaded only in that mode.

For example to use a *Datafax* screen layout, change the file mode to “**DFX**” and load the layout. Then switch to *Pocket Filer* mode and save the layout (see below).

Saving Files in Create

If you create a new layout on the screen (in memory) and immediately turn the computer off or load another layout, the first layout is lost. Also, if you load a layout from the disk, change it and turn the computer off (or load another layout), only the previous version will be on the disk the next time you load it.

To preserve files for later use, you must save them. It's a good habit to save layouts and other files often to protect work from mistakes or technical problems.

Save a layout onto the disk that contains, or will contain, the database file (the records, or raw data).

Press < **C** > and then **s** .

“Save:” appears on the command line—enter the file's **name** (any combination of characters and spaces except =/ * ? or”) and press < **RETURN** >. The name of the last file accessed, if any, follows the colon (:). This is often the name of the file you wish to use, in which case there's no need to enter it again. To *change the name*, enter the new one before pressing < **RETURN** >.

(The program automatically adds “/s” to a screen layout's name when it appears in a directory of a disk, which indicates it's a screen layout.)

“Drive Number:0” usually appears next. If the disk you're saving the file onto is in drive 0 (which it usually is, especially if you have a single drive), simply press < **RETURN** >.

If you've permanently specified a drive number in the "configure" file (page 17), the drive number question is skipped and the save usually begins immediately. To specify a different drive number than in the "configure" file, insert the **number** and a **colon** (eg. 1:) before the file name.

"Is this a math file?N" appears if you're in sequential mode—if the file is not a math file (page 35), simply press < RETURN >.

—If the file is a math file, enter **y** and press < RETURN >. Now:

"Math file number (1-9):1" appears next, displaying the most recently used math file number. Choose an identifying number for the math file and press < RETURN >.

If a math file using that number already exists on the disk, you'll be asked whether to replace the existing file.

To save the file onto *another disk*, replace the current disk in the disk drive with the new disk and save the file again (you can use the same name). Do this to create a backup copy of the file, a good precaution in case there's a problem with the original version.

You can also copy files in the File Utilities module, especially useful to copy more than one file.

The cursor disappears while the file is being saved. When the cursor reappears, with the file on-screen exactly as before, the file is saved. (To ensure that it is accurately saved, see Verify, below.)

If you decide *not* to save a file, simply press < C > twice before the save begins, and you'll return to Create.

Overwriting Layout Files

Whenever you're saving a layout with a name that already exists on the disk, one of two safety questions will appear on the command line:

- "Fields mismatched. Continue?N" indicates that some of the on-screen layout's fields are different from the fields of the layout on the disk (in length, order or number, or any field option). The mismatch means records from the existing database on the disk aren't set up the same as in the new layout and may not be readable in the new format; data may turn up in the wrong places.

(You may freely change the text surrounding the fields, and even the position of the fields in the layout—provided their order doesn't change—without generating a mismatch. And if some field options are changed—such as data position within the field, \$, in some cases field type, allow or disallow characters—the records may load without much problem. But if the field length, order or number is changed, the records probably won't load properly.)

—To stop saving the new layout and thus prevent a mismatch, simply press < RETURN >. You're returned to Create.

—To replace the old layout file with the new one—which may make the existing database unusable—enter **y** and press < RETURN >.

- "Replace existing layout?Y" is less serious; it indicates merely that a layout with the same name exists on the disk, but that its database would still load accurately onto the new layout.

—To overwrite the layout on the disk with the on-screen layout, simply press < RETURN >.

—To stop the replacement, enter **n** and press < RETURN >, which puts you back in Create.

Alter File Type

The file will be saved in the current file mode: *Pocket Filer*, *Commodore Sequential* or *Datafax*. To save in a different file mode, you must first alter the file type (see Load, page 37).

This is rarely necessary when saving a layout since usually you'll be in *Pocket Filer* mode and will want to save the layout in it. Similarly, whenever you'll want to save a file in *Commodore Sequential* mode, the file on the screen will likely already be *Commodore Sequential* (a printer file or the "configure" file). You'll likely want to save a file in *Datafax* mode only when you're creating a layout for the *Datafax* program to use.

Verify

You can check whether the layout on the screen matches one on the disk, which can be useful in seeing if a layout you just saved is stored correctly or to see if a layout on-screen from one disk matches one on another disk. This function operates on screen layouts in Create and print layouts in Report.

Press < **C** >, then v. “**Verify:**” appears on the command line, followed by the current file name. Now, to verify that the current layout is saved correctly, simply press < **RETURN** >. To verify the on-screen layout against a layout on the disk with another name, enter the **name** of the layout on the disk and press < **RETURN** >. (< **RUN/STOP** > may help enter the name quickly and accurately; see page 22.)

If the layouts match, “**Verify OK**” appears on the command line after about the same length of time required to save the layout.

If the layouts don't match, “**Verify error**” appears as soon as the computer finds a difference. If this indicates your attempt to save the on-screen layout has failed, try the save again, and see Trouble-Shooting (page 80) if it fails a second time.

Enter/Edit Module

Each database file (such as the “**address book**” sample file on the *Pocket Filer disk*) has numbered *records* (usually one for each person), which in turn contain *fields* (for the Name, Address, Phone Number, etc.). To load database records correctly into the computer's memory, a screen layout must first be established in the Create module (page 30).

To add or delete records in a file, or to change data in records, you must select the Enter/Edit module from the Main Menu. Press < **f3** >.

When you arrive in Enter/Edit, the screen displays the command line, a statement indicating the current module, lines for help and blank space where records may be loaded into the appropriate layout.

Warning: Never remove a disk from the drive in Enter/Edit while the drive's activity light is on. Any data you've entered may be lost. (If you do take out a disk while the light is on, validate it—page 27—before using it again. Validating won't restore lost data, but it will set up the disk to operate properly again.)

Loading Records

After you've entered Enter/Edit from the Main Menu, “**Load:**” appears on the command line. It's followed by the cursor, which can move horizontally.

The storage disk must be in the drive before proceeding; replace the *Pocket Filer disk* with the storage disk, if necessary. The screen layout must be on the same disk as the records in its database or else the data can't be used.

If this is the first time you've accessed a file since entering the program, the space after the colon is blank. Enter the exact **name** of the file you want and press < **RETURN** >.

You can also load a file from a directory of the disk, which may be easier. Directories let you see a list of files on any disk, which may help you choose one. To load a file directly from a directory, move the cursor to the file name and press < **RETURN** > (see also Directories, page 24, and Loading Files, page 22).

Default Name: If you have loaded or saved a file (a layout or database) since entering the program, the name of the most recent file accessed appears after the colon.

—To add, delete or change records in that file, simply press < **RETURN** >.

—To enter or edit a different file, enter its exact **name** and press < **RETURN** > or load a file from a directory, as above.

“Drive Number:0” usually appears next on the command line, unless you have specified a drive number in the “**configure**” file (page 17).

—If the disk you're loading the layout from is in drive 0 (a single drive is always numbered 0), simply press < **RETURN** >.

—To specify a drive number different from that appearing or that in the “**configure**” file, insert the **number** and a **colon** (eg. 1:) before the file name.

“Math file number (1-9/N):” appears whenever a database has a math file (saved in Create module, page 35). The number of the most recently used math file follows the colon.

—To load records without a math file, enter **n** and press < **RETURN** >.

—To load with a math file, enter the number and press < **RETURN** >. The math is calculated and displayed when you update the file or add new records (page 42).

Starting a File

If the database is new—it has just a screen layout so far—you must first establish its level of protection.

“Enter MASTER password:” appears on the command line next—choose a password of up to 10 characters and spaces, enter it and press **< RETURN >**. The simplest password is 10 blank spaces, i.e. just press **< RETURN >**.

If you want to protect your data and layouts with passwords and/or encoding, you must enter subordinate passwords (and/or encode the data). See Password Protection, page 46.

If you don't enter a subordinate password, you're never asked for any password except to obtain the password table (page 47). Thus, if you don't want password protection, the only password you must enter is the Master.

“Encode data?N” appears next—if you want the file encoded, enter **y** and press **< RETURN >**.

—If you don't want this file coded, simply press **< RETURN >**.

You can always encode or decode the data at a later point. See page 49 for details.

The first—blank—record now loads. **“R=1”** (the record number) appears on the command line (and **“BLANK”** on the 128).

Loading Existing Records

If the database you're loading already has records on the disk, the first one (**“R=1”**) loads unless the records have been indexed or protected.

“Enter password:” appears on the command line if the file is protected by one or more subordinate passwords (page 47).

Enter the Master password (which has all privileges) or a password with **“View”** privileges, and press **< RETURN >**. If you enter a password without these privileges, **“Insufficient privileges. Press a key.”** appears on the command line. If what you enter is not a password, **“Invalid password. Press a key.”** appears.

As long as you're in the file, the privileges of the password you entered apply. If you need additional privileges to perform a function, exit the file (page 52) and re-enter it using a new password.

“Index file number (1-9/N):1” appears on the command line if an index to a sorted version of the file is on the disk (page 49). The number following the colon is the most recently accessed index file, if any; the default is **“1”**.

—To use the database unsorted, enter **n** (for No index) and press **< RETURN >**.

—If you wish to use the file with records in the order that was sorted in the specified index, simply press **< RETURN >**.

—To use another index, enter the **index number** (from 1 to 9) and press **< RETURN >**. Obtaining a directory first (page 24) may help determine which indexes are on the disk—they have **“iN”** after the name, with **“N”** being the index number.

If you're using an index file, loading the first indexed record may take longer. When the record loads, **“Sorted by:”** appears on the command line, followed by the field numbers the index was sorted by, in order. This information disappears when you touch a key.

“R=1” also appears, referring to the first record according to the index.

In the Database

When the first record of the file appears, the cursor appears on the first character of the first field. Help from memory is now available (when a record is on the screen).

To edit (change) the record, see **“Within A Field”** and **“Between Fields”** below.

To enter data in a new record, move to the last record and then move one record forward (see **“Between Records”** below). The new record will appear blank but with the correct number.

To be able to use search criteria and mathematical functions, enter the data in consistent locations, eg. text starting at a field's first space and values ending at the last space. This is easy if the field has been formatted in Create using Field Options (page 32), eg. left aligned for text and right aligned for numbers.

(To have data entered automatically in date and time fields, see page 34. Also, mathematical results calculated in Report can be automatically entered in fields, updating existing data—page 60. For French and other characters, see page 16.)

Command Line: Instead of lines and columns, the command line in Enter/Edit shows you what record is on the screen and what field in the record the cursor is in:

“R=” shows the current Record number

“F=” shows the current Field number

Within A Field

To move the cursor:

right one space—press < **CRSR right** >. To repeat, hold it down.

left one space—press < **CRSR left** >. To repeat, hold both keys down.

to end of text in field—hold down < **CTRL** > and press < **CRSR right** >.

to beginning of text in field—hold down < **CTRL** > and press < **CRSR left** >.
—or press < **HOME** >.

To:

overwrite a character—put the cursor on it and type the desired character.

delete a character or space left of the cursor—press < **DEL** >. To repeat, hold < **DEL** > down.

insert a space left of the cursor—press < **INST** >. To repeat, hold both keys down.

The cursor doesn't move, but the text past it is forced rightward.

delete to end of field (including the character the cursor is on)—press < **CTRL** > **x**.

delete to beginning of field (including the current character) —press < **CTRL** > **y**.

restore a field to its text when the cursor last entered the field (overwriting any current text)
—press < **RESTORE** > while the cursor is still in the field.

Editing modes (page 16) are also available.

Between Fields (within a record)

To move the cursor: **press:**

forward one field—< **CRSR down** > and release it. To repeat, hold it down.

—or < **RETURN** >. To repeat, hold it down.

back one field—< **CRSR up** >. To repeat, hold it down.

to beginning of record—< **HOME** > twice (or once, if the cursor is on the first character of a field).

to end of record—< **CTRL** > < **CRSR down** >.

When you move between fields, the number after “F=” on the command line changes to indicate the current field number.

To:

press:

clear from the current field to the end of record—< **CLR** >. Now “Erase fields from cursor?N” appears; to delete data in all fields from the cursor on, enter **y** and press < **RETURN** >.

restore the current record to its data when loaded—< **SHIFT** > < **RESTORE** >.

Jump Field: At any time in a record, you can “jump” the cursor to a pre-selected field. Also, whenever a record is displayed, the cursor will be at the specified field. This may facilitate entering or editing data in a particular field in several records.

The default jump field is the first one.

To establish a different jump field, put the cursor on the desired field and press < **CTRL** > **J** (shift j). “Jump field” appears on the command line; it remains as the jump field as long as the file is being edited.

To go to the jump field from anywhere in a record of the file, simply press < **CTRL** > **j**.

To return the jump field to the default, put the cursor in the first field and press < **CTRL** > **J**.

Between Records

The speed of movement between records depends on whether they have been accessed previously and on whether they're currently in the memory buffer (see below).

When you move between records, the number after “R=” on the command line changes to indicate the current record number. If you go to the last occupied record and then to the next (blank) record, “BLANK” appears on the 128.

<u>To move:</u>	<u>press</u>
<i>forward one record</i>	-< f1 >
<i>back one record</i>	-< f3 >
<i>to the last occupied record</i>	-< f2 >
<i>to the first record</i>	-< f4 >

If you loaded the file using a password without "Add" privileges (page 48), you can go to the blank record after the last occupied record, but can't enter data. If you try, "**Not allowed**" appears.

If you loaded the file using a password without "Change" privileges (page 48), you can't enter data in any record that contains data. If you try, "**Not allowed**" appears on the command line.

Go to a Specific Record: At any time in Enter/Edit, you can move to a record if you know its number.

Press < **CTRL** > **g** and "**Go to record:**" appears on the command line. Enter the number of the record you wish to go to and press < **RETURN** >.

The current version of the current record is saved and the desired record appears on the screen.

Saving Records: Whenever the current record is changed, its current version (including updates to Date and Time fields) is saved in memory (or directly to disk if you have filled the memory buffer—page 45—or the buffer is turned off—page 18) when you move to another record. It is also saved on the disk when you exit using < **Ctrl** >.

If you haven't changed anything in record, it isn't saved again onto the disk.

Delete a Record

To delete the record the cursor is on, press < **CTRL** > < **DEL** >.

As a safety feature, "**Delete record?N**" appears on the command line. If you want it deleted, enter **y** and press < **RETURN** >. If you change your mind and want to save it, simply press < **RETURN** >, which leaves you in the current record. Or press < **Ctrl** >, which saves the current version of the record and returns you to Enter/Edit.

If you entered the file using a password without "Delete" privileges (page 48), you can't delete records. If you try, "**Not allowed**" appears on the command line.

If the deleted record is in a *non-indexed file*, the last record moves to its location and takes its record number, while other record numbers remain unchanged (renumbering them all in sequence would be slow).

For example, if a file contains 7 records and you delete record number 3, record 7 becomes record number 3. Now the last record is number 6.

If the deleted record is in an *indexed file* (sorted), records following the deleted record are moved back one record and renumbered (in the same order).

In our example of deleting record 3 in a 7-record file, this time indexed, a record 4 becomes 3, record 5 becomes 4, record 6 becomes 5, and record 7 becomes 6.

However, other indexes become unreliable and must be re-sorted by the same criteria.

Search for a Record

While a record is on the screen, you can move to a specific record identified by the content of its fields. Searching is slower than going to the record by number.

As described below, searches are "fast" if the records have been sorted by the fields containing the data you seek and if you chose the correct index (to the sort) when you loaded the file's first record. In addition, searches take less time if the file's records have been loaded into memory; see "Memory Buffer" below.

Press < **CTRL** > **s** and a blank record of the file appears on the screen. Move the cursor into all the fields you wish to search by and enter the data you seek.

To start the search, press < **f5** > (or < **ESC** > on the Commodore 128). The current record is saved before the search begins.

If you seek a record with specific numbers or text in a field or fields, enter the numbers or text in the blank record's corresponding fields. Data must be entered in a location consistent with the records (for example, text is usually left aligned and numbers right aligned) or the search won't be accurate.

Wild cards similar to those in Directories With Patterns (page 25) may be used in text: ? (question mark) substitutes for any one character or space.

* (asterisk) used once ignores any following text. * used twice with text in between (eg. *abc*) ignores text up to the first asterisk and after the second (eg. the first record found with "abc" anywhere in the specified field is displayed.) This is called a slide search.

You can also search for a record with data that meets logical conditions according to alphanumeric order. Enter one of the following logic symbols (not the "N" or "text") as the first character or two in the field, followed by the data to be compared. Without a logic symbol, equality (=) is implied.

>N	—greater than the specified number "N"
>text	—comes after the specified text alphabetically
<N	—less than the number "N"
<text	—comes before the text alphabetically
>=N or =>N	—greater than or equal to the number "N"
>=text or =>text	—at or after the text
<=N or =<N	—less than or equal to the number "N"
<=text or =<text	—at or before the text
<>N or ><N	—not the number "N"
<>text or ><text	—not the following text (can be upper or lower case)

You can also search for a record with a range of data by entering two symbols and pieces of data.

For example, to search for people with more than \$100 outstanding, enter >100 in the field containing the balance owing. To find people owing between \$100 and \$500, enter >100<500. To find all the people whose last names come after Q, enter >Q or >=R in the last name field. To find those with last names between Q and U, enter >Q<U or >=R<=T.

Fast Search (only for sorted data files—page 49): The search is fast if you're using an index file and:

- (1) the index file is sorted by all the fields in which you've entered search data, and
- (2) the fields in which you've entered search data are the first ones the index is sorted by. For example, if you've entered search data in just one field, it must be the first field the index was sorted by. If you've entered search data in three fields, they must be the first three fields the index was sorted by.

This function assumes the index is up to date, so it may not work properly if the file was changed but you didn't re-sort it.

"Indexed search..." appears on the command line (fast search).

For example, if the file is sorted by last name only and you search for a last name, the search is fast. If the file is sorted by last name, then first name, and you search for a last name (or for a last name and a first name), the search will also be fast.

Slow Search: If the conditions above aren't met, the program performs a slow search, record by record from the beginning of the file.

- If the file has not been indexed (sorted), any search is slow.
- If the file has been sorted by first name only, a search by last name is slow.
- If the file has been sorted first by first name and then by last name, a search by last name is slow.

"Searching..." appears on the command line (slow search).

For example, if you want the record for "Smith" (one criterion), press < CTRL > s, enter **Smith** in the last name field and press < f5 >.

If the file:

has no Smith —"Record not found" appears and you return to the record you were in when the search was ordered.

has one Smith —the record appears on the screen.

has two Smiths—the first Smith record found appears. If the search is slow the record of the first Smith in the file is displayed. If the search is fast, the record displayed could be either Smith's.

To be sure of seeing *all* the Smith records:

- Fast search (“**Indexed search...**” on the command line)—move backwards (< **f3** >), record by record, until a non-Smith record appears. Then move forward (< **f1** >), record by record, until a non-Smith record appears. (Since they’re indexed, you know all the Smiths are grouped together.)
- Slow search (“**Searching...**” on the command line)—press < **CTRL** > **S** (shift s), which immediately searches record by record, for the same criterion. Repeat until “**Record not found**” appears (you’ve gone through the entire file).

To find the record for “John Smith” (two criteria), press < **CTRL** > **s**, enter **Smith** in the last name field and **John** in the first name field, and then press < **f5** >.

Fast Search: If the first and last names are the first two fields (in any order) by which the index file is sorted, the search will be fast. As above, the first random “John Smith” record found will be displayed.

The search will also be fast if the file is sorted by more than two fields, as long as the first and last names are the top two criteria.

Slow Search: *Under any other circumstance*, the search will be slow (record by record) and the record of the first John Smith found will be displayed. These conditions include the file being sorted by:

- no fields (i.e. not sorted)
- only last name, or only first name
- two or more fields, with one or more of the top two criteria being a different field

Stop Search: to return to Enter/Edit during a search, press < **C** >. “**Search stopped**” appears on the command line and you’re left in the previous record.

Delete Batch of Records

This feature lets you delete records that match specified search criteria.

After pressing < **CTRL** > **s** for search, enter the criteria as if you wanted to search for them, and then press < **CTRL** > < **DEL** >.

“**Query before delete?Y**” appears on the command line—To automatically delete every record that matches the search criteria, enter **n** and press < **RETURN** >.

—To have the choice of deleting individual records that match the criteria, simply press < **RETURN** >.

Now the first record that matches the criteria appears on the screen and you’re asked “**Delete this record?**”. To delete the record, press **y** ; to keep it, enter **n** .

The next matching record appears with the query, and so on until no more matching records are found.

At any time, you can stop the process by pressing < **C** >. Records already deleted can’t be retrieved.

Memorize and Copy a Record

This feature lets you add repetitive data in specified fields, such as the name of a state. The procedure memorizes the data, bringing it back for later use.

The simplest application is to go to the end of the database (the blank record after the last record—press < **f2** > and then < **f1** >) and enter the data you want to repeat in the desired fields. Now press < **CTRL** > **m** (for “memorize”) and “**Record memorized**” appears on the command line.

For example, if you are adding 10 records containing “**California**” in the state field, enter **California** in the field in a blank record and press < **CTRL** > **m** .

To memorize an existing record—which avoids typing in the data again—load the record and press < **CTRL** > **m** as above. If you want just some of the data, clear the unneeded data and then memorize the record. If you want to later restore the record to its former state, press < **SHIFT** > < **RESTORE** >.

For example, if record 53 contains “**San Francisco**”, “**California**” and “**United States**” in the city, state and country fields—but has other data such as a particular name, address and postal code in other fields—the easiest way to memorize those three fields is to load the record, clear all fields but these three and press < **CTRL** > **m** . To now leave record 53 as it was, press < **SHIFT** > < **RESTORE** > before exiting.

Adding New Records: When you add a new record (by going to the blank record at the end—< f2 > and then < f1 >), the memorized data appears in the appropriate fields (instead of a blank record), saving you the effort of entering it each time. Of course you can then edit or delete it. The record isn't saved unless new data is entered or existing data in the fields is changed.

In the first example above, whenever you go to the blank record at the end of the file, "California" appears in the state field. In the second example, the blank record at the end of the file has "San Francisco" in the city field, "California" in the state field and "United States" in the country field.

Changing Existing Records: If you want to enter the memorized data in an existing record, load the record on the screen and press < CTRL > M (shift m). Fields in which the memorized record has data are overwritten; fields that are blank in the memorized record are left undisturbed.

In the first example above, if you press < CTRL > M while in a record that has data, "California" appears in the state field, overwriting any data previously entered. Data in other fields, however, is left alone.

Memory Buffer (128 program)

Every time the program loads a record into the computer's memory or saves a record onto the disk, the computer remembers the "links" on the disk between records. This means the next time the record is accessed, less time is used finding the record because the links necessary to get it are already known.

Thus, moving between records—by < f1 >, < f2 >, < f3 >, < f4 >, "Go to" or by searching—is faster if the records have previously been accessed. If you plan to move between many records, you would move faster if you first went to the last record (by < f2 > or "Go to"). Going to the last record in a non-indexed file loads all the links into memory. The extra time taken to get to the last record is later offset when you're moving between records by the time saved because all the links are present in memory.

Pocket Filer automatically makes movement between records even faster, by creating a "buffer" in memory for accessed records.

(If you have a RAM expander, records will be automatically buffered into the expanded memory when the internal memory is full, for a total of up to 256 blocks. However, it's much faster if you copy the database file into the RAM disk (drive 2), which effectively is always a buffer.)

As each new record is loaded onto the screen, it is also saved into a memory buffer. This means the next time you move to the record, the program goes directly to it in the buffer rather than getting it from the disk.

Every new record you load from the disk is added to the buffer, until the buffer is full (how many records fit into the buffer depends on their size). Loading or saving records that are further into the file than the memory buffer can hold are accessed directly from the disk. (There's no limit to how many records can be loaded onto the screen for entering and editing data; the only limit is on how many records will be stored in the buffer when they are loaded onto the screen.)

When you exit using < C >, all the records that have been updated in memory are saved onto the disk in one operation. During the save, "Updating [file name]...N" appears on the command line, with "N" being a number of blocks being saved onto the disk. "N" counts down to 1, at which point the file is saved.

Saving many changed records from the memory buffer takes longer than saving one record. However the time saved while moving between records more than makes up for this delay. And no time is wasted on records in the memory buffer that haven't been changed, because they aren't saved onto the disk.

If you *don't* wish to use the memory buffer (instead of loading and saving each record onto the disk as you edit), you can change "Memory buffer=" to "OFF" in the "configure" file. See page 18.

Update a Storage Disk

To update the storage disk containing the database at any time in Enter/Edit, press < CTRL > u . Immediately, any record in the memory buffer that's new or changed is saved onto the storage disk. This ensures that your changes are saved, without taking you out of the file (and requiring you to reload it).

Configure: In the “configure” file, you can arrange to automatically update a storage disk after a specified number of records have been added or changed. Enter the number after “**Buffer update=**”.

To update whenever you change a record and move from it, enter 1. However, this slows the program considerably, unless you’re working with a database in a RAM-expander disk.

If automatic update after every change slows down the program too much, you could, for example, enter 10. Now, after you change or add 10 records, the disk is updated.

Free Records on Disk

To see how many more records of the current database can be stored on the disk in the current drive, press < **CTRL** > **f** . “**N records free**” appears on the command line, with “**N**” being a number representing the minimum number of records that can be saved on the disk (a few more may actually be available). Any records added to the memory buffer are taken into account. If the current database is in a RAM expander (drive 2 on the 128), this function will indicate how many more records can fit into the extra RAM, usually many more than can be stored on a floppy disk. To find out how many can fit on the floppy disk, copy the database onto the floppy (which updates it), load the database and then press < **CTRL** > **f** . See page 75.

Date or Time Entry

If you have established a field for the date or time in Create module (page 34), the program will automatically enter the required data, updated by the computer’s clock, after you supply an initial date and time.

The first time after loading the program that you enter any database with a time or date field, “**Enter time:**” and “**Enter date:**” appear on the command line.

- Time: even if you only have a date field, enter the current (or an arbitrary) time in 4 digits (00:01 to 23:59, representing hours and minutes—a colon will be inserted automatically) and press < **RETURN** > .
- Date: enter the current (or another) date in any form you choose (digits, punctuation and letters), up to the number of characters you specified in the layout (page 34), and press < **RETURN** > .

Now when you move away from a record you’ve changed—which saves it—and leave a time or date field blank, the program automatically enters the current date and/or time into the computer’s memory.

- The time is continuously updated by the computer’s clock as long as the program is loaded.
- The date remains constant. But if you enter or leave a record with a date field after the clock has reached “00:00” (i.e. it’s midnight and a new day has started), “**Enter date:**” appears on the command line again. If you enter the new date, it will appear in subsequently handled records (until you leave the program or “00:00” rolls around again).

If you enter data in the record’s date or time field, the program won’t overwrite it with the current date or time unless you clear the field before leaving the record.

To immediately update the date and time fields to the current date and time, simply press < **f6** > no matter where the cursor is in the record. (This is also an easy way of checking the current date or time.)

Print a Record

At any time in Enter/Edit, you can print a hard copy of the current record on the screen. First, a printer file must be installed, by selecting one when you load the program (page 11) or by installing one later (page 27).

Simply press < **CTRL** > **P** (shift p), and the current record (and the current screen layout) is printed.

If the record is wider than your printer’s capacity, it continues on the next line (wraps around).

Password Protection

Pocket Filer offers two optional forms of protection for each database file:

- *Restriction of functions* that can be performed, using passwords.
- *Encoding of data* in a scrambled form that only *Pocket Filer* can load.

You can choose none, either or both forms of protection for each file. You can also choose or drop either form of protection any time after the initial choice, which you make when first entering data in the file.

Even if you don't initially want to protect your file, you must enter a Master password. Unless you later enter one or more subordinate passwords (which lets you establish limited privileges) you're never asked for a password for this file.

The Master password is the key to establishing both restricted privileges and encoding data. Passwords normally appear on the command line when you enter them, but you can arrange for them to be hidden. See page 19 in Configuration.

Establishing Protection

When you first load a new database in Enter/Edit (one that so far has no records with data), two questions appear on the command line before the first, blank record appears:

"Enter MASTER password:"—every file has a Master password, which enables protection of the file, now or later. Whether or not you want to use any security, to proceed at this point you must enter a password—even if you leave it blank (which is still a password)—and press **< RETURN >**.

The Master, and other passwords, can be changed later (see below) by those who know the current Master password.

"Encode data?N"—Coded data is scrambled according to the Master password so it can't be read by any other program except *Pocket Filer*.

—If you *don't* want this file entered in coded form, simply press **< RETURN >**.

—If you want the data in this database encoded, enter **y** and press **< RETURN >**. Now, all records are encoded according to the Master password.

The Password Table

To let other people have complete access to and power to alter encoded files, simply give them the Master password or don't enter any subordinate passwords. But to let people perform some, but not all functions, enter subordinate passwords, also known as sub-passwords.

Also, to reserve all privileges to one operator, you must enter a subordinate password (even one with no privileges). Whenever a database has a subordinate password, you must enter a password to load any related file (layout or record).

To establish subordinate passwords—at any time in Enter/Edit while a record is on the screen—press **< CTRL > p** and **"Enter MASTER password:"** appears on the command line. Enter the correct password (the Master only), press **< RETURN >** and the following password table appears:

Password	Vue	Add	Cng	Del	Srt	Mod	Prt
[MASTER]	Yes	Yes	Yes	Yes	Yes	Yes	Yes

128 Users: In the 80-column version, the table is completely spelled out:

Password	View	Add	Change	Delete	Sort	Modify	Print
----------	------	-----	--------	--------	------	--------	-------

Lines below the Master password are blank or show existing sub-passwords, with their privileges appearing as **"Yes"** or **"No"** in the columns below the functions.

The cursor appears as a large, solid block covering the Master password. To move it around the table, use the cursor keys or **< HOME >** (which returns it to the Master password).

To save the table onto the disk, after any changes are made, press **< f5 >** (or **< ESC >**). To return from Password Protection to Enter/Edit without saving the editing changes, press **< C >**.

Master Password: The first line of the table shows the Master password with all privileges set to **"Yes"**. Its privileges cannot be altered, but the password itself can be.

The Master password may consist of any combination of 10 letters and spaces (including all spaces). To change the Master password, press **< RETURN >** and the cursor becomes a single-character flashing block on the Master password's first character. Enter the new Master you've chosen, using the same editing controls available on the command line

(cursor movement left, right and < HOME >, and inserting or deleting characters). Press < RETURN > again to register it in memory, and the cursor again becomes a large, solid block.

To revert to the original password table, press < RESTORE > (the key above < RETURN >) before registering the new password with < f5 >.

If the file whose Master password you want to change is encoded (scrambled), "**Master password changed. Recode data?Y**" appears on the command line when you attempt to leave the Password Table by pressing < f5 >.

—If you wish to recode the data according to the new Master password, likely a lengthy process (depending on the size of the file), enter **y** and press < RETURN >.

—If you decide *not* to recode the data, simply press < RETURN >. In this case, the Master password reverts to its previous name (if the password the data was encoded by no longer existed, the data would not be readable).

Subordinate Passwords: To add or alter sub-passwords, move the big-block cursor to the desired sub-password on the table (or one line below to add a sub-password). As above, press < RETURN > and the cursor becomes a single-character flashing block, enabling editing of sub-passwords. Also as above, register the new password in memory by pressing < RETURN > again and revert to the previous password by pressing < RESTORE > before registering the new password.

To remove a sub-password, move the cursor to the row with the sub-password and press < CTRL > < DEL > (deleting a line).

A changed or additional sub-password can't duplicate an existing password. If you try to register a duplicate password, the cursor remains a one-character block and won't move out of the password space on the table until a different password is entered or until you exit by pressing < f5 >.

An additional sub-password is entered in the blank line below the last occupied line in the table. Unlike Master passwords, a sub-password can't consist of blank spaces; it must have at least one character.

Shortcut: Move the cursor to the blank line and press < RETURN >. The cursor goes to the password column to let you enter the additional password and "**No**" appears in all the privileges columns. When you enter the password end press < RETURN > to register it in memory, the cursor returns to the previous privilege column option.

You can enter up to 9 sub-passwords with varying privileges (plus the Master password).

Subordinate Privileges

Any new sub-password is assumed to have no privileges. To add to or modify a sub-password's privileges, move the big-block cursor to the desired privilege column. Now press < RETURN >, which toggles the privilege (changes its value into the opposite), or enter **y** (Yes) or **n** (No) as desired.

If you move the cursor off anything (password or privilege) after changing it, the change is saved in the computer's memory and the big-block cursor is restored.

The 7 privileges provided are:

- "Vue"** (**View**, in Enter/Edit)—lets you look at records in a database file, and move forward and backward between records.
- "Add"** (in Enter/Edit)—lets you go to the blank record after the last record in a database file, enter data and save the record. "Add" privileges automatically include "View" privileges (but not vice-versa).
- "Cng"** (**Change**, in Enter/Edit)—lets you change and save records already entered in a database file. "Change" automatically includes "View" privileges, but not necessarily "Add" or "Delete".
- "Del"** (**Delete**, in Enter/Edit)—lets you delete records entered in a database (using < CTRL > < DEL >). It automatically includes "View" privileges, but not necessarily "Add" or "Change".
- "Srt"** (**Sort**, in Enter/Edit)—lets you sort data (records), in index files and physically.
- "Mod"** (**Modify**, in Create, Report and File Utilities)—lets you load a screen layout in Create, update records on the disk in Report (page 60), restructure a database in File Utilities.
- "Prt"** (**Print**, in Report)—is needed to load a print layout in the Report module, where you can generate subfiles and print reports. With "Print" but not "Modify" privileges, you can't update the fields on records on the disk in Report math operations.

Encoding/Decoding Files

If you wish to protect a file that isn't scrambled by encoding it, or to decode a scrambled file (which is necessary to merge it with word processing files, for example), you can change the coding status. Encoding or decoding generally takes considerable time, although it varies with the size of the file.

Enter the Password Table (above) by pressing < CTRL > p. Now press < f1 > and one of two questions appears on the command line:

"Encode data?N" (appears if the file isn't currently scrambled).

- To scramble the data, enter **y** and press < RETURN >. **"Encoding [file name]"** appears on the command line while the function is being performed.
- If you don't want to proceed with the encoding, simply press < RETURN >.

"Decode data?N" (appears if the file is scrambled).

- To unscramble the data, enter **y** and press < RETURN >. **"Decoding [file name]"** appears on the command line while the function is being performed.
- If you don't want to proceed with the decoding, simply press < RETURN >.

To code a file differently, you must change the Master password. See above for details.

Sort Records

Records in files are often entered in random order, which may make them difficult to use. To work with records in a useful order and to facilitate faster searches for particular records, you can sort files. For example, to speed up searches (page 42) for people's last names in a data file, sort by the last name field.

You can sort the records in a file alphanumerically (by order of numbers and then letters, or in reverse) by up to nine fields. If you sort first by the last name field, for example, and two or more last names are **"Smith"**, the Smiths may be sorted in random order. But if the second sort field is first name, the record of John Smith will come before the record of Mary Smith (in alphanumeric order). And if there are two John Smiths, you can sort them by a third criterion such as city.

If the file is being sorted according to fields containing numbers, they must be entered consistently for the index to be accurate. For example, if data in the field being sorted by is left aligned, **"32"** would come before **"9"**. You could enter the numbers using an appropriate number of zeros—eg. **09**—but the easiest way is to format the field as right aligned in Create (page 34).

Each sort produces an index file that is saved onto the disk. Rather than actually re-arranging the order of the records on the disk (see Physical Sort page 51), index files guide the program to quickly find and work with the records in the order the index specifies. The record number displayed when you load a database using an index is the number according to the index.

Pocket Filer can access up to 9 index files for each database.

(In addition to the selective control over a file offered in Sort, the Report module lets you generate and print selective reports, subfiles using mathematical calculations and based on selected records, and subfiles that can merge with word processing files.)

To sort a file, press < **C** >, **s** at any time while in Enter/Edit.

"Sort:" appears on the command line—if this is the first time you've accessed a file since entering the program, no name appears after the colon. Enter the exact name of the file you want and press < RETURN >.

- If you have worked on a file since loading the program, the name of the most recent file you've accessed appears after the colon. If you want to sort that file, simply press < RETURN >. To sort a different file, enter its exact name and press < RETURN >.

You can see a list of files on any disk, which may help you choose one. You can also choose a data file to be sorted from a directory (page 24). Put the cursor on the file name in the directory, press < **C** >, **s**, < RUN/STOP > (which reads the file name onto the command line) and < RETURN >.

"Enter password:" appears if the database is protected with a password other than the Master password (page 47)—Enter the Master password, or a password with Sort privileges, and press < RETURN >.

If you enter a password without Sort privileges, "**Insufficient privileges. Press a key**". appears on the command line. If what you enter is not a password, "**Invalid password. Press a key.**" appears. In either case, the blank record doesn't appear. After you press a key, you're returned to the "**Sort:**" question, i.e. as if you had just pressed < **C** >, s.

If the file is found, a blank record appears (i.e. descriptive text appears, but no data is in the fields, which are highlighted). If a file of the name entered is *not* found on the disk, "**File not found**" is displayed, and you're returned to "**Load:**".

Criteria

Move the cursor in the blank record into the first field by which you wish to sort, and press < **f1** >. (The cursor moves between fields by the methods described on page 41.) The figure "**1**" appears in the field and the cursor moves into the next field.

Now put the cursor into the second field, if any, that you wish to sort by (which determines the order when two or more records have the same data in the first sorted field) and press < **f1** > again. The figure "**2**" appears in the field and the cursor moves into the next field.

Repeat for as many fields as you wish to sort by, up to 9 criteria, in order.

If you change your mind and wish to change the order or *eliminate some criteria*, press < **f3** >. This makes the highest number disappear from its field, no matter where the cursor is.

To repeat it (eliminate the next highest number), press < **f3** > again.

To exit safely from sorting, press < **C** > and don't remove the disk from the drive until the drive's activity list goes out.

To later see in what order an index file on the disk has been sorted, load an indexed file specifying the desired index number (page 40). The first sorted record appears on the screen, with numbers for fields representing the order of the sort following "**Sorted by:**" on the command line.

Start the Sort

When you have entered as many criteria as you wish to sort by, press < **f5** >. Now:

"**Sort in Ascending or Descending order?A**" appears on the command line.

—If you wish to sort in normal numerical and alphabetical order (low numbers to high numbers, then A to Z), press < **RETURN** >.

—To sort in reverse order (Z to A, then high numbers to low numbers), enter **d** and press < **RETURN** >.

"**Index file number (1-9/N):N**" appears next, in which "**N**" is the number of the index file most recently accessed, if any (**1** if this is the first sort). Enter a number from 1 to 9 you wish the index file to have on the disk and press < **RETURN** >.

Warning: any existing index file for the data with the same number is automatically overwritten without a safety check.

"**High-speed sort?Y**"—To employ the normal sort, checking all the characters of all the fields being sorted, enter **n** and press < **RETURN** >.

—To use the high-speed sort, simply press < **RETURN** >. This is much faster than normal, though some records with similar data might be out of order. The maximum degree of accuracy to sort the file going through it just once (one pass) is used, rather than going through it as many times as necessary to sort completely accurately.

If the database can be accurately sorted in one pass without using the high-speed sort, it will automatically do so, and the next question will not appear.

Otherwise "**Accuracy is N characters. Continue?Y**" appears, where "**N**" is a number of characters applied to the first field chosen to sort by; if the field contains fewer characters than the number displayed, the excess is applied to the next sort field.

—If the field you're sorting by has similar data in the records and the number "**X**" is small, the high-speed sort may be inaccurate. To sort normally, enter **n** and press < **RETURN** >.

—If the field has dissimilar data or the number "**X**" is large, simply press < **RETURN** > to get the high-speed sort. That is, if the number is equal to or more than the number of significant characters in the field (enough to distinguish fields), the high-speed sort is accurate.

For example, if record 77 contains "**Smithy**", record 97 contains "**Smithfield**" and the accuracy number the program displays is **5** or less, the sort won't distinguish between

the two and may get the two records out of order. If the number is 6 or more, the sort will be accurate in this case.

Next the index file is created and you're returned to the "Load:" question in Enter/Edit. Sorting takes from a few seconds for a short file, to an hour for a normal sort of a database file occupying an entire disk (less if you're using a 1571 disk drive on a Commodore 128, or on files in a RAM expander).

To exit during a sort, press < C >. However, all sorting work is lost and you return to the "Load:" question on the command line.

The index file appears in the directory with the same name as the file, but with "/iN" appended (eg. a sort of the "address book" file produces the indexed file "address book/i1" if "1" is entered for "N".)

When you next want to use this database file, you'll be asked if you want to use the index file. If you choose to use it, the records will be retrieved in sorted order and will display a record number according to the index.

If you wish to keep more than 9 index files for a database, or to store an index file using a descriptive name, you can rename the file on the disk (see Disk Commands, page 26). To re-use the index file, change the name again so it ends in a slash mark, "i" and a number from 1 to 9 (so it's recognized as an index file).

Index Update

If you delete records while using an indexed file, the program saves the correct version of the indexed file when you exit (but other index files become unreliable). You can also change data in fields by which the index was *not* sorted, and the index remains accurate.

In all other cases—adding records or changing data in any field by which the index was sorted, or deleting records while using any other index (or no index)—the index becomes unreliable. The search function assumes the index is sorted properly, so it may not work if the index isn't updated.

To update the index, you must re-sort it (and all other indexes).

Automatic Update: Automatic index update keeps the current index accurate as you change records. If the database has more than one index, however, the other indexes become outdated and should be scratched or re-sorted.

To turn the automatic index update on or off, press < CTRL > I (shift i).

When it's on, an index is automatically updated whenever you've used the index in loading the database in Enter/Edit.

If you add a new record or change a record in a field by which the database is indexed, and then move to another record or exit, the record is numbered in the index to fit accurately, and the rest of the database is renumbered in the index (in the raw database, new records are added at the end). This is very fast if the database is loaded in a RAM-expander disk on the 128, and slower if the record must be updated onto a floppy disk.

If you turn automatic update off, then enter a record, and then turn it back on, the index is unreliable because you entered a record which was not inserted properly in the index. You must resort the database, or turn autoindex back on, move to the record, and then change it, which will have the computer update the index.

Automatic index update can be set on or off in the "configure" file; simply enter **on** or **off** as desired after "index update=".

Physical Sort

To print records in sorted order into a word processing file, an index file is insufficient: you must re-arrange the actual order of the records on the disk.

Another reason for a physical sort is if you plan to work frequently with the records in the sorted order. Working through an index file takes slightly longer than moving between records stored directly in the desired order.

Before you can physically sort a database, the disk must contain an index file by which to sort them. If one drive is being used, the disk must also have as many blocks free as are occupied by the file being sorted.

To first see how an index was sorted, load the file while selecting the number of the desired index file. The first sorted record is loaded, with "Sorted by:" on the command line followed by numbers representing the order in which fields were sorted, starting from the top left. As soon as you press a key, the numbers displaying the sort order disappear.

To start a physical sort, press < **C** >, **S** (shift s).

“**Physical sort:**” appears on the command line, followed by the most recent file accessed, if any (often the file you wish to sort). As above, enter the name of the file you wish to sort and press < **RETURN** >.

“**Index file number (1-9/N):**” appears, next, followed by the number of the most recent index file accessed, if any (often the one by which you wish to sort). Enter the number of the index file by which you wish to sort and press < **RETURN** >.

“**Device number:**” (on the 64) or “**Drive number:**” (on the 128) appears, followed by the current device or drive number. This asks what disk the sorted file should be saved onto.

The safest, easiest method is to put the new file on a new storage disk and then scratch the original file. If you want the file back on the original disk, then copy it using File Utilities (or the copy command, if you have a RAM-expander disk).

This also allows physical sorts of larger files. If you sort onto the disk the database already occupies, the old file is saved while the new one is being created, so the file can occupy only up to half the disk. But if you use two drives, the database can be as large as a disk (in this case, the new storage disk would have to be virtually empty).

Physical sorting may take a long time, depending on the size of the database. It creates a temporary new file to store records in sorted order. When the new file is complete, the old file is scratched (erased) and the new file is given the same name as the old file.

Exiting

Pressing < **C** >, which is often used to exit from a function, may also be used in Enter/Edit to “close” a file. When records are loaded in memory, the file on the disk is considered “open”. If you remove a disk with an open file from the drive, you could lose the data on it.

Pressing < **C** > (and waiting for the drive’s activity light to go out) is a safe procedure if you want to remove the disk. The usual Commodore key options appear, while any changed records currently in memory (both on the screen and in the memory buffer) are saved.

To load a record from another file, press < **C** > a second time or **L** (the letter L). You’re returned to the same “**Load:**” question as when you arrive in Enter/Edit (page 39).

If you’ve deleted records while using an indexed file, the correct version of the indexed file is saved when you exit using < **C** >. However, if you’ve changed other data in an indexed file—deleting or adding records or changing data in a sorted field—the index becomes unreliable for searching unless it was updated. See Index Update, above.

File links are retained when you exit a database, so if you re-enter it moving between records is faster. If you press < **C** > twice, which returns you to the load question, and press < **RETURN** > to load a record of the same file, all the previously loaded links are remembered.

Calculator

Any time the Commodore key menu is displayed in Enter/Edit (usually after < **C** > is pressed), you can obtain a full-featured calculator. After pressing < **C** >, press **C** (shift c) and “**Calculator:**” appears on the command line.

In Enter/Edit only, you can also obtain the calculator by pressing < **CTRL** > **c**. This lets you perform calculations without exiting from the current database.

Enter any math calculation available on pages 63 to 64 (for example, @**log(1.41 * F3)**, referring to field 3 of the current record) and press < **RETURN** >. The result is displayed on the command line.

Report Module

Pocket Filer 2 gives you considerable flexibility in generating reports and printing your database. You can print some fields and not others, re-arrange the layout to a special print layout, add fixed data to be printed in every record, and arrange records in columns to save space or print labels.

You can also perform mathematical calculations based on data in the records, create subfiles using search criteria and make reports usable as word processing files.

Loading a Print Layout

After you’ve entered Report from the Main Menu, “**Load:**” appears on the command line, asking for the name of a file. The storage disk must be in the drive before proceeding; replace the

Pocket Filer disk with the storage disk, if necessary. The disk must contain both the screen layout and the records in its database, or else the data can't be used.

The following queries appear on the command line (some may be skipped):

“Load:”—If this is the first time you've accessed a file since entering the program, the space after the colon is blank. Enter the exact **name** of the file you want and press **< RETURN >**.

You can also load a layout from the list of files on a directory of the disk, which may be easier. Move the cursor to the file name in the directory and press **< RETURN >** (see also *Directories*, page 24).

—If you have loaded or saved a data or layout file since entering the program, the name of the most recently accessed file appears after the colon.

■ To generate and/or print a report from that file, simply press **< RETURN >**.

■ To generate and/or print a report from a different file, enter its exact **name** and press **< RETURN >**, or load a file from a directory, as above.

If a file with the name you have entered is not found on the disk, **“File not found”** appears and you're asked again to load a file.

“Drive Number:0” (skipped if a drive number is specified in the **“configure”** file, page 17)—

If the disk you're loading from is in drive 0 (a single drive is always numbered 0), simply press **< RETURN >**.

—To specify a different drive number than appears, enter **the number** and press **< RETURN >**.

—To specify a different drive number than in the **“configure”** file, insert **the number** and a **colon** (eg. 1:) *before the file name* in the previous (“Load:”) question.

“Enter password:” (skipped if the database doesn't have a subordinate password, page 48)—enter the Master password, or a subordinate password with “Print” privileges, and press **< RETURN >**.

If you enter a password without “Print” privileges, **“Insufficient privileges. Press a key.”** appears on the command line. If what you enter isn't a password, **“Invalid password. Press a key.”** appears. In either case, the file doesn't load and you're returned to the load question; i.e., as if you had just pressed **< C >**, **l**.

“Load layout number (1-9/N):” (skipped if no print layout exists on the disk for this file) with the number of the most recently accessed print layout, if any, following the colon—To create a print layout from scratch, enter **n** and press **< RETURN >**.

—To load a print layout, enter **the number** and press **< RETURN >**. Any print options saved with it (page 66) will be used again if you print using **< C >**, **p**. To load a layout without these saved print options, see page 70.

Now a print layout appears on the screen, different from a screen layout because several dividing lines stretch across the entire screen.

To load a different print layout, press **< C >** and **l**. As above, you can enter another database name (or keep the same one, if you want to load a different print layout) or load from a directory. The current layout disappears, so remember to save it first (**< C >**, **s**) if you want to use it again.

The Print Layout

Print layouts contain heading lines that divide it into several areas that control reports and printouts. A facsimile of the screen with a blank layout, following which each section is described, is:

```

||||| RECORD LAYOUT |||||
----- Header -----
----- Body -----
----- Footer -----
||||| MATH IN RECORDS |||||
||||| REPORT TOTALS |||||
----- Header -----
----- Body -----
----- Footer -----
||||| MATH IN REPORT TOTALS |||||
REPORT MODULE
```

Layout Size: Like the screen layout, a print layout can have up to 160 columns horizontally, which you can see by scrolling leftward and rightward. Unlike the screen layout, the vertical depth of a print layout is limited only by memory in the computer available to store text and other data entered. See Memory Check below.

Cursor Movement: You can move the cursor all over the print layout using the same controls as in a screen layout (page 30). These include the cursor keys, < HOME > and tabs. The cursor position is displayed on the command line by "C=" showing the column number (up to 160) and "L=" showing the line number (without limit).

Text Manipulation: Entering and editing text in the print layout is similar to manipulating text in a screen layout (page 31). These include using < CLR > to clear data below the cursor, < CTRL > < INST > to insert lines and < CTRL > < DEL > to delete lines. However, ranges aren't available.

Note: Each section of the layout that can have data in it has a blank line when it appears on the screen. *This is purely for convenience*, to make the sections more distinct. Every line in the Body section will appear when you print out records, and any line in the Totals section will appear in the Totals report. Remember to remove any blank lines you don't want before printing the database, or they'll show up on the page and alter the count on the page length.

Print the Current Layout

At any time in Report, you can print a hard copy of the current layout. First, a printer file must be installed, whether by selecting one when you load the program (page 11) or by installing one later (page 27).

Simply press < CTRL > P (shift p), no matter where the cursor is, and the current print layout is printed.

If the record is wider than your printer's capacity, it continues on the next line (wraps around).

Memory Check

Whenever you're editing a print layout on the screen, you can see how many bytes are left in the computer's memory. Press < CTRL > M (shift m). Now the command line displays the number of bytes free, taking into account those used by the *Pocket Filer* program and the current file in memory. When all the memory is used, you can't enter any more data into the print layout.

Record Layout

The section between "RECORD LAYOUT" and "MATH IN RECORDS" is where you determine the form for printing pages that contain records. Each page may contain a header at the top and footer at the bottom, with records filling up the space between them (the body).

Functions available in "MATH IN RECORDS" are described under "REPORT TOTALS—MATH STATEMENTS" below.

Body

The space below "Body" establishes how each record will print. You can include:

- *descriptive text* (as in screen layouts, page 29)
- one or more *fields* selected from the screen layout
- "*display positions*" whose data is entered by mathematical calculations (below).

Page Length: In a printed report, the body section of the layout is repeated for each record to the extent that space allows on the page (page 66). It's common to insert a blank line at the bottom of the body so there's always a blank line before the next record is printed.

For example, if headers and footers (see below) occupy 10 lines of a 66-line page, 56 lines are left to print the body. If the body occupies 14 lines (the last one likely blank) and is printed consecutively down the page, four complete records will print on the page.

If the body occupies 15 lines, three complete records (45 lines) and 11 lines of the fourth record are printed. The remaining four lines of the fourth record will print at the top of the next page, unless you specify a new page when a record "breaks" (page 69).

Entering Text: To enter descriptive text in the report layout, simply type it in, using the same editing functions as in Create (except ranges). As described below, to see the text in the screen layout, press < F5 > (or < ESC >) to move between the report and screen layouts. For example, you could type **Preferred Address:** before a field containing that information. And you can leave blank space to create a layout that's easy to read.

Arranging Fields: To see the database's screen layout, press < f5 >. Immediately the layout appears, with "F=1" on the command line indicating that the cursor is in the record's first field. Using < CRSR down > and < CRSR up >, you can move into any field and determine its number. However, you can't move into the descriptive text.

To choose a field for the report layout, simply put the cursor on the field, which highlights it ("picks it up"). Return to the print layout by pressing < f5 >. Put the cursor at the space where you want the field to begin in the print layout and press < f1 >. Now the field appears in the layout with its number starting at the leftmost field marker, which is where the cursor was.

If you move the cursor to a new location and press < f1 > again, a copy of the field appears—it's still "picked up" from the screen layout and you can "drop" as many copies as you wish.

Fields can't be dropped into space that is occupied by any character or field marker. If any part of the dropped field would overlap a character, nothing happens when you press < f1 >.

To move a field to a different line within the report layout, delete it and drop it again. To delete a field, put the cursor in the field and press < f2 >. Or, if it's convenient, you can delete the line the field is on by pressing < CTRL > < DEL >.

To move a field leftward on a line, delete spaces to its left (< DEL >).

To move a field rightward on a line, insert spaces to its left (< INST >).

Display Positions: To define a display position—the equivalent of a field, but solely to enter data produced by calculations (see below)—put the cursor on a blank space you want included in the position and press < f3 >. A box character with a dot appears.

Now move the cursor left or right, and the display position increases in size as you move away from the first marker, and decreases as you move toward it. The cursor will not move into a space occupied by a character.

To cancel a display position before it is defined, simply press < Cx > and the position markers disappear.

When the display position is the correct size, press < f3 > again and answer "Display position number:X", where "X" is the number of the next available display position, starting at 1 (up to a maximum of 255). Press < RETURN > to accept the number, or enter another number and press < RETURN >. The number you've chosen then appears on the display position's first marker (unless it duplicates an existing number, in which case the initial number reappears).

To delete a display position, put the cursor on the position and press < f2 >.

Field and Display Position Length: If a report layout used in printing contains data on a line that is wider than your printer is capable of, any excess data (or space, in the case of fields and display positions) is carried over (wrapped around) to the next line.

You can shorten a field or display position by putting the cursor on it and pressing < DEL >.

Similarly, to lengthen a field, or display position put the cursor on it and press < INST >. The field or display position must have at least two characters to be lengthened; if it has only one, delete the character and re-establish the field or display position.

You can also eliminate trailing spaces, the wasted space after data in large fields (see below).

In the program disk's "address book/p2" file, display positions D3 and D4 are each one character long, while D5 and D6, for example, have several characters.

Trailing Spaces: Fields and display positions have a length fixed by the number of field markers or box characters used to establish them. For example, if a first name field and a last name field are one space apart and consist of 10 spaces each, extra space that may look awkward will appear between short names. "Sam Lount", for instance, would print as "Sam Lount " (Sam, 7 spaces, 1 separating space, Lount, 5 spaces).

To print "Sam Lount" (with only one space between them), put a space between the two fields while creating the report layout. Then put the cursor on the field from which you wish the trailing spaces removed (in the example, put it on the "first name" field), and press < CTRL > s. Now "Spaces removed" appears on the command line.

To reinstate trailing spaces, do the same thing (it's a toggle function): Put the cursor on the field and press < CTRL > s. Now "Spaces NOT removed" appears.

In the program disk's "address book/p2" file, trailing spaces have been removed from the last name field and several address fields.

Fix Field/Display Position: To be sure of printing a particular field or display position in a column, put the cursor on the field or display position you want to print at a particular distance from column 1 and press < CTRL > f . "Position fixed" appears on the command line; it begins printing at that point even if trailing spaces have been deleted from fields or display positions before it on the same line.

To "unfix" a field or display position, simply put the cursor on the field and press < CTRL > f (it toggles on/off). "Position not fixed" appears on the command line.

For example, suppose you want to print an address list with one record per line, with each address starting at the same column as follows:

[first name field] [last name field] [address field].

You may eliminate trailing spaces in the first name field, which makes the last name start just after the first. However, the address then would also be pulled to the left whenever the first name didn't occupy all the spaces in the first name field. To start the addresses all in the same column, fix the address field.

To print names and addresses from the "address book" database on one line, enter all the fields you want beside each other. If they're wider than your printer, you can:

- reduce the size of the fields using < DEL >, (producing regular columns),
- eliminate trailing spaces in fields using < CTRL > s (which will usually produce irregular columns and may still require another line for data), or
- print in condensed type, such as 15 or 20 pitch (page 66) if your printer has them.

Summary:

- < f5 > or < ESC > -moves between the report layout and the screen layout
- < f1 > -drops a field in the report layout
- < f2 > -deletes the current field or display position in the report layout
- < f3 > -defines a display position (press once, move cursor to desired size, press again)
- < DEL > -deletes a character (text, field or display position)
- < INST > -inserts a blank space (text, field or display position)
- < CTRL > < DEL > -deletes a line in the report layout
- < CTRL > < INST > -inserts a blank line in the report layout
- < CTRL > s -eliminates/reinstates trailing spaces in field or display position
- < CTRL > f -fixes field to begin at the current column/unfixes

Headers and Footers

To print a special piece of text at the top of each page (such as the page number and the title of the report, or headings for columns), enter the text in the space between "Header" and "Body" in the report layout. And to print a special piece of text at the bottom of each page, enter the text between "Footer" and "MATH".

Fields and display positions may also be printed in headers and footers.

You may wish to insert blank lines above a header and below a footer to create a border at the top and bottom of the page. And you may wish to insert blank lines below a header and above a footer to separate them from the records printed in the "Body".

Lines occupied by headers and footers are subtracted from the page length in calculating the printed lines available for the body (see above).

Headers may also be used for column headings. In printing the "address book" file on one line, for instance (see above), you could enter **Name**, **Address**, and **Phone** above the appropriate columns.

Printing Page Numbers: To represent the page number in a header or footer, enter <> (the less-than and greater-than symbols). When printed, these symbols are replaced by the current page number.

The page number doesn't have to be alone as a separate part of the header. For example, - <> - prints hyphens (and spaces) before and after the page number, and Page <> prints "Page 1", "Page 2" etc. (as in "address book/p2").

To print standard mailing labels (with five lines, one each for name, street, town/city, state/province, zip/postal code) delete the header and footer, and use six lines (one blank) in the body section.

Report Totals—Math Statements

The section below "Report Totals" in the print layout (page 53) is where you can produce a special report that can use number calculations and text manipulations derived from all the

individual records printed. Values calculated in math statements are taken from the last record or when they were last updated.

The Body contains text, fields, and/or display positions, the same as in the Record layout (although it's printed just once). The Header and Footer sections are also the same as in Record Layout (though also printed just once); you can also print the current page number by entering <>.

To perform any calculation using numbers in a field, the field must have been defined as numeric in Create (page 33). To perform functions using text in a field, the field must be alphanumeric.

For example, you could enter in the Body the text **Number of Records:** followed by a display position. Then, if the Record Layout contains the information in Example 1 on page 59, when you print the report, a page at the end will contain "**Number of Records: N**", where "N" is the number of records.

In Example 2 on page 59, you could establish a second display position to display "**Total:**" and in Example 3 on page 59 a third display position to display "**Average**".

In the program disk's "**address book/p2**" file, the number of records is counted and reported, as well as the number of records with two telephone numbers.

Math Statements: The math section consists of a series of *statements* (see below) that are executed one at a time to determine what will be printed in the fields and display positions. You can also update a record or the disk—i.e. as it will be seen in Enter/Edit—with data calculated in a math statement.

A statement is an instruction in Report to perform a particular task. There are several types of statements:

- **Assignment**—assign a number or string of text into a location in the layout, or calculate a value that can vary with each record.
- **Conditional** (decision)—execute a group of statements based on the current values when the statements are entered (in each record, or in the totals at the end). They are also referred to as "if...then" statements.
- **Control**—The only one is the "update" command. This resaves onto the storage disk records with any changes made to the fields through assignment statements. The update command normally appears at the end of the "MATH IN RECORDS" sections.
- **Comment** (not used in calculations)—let remarks appear on-screen but not in printouts.
- **Other**—including error-checking aids such as "trap", "moveto", "bell", "message" and "wait".

Statements in the "MATH IN RECORDS" section are executed once per record, and the result is placed, as required, in a field or display position in the Record Layout. They're saved in the records on the storage disk only if followed by the "update" command.

Statements in the "MATH IN REPORT TOTALS" section are performed once per database and the result is placed, as required, in a field or display position in Report Totals, printed at the end.

Calculations are not performed when the report is printed using multiple columns (page 67).

References: Fields may be referred to by *name*, if a name has been defined in Field Options (page 33), or by *fN* in which "N" is the *field number* (eg., f3 is field 3). Display positions are referred to as *dN* in which "N" is a number (eg., d2 is display position 2). If a field or display position referred to doesn't exist, "**Position undefined**" appears in the command line.

Assignment Statements

An assignment statement establishes how a value is to be calculated, where a value or a string of text is to be displayed in the print layout, and how it is to be formatted.

The following chart summarizes an assignment statement, followed by an explanation of each element and several examples. To form an assignment statement, pick an option from each column—though formatting (at right) is optional—and enter it on one continuous line in a math section (records or totals) of the layout.

<u>Command</u>	<u>Object</u>	<u>Location/Value</u>	<u>(Appearance—Formatting)</u>		
put	[formula] [string]	into [field name] [field] [display position #] [variable #]	using	l , -15 r (to c \$ 37 d %	

Assignment Command: is the verbal part of an assignment statement (**put**).

Object—String: if you want strings of text (alphanumeric characters) assigned to a location, simply enter it between double quotes (") as the object after the command. If a field is defined as alphanumeric, the data in it is considered a string of text.

Object—Formulas: A formula (also known as mathematical expression) consists of numbers, variables, field and/or display positions that can be operated upon by mathematical functions (see below). When a statement containing a formula is executed, the formula is calculated (evaluated) and the resulting value is used in the assignment statement. If an error (eg. division by 0, a syntax error or some other impossible statement) is encountered when a statement is executed, execution of the math section will stop. An error message will appear in the command line, and the cursor will appear on the erroneous statement.

Location/Value: after **into**, may employ one or more of:

- **Fields**—identified by name (page 33) or by number, from **F1** up to **F255**. Fields may be used as values (sometimes in formulas) or locations into which values are put.
- **Display Positions**—identified by number, from **D1** up to **D255**. Like fields, display positions may be used as values (sometimes in formulas) or as locations into which values are put. Text can also be assigned to a display position, which will have the value of zero if used in math.
- **Variables**—identified by number, from **V1** up to **V64** (on the Commodore 64) or **V255** (on the 128). Variables store changing numerical values, starting at **0** before the first record is calculated. They can be used to count records (both as a running total—record by record—and as a total at the end of the report), store calculation results and/or calculate other values. In "Report Totals", their value is set after the last record is processed, which may incorporate values from previous records.
Unlike fields and display positions, variables are never locations; they're displayed only when you assign them to a field or display position using an assignment statement.

Values represented by fields, display positions and variables aren't necessarily related, eg. **F1**, **D1** and **V1** aren't related unless a statement explicitly links them.

Formatting (optional): controls the appearance of the value or text assigned to a field or display position. None or any of the formatting options may be used; if an option cannot apply (eg. "%" on a string of text), it is ignored.

The options, following **using** (if nothing follows this, the report won't print and "Syntax error" appears), are:

a) **Position** (values default to the right, strings of text to the left of the field or display position):

<u>To make the data:</u>	<u>enter:</u>
<i>centered</i>	c
<i>left aligned</i> (at left)	l (the letter L) or remove "r" or "c", in the case of values
<i>right aligned</i> (at right)	r or remove "c" or "l", in the case of strings of text
<i>duplicate to end</i>	d

b) **Punctuation:** Punctuation symbols—,(\$%—let you choose one and only one of:

Commas [,]—inserted every third digit left of the decimal point (whether or nor the decimal is visible).

Parentheses [()]—enclosing every negative number, with a decimal point where appropriate, commas every third digit to its left and two digits to its right (for cents). The third decimal place, if any, is rounded off. To change the number of digits right of the decimal points, use "decimal places", below.

Dollar Sign [\$]—inserted before the number, with parentheses around negative numbers, a decimal point where appropriate, commas every three digits to its left and two digits to its right (any third decimal place is rounded off). If you don't want the decimal point and cents displayed, or want more than two decimal places to the right of the decimal point, change "decimal places" (see below).

Per Cent [%]—multiplies a value by 100 and adds a percent symbol.

c) **Decimal Places:** to specify the number of decimal places to display, which also affects the value used in calculations, enter a **number** from **-15** to **37** immediately after the punctuation command.

A **positive number** specifies the number of decimal places to be displayed to the *right* of the decimal point (for example, entering **3** would display **2.5678** as "**2.568**").

0 rounds off the value into a whole number. A **negative number** specifies the number of decimal places to its *left* (for example, entering -6 would display 552500 as "100000"). For example, **f6-f5 using \$0** rounds off the cents in the value f6-f5. **v5+v4 using -3** rounds off the value of v5+v4 into thousands.

In the "address book/p2" sample file, two assignment statements using commas and left alignment (with trailing spaces removed) are in "Math in Report Totals".

Example 1: Count Each Record—enter in the "Math in Records" section:

```
put V1 + 1 into V1
put V1 into D1
```

Before the first record, V1 starts at 0, so its value in the first record is 1. If D1 is established in the Body, it will display each record number with the record when printed. (The mathematical function @rn—page 64 also displays the record number.)

Example 2: Total of the Field—to obtain in "Report Totals" the total of the values in field 5, enter in "Math in Records":

```
put V2 + F5 into V2
```

Enter in "Math in Report Totals":

```
put V2 into D2
```

If D2 is established in the body of "Report Totals" section, the report will display the total for the database.

If F5 is named "income" in Field Options (page 33), the first formula can be entered as "Put V2 + income into V2".

Example 3: Average—to obtain the average value in field 5, enter in "Math in Records":

```
put V1 + 1 into V1
put V2 + F5 into V2
```

The first line establishes the number of records (as in Example 2). The second establishes the total of field 5 (as in Example 2). Also, enter in "Math in Report Totals":

```
put V2/V1 into D3
```

If D3 is put in the body of "Report Totals", it displays the average, i.e. the total divided by the number of records.

Conditional Statements

The general form (syntax) of a simple decision (conditional) statement is:

```
if (condition)
statement(s)
endif
```

If the condition is true, the statement(s) will be executed. If it's false, the statement(s) will not be executed. Note that statements below the condition are usually indented, for visual clarity. In the program disk file "address book/p2" the "if" statement determines whether a phone number is present by comparing the total of the phone number's fields with 0. If the total is not equal to ("<>"—page 65) 0, then several statements are executed (adding text to be printed with the number).

Complex conditional statements can take the form:

```
if (condition)
statement(s)
or
0 elseif (condition)
statement(s)
or
more
0 else
statement(s)
or
1
endif
```

The top section is a simple conditional statement: if the condition is true, the statement(s) are executed.

The second section uses the "elseif" command. If the first condition is *not true*, a second condition will be tested. If the second condition isn't true, a third can be tested...and so on.

The third section uses the "else" command. If all conditional statements coming before it are *not true*, then the statement(s) here are executed.

The bottom part is the standard end to conditional statement, using "endif" (end the "if" statements).

Example 4: "amount" refers to a field in each record. "v1" refers to a variable tax rate dependent on the amount (of income), and "v2" refers to a rebate also varying with the amount.

```
if amount <=0
  put 0 into v1
  put @abs(amount)*0.2 + 500 into v2
elseif amount <=5000
  put 0.017 into v1
  put amount *0.1 + 250 into v2
elseif amount <=17500
  put 0.117 into v1
  put amount *0.05 into v2
else
  put 0.25 into v1
  put 0 into v2
endif
```

If the amount is less than 0, the tax rate is 0 and the rebate is (\$)**500 + .2 of the amount**.
If the amount is 0 to 5,000, the tax rate is 0.017 and the rebate is (\$)**250 + .1 of the amount**.
If the amount is 5,001 to 17,500, the tax rate is 0.117 and the rebate is (\$).**05 of the amount**.
If the amount is 17,501 or more, the tax rate is 0.25 and the rebate is 0.

Example 5: Quarterly sales in 1987 can be calculated depending on one field named "date" (taking the numeralized form of "YYMMDD"—Year/Month/Day) and another called "sales".

```
if date >= 870101 @and date <= 870331
  put v1 + sales to v1
elseif date >= 870401 @and date <= 870630
  put v2 + sales to v2
elseif date >= 87+701 @and date <= 870931
  put v3 + sales to v3
elseif date >= 871001 @and date <= 871231
  put v4 + sales to v4
endif
```

Labels (Loops): To establish a reference point in a conditional statement that enables calculations using more than one record, put a label such as "loop:" on a line of its own. Then a statement can return the math process to the label, or send it forward, using the command **goto**. (eg. **goto loop**).

New Lines and Pages: If some records are to have extra space before them when printed, or to start on a new page, enter "line" or "page" on a line of its own. "line" inserts a blank line before the current record; "page" starts the record on a new page.

These are usually used in conditional statements, because new lines and pages can be inserted directly in the layout if you want them in every record.

Control (update) statement

Any changes made to fields or display positions by assignment statements (see above) are temporary unless a control statement is used. That is, the changes are calculated in memory as the database is printed and appear on paper, but aren't saved onto the disk.

To have the changes saved so they're visible in fields when you load the records in Enter/Edit, enter "update" on a line by itself *after* the assignment statement.

Every field *above* that's affected by assignment statements will be updated on disk; anything below won't be updated. (Usually an update statement is entered on the last line, to ensure everything is updated. You'd likely enter it before the last line only if you didn't want something below the statement updated.)

If the database is protected by a subordinate password, the update function will not be performed unless the password you entered in loading the print layout has "Modify" privileges (page 48).

Update is implemented only when the final question in the print sequence (page 70) is answered. If you don't have a printer or don't wish to print, you can still update the database; see "Global Update", below.

As in Example 1 above, if an assignment statement counts the number of records in a database, each record will display its number when printed in field 1 ("Record No."):

```
Put V1 + 1 into V1
Put V1 into F1
```

But F1, which was left blank when data was entered in Enter/Edit, will still be blank the next time you load records from the database. To update the field in the records, enter a control statement (update command) after the assignment statement:

```
Put V1 + 1 into V1
Put V1 into F1
Update
```

Now when you print the report, the number of each record will be saved onto the storage disk and displayed when the records are loaded in Enter/Edit. And if you establish D1 in "Report Totals" and enter in "Math in Report Totals":

```
Put V1 into D1
```

D1 will display the total number of records when the report is printed.

Global Update: Control statements can also be used to perform global updates. Actual printing isn't necessary if you remove all data from the Record Layout (leaving only math statements in "Math in Records").

For example, if field 1 is a particular sale price, you can automatically calculate field 2 as the gross revenue including a seven-per-cent sales tax. When entering sales figures in Enter/Edit, simply leave F2 blank. Then load a print layout and enter in "Math in Records":

```
Put 1.07 * F1 into F2
Update
```

Now print the report (selectively by record number or using search criteria if the database contains records you don't want to update this way), and the gross revenue will appear in each record in Enter/Edit.

Another use of global updates is to enter constant data in fields.

For example, if you're entering 50 records for people in California, instead of entering **California** in each State field, leave the field blank in Enter/Edit. Then load a print layout for the file in Report, and in "Math in Records" enter:

```
Put "California" into state
Update
```

Now when you print the report (which will be faster if you delete all data and blank lines from the Record Layout), each record will automatically have "**California**" entered in the State field.

If other states are present in the database, you can accomplish the same task simply by specifying under Print Options (page 68) the numbers of the records you want "**California**" added to (as long as the California records are consecutive and you know the record numbers—usually by sorting, page 49).

"Message", "Bell" and "Wait" Statements

Three math statements are useful to check errors or to display on the screen what the computer is doing. They can also be used in math files in Enter/Edit module (which are entered in Create).

Message: the statement **message**, followed by a text enclosed in double quotation marks (") displays the text on the command line.

Bell: the statement **bell** rings the bell in the monitor (if the bell is turned on—page 20).

Wait: the statement **wait** stops the program at that point until you press a key (any key but < **C** >).

Used together in a conditional statement, these three statements can help you catch errors or problems. For example,

```
if f6<0
  message "ERROR in Field 6 calculations!"
  bell
  wait
endif
```

displays the error message whenever the current calculated value of field 6 is less than zero. You then can correct data in the current record (if in Enter/Edit and the statement is in a math file) or stop the report process (if in Report).

Another use is if you have set up a complicated calculation that will take several seconds to perform. To clarify what is happening you could, for example, enter **message "Calculating total revenue"** at the top of the statements that calculate the revenue.

Comment Statement (remark)

Comment statements let you insert notes into the math sections of a print layout that aren't printed and thus don't affect the report. They're useful as reminders of what calculations produce.

Simply put **remark** at the start of any line in "Math in Records" or "Math in Report Totals", and any following text on the same line is ignored. It shows up only on the screen (or if you print the layout, page 54).

In the first global update example under Control Statements, above, you could enter:

```
remark: calculate revenue including sales tax
Put 1.07 * F1 into F2
Update
```

In the program disk's "**address book/p1**" file, the line "**remark This layout can be used for mailing labels**" won't be printed. And "**address book/p2**" has several remark lines to explain the functions of subsequent assignment and conditional statements.

Math Functions

Pocket Filer offers a multitude of functions to calculate values. Nearly all the math functions of *Pocket Planner*, a powerful Digital Solutions Inc. spreadsheet program, are available and work in the same way.

Calculations are established in formulas or expressions entered in the correct form (see above) in the two sections, "MATH IN RECORDS" and "MATH IN REPORT TOTALS". Their values are calculated when the record is updated, or the report is printed to a printer or to disk (made into a disk file).

Arithmetic functions use one-key symbols (+ - * / ↑), while other functions use @ (the "at" key, also known as "each", to the right of "P"), and letters. Letters may be upper or lower case; the computer doesn't distinguish between them.

Spaces may separate parts of a formula (to make them easier to read), or may be omitted to save typing and room in the two math sections; the computer ignores spaces.

Round parentheses may be used to group parts of a formula—the parenthesized part is calculated first (see the order of operations, below). You may also use parentheses for visual clarity, even if they aren't needed to change the order of operations.

Up to 16 digits in a number are handled in the computer's memory and displayed on the screen (when the field or display position is wide enough). A 17th digit is rounded off: if it's 5 or more, the 16th digit goes up 1; if it's 4 or lower, the 16th digit remains the same. Large numbers are displayed using exponential notation. For example "**1.543E18**" means "**1.543 times 10¹⁸**".

The word "value" is used in the rest of this section to mean the result of an evaluated formula.

Order of Operations

To ensure consistent results, *Pocket Filer* has a natural order of performing operations when evaluating a formula. The order of operations is:

- 1) Parenthesized formulas
- 2) Negative operator (eg. -3)
- 3) Exponents
- 4) Multiplication and Division
- 5) Addition and Subtraction
- 6) Logical operators using < , > and =.
- 7) Logical operator @or
- 8) Logical operator @and

Example: $8 + 6/2$ evaluates to **11** (first 6 is divided by 2, then the result of 3 is added to 8).

Example: $(8 + 6)/2$ evaluates to **7** (first 8 and 6 are added, then the result of 14 is divided by 2).

A formula determined by one pair of parentheses may be inside another pair; the formula inside the innermost pair of parentheses is determined first.

Always use parentheses in pairs: If they are not in pairs or if the computer can't figure out the order of parentheses, "Syntax error" appears in the command line.

Example: $((5+7)/2 + 100) * 5$ evaluates to 530 (first 5 and 7 are added, then the result of 12 is divided by 2, then the result of 6 is added to 100, then the result of 106 is multiplied by 5).

Arithmetic

Addition: + —eg. $7 + 9$ (equals 16) $-3 + 8$ (equals 5) **F3 + 99**

Subtraction: - —eg. $8 - 3$ (equals 5) $-3 - 8$ (equals -11) **D5 - 85**

Multiplication: * —eg. $3 * 4$ (equals 12) $3 * -4$ (-12) **D7 * 1.07**

If a number is negative, you may put parentheses around it; but the asterisk is always necessary.

Division: / —eg. $9/3$ (equals 3) $(-9)/3$ (-3) **f2/12**

Modulo (remainder): @mod—eg. **34@mod 6** (produces 4).

To obtain the remainder when X is divided by Y (X modulo Y), enter **X@modY**.

Exponentiation [y^x]: ↑—eg. $4 \uparrow 2$ (equals 16) $-2 \uparrow 5$ (-32) **f2 \uparrow 2**

To raise a value by a power (multiply it by itself a number of times), enter ↑ (the upwards arrow) and a **number** representing the power after the value. Often the value produced differs slightly (starting at about a dozen decimal places) from the real value, eg. $8 \uparrow 2$ produces 63.99999999887655 instead of 64. You can use decimal places (page 00) to display a rounded number, or Integer (below) to actually round the number.

Fractional exponents: If a power is a fraction between 0 and 1, the resulting value is a root. The power can be expressed as a fraction in parentheses, or a decimal. For example, $25 \uparrow .5$ equals 5, the square root; $\uparrow(1/3)$ obtains the cube root, and $\uparrow(2/5)$ or $\uparrow.4$ obtains the fifth root squared (eg. the fifth root of 32 is 2, squared is 4). If the value is *negative* and the power is a fraction, an error message will appear.

Square root is another method: put @sqr followed by a value in parentheses. For example, @sqr(64) (equals 8), @sqr(d3-f8).

Negative exponents: If a power is negative (in parentheses), the resulting value is 1 divided by the equivalent positive exponential value. For example, $2 \uparrow (-3)$ (equals .125 or 1/8), $8 \uparrow (-1/3)$ (equals 1/2).

Integer: @int—eg. @int(1.7) (produces 1) @INT(-3.4) (produces -4)

To obtain the integer or whole number of a value (eliminates any digits to the right of the decimal point), enter @int followed by the value in parentheses. This is not rounding: the result is always equal to or less than the value (negative values with digits to the right of the decimal place are rounded down).

Rounding: The integer function can be used to round values into whole numbers (values ending in .5 are rounded up). Enter @int(N + .5).

Examples: @int(1.7 + .5) (equals 2) @int(-3.4 + 5) (equals -3) @int(8 \uparrow 2 - .5) (equals 64)

To round to two decimal places (eg. for cents), enter @int(N * 100 + .5)/100.

Absolute Value: @ABS—eg. @abs(16) (produces 16) @ABS(-3.4) (produces 3.4)

To obtain the equivalent positive value of a value, enter @abs followed by the value in parentheses.

Sign: @SGN—eg. @sgn(16) (produces 1) @SGN(-3.4) (produces -1)

To find a sign of a value—positive, zero or negative—enter @sgn before the value in parentheses. 1 is produced if the value is positive, 0 if the value is equal to zero and -1 if the value is negative.

Logarithm (base 10): @log

To find the base 10 logarithm of a value, enter @log followed by the value in parentheses.

Natural Logarithm (base e): @ln

To find the base e (natural) logarithm of a value, enter @ln followed by the value in parentheses.

Exponentiation (base e—e^x): @exp

To find the value of the mathematical constant **e** (2.71827183) raised to the power of a given value, enter **@exp** followed by the value in parentheses.

Record Number: @rn

To obtain the number of the current record, enter **@rn(0)** for the physical record number. Enter **@rn(1)** for the current indexed record number (the physical record number is produced if no index is selected).

Random Number: @rnd

To obtain a random number between **0** and **1**, enter **@rnd** followed by a number in parentheses other than **0**. To produce the previous random number, enter **0** (zero) as the number in parentheses.

Multiple Formula Functions

Three functions calculate a value from a series of fields and/or display positions, which may help you find a best-case, worst-case or average scenario. The result of these functions is a value that may be entered in formulas in other cells.

These functions all start with the **@** symbol, followed by a command using letters (upper or lower case) and the field position references (in parentheses and separated by commas). As usual, field names can substitute for field numbers, and letters can be upper or lower case.

Minimum: @min(x,...,y)

For example, to obtain the lowest individual value in display positions D1, variable V4 and in fields F6 and F7—enter **@min(D1,V4,F6,F7)**.

Maximum: @max(x,...,y)

For example, to obtain the highest individual value in display positions D3 and D4 and variable V9—enter **@max(D3,D4,V9)**. If you never want a negative value to result, enter **0** as a value to be tested.

Average: @avr(x,...,y)

To obtain the average (or mean) value of, for example, the values in display positions D3 and D5 and in fields F6 and F9—enter **@avr(D3,D5,F6,F9)**.

Trigonometric Functions

Trigonometric functions are similar to arithmetic functions. They take the form **@abcd(X)** in which “**X**” is a formula upon which the function is performed. The letters can be upper or lower case.

For example, to find the sine of a value, enter **@sin** followed by the value in parentheses. The value is an angle expressed in radians. If the value is expressed in degrees (of a 360-degree circle), convert it to radians by multiplying the value by $\pi / 180$.

<u>function:</u>	<u>command:</u>	<u>function:</u>	<u>command:</u>
sine	@sin	inverse sine	@arcsin
cosine	@cos	inverse cosine	@arccos
tangent	@tan	inverse tangent	@arctan
secant	@sec	inverse secant	@arcsec
cosecant	@csc	inverse cosecant	@arccsc
cotangent	@cot	inverse cotangent	@arccot
hyperbolic sine	@sinh	inverse hyperbolic sine	@arcsinh
hyperbolic cosine	@cosh	inverse hyperbolic cosine	@arcosh
hyperbolic tangent	@tanh	inverse hyperbolic tangent	@arctanh
hyperbolic secant	@sech	inverse hyperbolic secant	@arcsech
hyperbolic cosecant	@csch	inverse hyperbolic cosecant	@arccsch
hyperbolic cotangent	@coth	inverse hyperbolic cotangent	@arccoth

Logical Operators

Logical operators compare two values (which may be formulas) to see if a statement relating to them is true. If the statement is true, a value of **1** is the result; if the statement is false, a value of **0** results. Logical operators don't require the **@** symbol.

Logical operators are often used in conditional (if) statements to produce alternate consequences.

Equal To: =

If you put **F1 = 5** in a display position, for example, the computer compares the two values. If F1 does equal 5, then a value of 1 is produced. If F1 does not equal 5, 0 is produced.

Not Equal To: <> or ><

If you put **f6<>9** in a display position, the computer compares the two values. If F6 does not equal 9, then a value of 1 is produced. If F6 does equal 9, 0 is produced.

Greater Than: >

If you put **F2>7** in a display position, the computer compares the two values. If F2 is greater than 7, then a value of 1 is produced. If F2 is not greater than 7, 0 is produced.

Less Than: <

If you put **F3<8** in a display position, the computer compares the two values. If F3 is less than 8, then a value of 1 is produced. If F3 is not less than 8, 0 is produced.

Greater Than or Equal To: >= or =>

If you put **F4>=4** in a display position, the computer compares the two values. If F4 is greater than or equal to 4, then a value of 1 is produced. If F4 is less than 4, 0 is produced.

Less Than or Equal To: <= or =<

If you put **F5<=2** in a display position, the computer compares the two values. If F5 is less than or equal to 2, then a value of 1 is produced. If F5 is more than 2, 0 is produced.

And: @and

To require either or both of two statements to be true to produce a value of 1, join them with **@or**. If both statements are false, 0 is produced. A space may separate **"@and"** from the values preceding and following it.

Example: **f1>16 @and D4=F5-24**

Or: @or

To require either or both of two statements to be true to produce a value of 1, join them with **@or**. If both statements are false, 0 is produced. Spaces may separate the word **"or"** from the values preceding and following it. Example: **D2<11 @or F3=44**

Not: @not

This function compares the value in parentheses following the command with 0 (zero). If the value is 0, the function produces 1. If the value is anything other than 0, it produces 0.

Examples: **@not(2<5)** (produces 0, because 2<5 produces 1)

@not(5<2) (produces 1, because 5<2 produces 0)

Text Fields in Math (alpha compares)

Instead of comparing numerical data in conditional statements, you can make **"if"** statements depend on matching a specific text in fields defined as alphanumeric. In the conditional statement, simply enclose the text in quotation marks.

For example: *if F1="xyz"*

put 500 in D2 using \$
endif

assigns \$500 to the second display position if field 1 consists of the text **"xyz"**.

Pattern Matching: The text inside the quotation marks can contain patterns to compare with the field (similar to pattern matching with directories, page 25). For example, **"a★"** executes the statement if the field begins with **"a"**; **"a?"** executes the statement if the field consists of **"a"** plus one other character.

Move Fields: Math statements can assign text in fields to other alphanumeric fields or display positions. For example,

if F1="hello"
put F1 into D1
endif

assigns **"hello"** to D1 when it occurs in F1.

Print Reports

There are three levels of printing:

- printing the current print layout (page 54)—< CTRL > P
- printing record by record (or as previously selected) from a report layout, onto paper or the screen—< C >, p
- printing the database using options from a report layout, onto paper or the screen—< C >, P (shift p)

The latter two levels are described below.

Simple Printing

When your report is in the form you want it on paper, you may print it by pressing < C > and then p.

To print a file, load the report layout onto the screen and make sure the paper is at the correct place in the printer (usually you want to start at the top of a page).

Now press < C > and then p. If your printer is properly connected and turned on, it begins printing the database immediately, record by record according to the print layout.

If you have previously changed any of the print options (see below) and haven't left the Report module, the alterations you've made become defaults the next time you print, even using < C >, p. Printing finishes at the last record in the database file unless you stop it, and you're returned to the current print layout.

Stop Printing: To stop printing part way through the database, hold down < C > until printing ceases (it may not be immediate if the printer is part-way through printing a line). If you start printing again, it will start at the first record as usual. You're returned to editing the print layout in Report. Now you can modify the layout and print again, or quit the module.

Line Feed: If your printouts are all printed on the same line, or double-spaced when you didn't specify double-spacing, try pressing the < LINE FEED > key beside < HELP >. This may save the trouble of altering a printer file and installing it again. See also Printing Problems, page 82.

Print Options

Pressing < C > and then p prints one copy of the database according to the layout on the screen, assuming default settings for all the printing options *Pocket Filer* offers. If you change any of the print options listed below, the alterations are kept in memory and become defaults the next time you print (before quitting the program), even using < C >, p.

128 users with a RAM expander will find printing much faster if the records and print layout are copied into drive 2. Then load the layout from drive 2.

To utilize any print option, press < C > and then P (shift p). Now the command line displays, in order:

"Pitch:10"—to print the standard 10 characters in one horizontal inch ("pica" type), simply press < RETURN >.

—To use another horizontal density that your printer supports, enter the number and press < RETURN >. "Elite" type of 12 characters per inch is common; other valid pitches are 5, 6, 8, 9 (which are larger or more spread out, adding emphasis), 11, and 15 and 20 (which are smaller).

For near-letter-quality printing on some dot matrix printers, 11 is a recommended pitch.

"Lines per inch:6"—to print the standard 6 lines in one vertical inch of paper, simply press < RETURN >.

—If your printer can print 8 lines per vertical inch, which makes available more lines per page, you may enter 8 and press < RETURN >. In this case, you should probably also change "page length".

"Page length:66"—If you're using standard 11-inch paper with the standard 6 lines per vertical inch, press < RETURN > to register a maximum of 66 possible lines on a page.

Change the page length if your paper is a non-standard length or if you've chosen 8 lines per inch (standard 11-inch paper has a page length of 88 lines at 8 lines per inch) and press < **RETURN** >.

The number of printed lines available for the Body (page 54) is the page length less the number of lines left for headers and footers.

To print *labels* to the bottom of the page (i.e. to avoid skipping the labels at the bottom), don't use footers or headers, so the number of printed lines equals the page length—66 for standard 11-inch paper at 6 lines per inch.

"Number of copies:1"—If you want only one copy, press < **RETURN** >.

—If you want more copies, enter the **number** you want and press < **RETURN** >. Now when the printer finishes printing the database, it will automatically reprint it, starting on a new page (or pages), as many times as you order. If **0** is entered, the database is reprinted continuously until you stop it (usually by < **C** >).

"Pause at end of page?N"—If your paper is fanfolded (linked together) and you want the document printed continuously, or if your document fits on one page, press < **RETURN** >.

—But if you feed paper to the printer sheet by sheet, or if you want to examine the printout after every page, enter **y** and press < **RETURN** >. Now when the printer reaches the end of any page, it pauses and displays **"Insert paper; press any key to continue"**.

"Run printer test?N"—If you don't want a printer test run, simply press < **RETURN** >.

—If you wish to see how the page format you've entered lines on paper, enter **y** and press < **RETURN** >. Now the printer produces three lines of the format (not the file's records) on 80 columns, as follows:

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

The text indicates: (1) where the first column begins from the left, (2) how far right the pitch takes the printout, and (3) how much vertical space lines occupy. It's especially useful when printing labels, because it lets you compare the print layout with the actual divisions on label pages.

"Number of columns:1"—if you want the report layout to print in just one vertical column consecutively down the page (a "list" report), press < **RETURN** >. This is typical, for instance, for layouts that occupy half or more of the page width and for any report involving math calculations (math can't be done in Multiple Columns, nor can subtotalling).

—If you want two or more columns on the page, enter the **number** you wish and press < **RETURN** >. To print labels, three columns are typical.

"Print column 1 at:1"—if you want the first column of records to print starting at the first space from the left, press < **RETURN** >.

—If you want it indented a number of spaces, enter the **number** and press < **RETURN** >.

If you chose only one column in the "Number of columns" question above, the next question is skipped and you move to the "Print from record" question below.

If you choose more than one column, the following question appears, repeated until the starting point for the last column is specified:

"Print column 2 at:X" with "**X**" being the number at which you started the first column plus one. If you pressed < **RETURN** > on the first column, X will be "**2**". If you entered 40, it will be "**41**".

This number controls where the second column begins printing from the left of the page. If you want two or more columns on a page, you *must* change it (except in the unlikely case that your fields all contain only one character, are laid out one under the other, and you want them printed in side-by-side columns).

Text from the first column of the records can only be printed as far right as the number you enter here minus one—after that it is cut off. For instance, if a print layout line in a record has a width of 45 lines and you want the second column to begin at the 41st character, the first field is cut off after the 40th character and the last five characters won't print.

You can arrange for as many columns as will fit in 255 spaces from the left, but remember that most printers cannot print this wide.

—Enter the desired **number** and press **< RETURN >**. The question is repeated until starting points are entered for every column you chose.

To guarantee space between the columns, you can:

(1) start columns further right than the maximum width of any line in the print layout, which may constrict your print layout and waste horizontal space.

(2) put a blank space in the first column throughout the print layout, which means the first column is also indented. This may be the most practical method, especially if trailing spaces are eliminated (page 55), which makes calculation of actual line width difficult, and if you're prepared to have text in some fields cut short.

"Print Horizontally or Vertically?H" appears (if more than one column is to be printed).

—To have the records printed horizontally (left to right to the edge of the page before moving to the next line), simply press **< RETURN >**. In a layout of three columns, the first nine records would print as:

1	2	3
4	5	6
7	8	9

—To have the records printed vertically (down to the bottom of the page before moving to the top of the next column, as in a telephone directory or on a newspaper page), enter **v** and press **< RETURN >**. This functions only if no search criteria are used. In a layout of three columns in which three records fill the page length, nine records would print as:

1	4	7
2	5	8
3	6	9

"Start at record:1"—to start printing at the *first* record, simply press **< RETURN >**.

—To start printing at a later record, enter its number and press **< RETURN >**.

"End at record:65535"—to stop printing the *last* record, simply press **< RETURN >**. The maximum number of records the program can handle is 65535; if a number larger than the number of records in the file is entered, printing stops after the last record.

—To stop printing at an earlier record, enter its **number** and press **< RETURN >**.

If no index file for the database is on the disk, the next question is skipped.

"Index file number (1-9/N):X" appears next (skipped if no index file for the database is on the disk), in which **"X"** is the number of the index file most recently accessed, if any (often one you wish to use).

—To use an index file (print using a sorted version), enter **the number** of the index file by which you wish to sort and press **< RETURN >**. (If the number of the index file you wish to use already follows the colon, simply press **< RETURN >**.)

—If you *don't* wish to use an index file (print it in the order its records were entered), enter **n** and press **< RETURN >**. (If **"N"** already follows the colon, simply press **< RETURN >**.)

If you decided to start or end at specific records (see above) and choose an index file, records are printed according to the index order, but are skipped if they're outside the specified numbers.

"Use search criteria?N"—To print all the records specified so far, simply press **< RETURN >**.

—To print selectively, by search criteria, enter **y** and press **< RETURN >**. Now a blank record layout appears, and you can enter search criteria as in Enter/Edit (page 42).

Move the cursor into all the fields you wish to search by and enter the data you seek. If you seek records with specific numbers or text in a field or fields, enter the numbers or text in the blank record's corresponding fields. You can also search for records with data that meet logical conditions as in Search for a Record.

When you've entered all the desired search criteria, press **< f5 >** (or **< ESC >**).

"Create subfile?N" (appears only if you've entered search criteria)—if you don't want to create a subfile, simply press **< RETURN >** and the "Create disk file" question is next.

—If you want to create a new database consisting of every record that matches the search criteria and the screen layout, enter **y** and press **< RETURN >**. Now answer:

"Subfile name:"—enter a new name for the selective file and press < **RETURN** >. Now the program creates the new file and layout and leaves you back at the Report layout. All the settings you've entered are retained if you proceed to print using < **C** >, p.

"Print subtotals?N" (appears only if you have specified an index file)—If you don't want to print subtotals, simply press < **RETURN** >.

—To print subtotals, enter **y** and press < **RETURN** >. Now answer:

"New page when subtotalling?N"—To print the next record after a subtotal at the top of the next page, enter **y** and press < **RETURN** >.

—If you simply press < **RETURN** > (accepting No), one line is skipped after the subtotal, which helps group records. If the field you're subtotalling on isn't printed in the record layout, two lines are skipped (because the line for subtotalling has nothing printed in it).

"Subtotalling field number:"—enter the number of the field you want the subtotal entered in, and press < **RETURN** >.

For example, if you've specified an index that's sorted by country as the first priority, you can subtotal sales for each country by entering the field number for "sales". Going through the database record by record, the program will enter a subtotal in the designated field whenever a new country is encountered. Printing will resume on a new page.

"Number of characters of accuracy:160" lets you specify the number of characters of accuracy to check in a field when subtotalling. This is useful when printing an alphabetized list in which you wish to list the records in groups. "**160**" is the maximum length of a field, referring to the field in which subtotalling is done (using an index sorted by the field).

—Enter the number you desire and press < **RETURN** >.

Example 1: If you wish to group surnames by the first letter, with groups separated, specify 1 character (only the first letter will be differentiated).

Example 2: If an inventory includes a stock number category starting with "**AB**" and you want to group this category together, separated from other groups, specify 2 characters.

"New page if record splits?Y"—If you want all of a record to appear on the same page, simply press < **RETURN** >. Now if only part of a record will fit on the current page, the entire record is printed at the top of the next page. If you are printing columns vertically, the top of each column automatically begins with a new record.

—To print the records on each line in sequence (which risks that the top of a record might be at the bottom of one page, while the rest of the record would appear on a new page), enter **n** and press < **RETURN** >.

"Report Totals on new page?Y"—To print the Report Totals section (if any) on a new page after the last record (and accompanying subtotals, if any), simply press < **RETURN** >.

—To print the Report Totals section directly after the last record, enter **n** and press < **RETURN** >.

"Create disk file?N"—to print your report on paper or to display it on the screen, simply press < **RETURN** >.

—But if you want to store a formatted report on the disk in a form that can be used in a word-processing file or sent over a modem to other computers (and retain the format), use this option. Storage on a disk for use with a word processing program such as *Pocket Writer* permits text editing of the report and enhancements such as boldface, italics and underlines.

Creating a disk file diverts the report from the printer to the disk as a sequential file, storing all the special information on the disk that would otherwise go to the printer. Nearly all computers can only receive the file as an ASCII file, which means you must install the **ASCII** printer file (regardless of your actual printer), either when loading *Pocket Filer* or later (see pages 11 and 27).

The "**Commodore.pf**" printer file is useful for creating Commodore Sequential files which can be manipulated on Commodore computers. (Commodore ASCII varies slightly from standard ASCII.)

Enter **y** and press < **RETURN** >. Next you're asked to enter the "**Disk file name:**" of your choice (enter a name different from the text file) and then the number of the drive with the disk (usually **0**) (unless you have entered the number and a colon (:)) before the name, or have specified the number in the "**configure**" file before loading).

After the last query in this series is answered, a new disk file with the new name is created. The original text file remains on the disk.

If the name you enter is the same as the name of a file currently on the disk, "File exists" appears on the command line, no new file is created and you're returned to the print layout.

"Print to screen?N" (skipped if you've specified it to be printed to disk)—To print normally (on paper), simply press < RETURN >.

—To display the report on the screen, enter *y* and press < RETURN >. This way the program treats the screen as a printer, with the limit that each line can display only 80 columns on the 128 or 40 columns on the 64.

At any time as the report proceeds, you can make it pause by pressing a key such as the < space bar >. To resume displaying the report, press < space bar > again.

Now the report is printed, on paper or on the screen, or sent to disk. To stop printing, press < C >.

Other Commodore Key Functions

In this section, only functions different from those in Commodore Key Functions (page 22) are spelled out in detail. They operate much the same as in Create, since both modules deal with layouts. An exception: When exchanging modules, you're not asked if you want to save the print layout; remember to save it first.

Load a Print Layout

In Report the "Load:" question usually appears whenever a layout is not on the screen (see page 53). For basic instructions on loading a file onto the screen, see page 22.

If a print layout exists for the file you specify, it is loaded onto the screen and can be edited. Also, you can load a layout from a directory of the disk (page 24).

If no print layout for the file you name exists, a blank layout (page 53) loads.

Loading Print Options: When you save a print layout, the print options used with it (such as pitch, lines per inch, page length, pause, columns and index number—but not search criteria) are saved. When you next load the layout using < C >, I, the settings are loaded in and set to their previously saved values. Now, when you press < C >, p, the same settings are used.

To load a layout without its print options, press < C >, L (shift l). If you've previously loaded or printed a layout with print options, the previous options are retained when you load a second layout using < C >, L. "Keep defaults and load layout (1-9/N):" appears.

This feature is useful if you wish to print one database in the form of another, such as standard reports (same pitch, page length, column settings etc.) for different databases or in different reports of the same database. Load the file with the print options you want using < C >, I, then load the file you want to print using < C >, L.

To load an existing layout with all print options set to the original defaults, load a blank layout before loading the existing layout using < C >, L.

Saving Print Layouts

Print layouts are like screen layouts: to use one after creating it, you must save it. The procedure is the same in Create (page 37), except that the file type never needs to be changed.

Also, print layouts are completely changeable—you can overwrite them without mismatching fields.

You can save up to 9 different print layouts (while only one screen layout can exist for each database).

After pressing < C >, s the command line shows "Save layout number:X", where "X" is 1 or the current print layout number if you have loaded another. Accept the number shown by pressing < RETURN >, or enter a different number from 1 to 9 and press < RETURN >.

If a print layout of that name and number already exists on the disk, you'll be asked if you want to replace (overwrite) the existing file. Press < RETURN > to do so, or enter n and press < RETURN > to preserve the existing print layout.

In a directory, print layouts appear as the database name with "/pX" appended, where "X" is the number you chose to save the layout as.

Verify a Print Layout

To ensure that the layout on the screen is the same as a print layout of that name on a disk, press < **C** >, **v** and press < **RETURN** > (accepting the current name).

If the two are identical, "Verify OK" appears; otherwise, "Verify error" appears.

See also Verify in Create (page 38).

Calculator

Any time the Commodore key menu is displayed in Report module, you can obtain a full-featured calculator. After pressing < **C** >, press **C** (shift c) and "Calculator:" appears on the command line.

Enter any math calculation available on pages 63 to 64 (for example, @log(1.41)) and press < **RETURN** >. The result is displayed on the command line.

File Utilities Module

File Utilities (chosen by pressing < **f7** > from the Main Menu) offers four choices:

- *backup* (copy) files from one disk onto another
- *restructure* a database (change its field length, number or order)
- *convert* a database created with a different program into *Filer* format
- *merge* two database files

Except for Commodore key functions described on pages 29 to 39 (directories, disk commands, install printer file, quit the program and exchange modules), this module proceeds by questions on the command line, starting with:

"Backup, Restructure, Convert or Merge (B/R/C/M)?" ("Backup, Restructure, Convert or Merge?" on the 64). To:

- backup*—enter **b** and press < **RETURN** >.
- restructure*—enter **r** and press < **RETURN** >.
- convert*—enter **c** and press < **RETURN** >.
- merge*—enter **m** and press < **RETURN** >.

Backup Files

As soon as you choose to backup files, the following sequence begins (if you exit using < **C** > while answering questions, the answers you gave will be retained as defaults if you choose "Backup" again):

"Source Device Number:8" appears at the left of the command line, to identify the device *from where files will be copied*. The number appearing may be the default (8).

- If the device number of the disk drive with the files to be copied is different than the number appearing, enter the **number** and press < **RETURN** >.
- Otherwise, simply press < **RETURN** >.

"Drive:0" (*source*) appears at the right side of the command line, identifying the particular disk drive from where files will be copied (0 for any single drive, and 9 or 1 if it's a dual drive). The number appearing may be the default (0).

- If the number of the disk drive with the files to be copied is not the number appearing, enter the number (the other option is 1) and press < **RETURN** >.
- Otherwise, simply press < **RETURN** >.

"Destination Device Number:8" appears at the left of the command line, to identify the device *to where files will be copied*. The number appearing may be the default (8).

- If the device number of the disk drive that will receive the files is different than the number appearing, enter the **number** and press < **RETURN** >.
- Otherwise, simply press < **RETURN** >.

"Drive:0" (*destination*) appears at the right side of the command line, identifying the particular disk drive *to where files will be copied* (0 for any single drive, and 0 or 1 if it's a dual drive). The number appearing may be the default (0).

—If the number of the disk drive with the files to be copied is not the number appearing, enter the number (the other option is 1) and press < RETURN >. If you have a dual drive, the destination drive number must be different from the source drive number.

—Otherwise, simply press < RETURN >.

Single drive: each of the device numbers and drive numbers are the same for source and destination, as you're copying from and saving to the same drive (normally you should leave the defaults as they appear). This procedure loads the files into memory, asks you to switch disks and then writes the files from memory onto the other disk. Depending on the number and size of the files, you may have to switch disks more than once.

Two single drives: normally the device numbers are different (you should change one of them), while the drive numbers are the same (0). This procedure is faster: it loads the files into memory from one drive and copies onto the other drive without requiring you to switch disks.

Dual drive: the device numbers must be the same, while the drive numbers must be different (0 and 1) if you plan to use both drives, for maximum speed and efficiency. This procedure is fastest: it copies files directly from one drive onto the second without going through memory.

“Copy all files?N”—If you wish to copy all the files on the disk onto a second disk, enter *y* and press < RETURN >.

—To copy only some of the files, simply press < RETURN >.

“Insert Source disk; press any key.”—insert the source disk in the correct drive and press a key.

—If you're copying all of its files, the next question now appears (“Format”).

—If you're copying only some of the files, a directory of the source disk appears for you to choose which files to copy.

A wide (bar) cursor appears at the top (white or the default color on a color monitor, and bright on a monochrome monitor). You can move it up and down, < HOME > and to the bottom < f2 >).

To *mark a file* to be copied, put the cursor on the file name and press < RETURN >.

A check mark (✓) now appears beside the file name.

To *unmark a file*—i.e., if you decided *not* to copy one that has been selected to be copied—put the cursor on the file name and press < RETURN > again (it's a toggle function).

The check mark on the file name now disappears.

To *mark all files* to be copied—which may save effort if you wish to copy most files—press < f1 > and check marks appear beside all the file names. Now unmark the few files you don't want copied.

To *unmark all files*, press < f3 > and all the check marks disappear.

Once you've marked all the files you wish to copy, press < f5 > (or < ESC >) to proceed to the next question:

“Format destination disk?N”—if the destination disk (the one receiving the files) is formatted (see Disk Commands, page 26), simply press < RETURN > and the computer reads files from the source disk before the next prompt.

—If the destination disk isn't formatted, enter *y* and press < RETURN >. Remember that formatting wipes out all data currently on the disk; you can see what's on the disk by taking a directory < C >, *d*). When you return to the Backup section, the settings entered above will appear as defaults.

Then **“Disk name:”** appears at the left side of the command line and **“ID:”** to the right. Enter a disk name of up to 16 characters and press < RETURN >; then enter a 2-character identifier and press < RETURN >.

Then **“Insert destination disk; press any key.”** appears. Put the destination disk in the destination drive (which may be a single drive) and press any key. The disk drive activity light goes on, and **“Formatting...”** appears on the command line. When it's finished, the next prompt appears:

“Insert destination disk; press any key.” appears if you're using a single drive or if the destination disk hasn't been inserted previously. **“Press any key”** appears if you're using a dual drive or two single drives; it's assumed the correct disks are in the specified drives.

Now the computer begins reading files from the source disk and displays: "**Source disk:** [disk name, ID]".

Next, if you didn't format the destination disk, "**Insert destination disk; press any key.**" appears. Insert the destination disk in the correct drive and press a key.

Then "**Destination disk:** [disk name, ID]" will appear as files are written to the destination disk.

If you're using a *dual drive*, "**Now copying** "[file name]" appears until the copy is completed.

If you're using a *single drive* or *two single drives*, the following appears when a disk is being accessed:

"Now reading "[file name]" (from the source disk)

"X blocks read; Y blocks left"

or "**Now writing** "[file name]" (to the destination disk)

"X blocks written; Y blocks left"

If you're using a *single drive*, "**Insert destination disk; press any key.**" appears after the computer's memory has loaded as much as it can of the file to be copied and the disk drive activity light has gone out.

After you follow the instruction, the disk activity light goes on again until "**Insert source disk; press any key.**" appears. This process continues until all the data to be copied is on the destination disk.

When the copying is finished, "**Backup complete. Press any key.**" appears. After you press a key, you're returned to the "Backup/Restructure/Convert/Merge?" question that appears when you load this module.

If the disk you're copying onto has a file with the same name as the file being copied, "**Replace existing file?Y**" appears on the command line as soon as the destination drive is accessed. As usual, press < **RETURN** > to overwrite the file; enter **n** and press < **RETURN** > to not overwrite the file. Then you can rename it later, before copying again.

If the destination disk doesn't have enough free space for the copies being made, copying stops when the space is used up and "**Disk full**" appears on the command line. To see what has been copied, obtain a directory of the destination disk and assume the last file is not complete.

Restructure a Database

This section of the File Utilities module lets you totally reconstruct your database. Unlike in the Create module, you can add or subtract fields and lengthen or shorten them.

Restructuring also lets you convert a Commodore Sequential file into *Pocket Filer* file mode, as long as the Commodore Sequential file's data is in a regular pattern corresponding to fields in a record.

As soon as you enter **r** (for Restructure) and press < **RETURN** >, the following sequence of questions appears on the command line:

"File name:"—enter the name of the database file you wish to alter and press < **RETURN** >.

If you've accessed a file since loading the program, its name appears as the default.

If you wish to see a list of files on the disk, which may help obtain the exact name, you can call up a directory (page 24) and return to the "Backup or Restructure?" question.

"Enter password:" (appears if the file is protected by any subordinate password)—Enter the Master password, or a password with "Modify" privileges, and press < **RETURN** >.

If you enter a password without "Modify" privileges, "**Insufficient privileges. Press any key.**" appears. If what you enter isn't a password, "**Invalid Password. Press any key.**" appears.

In either case, you're returned to the "Backup/Restructure/Convert/Merge?" question.

"Fields per record:" (skipped if the file is in *Pocket Filer* format). Enter the number of fields per record in the file named above and press < **RETURN** >.

Now a form of the first record of the database is displayed, with the fields stacked at the left of the screen. Descriptive text is not displayed, but data from the first record is shown in reverse (highlighted). The cursor, which appears on the first field, can move up, down, < **HOME** > and to the bottom of the screen (< **f2** >).

If the record has insufficient data to help you decide how to restructure the layout, you can load the next and subsequent records by pressing < **f1** >. You can't go back a record, but can continue forward.

To alter a field, put the cursor on it. Now, to:

delete a character from the field —press < DEL >

expand the field by one character —press < INST >

delete the entire field —press < CTRL > < DEL >

add one field

—press < CTRL > < INST >. The new field appears between the current field and the one above. It will be one character long, so you'll probably want to expand it using < INST >. —press < f3 > to pick it up. Move the cursor to the line you want it on and press < f3 > to "drop it". The field underneath where you drop it will move down one line.

move a field

If the field lengths of a Commodore Sequential file you're converting into *Pocket Filer* file mode aren't constant, use the longest length for each field.

Once the length, order and number of the fields are defined, press < f5 > (or < ESC >) to begin updating the file.

"**New file name:**" appears next on the command line. To protect your data, you can't overwrite an existing file while restructuring. (Later, you can scratch any obsolete file. See page 26.) —Choose a new name for the file, enter it and press < RETURN >.

If a file with the new file name is already on the disk, "**File exists**" appears. To continue, press any key and the "New file name" question reappears. Enter a different name and press < RETURN >.

Now "**Restructuring...**" appears on the command line as the records in the old database are recopied onto the disk in the proper format for the new database.

At the same time, the fields-only vertical layout you created above is saved onto the disk as a screen layout. If you switch (page 28) to Create module, you can load the screen layout and move fields (as long as their order remains constant), add descriptive text, etc. See page 30.

Or you could adapt the former screen layout to the new form—making sure that fields are in the same order and have the same length—and save it under the new name. Ranges (page 31) can help you move fields safely without affecting their length.

Password protection is not carried into the new database. As on page 39, you'll be asked to enter a Master password when you first load a blank record.

File Conversion

Pocket Filer can handle files from other database management programs—including screen layouts from The Consultant™, Superbase™ and Data Manager™—saving you the effort of retyping all your layouts and files.

To prepare a Superbase database for conversion to *Pocket* format, use Superbase to "export" the files. To prepare a Consultant database, use The Consultant to create Commodore Sequential files. Data Manager files can be converted directly.

Databases from other programs can also be read, though the screen layout will be in skeleton format (without accompanying text). First convert the database files to Commodore Sequential format using the original program, and then use the Restructure function in File Utilities to read the files.

When you enter **c** after the main File Utilities question (to Convert databases from The Consultant, Superbase and Data Manager) and press < RETURN >, the following questions appear on the command line:

"**From: Consultant, Superbase, DataManager?**"—enter the initial of the program which created the database (**C, S** or **D**) and press < RETURN >.

"**Current file name**"—enter the database name on the storage disk (the name given to it using the original program) and press < RETURN >. If the number of the drive containing the database wasn't displayed in this question, you're now asked to enter the drive number and press < RETURN >.

"**Name of SEQ file:**"—enter the current sequential file name and press < RETURN >. For databases converted from The Consultant and Superbase, this name will already have been given (in Superbase, it's the one assigned in the "export" function). For databases to be converted from Data Manager, choose any name. You may then be asked to enter the number of the drive to access the files and press < RETURN >.

“Destination drive: N” (for the 128 program) or **“Destination device: N”** (for the 64 program), where **“N”** is the current drive or device number—enter (or accept) the correct number for the drive with the disk that will store the converted database, and press < **RETURN** >.

Now the database is converted to *Filer* format. You can load its screen layout (including accompanying text) in Create, and its records in Enter/Edit.

If one drive is used, the new files are put onto the disk with the original files, which limits the size of the files that can be converted to half the disk’s storage space—as much room must be free for the new files as the original files occupy.

If two different drives are used, longer files can be converted. Also, 128 users with RAM expanders (below) may convert using the RAM disk (enter 2 as the destination disk), which is faster.

Merging Databases

This command merges the records of two databases into one, to use with the same screen layout. The records of one database are appended to the bottom of another; it succeeds only if their screen layouts have the same form—the same number, length and order of fields. If the format is different, the data may be an unusable jumble (in that case, try restructuring one before merging).

Suggestion: backup your databases onto another disk before merging them, so the originals are always available (page 71 of File Utilities). This is required if you wish to retain each file separately in addition to the merged database.

As soon as you enter **m** (for Merge) and press < **RETURN** > after the main File Utilities question, the following questions appear on the command line:

“Original file:”—enter the name of the first file you wish to merge, which will also be retained as the merged file name, and press < **RETURN** >.

“File to append:”—enter the name of the second file, the one you want appended to the first, and press < **RETURN** >.

(The file names must be those of the database itself—the files containing the records—without an appendix.)

To minimize the amount of free space needed on the disk (and thus maximize the length of databases that can be merged), use the name of the longer file as the **“First file”**, so only the space occupied by the shorter file must be available on disk.

For very long files, backup the databases and a screen layout alone onto a blank disk, merge them and test that the function succeeded by checking the last record in the merged database. Then scratch the two database files from the original disk and backup the merged database onto it.

128 users can use two drives, specifying them by entering the drive number and a colon (:) before the two file names requested. This permits longer files to be merged, since the disk receiving the merged file (the first file name) doesn’t have to contain the second screen layout and database files, though it has to contain room for the extra records.

128 users with RAM expanders may merge databases in the RAM disk (enter **2**: before the file names), which is faster and avoids having to back them up. It’s a good idea, however, to check the merged database before copying it back onto your storage disk, overwriting the original.

RAM Expansion Disk (128 users)

Pocket Filer 2 takes maximum advantage of the extra memory available in Commodore’s 1700 RAM Expansion Module (128 kilobytes or more than 500 storage blocks) or 1750 module (512K or more than 2000 blocks) to store files for virtually instantaneous access. The extra memory is used as if it were an extra disk drive, called a **“RAM disk”**. It’s assigned a number (**2**) like any other disk drive, but it works much faster!

- **Storage disks** can be quickly backed up: just copy the disk into the RAM expansion disk, then copy it back out onto a blank disk. In the same way, individual files can also be copied, without loading them into the memory.
- **Multiple files** can be quickly accessed: save them onto the RAM expansion disk (either individually after you’ve loaded them onto the screen, or by copying an

entire storage disk), then see how fast they load into memory! When you're finished editing, you can quickly store files by copying back onto a storage disk.

- *Sorting* (including physical sorting), *automatic index* (page 49) and record update (page 60) work quickly if the records (and index) have been copied into the RAM expansion disk.
- *File Utilities* are also faster.

To make maximum use of—and get maximum speed from—the RAM expander with *Pocket Filer 2*, copy all the files of the database into drive 2. Pattern matching can ensure all files associated with a database are loaded in one operation.

But even when your database isn't copied into the RAM expansion disk, operations in Enter/Edit are faster than without the expander, because the RAM expansion disk is used as a memory buffer. After the first 40 blocks of new or changed records are buffered into the 128's memory, the next 216 are buffered into the RAM expansion—for a total of 256 buffered blocks, large enough for many uses.

You can turn the memory buffer off in the “**configure**” file (page 17).

Warning: Remember that the RAM expansion disk drive is part of the computer's current memory; data you put in it is lost when the computer is turned off—unless you save the data onto a floppy disk.

Accessing Files

To save an on-screen file into the RAM expansion disk, press < **C** >, **s** as usual. Then when “**Save:[File Name]**” appears on the command line (with the current file name, or a name you enter):

- if “**2:**” (the RAM expansion disk number) appears before the file name, simply press < **RETURN** >.
- if another number and a colon appear before the file name, change the number to **2** before pressing < **RETURN** >.
- if no number and colon appear before the file name, insert **2:** before the name and press < **RETURN** >.

To load a file that's on the RAM expansion disk into memory (onto the screen), press < **C** >, **l** as usual. Then when “**Load:[File Name]**” appears on the command line (with the current file name, if any), enter **2:** before the file name. This tells the computer to load the file from drive 2, the RAM expansion disk.

Or you can load a file directly and simply from a directory of drive 2, by taking a directory, putting the cursor on the file name and pressing < **RETURN** >.

Directories

There are two methods of obtaining a directory of files on a RAM expansion disk:

- take a general directory—press < **C** >, **d** for a directory of all currently assigned and present drives, including the RAM expansion disk as drive 2.
- specify the disk—press < **C** >, **2** for a directory of just the RAM expansion disk (after you choose a pattern, if any, for the files you want).

Copying Files

Pocket Filer 2 lets you easily copy multiple files from a floppy disk into the RAM expansion disk—or vice-versa. The operation is a disk command, begun by pressing < **C** >, **c** as usual.

Then enter **c[drive number to copy to]=[drive number to copy from]** on the command line and press < **RETURN** >.

As it's copying file by file, “**Copying [file name] to RAM**” appears on the command line.

For example, to copy all the files from drive 0 onto the RAM expansion disk, enter **c2=0**. To copy all the RAM expansion disk files onto a disk in drive 0, enter **c0=2**.

If the disk receiving the files has insufficient room, “**Disk full!**” appears on the command line.

- If the current file being copied is going into the RAM expansion disk, none of the file is copied.
- If the current file being copied is going onto a floppy disk, it will not be complete on the disk; “★” will appear beside it in a directory. Before proceeding further, you should validate the disk.

If the name of a file being copied already exists on the disk in the receiving drive, “**Replace?N**” appears on the command line.

- To replace the file on the destination disk, enter **y** and press < **RETURN** >.
- To not replace the file, simply press < **RETURN** >.

Patterns: You can specify which files are to be copied from one drive to another by entering a colon (:) and a pattern after the number of the drive being copied from. This can ensure all files associated with a database are copied.

For example, to copy all the files starting with “**h**” from drive 0 into the RAM expansion disk, enter **c2=0:h★**. To copy all files related to the “**address book**” database—screen layout, records, indexes (if any), math files (if any) and report layouts (if any)—enter **address book★**.

To copy all files whose names have one variable character, use a question mark, eg. **c2=0:April ? report**.

To copy just one file, enter its name after the colon, eg. **c2=0:report** copies the file called “**report**” from the disk in drive 0 onto the RAM expansion disk. This is faster than loading the file into memory and then saving it to the RAM expansion disk.

Shortcut: to copy one file between disks, use the < **RUN/STOP** > key to enter the file name. Obtain a directory of the disk containing the file and put the cursor on the file name. Then start the disk command by pressing < **☒** >, **c**. Now press < **RUN/STOP** >, which reads the file name onto the command line, and insert the copying command before pressing < **RETURN** >.

Other Disk Commands

Rename a File—same as on page 27.

Scratch a File—multiple scratches can’t be done from a RAM expansion disk except by using patterns (wild cards); if one or more files are named following the first (separated by commas), only the first file is scratched. Another method of scratching more than one file quickly is from a directory (page 24).

Validate the Disk—to validate the RAM expansion disk, specify the drive number as 2. Validating is likely necessary only if incomplete files (with “★” appearing in a directory) result from saving into a full disk. It’s faster than validating a floppy disk.

Format the Disk—a RAM expansion disk doesn’t need to be formatted to prepare it to receive files; the only use for this command is to quickly erase all files in the RAM expansion disk. After pressing < **☒** >, **c**, enter **n2** and press < **RETURN** >. (As usual now, you’ll then have to answer a safety query.)

Quitting

If you quit the program using < **☒** >, **q**, files on the RAM expansion disk remain intact if the computer is left on. This means, for example, that you can create a database with *Pocket Filer 2*, save it into the RAM expansion disk and quit the database program. Then you can load *Pocket Writer 2* and print individual form letters from memory using the database file as a mail merge file.

Mouse (with Pull-Down Menus)

Pocket Filer 2 offers optional use of the Commodore joystick mouse (the 1350) or proportional mouse (the 1351) or a joystick with the Commodore 128. By moving the mouse or joystick and clicking its button, you can move the cursor, define ranges, access pull-down menus, select options and activate them.

The mouse is activated only if you move it; at almost any time you can still run the entire program using only the keyboard. Except in Create, the mouse produces menus on the command line after a file is loaded.

Connect the mouse to the side of the computer using "Control Port 1", the first joystick port.

Loading the Program: The mouse can be used to select a printer file. Move the cursor to the desired file name by moving the mouse up or down on a flat surface (or move a joystick, following the arrow on-screen). Then click the button once, and the printer file is installed.

Main Menu: To select a module from the Main menu, move the arrow to the desired module and click the button.

Cursor Movement (Create and Report)

To move the cursor anywhere text can appear on the screen, simply move the arrow to the desired spot and click the mouse's (or joystick's) button. The cursor disappears from its previous location and appears at the tip of the arrow.

To scroll:

- *down* line by line (the same as pressing < **CRSR down** >), move the arrow to the bottom of the screen and hold the button down. As long as you hold the button down, the file scrolls down (until the last occupied line appears).
- *up* line by line (the same as pressing < **CRSR up** >), move the arrow to the line with tab markers near the top of the screen, or into the help lines if help is on, and hold the button down. (If you move the arrow too far up, into the command line, menus appear instead of scrolling.) As long as you hold the button down, the file scrolls up (until the top line appears).
- *sideways* (the same as pressing < **CRSR right** > or < **CRSR left** >), move the arrow to the rightmost or leftmost column of the screen, respectively and hold the button down. Scrolling begins after the cursor reaches the edge of the screen. As long as you hold the button down, the file scrolls sideways (to the right up to column 160, or as far as the first column to the left).

You can still move the cursor using the normal cursor keys. The arrow remains on the screen, but has no function unless you move it or click the button.

Ranges (Create)

To define a range using the mouse, move the arrow to the first character of the range and hold the button down until the character appears highlighted. Then, *still holding the button down*, move the arrow to the range's last character (to scroll down or sideways while defining the range, simply move the arrow as described above, and hold the button down). Then release the button, and the range is highlighted as usual.

To clear a range (remove the highlighting), go to the "Edit" menu and choose "Clear", as described below.

Create Menus

Whenever you move the arrow into the command line in Create, the following menu titles appear:

"FILES FORMAT EDIT RANGES PRINT EXCHANGE"

At this point and as long as you're in a title or pull-down menu, only the mouse (or joystick) will move the cursor.

If you put the arrow on a menu title (except "FORMAT") a pull-down menu appears over top of the existing help lines or text. To select a function, move the arrow down onto the desired function; to perform the function, click the button while the cursor is on it.

SHORTCUT: To perform the first option listed in the menu, simply click the button while the arrow is on the menu title.

To select and activate the format fields option, put the arrow on the "FORMAT" menu title and click the button.

Files—offers most Commodore key commands ("Directory", "Load", "Save", "Verify", "Disk Commands" and "Change Type"). To choose one of these, move the arrow to the option and click the button (like pressing < **⌘** > and the appropriate letter). You then can't return to the menu titles except after completing a function or pressing < **⌘** > to interrupt.

Choosing **“Directory”** obtains a directory of all disks assigned and present; to obtain a selective directory use the keyboard. In a directory, scroll up by clicking the button while the arrow is on the tab line (at the top) or in the help lines; scroll down by clicking the button while the arrow is on the screen's bottom line. To load a file from a directory, move the cursor to the file name and click the button. To return to edit a screen layout from a directory, move the arrow to the top line, put it on **“EDIT”** and click the button.

Format—starts the series of questions on page 33 from the current field, as if **< f6 >** were pressed.

To set field options starting from the first field, move the arrow to the field and click, then put the arrow on **“Format”** and click again. To set field options starting with a field after the first one (to skip one or more of the first fields), move the arrow to the desired field and click, then move to the format menu as above and click again. To exit from the questions, press **< C >**. Any formatting changes you've made so far will be implemented.

Edit—returns you from a directory to edit a screen layout.

Ranges—gives most of the options available after defining a range of text (see above): **“Move”**, **“Copy”**, **“Delete”**, **“Clear”** and **“Box”**. For the first two, click the button on them after moving the cursor to the point where the range is to appear; with the next three, simply click the button on them.

Print—**“Print layout”** prints the current layout; **“Install printer file”** asks for the name of the printer file to install.

Exchange (at the top right)—**“Main Menu”** to switch modules, and **“Quit”** to quit the program.

Enter/Edit Cursor Movement

The mouse can be used once a record is loaded.

In a Record: To move to any field, move the arrow to the field and click the button.

The cursor moves to the field's first character.

To move within a field, use the cursor keys.

Between Records: use pull-down menus as described below.

Enter/Edit Menus

When you move the arrow into the command line in Enter/Edit, these menu titles appear:

“SEARCH FORWARD BACKWARD MOVE PRINT RESTORE PASSWORDS EXCHANGE”

Again, as long as you're in a title or pull-down menu, only the mouse (or joystick) will move the cursor.

If you put the arrow on most menu titles, a pull-down menu appears atop the existing help lines or text. To select a function, move the arrow down onto the desired function; to perform the function, click the button while the cursor is on it. **SHORTCUT:** To perform the first option listed in the menu, simply click the button on the menu title.

Search—**“Search”** displays the blank search record to enter criteria; **“Continue search”** searches using the previous criteria; **“Begin searching”** starts the search after criteria have been entered. **“Sort database”** produces a blank record layout to enter an order for sorting, and **“Physically sort”** asks for an index to sort by.

Forward—moves forward one record.

Backward—moves backward one record.

Move—**“First”** goes to the first record, **“Last”** goes to the database's last record, and **“Go to”** goes to a record after you enter its number.

Print—**“Print record”** prints the current record, and **“Install printer file”**.

Restore—**“Field”** or **“Record”**, which are restored to the data contained when you entered the field or record.

Passwords—obtains the password table (page 47 of the guide) after asking you to enter the Master password. In the table, the cursor follows the mouse; to move the cursor to a subordinate password or privilege, move the arrow to it and click.

To edit a subordinate password, click on it and the big-block cursor becomes the single-character editing cursor. After editing the password, click again and it returns to the big-block cursor.

To change a privilege, click on it, and it toggles between “**Yes**” and “**No**”.

To exit from the password table, press < **ESC** > or < **f5** > to implement any changes, or < **⌘** > to leave it the same as when you entered.

Exchange—“Main Menu” and “Quit”.

Report Menus

Whenever you move the arrow into the command line in Report, these menu titles appear:

“**FILES LAYOUT FIELDS PRINT EXCHANGE**”

Files—offers most Commodore key commands: “**Directory**”, “**Load**”, “**Load (keep)**” (like < **⌘** >, L) “**Save**”, “**Verify**” and “**Disk Commands**”.

Layout—toggles between the Create and Report layouts. In the Create layout you can move the cursor up and down with the mouse and select fields to drop in the Report layout. To select a field, move the arrow to the field, click on it, then move to the “**LAYOUT**” menu and click, which returns you to the Report layout. To drop the field in the Report layout, move the arrow to the desired location and click, then move the arrow to the “**FIELDS**” menu and click again.

While in a directory, clicking on “**LAYOUT**” returns you to the Report layout.

Fields—“**Drop**” puts a field into the Report layout at the current cursor location, and “**Erase**” deletes the current field or display position.

Print—“**Print layout**” (the current report layout) “**Print with options**” and “**Install printer file**”.

Exchange—“Main Menu” and “Quit”.

File Utilities

Backup—In the backup option, the mouse can be used in a directory to select files to copy. Clicking the button toggles between selecting a file to copy and deselecting it.

Appendices

Trouble-Shooting

This section is designed to pinpoint trouble with disk operations and suggest remedies.

If you have other problems using *Pocket Filer*, also examine the Contents and Index of this guide for a remedy. If that doesn't help, contact the dealer from whom you bought the program. If you still can't get satisfaction, write Digital Solutions Inc.

Program Loading Problems

If the program won't load, make sure the program disk is in the drive, and that the disk drive device number is 8. (If it's another number, use the correct number when entering **load“★”,8**.)

If “**?FILE NOT FOUND**” appears, or if another file loads, enter **open1,8,15,“i”** and press < **RETURN** > before loading again.

“**?FILE NOT FOUND**” also may indicate that the disk drive has a number other than 8. If so, substitute the number in **load“★”,8**.

If your system has a disk drive speed-up cartridge, the program won't function properly. Remove or disable the cartridge before loading.

Disk and Other Error Messages

When the disk drive light flashes during a disk function (red on a 1541; green on a 1571), it indicates a disk error. Press < **⌘** >, c, < **RETURN** > to have the error displayed. These errors

take the form: *two-digit number,message,two-digit number,two-digit number*. The following are common disk and other error messages (often accompanied by the bell sounding), listed alphabetically:

- “**Can't—SEQ**” (Create)—you can't perform this function in sequential file mode. Change the file mode (probably to *Pocket Filer*).
- “**Device not present**”—the disk drive isn't connected to the computer or no disk drive is present at the specified number. Connect the drive and turn on the power, connect the proper drive or select the proper device number (< **CTRL** > **D**).
- “**Disk full**” after an attempt to save a file—the disk doesn't have enough memory to save the file. The previous version of the file (if any) is erased and replaced by as much of the new file as will fit.
To avoid trouble in saving this and other files on this disk, validate the disk (page 27) and shorten the file before saving it again. However, do not validate the *Pocket Filer* disk, or you will be unable to save printer files onto it (because of its protection system).
- “**Disk id mismatch**”—a part or all of the disk isn't working properly. If you're loading a file onto the screen, you won't get all of it. If you're saving a file, save again onto a new disk. Transfer as much as you can from the bad disk onto a new disk and don't use the old disk.
- “**Division by zero error**” (Enter/Edit or Report)—you've tried to divide by 0, which is impossible.
- “**Drive not ready**”—the drive door isn't closed or no formatted disk is in the drive. Re-insert a properly formatted disk and close the drive door before attempting a disk operation again.
- “**ENDIF not found**” or “**ENDTRAP not found**” (Report)—an “If... Then” or “Trap” statement is not structured properly. Use the form on page 59.
- “**File exists**” when trying to create a disk file through the print mode or renaming or copying a file—a file of that name already exists on the disk. Choose a new name and try the operation again.
- “**File format error**”—your screen layout has been corrupted. Enter a new screen layout in Create.
- “**Formula too complex**” (Enter/Edit or Report)—a formula has too many parentheses.
- “**Illegal quantity**” (Enter/Edit or Report)—an impossible calculation is used, such as a square root or logarithm of a negative number.
- “**Illegal track or sector**” when trying to load a file (disk drive light not flashing)—the disk may be bad, and you may lose files. Try to transfer as many files on the disk as possible onto a new disk.
- “**Invalid number**” (Enter/Edit or Report)—text rather than a number has been encountered in subtotaling or searching for records using criteria involving numbers.
- “**Memory full**” when trying to load a file—the file on disk is too large to fit into available memory.
- “**No data to save**” (Create)—the screen layout you're trying to save doesn't contain data.
- “**No fields in layout**” (Enter/Edit and restructuring in File Utilities)—the screen layout for the named database doesn't have any fields.
- “**Position undefined**” (Enter/Edit or Report)—a formula refers to a display position or field that hasn't been defined.
- “**Printer not present**”—see printing problems, below.
- “**Read error**”—either the disk door has been opened during a disk operation, or the disk is bad (see “disk id mismatch”).
- “**Record too large**” (Create)—the screen layout you're trying to save has more than 255 fields, more than 2,048 field markers, or more than 4K bytes of text, which are the limits.
- “**Syntax error**” (Enter/Edit or Report)—a mathematical statement is formed incorrectly. See pages 56 - 59.
- “**Verify error**” (Create and Report)—the file on the disk isn't the same as the file on the screen. If you're verifying a file just saved, this means the save failed; try saving onto the same disk again or onto a new disk.
- “**Write error**” during a save operation—the disk is bad (see “disk id mismatch”).

“Write file open” when you try to load a file—the file wasn’t correctly saved onto the disk and can’t be read. In the directory the file shows up with “*seq 0(blocks)”. All you can do is recover the blocks it used and delete it from the directory, by pressing < **C** >, **c**, **v0** and < **RETURN** >. Don’t do this to the program disk.

Printing Problems

“Printer not present”—the printer isn’t connected and turned on, or the printer file doesn’t specify the part that the printer is connected to (see *Creating a Printer File*, page 83).

If your printer still isn’t working properly, try using every other printer file available on the *Pocket Filer* disk.

If near-letter quality printing doesn’t seem to be working on a dot matrix printer, try changing the pitch (page 66) to **11**.

If your printer is always printing on the same line, you must enter the line feed code in the printer file (see “LF” in the paper advance section of *Create a Printer File*, page 84).

If your printer is double-spacing when it should be single-spacing, remove the line feed codes from the printer file and enter an appropriate code for carriage return in the printer file (see “CR” in the paper advance section of *Create a Printer File*).

Interfaces: If you have a non-Commodore printer connected by an interface and your printer produces gibberish, you must lock the interface or make it transparent so it doesn’t change any codes the *Pocket Filer* program is trying to send to the printer. (Otherwise, you can select the “**801/1525**” printer file, which may work but won’t produce any enhancements such as boldface.)

Lock the interface by: a) setting a dip switch in the interface, or b) sending a command to the interface.

Instructions for two popular interfaces follow; for other interfaces, consult your printer interface manual.

Cardco: some Cardco interfaces have a dip switch you can set. There are two other options:

—before loading the *Pocket Filer* program, type **open4,4,25:print#4,“lock”:close4** and press < **RETURN** >.

—in Printer Initialization in the printer file (see page 84), enter **0** after “Printer Initialize:” and **25** after “Secondary:”.

The Connection: in Printer Secondary Addresses in the printer file (page 84), enter **6** after “Text Secondary Address:” and **6** after “Control Codes Secondary Address:”.

Line Feed (128)

If your printer prints everything on the same line, press the < **LINE FEED** > key on the Commodore 128 (beside the < **HELP** > key). This key ignores the line feed code in the printer file (see “Paper Advance”, page 84) and sets the line feed on (“**Line Feed ON**” appears on the command line).

If your printer prints everything double-spaced, press the < **LINE FEED** > key twice. This will ignore the line feed code in the printer file (page 84) and cancels the line feed (“**Line Feed OFF**” appears).

< **LINE FEED** > doesn’t affect the printer file on the disk, and is reset whenever another printer file is installed (the “Paper Advance” setting in the printer file takes precedence).

Creating a Printer File

A printer file contains the codes the printer needs to use all its capabilities. Printers come in two basic types: ASCII or Commodore. Any ASCII printer will function if the “**ASCII**” printer file is chosen and any Commodore printer will work if you select the “**801/1525**” file. In either case, only the characters on the keyboard and standard spacing will be employed.

To use features specific to your printer, a printer file must be installed. When the *Pocket Filer* program is first loaded, it offers a choice from several of the most common printer files; if your printer is among them, move the cursor to it and press < **RETURN** >.

(If you have a Commodore 802 or 1526 printer, select “802/1526” to be able to use its extra features—although it will function with the “801/1525” file. Use the Commodore printer file only to create a disk file—see page 69.)

You can install a printer file at any time—see page 27.

If you have the *Pocket Writer* word processing program or *Pocket Planner* spreadsheet produced by Digital Solutions Inc., you can use any printer file on them that suits your printer. While *Pocket Filer* is loaded, put the *Pocket Writer* or *Planner* disk in the drive and install the file (see page 27).

Or, for future use, you can load it (in Commodore Sequential mode, in Create) and save it onto the *Pocket Filer* disk.

If your printer isn't on the list supplied on the *Pocket Filer* disk (or on another disk), you must create or adapt a printer file to fully use the printer's features. This is a technical operation that your Commodore dealer may help you with. What follows is how to create a printer file using *Pocket Filer*, similar to that in *Pocket Writer* and *Pocket Planner*.

When you've modified the file, save it onto the disk while still in Commodore Sequential mode.

Load a Printer File: Put the *Pocket Filer* program disk in the drive while in Commodore Sequential mode in Create (press < CTRL > a, enter s and press < RETURN >, as on page 37).

Now press < C >, l (the letter L), enter *ASCII.pf* or the name of another printer file, and press < RETURN >.

When it's loaded, a file of all possible printing options appears on the screen. A few options have default values.

Enter Your Printer's Codes: If you want to use an option that's available on your printer, you must enter one or more values beside each option in the file. (If no value is entered, the option will have no effect when printed.)

Values may be entered in any four formats:

Decimal—the normal number system (eg. 77)

Hexadecimal—base 16, using 0,1,2,3,4,5,6,7,8,9,a,b,c,d,e and f, always preceded by \$ (eg. \$4d is the same as 77 in decimal—four times 16 plus 13).

ASCII—characters enclosed in double quotation marks (eg. “M” is equivalent to 77 in decimal and \$4d in hexadecimal). Upper- and lower-case letters have different values.

ESC is a code representing ESCAPE that has a special meaning to many printers. ESC has the value of 27 decimal or \$1b hexadecimal, and is entered without being enclosed in quotation marks.

If more than one value is entered for a specific option, separate the values with commas but no spaces.

The Options

Printer Type

“ASCII:y”—enter y (or leave it) if your printer is of the ASCII type; enter n if it's a Commodore printer.

Printer Interface

“Device:”—to set the default printer number at other than 4, enter the number.

“Connection:”—leave it blank or enter **serial** if your printer is connected to the serial port directly or through an interface. Enter **parallel** if your printer is connected through the user's port by a parallel cable.

If your printer is connected through the user's port by an RS232 cable, enter **rs232** and fill in the next five options:

“Baud:”—enter the baud rate that you've chosen for the printer. Options are **50, 75, 110, 134, 150, 300, 600 and 1200**.

“Parity:”—enter the parity that you've chosen for the printer. Options are: **even, odd, or none** for no parity.

“Bits:”—set a value to agree with your printer from among **5, 6, 7 or 8**.

“Stop Bits:”—set the value agreeing with your printer, **1 or 2**.

"Handshake:"—enter **0** if the handshaking lines goes low when the printer is busy, or **1** if the handshaking lines goes high when the printer is busy (the handshaking line from your printer—usually DTR—must be connected to CTS—pin 9—of the Commodore 64 or 128). Enter **2** for no handshaking.

Paper Advance

If the line feed is automatic when the program sends a carriage return command at the end of a line, enter the carriage return code (usually **13**) after **"CR:13"** (the first query).

If the carriage return command ends the printing of the line without advancing the paper, enter the carriage return code (again usually **13**) after **"CR(noLF):"** and remove any value in the first carriage return query.

Also, you must enter the code to advance the paper (usually **10**) after **"LF:"**.

Backspace

"Backspace:"—enter the code to move the print head back one character (usually **8**).

Underline Character

"Underline:95"—enter the code (usually **95**) to print just an underline (_).

Printer Secondary Addresses

"Text Secondary Address:"—to send the text through a secondary address (necessary with some interfaces), enter the address.

"Control Codes Secondary Address:"—to send the control codes through a secondary address, enter the address.

Printer Initialization

"Printer Initialize:"—this code is sent once, at the beginning of a document. Typically it is used to reset the printer to its default settings.

"Secondary:"—enter the secondary address, if any, to send the printer initialization code.

Line Beginning

"Line Begin:"—to send a code at the beginning of each line, enter it here.

Text Enhancement

"Underline on:"—enter the code to turn underlining on.

"Underline off:"—enter the code to turn underlining off.

See the note below "Microspacing".

"Bold on:"—enter the code to turn boldface on.

"Bold off:"—enter the code to turn boldface off.

See the note below "Microspacing".

"Italics on:"—enter the code to turn italics on.

"Italics off:"—enter the code to turn italics off.

"Value to add to italics:"—instead of on/off codes, some printers require a value to be added to all italicized characters. If applicable, enter the value, usually **128**.

"Superscript on:"—enter the code to turn superscript on. If your printer doesn't accept this code (or for subscript), see "Superscript Mode" below.

"Superscript off:"—enter the code to turn superscript off.

"Subscript on:"—enter the code to turn subscript on.

"Subscript off:"—enter the code to turn subscript off.

Line Spacing

"6 LPI:"—enter the code to set the printer to 6 lines per inch.

"8 LPI:"—enter the code to set the printer to 8 lines per inch.

"Optional LPI:"—if you want to set the lines/inch to a setting other than 6 or 8, enter it here.

"Superscript Mode:"—if your printer doesn't have on/off codes for super- and subscripts, use superscript mode. It works by printing the superscripts, then advancing the paper one-third of the normal line feed to print regular text, then advancing the paper another third to print

subscripts, and then advancing a final third to begin the next line. This is much slower than the on/off code method, risks clashing subscripts of one line with superscripts of the next, and the characters are the same size as regular type (not small as most super/subscripts are). To use it, answer **y** and set all line spacing codes to three times their normal values (eg. instead of 6 lines per inch, enter the code for 18 lpi on the "6 LPI" line).

Pitch

Put the codes for the pitches (characters per horizontal inch) of your printer beside the appropriate line. These codes must cancel any previous pitch and send the desired one.

"MS:" (microspacing)—this allows the printer to insert blank space smaller than one character between words when text is being justified. Thus the distance between each word appears more equal.

For every pitch that you wish to have printed with microspacing, enter a value following **"MS:"**. This value is the number of intervals that a character may be divided into (on a dot matrix printer, it's usually the number of horizontal dots a character may use). Then answer:

"Microspace Codes:"—enter the code to send the smallest interval a character may be divided into.

"Byte position within codes:"—many printers can save time by accepting the exact number of intervals to leave blank rather than accepting one blank interval at a time, as many times as needed. If your printer permits this, the microspacing codes must include one or two locations that the program can change to the number of intervals it wants printed.

Enter one or two numbers corresponding to how many values past the colon the locations are. For example, if the microspace code is **"ESC, "L",0,0"** the two zeros are the byte positions. since they're third and fourth in the code, enter **3,4**.

"Microspace Character:"—some printers require a certain character representing one interval to be sent after the microspace code, which the program repeats sending as many times as needed to fill a particular space between words. Enter the character, if applicable to your printer.

"Microspace off:"—some printers require a code to end microspacing. Enter it.

"Send pitch after microspace:"—some printers (usually daisy-wheel) alter the pitch to microspace. Answering **y** here restores the pitch to its previous value.

"Microspace for bold:"—if your printer isn't set to print boldface by using on/off codes or by overprinting with two passes, it may be able to do so by backspacing (if you have entered a backspace code). An option using backspacing, if the printer can microspace, is to overprint with an offset of one interval, which produces a darker image. Enter **y**.

Note on boldface and underlining

The program determines how to print boldface and underlining in the following order:

1. by on/off codes (if available);
2. by backspacing and overstriking (if a "Backspace Character" is entered), offset by one interval if entered;
3. by making a second pass over the line, overstriking the text (if the carriage return doesn't automatically advance the paper).

To use the second or third method, which are slower, make sure the codes for the methods above aren't entered.

Foreign Characters

"Foreign on:"—if your printer requires codes to access foreign characters, enter them here.

"Foreign off:"—enter the codes to turn off foreign characters.

Next, a file name appears (**"french chars"**) that refers to a file on the *Pocket Filer* disk that determines what foreign characters are shown on-screen for the characters accessed by **< CTRL > 0 to 9** and **< CTRL > ←** and **< CTRL > £**. The **"french chars"** file contains 12 dot patterns, one for each character, that are supplied as French characters. After the file name are 12 lines for the codes that produce the characters or symbols.

If your printer has a different set of foreign characters, possibly in another language or for mathematical symbols, you can make their on-screen representations resemble the desired characters by changing their dot patterns. For each dot pattern you change, (after loading **"french chars"** in Create, and later saving it) enter the correct printer codes in the corresponding line in the printer file.

Using a Printer File

Once the printer file is created, you must save it in order to use it. To save it (while still in Commodore Sequential mode), press < **C** >, s. Now enter the name of your printer followed by .pf and press < RETURN >. For example if your printer's name is ABC, enter **ABC.pf**.

To use the printer file, you must install it—see page 27.

The most appropriate place to store your printer file is on the *Pocket Filer disk*. As supplied, the disk contains room for one more printer file. If your new printer file won't fit, or if you want to save more than one printer file, first scratch a printer file you don't need from the disk (you might want to store it on another disk in case you want it in future).

Remember not to validate the *Pocket Filer* disk, which would prevent you from saving printer files onto it.

Integrating Pocket™ Software

All *Pocket* software produces files that can be used and printed in conjunction with one another:

Data from Pocket Filer database files can be merged into word processing files using Pocket Writer's mail-merge function. A typical use is to print form letters that contain individualized names and addresses; another is to load a report previously saved as a *Filer* disk file so that it can be edited.

If you want data (eg. the names and addresses) printed in sorted order, make sure the database file has been physically sorted in *Pocket Filer*. (If it's sorted using an index, it will be printed in the original order.)

To ensure that each copy of the word processing file (eg. a letter) begins printing at the top of a new page, enter a forced page into the blank space below the last paragraph of the document in *Pocket Writer*.

Other instructions are in *Pocket Writer's* reference guide under "Merge Variables" and "Print Options".

Graphs and tables created in a Pocket Planner spreadsheet can be printed in Pocket Writer word-processing files.

Create a disk file of the table or graph in *Pocket Planner*, calling it a different name than the file it was produced from. Then enter the disk file's name as an external file at the paragraph in the word-processing file above which you want it printed.

In *Pocket Writer*, make sure the word-processing (text) file has enough space on the page for the graph or table (do a trial run if necessary). The first time you print the text file, pagination (the page and line number) in the word-processing file will be inaccurate, because the space taken by the table or graph is unknown. However, the next time you print the text file, pagination is accurate. Other instructions are in *Pocket Planner's* reference guide under "Print Options" and "Printing Graphs".

The 802/1526 printer can't merge graphs into *Pocket Writer* files, although it can print graphs from *Pocket Planner*.

Spreadsheets created in Pocket Planner can be loaded onto the screen in Pocket Writer word-processing files.

Using the "Commodore" printer file, create a disk file of the spreadsheet in *Pocket Planner*, calling it a different name. Then in *Pocket Writer* you can join it to the end of a word-processing file, which loads it onto the screen and lets you edit it, including add enhancements such as boldface and italics.

Other instructions are in *Pocket Writer's* reference guide under "Join Files" and in *Pocket Planner's* reference guide under "Print Options" and "Install a Printer File".

Database files from Pocket Filer (and other database managers using sequential files) can be loaded into spreadsheets on Pocket Planner and used in calculations.

That means selected numerical data inventory or daily sales records, in a database, for example can easily be entered in a spreadsheet.

Instructions are in *Pocket Planner's* reference guide under "Loading".

Printer files in any Pocket program can be used with any other.

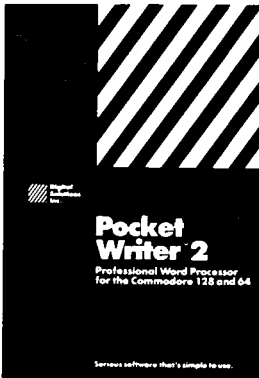
What you see is what you get! with Pocket Writer™ 2 professional word processor

This is the easiest, most powerful word processor for the Commodore 128 and 64. It's here. Pocket 2 Series Software. At Digital Solutions, we took our award-winning, best selling Pocket Software and we made it even better.

Here is a professional Word Processor that lets you take full advantage of your Commodore 128 or 64 computer. Here is powerful software with all of the features that you'd expect to find in much more expensive applications programs. Yet, Pocket Writer 2 Software is so easy to use, you won't even need a reference guide (even though we provide one). You can be up and running in less than 30 minutes, even if you've never used a computer before.

As you type, your text appears on-screen exactly as it will on paper—no fancy codes to memorize that clutter up the screen, no words broken at the end of a line.

Just look at these advanced features:

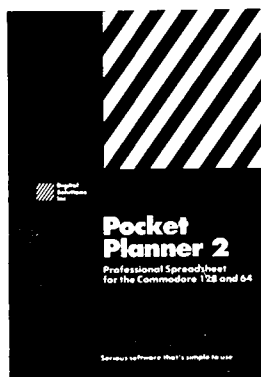


- **Pocket 2 Software has 128 on one side and 64 on the other**
- **On-screen text formatting and wordwrap. What you see is what you get!**
- **On-screen text enhancement including boldface, underlines and *Italics* (superscripts and subscripts for 128)**
- **No complicated format commands embedded in text**
- **On-screen help available any time**
- **Reads files generated by Pocket Filer 2 and Pocket Planner 2**
- Use Pocket 2 with Commodore RAM expander as a RAM disk (128)
- Spelling Checker incorporated into 128 program and included with the 64 program
- Includes 80 column 128 program plus 40 and 80 column 64 programs
- 25 or 50 lines of text displayed on screen (128)
- Allows two files in memory at once for fast editing (128)
- File are compatible with many other popular word processors
- Fast load on 1541 and 1571 disk drives
- 1571 Burst Mode for faster file loading (128)
- Easy to remember commands
- Automatic configuration for screen color, format and printer selection
- Compatibility with the GEOS operating system
- All the standard formatting features, including on-screen justifications, centering, line spacing, indentation, margins and page breaks
- Wordwrap is fully automatic
- Multiple line headers and footers
- Extensive editing tools, including ability to move, copy and delete blocks of text
- Addition, subtraction, sorting, moving and deleting of columns
- Automatic upper, lower case and text enhancement by ranges
- Enhanced delete or transpose process for letter, word, sentence and paragraph
- Word count
- Foreign and definable characters
- Search and replace
- Go to page #
- Unlimited document length using linked files
- **And many other features**

Make fast work of budgeting and forecasting with Pocket Planner™ 2 computerized spreadsheet

Checkbook and household accounting, bookkeeping and business forecasting are just some of the jobs you can do on Pocket Planner 2. A full-featured electronic spreadsheet, *Pocket Planner 2* can create four kinds of graphs and print sideways—functions you'd have to buy separately to use with other spreadsheet programs.

Best of all, *Pocket Planner 2* has the outstanding qualities of all software programs from Digital Solutions Inc. Extensive on-screen help means you rarely need to turn to the reference guide. Commands are sensible and easy to learn, as in *Pocket Writer* and *Pocket Filer*. Even the price is right!



Accurate, sophisticated and easy to use, *Pocket Planner 2* offers standard spreadsheet features, plus:

- **Pocket 2 Software has 128 on one side and 64 on the other**
- **Sideways printing — no need for a separate program**
- **Graphs including bar, stacked, line and pie can be displayed, printed and merged with Pocket Writer 2**
- **On-screen help at any time**
- **Smart evaluation that assures accuracy**
- **Accuracy to 16 digits 8 more than most spreadsheets**
- **Use Pocket 2 with Commodore RAM expander as a RAM disk (128)**
- **Mouse support with pull-down menus (128)**
- 25 or 50 lines of text displayed on screen (128)
- Includes 80 column 128 program plus 40 and 80 column 64 programs
- Easy to remember commands, similar to Pocket Writer 2
- Load and manipulate data from Pocket Filer 2
- Easy file conversion from other software
- Fast load on 1541 and 1571 disk drives
- 1571 Burst Mode for faster file loading (128)
- Automatic configuration for screen color, format and printer selection
- Matrix of up to 250 columns by 250 rows
- Individual column width selection
- Word processing features including wordwrap
- Database features including searching and sorting
- Multiple files in memory with cut and paste capability (128)
- Extensive cell formats including: position, decimals, commas, \$ and %
- Global formatting option
- Windows, titles, locks and cell protection
- Extensive mathematical functions including "if... then" statements
- Ranges to move, copy, delete, replicate and update cells
- Ability to print mathematical formulae as well as results of calculations
- Grid display for more distinct cell borders
- Overlay multiple spreadsheets
- **And many other features**

You may never misspell another word with Pocket Dictionary

There's no need to create your own dictionary disk from scratch. With *Pocket Dictionary 2*, you start with 32,000 words on the disk...and can add up to 8,000 more words that you use.

Pocket Dictionary will make using the Spelling Checker in *Pocket Writer 2* faster and simpler. The two programs are a letter-perfect combination.

A whole new world discovers Pocket Software! Ecrivain de Poche

Now the speed, sophistication and simplicity of *Pocket Writer* is available en français! In *Ecrivain de Poche*, Digital Solutions Inc.'s powerful word processor has been adapted to offer:

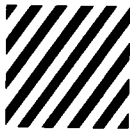
- commands using French words and initials
- reference guide in French
- questions and answers on program options in French
- all French characters
- error messages from the program in French

Soon, the entire *Pocket 2* software line will be available in French, and other languages will follow.

Upgrading to Pocket 2 software

Registered owners of *Pocket 64 and 128* software can upgrade to *Pocket 2* (which includes versions for the 64 and 128) at reduced prices, only by writing Digital Solutions Inc.). Also, registered owners of *Datafax* may upgrade to *Pocket Filer 2* at the same reduced price.

Upgrade prices are \$19.95 (U.S.) + \$3 (U.S.) for shipping and handling.



Digital Solutions Inc.
30 Wertheim Court, Unit 2
Richmond Hill, Ontario
Canada L4B 1B9

Summary of Commands and Functions

General

< f7 > or < HELP >	gets help
< f8 > or < SHIFT > < HELP >	exits help
< CRSR right >	moves the cursor right one character
< CRSR left >	moves the cursor left one character
< DEL >	deletes one character
< INST >	inserts one space
< CLR >, y, < RETURN >	clears (erases) text from the current item to the end
< CAPS LOCK > (on the 128)	enters/exits capitals mode
< ← > or < TAB >	move right one tab
< SHIFT > < ← > or < TAB >	move left one tab
< CTRL > t	set/clear tab at the cursor
< CTRL > T	clears all tabs
< SHIFT > +	{
< SHIFT > -	}
< SHIFT > &	
< SHIFT > @	,
< SHIFT > *	_
< SHIFT > ↑	π
< CTRL > 1	é
< CTRL > 2	è
< CTRL > 3	ê
< CTRL > 4	à
< CTRL > 5	â
< CTRL > 6	ù
< CTRL > 7	ó
< CTRL > 8	î
< CTRL > 9	û
< CTRL > 0	ç
< CTRL > ←	ë
< CTRL > £	ï
< CTRL > < f1 >	changes color of characters in the file
< CTRL > < f2 >	changes color of the command line and other fixed data
< CTRL > < f3 >	changes color of the file background
< CTRL > < f4 >	changes color of the border
< CTRL > < f5 >	changes color of the background in help area
< CTRL > < f6 >	changes color of text in the help area
< CTRL > < f7 >	changes color of the cursor
< CTRL > B	turns error bell on/off
< CTRL > C	enters/exits capitals mode (64 only)
< CTRL > D	to change a device number (printer, and in 64, drive)
< CTRL > e	turns edit delete on/off (reverses deletion direction)
< CTRL > h	turns help on/off
< CTRL > i	enters/exits insert mode
< CTRL > V	alters video display between 25 and 50 lines (128 only)
< CTRL > *	alters cursor type

< **C** >
 < **C** >, c shifts mode or exits current function
 disk command: then c to copy files
 n to format a disk
 r to rename files
 s to scratch files)
 followed by the drive number (plus colon and file name,
 if the function applies to a file), then < **RETURN** >
 < **C** >, c, < **RETURN** > (when drive activity light flashes) displays disk error
 < **C** >, d obtains directory of all drives present
 < **C** >, D (< **C** >, 3 for 64) loads directory of all drives present into memory
 < **C** >, 0 to 9 obtains directory (with optional pattern) of numbered drive
 (except 3 on the 64 loads directories of current drives into
 memory) (a RAM expander disk is 2). In a directory:
 < **RETURN** > loads the file the cursor is on
 s, < **RETURN** > scratches the file the cursor is on
 < **C** >, e returns to the current mode
 < **RUN/STOP** > (after another Commodore key
 function is begun) reads the file name the
 cursor is on onto the command line

 < **C** >, i to install a printer file
 < **C** >, l to load file
 < **C** >, q to quit the program
 < **C** >, x to exchange modules

Create Module

< **f1** > enters a field marker
 < **f2** > moves to the bottom of the file
 < **f5** > or < **ESC** > to define field options from the first field
 < **f6** > to define field options from the current field
 < **CRSR right** > moves right one character
 < **CRSR left** > moves left one character
 < **CTRL** > < **CRSR right** > moves to the last character in the line
 < **CTRL** > < **CRSR left** > moves to the first character in the line
 < **RETURN** > moves to beginning of next line
 < **CRSR down** > moves down one line
 < **CRSR up** > moves up one line
 < **CTRL** > < **CRSR down** > moves down one screen
 < **CTRL** > < **CRSR up** > moves up one screen
 < **HOME** > moves to the top left of the screen
 < **HOME** > again moves to the top of the file
 < **f2** > moves to the bottom of the file
 < **CTRL** > < **DEL** > deletes (erase) the current line
 < **CTRL** > < **INST** > inserts a blank line above the current line
 < **CTRL** > a to alter the file type and mode (between *Pocket Filer*,
 Sequential and *Datafax*)
 < **CTRL** > b creates a line or box on the screen joining the first and
 last co-ordinates of a highlighted range
 < **CTRL** > c copies a highlighted range
 < **CTRL** > d deletes a highlighted range, or finishes defining range
 and deletes it
 < **CTRL** > m moves a highlighted range
 < **CTRL** > P prints the current file

< CTRL > r

starts or ends definition of a range; clears a highlighted range

< Ⓚ >, s

to save the current file

< Ⓚ >, v

to verify the current file with one on the disk

Enter/Edit Module

< CTRL >< CRSR right >

moves to the end of text in a field

< CTRL >< CRSR left >
or < HOME >

moves to the beginning of text in a field

< CRSR down > or < RETURN >

moves forward one field

< CRSR up >

moves backward one field

< CTRL >< CRSR down >

moves to the end of the record

< HOME > twice

moves to the beginning of the record

< CTRL > J

sets the current field as the "jump" field

< CTRL > j

moves to the jump field

< f1 >

moves forward one record

< f3 >

moves back one record

< f2 >

moves to the last occupied record

< f4 >

moves to the first record

< f6 >

enters current date/time in date/time fields

< CTRL > f

displays the minimum number of free records on the current storage disk

< CTRL > g

to go to a specific record (by number)

< CTRL > I

turns automatic index update on/off

< CTRL > m

memorizes the current record

< CTRL > M

enters memorized data in the current record

< CTRL > p

to obtain the password table

< CTRL > P

prints the current record

< CTRL > s

to search for a record. Then enter criteria and press < f5 > or < ESC > to start the search, or < CTRL >< DEL > to delete all records matching the criteria

< CTRL > u

updates new or changed records onto the current storage disk (on the 128)

< CTRL > x

deletes (erases) to the end of a field

< CTRL > y

deletes (erases) to the beginning of a field

< CTRL >< DEL >

to delete the current record (irreversibly)

< RESTORE >

restores the current field to its text when the cursor entered it

< SHIFT >< RESTORE >

restores the current record to its data when loaded

< Ⓚ >

exits the current record, saving any changes

< Ⓚ >, C or < CTRL > c

obtains a calculator on the command line

< Ⓚ >, s

to sort a database alphanumerically by creating an index. Then press

< f1 > to select a field to sort by

< f3 > to deselect a field to sort by

< f5 > to start the sort

< Ⓚ >, s

to physically sort a database according to an index

Report Module

cursor movement

text manipulation

< f1 >

< f2 >

< f3 >

< f5 > or < ESC >

< CTRL > f

< CTRL > M

< CTRL > P

< CTRL > s

< Q >, C

< Q >, I

< Q >, L

< Q >, s

< Q >, v

< Q >, p

< Q >, P

< Q >

same as in Create

same as in Create (but no ranges)

drops a field in the report layout

deletes the current field or display position in the report layout

defines a display position (press once, move cursor to desired size, press again)

switches between the report and screen layouts

fixes/unfixes the current field or display position to begin at the current column

displays bytes of memory free

prints the current layout

eliminates/reinstates trailing spaces in the current field or display position

obtains a calculator on the command line

to load a layout with settings

to load a layout with previous loaded layout's settings

to save the current layout

to verify the current layout with one on disk

prints a report using current option settings

to print a report with option to change settings

(during printing) stops printing

File Utilities Module

RESTRUCTURE:

< DEL >

< CTRL >

< CTRL > < DEL >

< CTRL > < INST >

< f3 >

< f5 > or < ESC >

deletes a character from the current field

expands the current field by one character

deletes the current entire field

adds a one-character field between the current field and the one above

picks up or drops a field between the current field and the one above

starts updating the file

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