COMMODORE 64

VERSION 1.5

# F A M I L Y  R O O T S

## INSTRUCTIONS AND REFERENCE MANUAL

BY

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# FAMILY ROOTS

## Instruction and Reference Manual

## 1. INTRODUCTION

FAMILY ROOTS is a set of programs that assist you in your search for family historical information. The use of the programs allows you to store a standard set of information for each family member and rapidly access that information for viewing or printing in a variety of useful ways. Based on our own experience using these programs for our own genealogy research, we have found the use of a computer (as opposed to notebooks, etc.) to be especially advantageous for two reasons:

1) the most current information is always easily available, and

2) the ability to print the most current information makes it very easy and convenient to send requests for clarification, additions and corrections to relatives and other sources.

We trust you will find this product very useful. In addition we welcome your suggestions for improvements to the design, and for added features.

This user's manual first describes the general capabilities of each program. After that there is a general section that defines terms and describes how to get started using the programs. Following that is a separate section for each program giving the minute details and description of its capabilities. We suggest that the entire manual be read before you begin, but barring that, the sections on "Getting Started" and on the EDIT program can get you started.

There are six main capabilities supplied by these programs. Storage of birth, death, marriage, occupation, offspring and notes for each person is supported by one program. Another prints automatically-generated genealogy charts for both predecessors and descendants. A third program provides formatted outputs of your information for individuals or family groups. The fourth program allows you to make indices of your people in a wide variety of ways. The fifth program allows you to search through your data for a large variety of information. Finally, there is a program that allows you to store massive amounts of textual data (notes, etc.) that can be retrieved by name. In addition to the six major capabilities, there are several utility programs to satisfy special needs. More detailed descriptions may be found in the following sections.

As mentioned above, these programs have been extensively tested by use in our own genealogy research. We believe we have a high quality

product, relatively free of errors. Nonetheless, as software professionals, we know that all of the problems in a complex program are never found. We appreciate being notified of problems you find and will either tell you how to fix them or trade you a replacement diskette, whichever is appropriate to the magnitude of the error. We are also anxious to keep our product competitive and useful to you and welcome your suggestions for new features and new programs to include in the package.

A word needs to be said about that nasty subject, COPYING. We are not copy protecting our product for three reasons. The first is a practical one. Copy protecting doesn't really work since there are programs available that will copy nearly anything; it frustrates you; and it adds additional cost which would have to be reflected in our price. The second reason is that you will be better able to adapt the programs to your own uses and your own hardware configuration by having access to the files. The third reason is that we can easily keep you up-to-date by mailing you the changes that have been made. (We always provide the option of allowing you to mail us a diskette and have us make the changes for you, if you prefer.) Nonetheless, the programs are copyrighted and we plead with you to restrict your copies to those you need for your own use and safety. Our ability to remain in business, providing you support and quality future capabilities, as well as other software products, depends on your integrity in this matter. We are trusting your honor and hope not to regret it. Thanks!

## 2. OVERVIEW OF PROGRAMS

This section gives you an overview of the capabilities of each of the programs in order to orient you. The most detailed descriptions are in the individual sections devoted to each program.

EDIT is the data entry program. It allows you to set up a record for each name that you want to keep data on and later modify it. Each name can have up to four components and each name is associated with a record by number. Records can be accessed for additions and changes either by name or by number. Each record can be used to store date of birth, place of birth, date of death (if applicable), place of living or death, mother, father, children, notes/footnotes and number of marriages. For each marriage, the spouse, date of marriage, place of marriage and marital status can be entered. You may also define up to nine fields of your choice. EDIT has several features to aid your data entry. The menu allows you either to step through portions of the list of possible items or to selectively change as many items as you wish. When you are finished with your entries for one person, the program fills in obvious complementary information in other records, e.g. if you enter marriage data for a person, EDIT also puts that data into the spouse's record to save you the trouble of entering it twice. Finally there are nine program parameters you can directly control in order to accomplish data entry the way you want to do it.

CHARTS prints four different types of genealogy charts for you. A free-form chart, well-suited to computer generation, allows you to include only names or both names and other selected data for each person on the chart. This type of chart is available for both predecessors and descendants. In addition the standard 4 generation pedigree chart may be printed. There is also a special pedigree form that compresses 6 generations onto one page with detailed information included for each person. As in the EDIT program, CHARTS gives you access to various program parameters to control the ways in which data is printed.

SHEETS prints or displays your data organized by individual or family group. Information on individuals can be displayed or printed in an easy to read format; the printed form is often used for binding into family books. The family group sheet uses the Mormon format, which includes husband, wife, critical dates and places for each, other marriages, the children from this marriage, spouses of the children, and sources. As for the other programs, parameters are supplied which allow you to affect formatting and other areas.

LISTS constructs indices of your names in a wide variety of ways. Any list may be printed or displayed in either alphabetic or numerical order. You may select people to include in your list by diskette, by

number range, by supplying your own list of numbers, by common name elements (such as everybody with the same first name), or by surname SOUNDEX (names that sound alike). Merging of lists from different sources (for example, multiple diskettes) is supported. Parameters allow for formatting and for things such as whether the women are listed using their maiden or married names, or both.

SEARCH allows you to search through records for information of your choice. You can search for embedded character sequences, e.g. you might want to find all people having a mention of Omaha or everyone who was a teacher. You can search dates in various ways, e.g. you can look for all people with the same birthday or everyone living in a certain year. You can search for all mentions of a person. You can search for blank fields. Finally you can search for all people who have a certain number of children or a certain number of marriages. Each of the searches noted above is controlled by you as to what you want to search for and which records you want searched. The parameters used to set up a search are so general that you can search for virtually anything you have stored. Lists of the people satisfying the search can be passed to the other programs.

TEXT allows you to store an arbitrary amount of free-text notes, descriptions, or even a small report or book. Access to text is by name or number. Text is stored on a disk in 128 character segments, and as many segments are used as are needed. Each text diskette is independent of every other, so that as many diskettes as are needed can be used. Text can be added, changed, or deleted at any time.

Several utility programs are also provided. CREATE is used to prepare empty data diskettes. BLANKS prints a conventional blank pedigree chart on a single page, in case you want to use such forms. CONFIGUR is used to set up information in the master control file used by all the programs. That information includes your hardware configuration, formatting parameters, and the starting values for all of the other parameters mentioned above. RENUMBER allows you to reassign the numerical ID's for selected people. ADDRESS will make an address list for living relatives whose addresses you have included in your data. WHAT will tell you the identity and contents of a Family Roots diskette. And READER allows you to put a previously generated list of names that had been saved on diskette back into the computer's memory.

# 3. GETTING STARTED

You are undoubtedly anxious to get started using FAMILY ROOTS and especially to see your own information displayed and printed. Please don't do a lot of work without reading this section first; you may waste a lot of effort otherwise.

This section covers some very basic information on how to handle diskettes for those that may be new to their Commodore. You may zip over this if you're an old hand already. Next we cover how to set up the CONFIGURATION file with your equipment, the data sizes and formatting. This is VERY IMPORTANT as it will set up some limits that you may have to live with for awhile, and the programs may not work at all until you have told them what equipment you are using. Later, we describe how to set up your data diskettes prior to saving your information on them. And finally, we set up some of the ground rules we have used for the design of FAMILY ROOTS and how we will describe using the programs.

## 3.1 Backups, Starting, and other Basics

Before you do anything else, you should make backups of your program diskettes, i.e. the diskettes we supplied when you bought FAMILY ROOTS. A backup is an exact copy made for the purpose of protecting yourself in case a diskette becomes damaged (dropping it in the dishwater, etc.). You may make a copy using any program you have that is able to copy an entire diskette. For your convenience we have also supplied a program to copy full diskettes; it is named (oddly enough) DISKCOPY and resides on the Auxiliary Programs diskette. In any case be very careful to distinguish the original from a blank to be used, so that you don't accidentally erase the FAMILY ROOTS programs. (If you do erase it accidentally, you may buy another from us for a nominal fee if you are a registered owner.) You should make backups of both program diskettes, and then use the backups after storing the originals in a safe place. (Safe places are not too hot, not easily bent, not wet and not magnetic.)

To use our DISKCOPY, turn on your computer (with nothing in the disk drives), place the Auxiliary Programs diskette in the drive that is device number 8 (if you have only one drive, that's the one), and type

```
LOAD"DISKCOPY",8
```

Your computer will respond with

```
SEARCHING FOR DISKCOPY
```

and

```
LOADING
READY.
```

if you did everything right. When you get the blinking square (called a cursor), type

RUN

and follow the instructions. You will need two diskettes, one for each of the program diskettes to be copied (Main and Auxiliary). Be sure that the diskettes you use don't have anything valuable on them from a previous use, since they will be wiped out before putting FAMILY ROOTS on them.

Now that you've made your backups, you can start FAMILY ROOTS by inserting one of the program diskettes into the drive that's device 8 and type

LOAD"START",8

If this is your first try, use the Auxiliary Programs diskette now so that you can tell FAMILY ROOTS about your hardware. If you did it right, your screen will show

SEARCHING FOR START
LOADING
READY.

then type

RUN

At this point you will see our FAMILY ROOTS logo on your screen. Whenever you begin using FAMILY ROOTS, you should always go through this procedure, since the other programs in the package won't work without it.

The logo will remain on your screen for about half a minute if you do nothing, or you can "get on with it" by tapping any key on the keyboard. On your screen you will see

PLEASE WAIT ...

followed by various messages that tell you what is happening at the moment. After several such messages (the number varies depending on several factors), a menu will appear on your screen. A "menu" in general is a list of items from which you must make a choice in order to continue. This menu gives you a list of the programs you may choose to run.

Tables 1 and 2 show you what the program menus look like. The program diskette labelled as "main" will have the EDIT, CHARTS, SHEETS, SEARCH and TEXT programs for you to choose from, while the diskette labelled as "Auxiliary" will have all the others, including the LISTS program and

```
CHOOSE WHICH PROGRAM TO RUN, BY LETTER:

A)   EDIT          (DATA ENTRY)
B)   CHARTS        (PEDIGREES/DESCENDANTS)
C)   SHEETS        (PERSON AND GROUP SHEETS)
D)   SEARCH        (EXAMINE FAMILY DATA)
E)   TEXT          (FREE TEXT)
F)   PROGRAMS      (INSERT OTHER DISKETTE)

WHICH (A-F)?
```

TABLE 1. MAIN PROGRAMS MENU

```
CHOOSE WHICH PROGRAM TO RUN, BY LETTER:

A)   LISTS             (LISTS OF NAMES)
B)   WHAT              (ANALYZE DISKETTE)
C)   READER            (PUT LIST INTO MEMORY)
D)   CONFIGURE         (SET UP PARAMETERS)
E)   CREATE            (MAKE EMPTY DISKETTES)
F)   ADDRESSES         (MAKE ADDRESS LIST)
G)   BLANKS            (EMPTY CHARTS)
H)   RENUMBER          (REASSIGN ID'S)
I)   CONVERT           (FROM LINEAGES FORMAT)
J)   PROGRAMS          (INSERT OTHER DISKETTE)
```

TABLE 2. AUXILIARY PROGRAMS MENU

the utilities. One of the first programs you should run is the CONFIGURE utility, described in the next section; this program sets values that allow the other programs to run and to use all of your hardware.

After finishing each program you are given the choice of ending your session or executing a different program. If you choose to end, you will be returned to BASIC with a

BYE ...

followed by the BASIC prompt "ready". At this point you can run any other software, or if you want to return to FAMILY ROOTS, you may restart by inserting a program diskette in the disk drive that is device 8, loading start, and running as described above.

If you want to run a different FAMILY ROOTS program, you will be asked to load a program diskette into a certain drive and press a key on the keyboard when ready. You may select one of the program diskettes, but it should be the one that has the program you want on it. After you press the key, the disk drive will whirr and one of two displays will appear on your screen: the FAMILY ROOTS logo or a menu of the programs on that diskette. You've seen both of these before and you may proceed as described previously. The reason that the result of switching programs differs, depending on what you were running before, is that some of the programs can talk to each other, while others don't and need to have everything reset and restarted. As a general rule (not completely true) the programs on the Main Programs diskette talk to each other and the ones on the Auxiliary diskette don't.

You may own other programs that can be executed by typing

```
LOAD "GESHMELDA",8
RUN
```

(or whatever). In general you can't do that with the FAMILY ROOTS programs--they either die or give you error messages. You must go through the start-up sequences described above. The exceptions to this are the CONFIGURE and CREATE utilities.

## 3.2 Setting Up CONFIGURATION

You must run the CONFIGURE utility on the Auxiliary Programs diskette as one of your first operations. This program writes a "data file" called CONFIGURATION onto the program diskettes. (Let's reiterate--onto the PROGRAM diskettes, not the DATA diskettes.) The CONFIGURATION file contains all the information on what hardware you are using and how to use it, plus many items that affect how much space you will have available for your genealogy data storage. This section covers what you need to

do to get started; section 10 on the CONFIGURE program covers selected subjects in more detail.

The CONFIGURATION file is preset for one particular system. If your system is different, you must change those items that are different, as described below. The preset system will usually be a Commodore 64 with 64K of memory, one 1541 disk drive, an Epson printer, and a 40-column display.

Run the CONFIGURE program using the procedure described in section 3.1, that is, start with the Auxiliary Program diskette, and select the CONFIGURE program when the menu appears. After a short wait, the main menu for CONFIGURE will appear, showing six choices. The ones we are most concerned with at this point are the first two:

setting your hardware configuration, and
setting your record parameters.

### 3.2.1 Setting Your Hardware Configuration

Presumably you are following these instructions with your computer as you are reading. Select 1 for setting your hardware configuration now. You will see another menu that allows you to set three different types of hardware. When you select each of these, you will be led through a series of questions that allows the program to determine how to set its internal values for your hardware. You should go through all three hardware selections even if you don't have special hardware of that type. This is to ensure that the values are set right for you.

#### 3.2.1.1 Setting Your Printer

The series of questions about your printer are needed for the program to know

1) whether you have a printer and how to turn it on,
2) how to start and stop it,
3) what your character sizes are and how to control them, and
4) how wide your paper is.

The program first asks if you have a printer, which you presumably know how to answer.

Next we need to find out how to turn it on properly. That means finding out the device number and what commands are needed for normal printing and for sending commands to the printer. The device number is needed so the computer can know where to send its commands; this will almost always be device 4 unless you have done something strange with your hardware. You are asked

```
WHAT IS THE PRINTER DEVICE
NUMBER (NOW 4)?
```

You can preserve the current value by pressing the RETURN key on the right of the keyboard.

After that comes the question

```
WHAT IS THE COMMAND CODE THAT
CAUSES NORMAL PRINTING (NOW '7')?
```

The correct answer here depends on your printer interface. If you are using a serial-to-parallel converter like the one made by Cardco, Inc., the correct answer is 7. You may need to consult your printer manual or, more likely, the manual for the serial-to-parallel converter for the codes. The correct code will be the one that causes upper/lower case printing and automatically adds a line feed at the end of each line printed (i.e. makes the printer go automatically to the next line rather than staying on the same line). If you don't know the correct command code, pick any integer. You will be able to check out your selection later within CONFIGURE by trying to print the CONFIGURATION file. If that prints like Figure 14 from Chapter 10, you have made a good selection, but if not, you only need to try a different code.

Another question is asked to find what code must be used whenever a command needs to be sent to your printer. The question is

```
WHAT IS THE CODE THAT WILL ALLOW ANY
COMMAND TO GET TO THE PRINTER (NOW '5')?
```

This is needed because some interface devices don't allow certain ASCII codes to pass directly through to the printer during normal printing, or they may convert some ASCII codes to ones we didn't intend. The default setting of '5' is valid for the Cardco interface and is the one that is described in their manual as "graphics mode, no line feed." It is possible for this code to be the same as the one used for normal printing, but that depends on your hardware. You will be able to tell if this was set correctly if you are able to change print sizes when doing charts.

Next we need to establish the printer controls. At this point the program displays a menu listing several different kinds of printers plus two other choices. If you are lucky enough to find your printer in the list, you can avoid the next, somewhat complex sequence of questions. If not, you'll need to have the manual for your printer handy for consultation. We would, incidentally, be happy to have you send us your printer manual or a copy of it if your printer isn't shown. We will add your type of printer to the list and return your manual promptly.

There are nine types of printer supported as this is being written: IDS (Paper Tiger), EPSON/GEMINI, NEC/C.ITOH/Apple Dot Matrix, Centronics,

Okidata 82, NEC Spinwriter, Okidata 84/92, and Smith-Corona TP1. The copy of the program you receive may have a longer list. Even if your printer is shown in the list, you may want to review the controls used, since most printers can be set up in several different ways. The last choice on the menu gives you this capability. We suggest that you use the preset controls for your printer if you are not intimately familiar with it. You can always change the controls at a later date if you need other capabilities.

If you have one of the preset printers and find that our controls for it don't work, you will need to answer the control questions. The reason this might happen is that manufacturers are continually changing their products, and you may have bought a version different from the ones we are familiar with. You may skip to the last paragraph in this section if you have chosen a preset printer from the menu.

Almost all printers use strings of characters to control their sizes and the start and stop (where needed). The ones you need will be stated in your printer's manual, but it is often not obvious at first how to type each character on the keyboard. Each character is defined in terms of a code (called ASCII) inside the machine. For example the capital letter A is encoded as the number 193 within the Commodore.

You can get an ASCII 193 into the machine by pressing the A key on your keyboard. Every other key has a code associated with it which can be stored by pressing that key. You must translate the requirements stated in the printer manual to what you must type on your keyboard.

Most of the problems arise in entering the first 32 ASCII codes (numbered 0 through 31) since they have three different names. Some printer manuals also make it difficult by assuming that you are writing a program, whereas in this case you only need to find the relevant strings of characters for entry via the keyboard. Let's consider an example. Your printer manual probably says you need an open 4,4:CMD4 to activate the printer. You don't. That's already part of the FAMILY ROOTS program and is a program statement rather than a sequence of control characters.

Suppose your manual says you need to do a PRINT CHR$(15) in order to set the print size to 17 characters per inch. Now we're getting somewhere! The PRINT is the program statement that pushes the sequence out to the printer, so the CHR$(15) is the way you would state within a program that you wanted to send the single character, ASCII 15, to the printer. What you need is to find a way to type that ASCII 15 on your keyboard so that the PRINT statement which already exists in the program can put it out to the printer. You type ASCII 15 by holding down the key marked CTRL at the left of the keyboard and simultaneously pressing the letter O key, called CTRL O. Why that one? The first 26 ASCII codes correspond one for one with the letters of the alphabet, and O is the 15th

| ASCII | TYPE | OTHER NAME | ASCII | TYPE | OTHER NAME |
|---|---|---|---|---|---|
| 0 | ^ | NULL | 48 | 0 | 0 |
| 1 | ctrl A | SOH | 49 | 1 | 1 |
| 2 | ctrl B | STX | 50 | 2 | 2 |
| 3 | ctrl C | ETX | 51 | 3 | 3 |
| 4 | ctrl D | ET | 52 | 4 | 4 |
| 5 | ctrl E | ENQ | 53 | 5 | 5 |
| 6 | ctrl F | ACK | 54 | 6 | 6 |
| 7 | ctrl G | BEL | 55 | 7 | 7 |
| 8 | ctrl H or ← | BS | 56 | 8 | 8 |
| 9 | ctrl I | HT | 57 | 9 | 9 |
| 10 | ctrl J | LF | 58 | : | : |
| 11 | ctrl K | VT | 59 | ; | ; |
| 12 | ctrl L | FF | 60 | < | < |
| 13 | ctrl M or RETURN | CR | 61 | = | = |
| 14 | ctrl N | SO | 62 | > | > |
| 15 | ctrl O | SI | 63 | ? | ? |
| 16 | ctrl P | DLE | 64 | @ | @ |
| 17 | ctrl Q | DC1 | 65 | a | a |
| 18 | ctrl R | DC2 | 66 | b | b |
| 19 | ctrl S | DC3 | 67 | c | c |
| 20 | ctrl T | DC4 | 68 | d | d |
| 21 | ctrl U or → | NAK | 69 | e | e |
| 22 | ctrl V | SYN | 70 | f | f |
| 23 | ctrl W | ETB | 71 | g | g |
| 24 | ctrl X | CAN | 72 | h | h |
| 25 | ctrl Y | EM | 73 | i | i |
| 26 | ctrl Z | SUB | 74 | j | j |
| 27 | ctrl [ | ESCAPE | 75 | k | k |
| 28 | ctrl 3 | FS | 76 | l | l |
| 29 | ctrl ] | GS | 77 | m | m |
| 30 | ctrl 6 | RS | 78 | n | n |
| 31 | ctrl 7 | US | 79 | o | o |
| 32 | space | SPACE | 80 | p | p |
| 33 | ! | ! | 81 | q | q |
| 34 | " | " | 82 | r | r |
| 35 | # | # | 83 | s | s |
| 36 | $ | $ | 84 | t | t |
| 37 | % | % | 85 | u | u |
| 38 | & | & | 86 | v | v |
| 39 | ' | ' | 87 | w | w |
| 40 | ( | ( | 88 | x | x |
| 41 | ) | ) | 89 | y | y |
| 42 | * | * | 90 | z | z |
| 43 | + | + | 91 | [ | [ |
| 44 | , | , | 92 | £ | £ |
| 45 | - | - | 93 | ] | ] |
| 46 | . | . | 94 | n/a | ^ |
| 47 | / | / | 95 | ← | ← |

TABLE 3. ASCII CODES FROM THE KEYBOARD

letter. Similarly CTRL A would be ASCII 1 and might be referred to in your manual as CHR$(1). When you type CTRL A on your keyboard, nothing shows on your screen, since there is no physical symbol associated with it; the same is true of the first 32 ASCII codes. Table 3 gives you the correspondence between ASCII codes, how they may be referenced in your printer manual, and how you type them on your keyboard. Whenever you type a sequence of codes into the CONFIGURE program, it shows it back to you by displaying the invisible ASCII codes as CHR$(15) (or whatever).

We're not through all the complexities yet. There is another set of names for the first 32 codes; these names are used by some printer manuals instead of those described above. An example would be DC4 meaning ASCII 20 or CHR$(20) or CTRL T. Table 3 also shows these name correspondences. As described above, if your printer manual says you need a DC4, you must tell the program that by typing CTRL T.

The last problem in entering the right codes is that one of them, ASCII 0 can't be typed directly on the keyboard. We have supplied an alternate character which can be typed and will be interpreted as this code; this is also shown in Table 3. The program tells you where these can be used.

Now we can continue considering the questions asked by the program. The question about start and stop characters for the printer may need explaining. A Paper Tiger printer needs a CTRL Q character (same as ASCII 17 or, in BASIC, CHR$(17)) in order to start the printing. Similarly a CTRL S character is needed to stop. You may not need these at all, or you may need others. For example if ASCII 20 (same as CTRL T) controlled the line spacing, you might like to have that output every time the printer is activated. You would first say whether you needed any start/stop controls. Assuming you needed some, you should then answer the questions about which control characters to start output by typing

CTRL Q

then CTRL T

followed by pressing the 'return' key.

There is another set of printer characters to control character sizes, if your printer has that capability. You may choose up to four different sizes by specifying both the density (characters per inch) and the control sequence needed by the printer for that density. For example, the Paper Tiger printer uses ASCII 31 (CHR$(31)) for 16.5 characters per inch and ASCII 1 (CTRL A or CHR$(1)) for enhanced mode. If you wanted to use 8.25 characters per inch as one of your sizes, you would type the two characters

CTRL 7 CTRL A

where the CTRL 7 is the character recognized as ASCII 31 (CHR$(31)) as noted on your screen. This get you the 8.25 density because enhanced mode doubles the width of each character. Some other printers use much different types of control sequences. For example some NEC printers use

CHR$(27)"(Q)"

to set up 16.5 characters per inch, which would be entered as !(Q).

If you have multiple character sizes, you need to tell the program the size of each one, and the control sequence needed to do it. Character sizes are specified in terms of characters per inch, usually somewhere between 5 and 17; you need to find this information in your printer manual. It is O.K. to use a fractional size like 17.16. After you have specified each print size you must then select which one is normally used by your printer when it is first turned on. Most often this is 10 cpi (characters per inch) but some printers allow setting this to some other value using switches internal to the printer.

Finally, various widths of paper might be used. Usual ones have a usable width of 7.5 or 8 inches, and that is what you would normally specify. If you want a right margin wider than normal, you should select a smaller value. For example, specifying a usable width of 7.5 inches for paper that is 8 inches wide will leave a ½ inch margin on the right. Note that if the paper width you have specified doesn't match the paper you are using (e.g. saying 15 inch paper when you're using 8), the printouts won't look as they do in this manual. The same thing may occur if your sizing controls mismatch the control sequences used to produce them, for example if the control sequence you said produces 16 characters per inch actually prints as 8 characters per inch.

### 3.2.1.2 Setting Your Disk Drives

The disk drive questions establish how many drives you have and how FAMILY ROOTS will reference them. Up to 4 drives are supported, and they are referenced as 1 through 4 when a program tells you to load a diskette in a drive. (For example, a program may tell you to place diskette 6 into drive 3.) You will need to establish the correspondence between the drive 1 through 4 references and where the drives are actually to be found, i.e. their device numbers.

For each FAMILY ROOTS drive number (1 through 4), you will be asked what the device number is. Disk drive device numbers must be 8, 9, 10 or 11. If your answer isn't one of those, CONFIGURE will ask you to try again. If you have two drives it is not necessary that they be devices 8 and 9 -- for example, they could be 8 and 10, or 8 and 11. One of the device numbers MUST be 8, however; that is because the CONFIGURATION file

contains the device numbers but the file has to be read from device 8 before those numbers can be used.

Commodore model 1541 disk drives are all set to be device 8 when you first turn the power on, as delivered from the factory. When you have more than one drive, the device numbers of all but one of them (the one that stays drive 8) must be changed before they can be used. This change of device number can be done permanently or can be done each time you start your session. If you want to do the permanent change, you should carefully follow the instructions in the 1541 manual about cutting the jumper(s). Otherwise you can indicate to FAMILY ROOTS that you want to set the drive device numbers at the start of your session. There is a question for that purpose:

```
DO YOU NEED TO SET YOUR DISK DRIVE
DEVICE NUMBERS WHEN YOU
FIRST TURN THEM ON (NOW 'NO')?
```

If you answer this YES, FAMILY ROOTS will ask you to turn on the drives one by one whenever you use the START program. If you intend to always set the devices independently of FAMILY ROOTS (for example, using Commodore's DISK ADDR CHANGE program), you should answer the question 'NO'. Pressing the RETURN key preserves the previous answer.

#### 3.2.1.3 Setting Your Display

The display question determines if you can display 80 columns (or other than 40 columns). As this is written only a few types of such hardware have been explicitly supported. New types are continually being introduced to the market. If you have a type not indicated by the program and have difficulty making it operate, please contact us. We are anxious to keep you happy, plus this helps us expand our program capabilities.

Note that the displays in 40 columns are quite adequate. The use of 80 columns is purely a matter of personal preference and is not required to take advantage of the features of FAMILY ROOTS.

### 3.2.2 Setting Your Record Parameters

When you finish with the hardware items, press 'return' to get back to the CONFIGURE main menu. Then select 2 for setting record parameters. You will be presented with another menu containing four choices. You should review all four, but the most important before getting started is item 3, for defining diskette formatting.

### 3.2.2.1 Setting Your Formatting Parameters:

There are three parameters in FAMILY ROOTS that determine diskette formatting. These are assigned values by us, but you may want to change them. Once these values have been selected and you have stored some genealogy information on your diskette, it will not be possible to change the values easily. When you select item 3 from the Record Parameters menu, you are first given a warning about changing the values. Then you are led through a series of questions to allow redefinition of the three values.

The first of the three formatting parameters is the maximum number of characters per person. The value we supply (called the default value) is 256 characters. This must be large enough to accommodate all the "structured" information you want to store for each person. The value should not include the characters in the person's name since this is stored elsewhere. Also, references to other people (like father and mother) require only characters for the ID number, not the full name. Some overhead is included in maximum characters per person, i.e. one character is required for each piece of information (called a field, for example, Place of Birth) regardless of whether you store anything there.

If you choose a value too small, you will get messages from the EDIT program occasionally saying there is not enough space to store your information. You can usually cope with that by using abbreviations. If you choose a value too large, you will waste a lot of space on your disk but will seldom have any problems storing. It is usually preferable to choose a value on the large rather than on the small side. Most of our customers are using values in the range of 256 to 512 characters.

The second of the three formatting parameters is the number of sectors available on one diskette. Each sector holds 256 character and the number of sectors available on a newly formatted diskette is 664 sectors. About the only reason for reducing this would be if you want to allow for extraneous files on your data diskettes (not advisable).

The third formatting parameter, average name length, is used to define the space for name storage. The default value for the average length of a name is 26 characters. We have done averages on our own sets of names and found an actual average of 22 characters. Based on our experiences with hundreds of users, we have found that 22 is often too small, which is why the larger default value of 26 is now used. The character count should include first names (can be many), last name, married last name, title (if any) and 4 characters of overhead. If you plan to use the "title" part of the name for something like alternate spellings or your own custom ID number, you should account for that in selecting the average name length.

In addition to the three parameters just described, there are two other parameters affecting name storage. These are computed automatically, so you need not be concerned with them.

It is unfortunate that these difficult choices must be made before you are familiar with FAMILY ROOTS and how it works. The best way around this is to make a set of "test" data when you first start. In other words, don't get in a big rush to get everything stored as soon as possible. Enter information for 25 to 50 people with the view that you are just trying things out to see how they work. Then if it turns out you aren't satisfied with the results of your choices, you can return to CONFIGURE and start anew, but with a better understanding of the consequences.

#### 3.2.2.2 Other Record Parameters to Consider

The first choice on the Records Parameters menu is for defining user fields. This is for defining up to 9 fields of your own choice. Typical fields might be SEX, OCCUPATION, DATE OF BURIAL, PLACE OF BURIAL, or DATE OF CHRISTENING. It is not critical that you choose all your fields at this point. New fields can be added at any time. However, once you have added a field and stored data for it, it will be difficult to change or delete it; this would entail manually changing all the information you entered. See section 10.3 for more information.

You should review the maxima by selecting 2 from the Records Parameters Menu. It is not critical that these be set large enough at this point, since you may change these at any time. For example if you find that 15 children as a maximum limit is not large enough while entering your data, you would run CONFIGURE again to reset this to, say, 18.

The final Record Parameters menu choice is 4. You should consider these 3 of the values on this menu carefully, since changing them later may cause you problems, even though it is still possible to change them. The first item is a parameter that establishes the storage order for dates, i.e. day/month/year or month/day/year. The value is preset to 1 to represent day/month/year which is standard for genealogy. If you want the other order, you should set the value to 0. This does not affect what you are allowed to enter for dates, but does affect validity checking (e.g. Is the month number between 1 and 12?), date formatting for printout, and recognition of dates in SEARCH. (You may want to review a related parameter, ASK FOR DATE, available as one of the miscellaneous items when selecting '3' from the main menu.)

The second item on this last menu controls whether an "Auto Date" field is used or not. If you have one, every time you change any piece of information for a person, this field will be changed to contain the date that you made the change. In other words, it is a "Date Last Changed"

field. A field like this provides you some history for how and when your items get changed. Set it off with a 0, and on with a 1. If you are unsure about this, it is probably better to have it on at first until you determine if it will be useful to you. It is not critical to set it now, other than that changing it later will leave part of your information with it and part without. You should be aware that it requires 8 characters for every person to use the Auto Date field, and those 8 characters could conceivably be more useful for something else.

The third item is the "Separator in Names" character. We have set it to "%." It should be a character that will never appear in one of your family names. In making your choice, be aware that you can put something like

DAN (1841-1843, DIED YOUNG)

as a name. This is not a character that you will ever type when entering your names--it is used by the programs to pack the parts of a name together and to recognize how to unpack them as well.

#### 3.2.2.3 SAVING THE CONFIGURATION AND EXITING

You should now be finished setting values for the CONFIGURATION file. The last thing you must do is actually save the file on EVERY program diskette. You do this by returning to the main menu for the CONFIGURE program (press 'return' until you have the main menu again) and selecting 4 (SAVE CONFIGURATION FILE). You will be asked which drive you want to write to. Place your program diskette copies and originals into your drives and select each drive in turn (remember the drives are numbered 1 through 4 according to your disk definition selections). You may need to switch diskettes if you have more diskettes than drives. When you make each drive selection, the drive will whirr and you will be asked which drive again. To return to the main menu, type 'return.' *** To reemphasize, please save the CONFIGURATION file on EVERY PROGRAM diskette, both Main and Auxiliary. The programs won't operate properly without doing this.***

Select item 6 on the main menu to exit CONFIGURE. The next thing to do in getting started is to run the CREATE utility in order to make blank data diskettes.

## 3.3 Making Blank Data Diskettes

You need to prepare the diskettes that will be used for your genealogy data before you can store anything on them. You set up the FAMILY ROOTS data diskettes using the CREATE utility.

CREATE formats and puts empty data files onto your data diskettes. You MUST have run CONFIGURE and followed the procedures described in section 3.2 before you run CREATE. The empty files that are created are for your names and family information, along with a control file. The control file allows each program to determine the identity of the data diskette (its number) and has parameters in it to prevent incorrectly writing on it, i.e. to prevent destroying your data. The diskette number is not actually set until you attempt to use it with the EDIT program. Be sure to use either a new diskette or one without anything important on it, since formatting destroys its previous contents.

When you run CREATE, it will take a while to complete its operations. You can tell how far it has gotten because of messages that appear on your screen. We can't give you an estimated time because it depends on the parameters you chose. Plan on several minutes at least.

Since the data diskette identity is not set by CREATE, you can make additional blanks by copying the first one you make. (You may use our COPY program, the same one mentioned when we talked about backups.) This will be faster than using CREATE again. You may find it advantageous to preserve a blank data diskette for the purpose of copying it for new blanks when you need them. How many blank diskettes will you need? At least one, but it won't hurt to make several others now. You can add others later as you need them. There is no limit to the number of data diskettes possible.

After you've made your blanks you may proceed to put data onto them using the EDIT program. We'd like to add a few comments about why we use the CREATE step rather than the primary alternatives. The main alternative would be to add checks to all the programs to see if a record is present when it is referenced, and add it if it isn't there. This would add considerably to the size of programs that are already very large, which limits you. It would also add delays each time a missing reference was detected, and it would create difficulties in determining the diskette identity when new. Our choice of putting the delay all at one place (using CREATE) makes for smaller programs and gives you considerable flexibility in being able to assign your own person ID numbers.

## 3.4 Definitions, Conventions, and Miscellaneous

This section provides various odds-and-ends of information that will make it easier for you to understand the detailed discussion of each program. This includes the conventions we will follow in describing operations and examples, plus general philosophy on how the programs are designed.

a) 'return' refers to the use of the RETURN key on the right of the keyboard, not to the typing of the individual letters R E T U R N.

b) Program outputs will be shown in the manual as all capitals. Actual program outputs are in both upper and lower case.

c) Your responses will be shown by enclosing them in pointed brackets, for example <2>. You shouldn't type the brackets.

d) Menu selections and answers to questions are "keystroke" wherever this can be done. This means that when you type a key (especially menu selections and yes/no answers), the response is immediate. In cases where a program doesn't know how long your response is (i.e. how many characters), you must tell it you are done by pressing 'return'.

e) A file is a large collection of data or information on all your people. A file is composed of records. Each record applies to one person or a small group of people. Each record is composed of fields. Each field is a piece of information like 'date of birth'.

f) If any program asks you a question you don't want to answer, press 'return'. If you are progressing logically in an undesired direction, press 'CTRL Z', (that is, hold down the key marked CTRL, and press Z at the same time). The programs are designed to use these as the null answer and escape condition, respectively. You won't ever hurt anything by using them. As a general rule: if in doubt, press 'return'.

g) The five programs EDIT, CHARTS, SHEETS, LISTS and SEARCH all operate on the same highly structured set of data. These data are stored in the two files NAMELIST and FAMILY on every data diskette. As the names suggest, NAMELIST stores the list of names that you enter, while FAMILY stores the data for each person (described in section 2 in the paragraph on EDIT). These two file names do not actually appear in the directory list for a data diskette, because all the file handling is done by machine language routines.

h) The programs are designed to allow you to place any diskette in any drive. The major programs check every drive as one of their first operations. This implies that you should normally have SOME diskette in every one of your drives when a program prompts "PRESS ANY KEY WHEN YOUR DATA DISKETTES ARE IN THE DRIVES." The programs can tell whether each diskette is a data diskette or not. They will not try to write on or read a diskette which isn't to be used for data.

i) The FAMILY ROOTS programs refer to the disk drives using numbers 1 through 4. The correspondence of FAMILY ROOTS drive number to hardware device number will be as you set it up in CONFIGURE, as described in section 3.2.1.2.

j) The FAMILY ROOTS programs will refer to your data diskettes by number. For example, a program may tell you to insert diskette 8 into drive 4. The diskette number is set when you first write something on it using the EDIT program. You should PHYSICALLY write the diskette number on its label (using a SOFT TIPPED PEN to keep from damaging it) so that you can find it when it is referenced. You may use the WHAT utility to determine the diskette number and range of ID's on it if there is any problem.

k) You should not switch the diskettes in a drive unless told to do so, or unless you are on a main menu and can tell the program to check the drives. Switching diskettes under other circumstances may cause program crashes or erasure of your data.

l) Except for items mentioned in section 3.2.2, you can change your settings in the CONFIGURATION file at any time. This includes hardware settings, fields you define for yourself, maxima, and default parameter settings for the various programs.

m) We update FAMILY ROOTS periodically and send you notification of the changes in a letter. You may send us any diskettes for current copies of the programs, so long as you are a registered user. You may also buy new diskettes containing the current version of the programs. In fact, you may do this at anytime, even if a new update has not appeared.

n) If we use the words "input" and "output", we are using the viewpoint of sitting inside the computer. Thus "output" means taking something from the computer's memory and placing it on your screen, printer or diskette. We have tried to avoid these two terms, but sometimes no others can be used as easily.

o) For your convenience, all special characters (mainly control characters) used by FAMILY ROOTS are summarized in Appendix B.

p) References to a "main menu" must be taken in a context. For example in the section on the CHARTS program, "main menu" refers to the CHARTS Main Menu, which can be distinguished on your screen by the title at the top. Similarly, in the SHEETS chapter, the term "main menu" refers to the one for that program. Occasionally we may have referred to the menu of programs as a main menu, but we hope to have eliminated that confusing reference in this edition of the manual.

Almost but not quite snow white!

# 4. DETAILED USE OF EDIT

EDIT is the data entry program. Names of people for whom you want to keep records and a standard set of information can be entered and changed using this program. Begin by using START to get into FAMILY ROOTS and selecting EDIT when the menu of programs is presented. Please see section 3.1 if you don't yet understand how to begin by using START.

The message

PRESS ANY KEY WHEN YOUR DATA DISKETTES ARE IN THE DRIVES

appears on the display screen to give you the opportunity to insert one or more data diskettes. If you are just starting, place an empty data diskette (made with CREATE) in at least one drive and press any key.

It is not necessary to remove the program diskette if you have enough drives to have a place for at least one data diskette. Remember that there must be some diskette in every drive, even if you are not using it.

EDIT will read the diskette in each drive to find the location and identity of all the data diskettes. When it finds a new data diskette, it will ask you to identify the diskette in one of two ways:

1) You may supply the diskette number. If you are just starting, you probably want to call your first diskette number 1. Diskettes are numbered in sequence starting with 1 and continuing for as many diskettes as you need. Or,

2) You may tell EDIT one person's ID number that will be on that diskette. Since ID numbers are assigned to diskettes in a particular way, EDIT can tell what the diskette number should be if it knows one of the ID's on it. EDIT will tell you the diskette number if you choose this method. (You will have a better understanding of person ID numbers and how to use them after reading all of section 4.)

When EDIT gets the diskette number, the identification is written into the control file that resides on the diskette. You should mark each data diskette with its number. We suggest writing a large sized integer on the diskette label with a soft-tipped pen to aid in rapid location and identification of the diskette.

## 4.1 Edit Main Menu

After the disk drives are checked, the EDIT main menu will be displayed. The menu gives you five choices. The choices are:

(1) EDIT RECORDS

(2) EDIT NAMES

(3) CHANGE PROGRAM PARAMETERS

(4) CHECK DISKETTES

(5) EXIT PROGRAM

The "records" referred to by the first menu item contain your family information, one record per person. The records and the names are stored in different places on a diskette so that the names can be rapidly accessed for a variety of purposes. For example, the display of data for one person will usually reference a wife, parents and several children, and these names are retrieved from the name storage location instead of stored in every record where they are referenced. An identification (or ID) number gets associated with every name that you store, as described in the next section, and it is this ID number that is usually saved in a record rather than a name.

You may edit names using either menu choice 1 or 2 from the main menu, but it is usually better to enter a batch of names at the same time using item 2 first. The difference between the two menu choices, when working with names, is as follows:

1) For item (1), editing records, you may store only the name of the person the record is for, e.g. if your are entering birth, death, spouses, etc. for Millie Acorn, you can only enter the 4 parts of Millie Acorn's name while you are doing this, and not her parents, spouses or children.

2) For item (2), editing names, you may store the 4 name parts of a large number of people at the same time, but not their family data (until you return to the main menu).

The advantage of entering names first is that number references to names will show the names in the EDIT RECORDS menu. For example, suppose you are working with friend Millie and enter an ID of 23 for her spouse. When you look at the menu of what you entered, you will see the name for the person having ID=23 displayed IF IT IS AVAILABLE. This gives you some confidence that you entered the right number. The name will be available for display only if you entered it first, either by editing

the record for person 23 first, or by using the EDIT NAMES item from the main menu. If this still seems confusing, read the next sections and try it out--it will soon become clear. After names have been set up as described in the next section, you can return to the main menu (also described shortly) and select (1) for putting your family information in those records. Selection of (3) gives you access to ten program parameters that control the way the data you enter is stored; they are described in detail in a later section. Selecting (4) causes EDIT to read the diskettes in every drive to see what is where, and is what you should do after switching diskettes when you haven't been told to do so. Finally, if you select (5) you get the option of choosing to run another program or of quitting altogether.

If you are following these instructions in your first use of EDIT, press <2> now.

## 4.2 Editing Names

In the EDIT NAMES mode, a menu is put on the screen to allow you to select whether you want to add a name, change a name, reinitialize a name/record or save your names on disk. Each time you select one of the name editing options, you will sequence through a few questions and "fill-in-the-blanks" type of operation and then return to this menu for your next selection. For example if you choose to add a name, you will supply one complete name and then return to the menu; this allows you to correct the name or erase it immediately in case you made a mistake. You escape this menu by pressing 'return'.

### 4.2.1 Adding A Name

When you add a name, an ID number gets associated with it that is used extensively by all of the FAMILY ROOTS programs. There are two ways that an ID number can be assigned: you may choose each one yourself, or you may select ID's sequentially starting at some number of your choice. The method that is used is controlled by a parameter that you can set on the CHANGE PROGRAM PARAMETERS menu, described in detail in a later section. If this is your first session with EDIT, it will probably be set to assign ID's sequentially starting with 1. Let's assume that's what you want to do for the moment, and come back to the other one later.

Your display should be showing the 'edit names' menu. You should choose the 'add a name' option by pressing <1>. At this point the program finds the next available ID number and assigns the new number to the name and record you are about to enter. If you are just starting, this means

that the first name you enter (yourself?) will become associated with the number 1 hereafter. The next name you enter (your wife?) will become associated with number 2. Similarly if you had just entered 22 names and you now enter <Ethel Mason>, the name 'Ethel Mason' is associated with the number 23 and the information for Ethel Mason will be stored in record number 23 (in the FAMILY file on diskette).

The EDIT program (and the others as well) views all names as having four parts:

1) last name at birth
2) first name(s)
3) married last name
4) title

When you enter a new name using the 'add a name' option, you will be asked to enter each part separately. If one of the parts of the name doesn't apply (e.g. married last name) or you don't know it, just press the 'retirn' key. There is no limit on the length of a name, but you may have difficulties if you choose to use lengthy names as a standard practice. Any character except a 'return' and the name separator character (%) can be in a name.

"What should I enter for each of the parts?" you may ask. 'Last name at birth' is self explanatory. First names can be entered separated by spaces. In our own use of the program we have sometimes included nicknames in parentheses as part of the first name, but this should be used sparingly since it increases the length of the name. Another practice we have sometimes used is to put in a descriptive word or phrase where the name isn't known, e.g. "(BOY)" or "(JOHN'S FATHER)". Such imprecisions can be easily corrected later when you find the more exact information. 'Married last name' will normally be entered only for married females. Title is intended for such things as "JR.", "SR.", "DR.", "II", etc. However, since 'Title' is only printed/displayed and is not used when searching on names, you may put almost anything you want here, e.g. an alternate name spelling for the last name 'Rector' could be entered as "(RICHTER)" in the title field. You can also leave the 'Title' field blank, which would be the normal case.

When you press 'return' after finishing with the title field, you will be returned to the 'Edit names' menu. To digress a moment, if you are entering only a few names during this session it is a good idea to jot down each record number and name on a piece of paper as you enter it. However, if you are doing extensive entry, the better procedure is to enter all names, exit EDIT, use LISTS to print a list of the names for you, and then return to the EDIT program for data entry.

The list of names and record numbers, whether handwritten or printed, gives you the most rapid access to the records in your subsequent data entry tasks.

Now suppose you wanted to enter several names in sequence starting at a different number, say 226. To do that you must reset the "next name" pointer on the Change Program Parameters menu. You don't have to return to the main menu to get there--just press <P> on the 'edit names' menu. Assuming you typed P, you are now looking at a list of 11 items. The one you want is item G, NEXT NAME ID. Press <G>, and answer the question with <226> followed by <'return'>.

You could now enter several names starting at ID=226, the same as when you started at 1. One other thing could have happened before or can happen here, however. If you entered names at some other time and already assigned 226 to somebody, EDIT recognizes this and advances to the next unused ID number. For example if 226 and 227 were previously assigned, you would see

```
ID=226 WAS ALREADY USED
ID=227 WAS ALREADY USED
```

followed by

```
USE 'RETURN' IN THE FOLLOWING WHERE YOU
DON'T HAVE A NAME OR THERE IS NO NAME

    (ADDING ID=228)
```

If you have a long sequence of numbers already used, EDIT could get carried away with itself telling you about all the ID's already used; you can stop it and return to the menu by pressing any key.

If EDIT advances to a number you don't want to use for your next name, for whatever reason, you can leave it blank by pressing <'return'> four times, once for each of the name parts. In the above example you could avoid assigning a name to ID=228 in this way.

We deferred discussion on how you could assign your own numbers; let's see how that works now. You would use this if you had your own numbering scheme. For example, a popular one makes males have even numbers, their spouses the next highest odd number, and the father of each male twice his value (you=2, your father=4, your grandfather=8, your wife=3, etc.).

To select number assignment, you must again move to the Change Program Parameters menu by typing a <P>. The item of interest is item F, ADD NAME SEQUENTIALLY. It is now probably set to 1 for TRUE. Press <F> and answer the question with <0> (that's a zero, not an oh) for FALSE. You

can see that the value has changed in the menu. Press <'return'> to get back to editing names.

Select ADD A NAME by pressing <1> from the 'edit names' menu as you did before. This time EDIT asks you what ID you want to assign. You may choose any number, say <322>, followed by <'return'>. Then you will have the opportunity to enter the four name parts as described above. You may enter names in any order; 322, 12, 5, 1, 642, 641, 643 would be perfectly legitimate. As for the other method of name entry, EDIT checks to see if the ID you select already has a name assigned. If it does, you are told so and returned to the 'edit names' menu, with no entry allowed. (You may change the name using item 2 on the menu.)

FAMILY ROOTS does not restrict the ID numbers you can choose. However, you should consider the consequences of choosing numbers that are far apart for people that are relatively closely related. Each person's name and information reside on one diskette and there is a fixed range of ID's on each diskette. If you choose numbers that are on different diskettes, you may have to do a lot of diskette switching in the drive(s) in order to print out a chart, family group sheet, or even an individual sheet if it has a lot of name references. This is partly a function of how many drives you have. For example if you have one drive, and put yourself on one diskette, your father on a second, and your mother on a third, you will need to be present to unload and load each of the diskettes 6 (yes six) times in order to print 3 entries on one of the predecessor charts. By placing all three people on the same diskette, you can start that same chart, walk away, and have it done when you return from your doughnut break. Similarly if you have three drives, the placement on 3 separate diskettes would pose no particular problem since you could have all of the pertinent diskettes loaded at the same time. Thus we suggest that your guiding factor should be to place relatively closely related people on no more diskettes than you have drives.

Notice that when we started adding names, EDIT seemed to assume that your normal method was to add names sequentially. You can change that. For information on how to make EDIT assume your method of name entry is by choice, see section 10 on the CONFIGURE program.

Finally, we'd like to add a few comments about other identification schemes. The one used by FAMILY ROOTS is necessarily numeric and you must use it in some form in order to have the programs recognize relationships. However, if you want also to preserve another favorite

scheme of yours, you may define a user field (using CONFIGURE) and keep your own ID there. For example we have seen a scheme like

| User Field Value | Person Referenced |
|---|---|
| 1 | you |
| 1-1 | father |
| 1-2 | mother |
| 1-1-1 | father's father |
| 1-1-2 | father's mother |
| 1-2-1 | mother's father |
| etc. | |

You could define a (free-text) field labeled IDENT (or whatever) and place the above identifications there. See the section on CONFIGURE for more information on how to define a field, and see section 4.3 for how to enter data in the field.

### 4.2.2 Changing A Name

Returning to the entry of names, you just finished entering a name and now have the menu before you. If you want to change a name, correct a typing error, or even check on the entry you just made, you should press <2> to select the 'change a name' option. At this point the program asks you for the number associated with the name that you want to change. (You jotted down the number for that last entry, didn't you?) After you type the number, the program displays the name corresponding to the number and asks you if that's the correct name. If it isn't, answer <N> and you will be given another chance to enter the correct number. If there isn't a correct number (you got here by mistake or you just wanted to check your entry?), you can press 'return' in response to the question asking for a number, and you will be returned to the 'edit names' menu. For example you might go through a sequence like

```
PERSON'S ID # <22>

   ETHEL MASON

IS THIS THE CORRECT ONE TO CHANGE?  <N>

PERSON'S ID # <23>

   MILLIE ACORN

IS THIS THE CORRECT ONE TO CHANGE?  <Y>
```

When you find the name that you want, EDIT gives you the opportunity to change each of the four components separately; it also tells you which part of the name you are looking at and what the correct entry is. For those parts you don't want to change, simply press <'return'> and the old

entry will be preserved. Similarly, to change a part, just type in the new part. For example suppose you wanted to change Millie Acorn to Millie Ann Acorn Jones. You would go through the following sequence:

```
LAST NAME AT BIRTH:

     CHANGE ACORN TO:  <'return'>

FIRST NAME(S):

     CHANGE MILLIE TO:   <MILLIE ANN>

MARRIED LAST NAME:

     CHANGE TO:     <JONES>

TITLE:

     CHANGE TO:     <'return'>
```

There is one situation that is a little tricky because of the use of 'return' when you don't want to change something, namely, how do you erase an entry? For example, suppose you had entered JR. in the title and wanted to delete it. When you are asked

```
     CHANGE JR. TO:
```

you can't press 'return' because this leaves JR. unchanged. You can accomplish your goal by typing a CTRL E (for "Erase", i.e. hold down the CTRL key while typing the E key) followed by <'return'>.

After you change one name, you will again see the name editing menu. You can change other names, add more names, or reinitialize a name.

### 4.2.3 Reinitializing A Name/Record

The reinitialize option does a similar thing to the 'add a name' option, except it assumes that the name/record number has been previously assigned. Therefore you also must go through a sequence much as in the 'change a name' option to assure that the right name and record are found. You might use this option if you accidentally entered duplicate

names or if you decide not to keep a record for a particular person. Be careful with this option! If you answer <Y> to

MILLIE ANN ACORN JONES

IS THIS THE CORRECT ONE TO REINIT?

anything you may have entered for that person (birthdate, marriage information, etc.) will be irretrievably erased. When you answer <Y>, you are given the opportunity to enter a new name for the slot, and the information for that slot in the FAMILY file on the diskette is set to empty. If you wish, you may leave the slot as temporarily unused by pressing 'return' for each of the four name parts. Should you wish to later reuse this slot, you can enter a new name using the 'add a name' option. You will be able to find your blank slots easily since the LISTS program has several ways to expose them.

When you have finished reinitializing a name and record, you will be returned to the name editing menu. You may continue adding, changing and reinitializing names until everything is entered to your satisfaction. You can then return to the main menu by pressing 'return'. If you added or changed any names, EDIT will save them before returning to the main menu.

### 4.2.4 Storing the Names on Diskette

You don't really have to keep track of where the names are, but you may find it useful to know what happens. Each time you access a name, EDIT checks to see if that name slot is in the computer's memory. If it isn't it will load it in. Often in order to load it in it must also remove another set of names. The removed set is written back out to the proper diskette before the new set of names containing the one of interest is loaded.

As you work with your names, making various additions and changes, you will notice a fair amount of disk activity at times. This is sets of names moving back and forth from the diskettes.

At the end of your session of editing names, there may be several (perhaps as many as 75) that are still in memory and not yet on a diskette. You can force the names to the diskette at any time by pressing <4> from the 'edit names' menu. It is good practice to do this occasionally while you are editing names in order to avoid losing your work due to a power failure or some such problem. It is not essential that you force the save, however, since EDIT keeps track of what has been saved and will write names onto the diskettes when you exit to the main menu. Note that on occasion you may try to save names and nothing

happens--this is because EDIT has already saved the names during the normal in-and-out swapping and won't repeat itself.

## 4.3 Editing Records

Having set up the names that you want to keep information on using the name editing features, you are now ready to store information for those people: select <1> for EDIT RECORDS from the main menu. When you do this, the program in effect asks you who you want to store information for by giving you another menu, the "access" menu. You may want to add or change information on a single person or for logical sets of people; the program supports various accesses of these kinds. For each person's record that you select, the program will show you what is currently in the record (one by one) and give you the opportunity to change selected items in it.

### 4.3.1 Accessing Records

The access menu asks whether you want to edit records by number range, by number list, or by name. In general choosing the records you want by number is faster than by name since the program doesn't have to search the entire list of names to find the ones you want. Let's see how you would use each of the access methods.

You would choose to edit by number range when you had just entered a new set of names in sequential order and wanted to store data for those people, or if you wanted to change data for names that you knew occurred in numerical order. When you select <1> from the access menu, the program asks

```
START NUMBER?
```

and

```
END NUMBER?
```

If you want only one number, say 22, you only need to answer the first question with <22> and press <'return'> for the second, and the program will assume that your range is 22 to 22. If you went through the sequence

```
START NUMBER?  <22>

END NUMBER?    <23>
```

you would first be shown the information in record number 22 (the one for Ethel Mason in the examples given before) and given an opportunity to change whatever you wanted. When you tell the program you are finished with that one (described later), you would be shown the information in record 23 (the one for Millie Acorn in the previous example) and

given the opportunity to change things there. When you finish with that one, you are finished with the number range you selected, and the program returns you to the main menu. If you find you are trying to enter data on too many people at one go, NEVER FEAR! You can escape from the sequential display of records at any time by typing <CTRL Z> (i.e. typing the CTRL key and holding it down while you also type Z); you can remember this as "Z for ZAP". Be a little patient however since the CTRL Z doesn't take effect immediately on typing it, but at the next logical break. Finally, if you got into this option by mistake, press <'return'> in response to the START NUMBER question, and you will return to the main menu.

You would choose to edit records by number list when you want quick access to the records for one or more people. The program asks you for numbers until you press 'return' as your only answer to one of the questions, without supplying a number. An example sequence could be:

```
FIRST NUMBER?       <15>

NEXT NUMBER?        <18>

NEXT NUMBER?        <2>

NEXT NUMBER?        <484>

NEXT NUMBER?        <'return'>
```

Note that you don't have to enter the numbers in any particular order, and in fact, when you are shown the data in the records for those numbers, they will come in the order that you entered them. The maximum number of numbers you can enter in a list like this is normally 99, but you can set this using CONFIGURE. The use of 'return' to end the list of entries lets you enter as many as you like without having to tell the program how many you want to enter first. If you press 'return' in answer to the FIRST NUMBER question, the program puts you back to the main menu.

The data in the records you selected are shown to you in the order you selected, and you are given the chance to change whatever you want. As described above, if you find that your list was a bit ambitious or that you need to do something else before continuing, you can type <CTRL Z> to escape back to the main menu.

Accessing records by name works somewhat differently from the other two methods. You might use this to review and edit everybody with the same surname, the same first name, or the same married name. Alternately you may not have a person's number handy so you might ask for the records

using the person's name. In any case the program asks you for three name parts as follows in order to search the namelist:

```
LAST NAME AT BIRTH?

FIRST NAME(S)?

MARRIED NAME?
```

For each part of a name you supply, the program finds all records having all the supplied names. Several examples will illustrate this better than a lot of words:

1)
```
LAST NAME AT BIRTH?      <MASON>

FIRST NAME(S)?      <'return'>

MARRIED NAME?       <'return'>
```

This finds all records for names of people born MASON.

2)
```
LAST NAME AT BIRTH?      <'return'>

FIRST NAME(S)?      <ANN>

MARRIED NAME?       <'return'>
```

This finds all records for people having ANN as part of their first name, including, ANN, BETTY ANN, ANNIE, ANN MARY, JOANNE, etc.

3)
```
LAST NAME AT BIRTH?      <'return'>

FIRST NAME(S)?      <'return'>

MARRIED NAME?       <HARRIS>
```

This finds everybody who married a HARRIS (nominally female).

4)
```
LAST NAME AT BIRTH?      <ACORN>

FIRST NAME(S)?      <JO>

MARRIED NAME?       <'return'>
```

This finds everybody named JO ACORN at birth, including JOSEPH ACORN, JOSEPHINE AMANDA ACORN, EDDIE JOE ACORN JR., etc.

5) LAST NAME AT BIRTH? <ACORN>

FIRST NAME(S)? <'return'>

MARRIED NAME? <HARRIS>

This finds all the ladies born ACORN who married somebody named HARRIS.

Hopefully that gives you an idea of the power of this device. It also has its limitations. Every name on all the data diskettes in the drives is searched to see if it meets your specifications, which means you will experience some delays while the search goes on. Incidentally, you can abort the search by 'CTRL Z' as described above, which will return you to the main menu. Another limitation is that you can't search for everybody born an Acorn or married an Acorn at one time, but you can make two (or more) passes through the search. Also you may have noted that only the search on FIRST NAMES(S) searches for embedded names; the others (BIRTH and MARRIED) must match exactly.

On your first pass through the access menu you saw only the three choices discussed above. Sometimes there is a fourth choice, LIST IN MEMORY. This choice only appears when there is a list of names saved in the computer's memory. It could get there several ways. The most direct way to have a list in memory would be from a previous use of the NUMBER LIST access method. A list is also accumulated in memory from the NAME SET access search. You would use lists of names like this if you were going through the same group of names several times, such as, if you wanted to return everybody's parents first and then go through the same list to fill in dates. When you choose <4> on the access menu, there are no further choices to make, and the records corresponding to the names in the internal list are retrieved for you to examine. As in the other access methods, you can use CTRL Z to escape from the list to the main menu. Whenever you choose 1, 2, or 3 as your access, the list in memory is erased.

That's not the whole story on LIST IN MEMORY. A likely use of this feature comes from executing the SEARCH program. In this case you would use SEARCH to find all people having certain common features in their data. In the process of doing that, SEARCH accumulates a list of those people in the computer's memory. When you exit SEARCH, one of your options is to run any of the other programs, including EDIT. If you did that, when EDIT started operating it would still have the list of names in memory that was generated by SEARCH. There are a wide variety of ways to use this, but let's consider one possible case. Suppose you had fairly complete information on your people with ID's in the range 95 to 250, but you wanted the opportunity to review and fill in any of those with missing date of birth. You would execute the SEARCH program and

have it locate everybody in the range 95 to 250 with blank date of birth. Now you would return to EDIT and use the list of names in memory to edit only those records for people with the missing information. That means that your computer does the "sifting" for you, and lets you look at and change only the information of immediate interest to you. If you would like to consider other possibilities, please examine the capabilities for searching in section 8.

Let's look at what happens with your diskettes based on how you chose to access your records. If you use NUMBER RANGE, first one diskette will be used, then (if necessary) the next in sequence and so on until your range is exhausted. Each time one diskette is finished, EDIT will see if the next is available in one of the drives and use it if it is found. If EDIT can't find it, you will be asked to replace one of the diskettes with a message like

```
PLEASE PLACE DISKETTE NUMBER 3 INTO DRIVE 1:
PRESS ANY KEY WHEN READY
```

If you do what the message says, everything continues normally. Suppose, however, that you made a mistake and you don't have a diskette number 3 yet. To get out of this situation, you can type <CTRL Z> or answer the above with <N> (for NO); this returns you to the main menu.

Now let's consider NUMBER LIST. The records for the ID's that you supplied in the list are retrieved by EDIT in the same order you entered them. Thus if you gave EDIT a list like 2, 625, 4099, 626, 10253, 3, you might have to insert a different diskette each time the next record is to be retrieved. As described above, EDIT will tell you which diskette to switch if it is necessary, and you can escape the switch with CTRL Z or N. You should also note that if the order of the numbers isn't important to you, you might save yourself some annoyance by supplying the numbers in increasing or decreasing order, for example, 2, 3, 625, 626, 4099, 10253.

The NAME SET access search won't cause any exchange of diskettes. This is because only the diskettes in the drives are searched. If you want to search more diskettes than the ones in the drives, you will have to return to the main menu, switch diskettes, have EDIT check the drives (item 4 on the main menu), and finally, specify the NAME SET access the same way as you did it before.

### 4.3.2 Editing Individual Records

You're probably getting impatient to put data into records, if you've followed this so far, but it really doesn't take long to do all the above once you get used to it. If you've made a choice of records to access, you are now shown a display of the data in a record and asked if

For everyone:

1) BORN ON:

2) BORN AT:

3) DEATH DATE OR 'LIVING':

4) DIED/LIVING AT:

5) FATHER:

6) MOTHER:

7) NUMBER OF MARRIAGES:

8) NUMBER OF CHILDREN:

9) NUMBER OF NOTES:

For each marriage

a) SPOUSE:

a+1) MARRIED ON:

a+2) MARRIED AT:

a+3) MARITAL STATUS:

For each child:

b) CHILD #X:

For each note:

c) NOTE X:

TABLE 5. PERMANENT FIELDS IN A RECORD

you want to change anything. The permanent fields in a record are shown in Table 5. We'll get into how and what to put in each of those fields in succeeding sections, but first you need to know in general how to edit a record.

You are given four choices in the question on whether you want to change something: Y/S/N/P. If you answer <N> for NO, the program retrieves the next record that satisfies your access selection or returns to the main menu if there are none. Answering <Y> for YES puts you into the normal editing mode, while <S> for STEP allows you to step through each data field in the sequence shown on the screen. (More on STEP in a minute.) Answering <P> lets you change one or more program parameters before returning to consider this same question again.

When you answer <Y>, the program asks you

CHANGE WHICH ITEM NUMBER?

followed by a list of your choices like "(0-10/D/S/P)". Each data field is preceded by a number, and that is the number you use to tell the program which field to give you. For example, if you answer <2>, the program responds with

2) BORN AT?

Note that only the first several numbers always mean the same data item; when you start entering information for marriages and children, the list expands and the numbers change. If the numbers change, the screen display showing current entries always regenerates itself automatically so you know which number to use.

You can answer questions and supply data until you are satisfied. After each number you supply and question you answer, the program again asks you which number you want to change. You can supply numbers indefinitely, even repeating ones previously given (to correct errors or make additions). If at any time you want to see the complete display of what is present, just press D (for Display) in response to the request for a number. Pressing <P> gets you the Change Parameters Menu, while <S> puts you into STEP mode, which is described shortly. When you are all done, simply press 'return' in response to CHANGE WHICH ITEM NUMBER and the program will store your data in the FAMILY file on your diskettes and get the next record that you asked for. We suggest you try this out for a while if you are following this along for the first time, as it is much easier to do than to describe.

Each time you are asked to return data, you can type in whatever information you want, or you can preserve what was present before by pressing 'return'. For example,

CHANGE WHICH ITEM NUMBER? <2>

2) BORN AT? <LAS VEGAS>

CHANGE WHICH ITEM NUMBER? <2>

2) BORN AT? <'return'>

results in LAS VEGAS being saved for "place of birth" even though you didn't type anything on the second try. This makes it very easy to continue if you typed the wrong number. On the other hand, sometimes you may want to erase some data completely; in this case, respond with a CTRL E.

As indicated before, STEP takes you through the list of data items in the order seen on the screen. You can start STEPing by pressing <S> either from the original question about whether you want to edit, or from the CHANGE WHICH ITEM NUMBER question. Numbers higher than 8 may change from what you saw on the original screen if you enter information on marriages or children, but for the moment ignore the numbers. As described above, 'return' preserves whatever data was there before. You may want to use STEP if you have a lot of changes, and are starting a new record, or other similar circumstances. Don't worry about mistakes, since you will be returned to the other editing mode described above (supplying numbers) after you have gone through the list.

As delivered to you, EDIT will start STEP at item number 1. You can, however, set it to start at the field of your choice by setting a parameter in the Change Program Parameters menu. If you press <P>, you will be shown that menu; the relevant item is item H, STEP START NUMBER. If you set it to 5, for example, you would begin any STEP sequence on the Father field, skipping over the birth and death fields. If you are using STEP and have changed enough fields even though there are more to come, you can escape to the menu of fields using CTRL Z. This combination of features allows you to change short sequences of fields and return to the editing menu for further selections or corrections.

The name of the person associated with the record you're editing is shown at the top of the screen. What is not indicated is that the name can be accessed as field 0 (zero). If you do the following

```
CHANGE WHICH ITEM NUMBER?     <0>
```

you will see the old familiar phrases

```
USE 'RETURN' IN THE FOLLOWING WHERE YOU
DON'T WANT ANY CHANGES
```

with something like

```
CHANGING MILLIE ACORN (ID=22)
```

or perhaps

```
CHANGING (ID=49)
```

The latter case is where no name has been entered yet. You can use this both to enter the name for the first time and to change the name.

The possibility of changing the name while editing the person's record was the main reason for providing the STEP START NUMBER parameter. If you usually want to enter or change names from here, you would set the parameter to zero, and conversely, if you don't, to one. You can do this using the Change Parameters Menu whenever you want to vary your method, or you can select the value to be usually set one way or the other using the CONFIGURE program; see section 10 for more details on this possibility.

When EDIT stores data for your record, it also stores the same data in other records assuming certain relationships; see section 4.4 if you need to know about this now.

The following sections discuss entry of the four different types of information--counts, dates, free text, and people. Since the entry of counts exposes additional fields of the other types, it is discussed first.

### 4.3.3 Entering Counts

There are three different standard fields in which counts are entered--NUMBER OF MARRIAGES, NUMBER OF CHILDREN, and NUMBER OF NOTES. Each time you make an entry in one of these fields, the total number of fields and the field numbering may change, so the record display is regenerated if you're not in the step mode. Each of these fields is pretty much what the name implies but there are a few subleties.

When NUMBER OF MARRIAGES is blank, all of the Family Roots programs assume the information is unknown. If you enter 0 (zero), then that is different from being blank and is essentially saying the person is now single or was never married. If you enter 1 or more, then four new fields are added for each marriage, one for spouse, marriage date, marriage place and status. These fields are discussed in later sections.

When NUMBER OF CHILDREN is blank, the programs assume the information is unknown. This is different from entering 0, which would say that the person has no offspring now or never had any children. When you enter 1 or more, the program adds one field for each child, e.g. if you entered 14, then 14 new fields would be added. How to enter people is discussed in a later section.

For NUMBER OF NOTES, leaving the field blank is equivalent to entering 0, but the latter uses one character of storage in the record on the diskette. When you enter 1 or more, then one field is added for each note. How to enter notes is discussed later.

You may also have defined a COUNT or number field as one of your user fields. During development we had difficulty imagining how you might use this, but we didn't want to limit you. For testing we used NUMBER OF PETS. If you have a legitimate Count field defined, we'd be interested in hearing about it. A Count field that you have defined does not affect other fields like those above.

You may add a footnote indicator to NUMBER OF MARRIAGES, NUMBER OF CHILDREN or your own Count fields with the indicator referring to one of the notes. The program recognizes the carat "^" as the footnote indicator; this character was selected since it often prints as a vertical arrow, which is a common indicator for footnotes. The entry with footnote indicated would look like

NUMBER OF CHILDREN? <3^2>

which means "3 children, refer to note number 2"

You may also add what looks like a footnote to the NUMBER OF NOTES field, but this is interpreted as a note printing selector instead of a footnote. See section 4.3.5.6 for more information on footnotes and note selectors.

### 4.3.4 Entering Dates

There are two "permanent" date fields and another one for each marriage as described below. In addition you may have defined your own date fields, like Date of Burial. You may also be using an Auto Date field,

which is set using a distinct method as described later in this section. Dates can be entered in various formats, and the program converts recognized ones to a standard format to facilitate display and searches. Footnotes on dates can be entered and are recognized by the program when printing or displaying.

There are four date formats the program recognizes. In the cases where two different orders are shown below for one format, you can use one or the other but not both. The order is governed by the Day/Month/Year control parameter set in CONFIGURE as described in section 3. The recognized formats are as follows:

a) month/day/year, e.g. 1/18/1968 or 1/18/68

   or day/month/year, e.g. 18/1/1968 or 18/1/68.

b) month-day-year, e.g. 12-9-1949 or 12-9-49

   or day-month-year, e.g. 9-12-1949 or 9-12-49

c) month day, year, e.g. May 9, 1963 or December 6, 1958

   or June 15 48 (comma is optional)

d) day month year, e.g. 9 MAY 63 or 6 DEC 1856 or 15 JUN 1948 (with spaces.)

In the last two formats it makes no difference whether you enter the month names in upper case, lower case, or mixed. You don't have to type the entire name of the month, but if you shorten it too much, the conversion uses the first month satisfying the abbreviation, e.g. J is January, JU is June. The spaces that separate the numbers and month names are necessary if you want EDIT to recognize them.

If you enter only two digits for the year, EDIT adds 1900 to it. The value '19' for the century is stored in the CONFIGURATION file and can be reset using the CONFIGURE program. The passing of the century mark is not the only use for this--you might be entering a lot of dates from the 19th century, where it would be convenient to abbreviate 5/7/1836 to 5/7/36.

The recognized dates are converted to an eight digit string before storage. The order within the string depends on the order control parameter mentioned above. The two possibilities are

   mmddyyyy for month-day-year, like 11031901,

or ddmmyyyy for day-month-year, like 03111901,

where the examples represent 3 November 1901. This example could be printed by CHARTS or SHEETS as either 3 Nov 1901 or the slashed format in the same order as stored (e.g. 11/03/1901 for the first one), depending on a parameter setting in those programs. Note that if you change the order control parameter using CONFIGURE, the order of the dates you have already stored does not change, which will result in dates being printed incorrectly until you edit them into the right format.

The use of the standard format minimizes the storage required and makes it easy to do searches on years, months and days. The conversion to the standard format also facilitates validity checking on the ranges for days and months. If you get a message like

THE MONTH IS OUT OF VALID RANGE

that is your signal that the date may need to be reentered, but you do, of course, have the option of ignoring it. When the EDIT menu for a record is displayed and a date value is present, the value is displayed in the standard format so that you can see exactly what is present in the record.

The standard date fields include the two "permanent" fields

1) BORN ON

2) DEATH DATE OR 'LIVING'

and a date field for each marriage, labeled

3) MARRIED ON

(the number preceding this might be 10 or 14 or 18 etc.). These are relatively self explanatory except for DEATH DATE or 'LIVING'. If this field consists of the single letter L, then CHARTS and SHEETS display/print LIVING for the person; if it is blank, the programs assume you don't know whether the person is living or dead. Otherwise, the entry in this field is assumed to be a death date and the person is assumed to be deceased. When you enter LIVING or LIV, the program only stores the first letter, L, to conserve space.

You are not constrained to entering one of the standard date formats in date fields, and indeed such entries can be useful. For example a date of birth could be entered as "ABOUT 1833". On the other hand if you know some part of the date precisely, it is usually better to allow the program to store it in the standard format using an entry such as ??/??/1833. This allows the SEARCH program to use it. When you use a non-standard format, EDIT stores exactly what you enter, rather than converting it.

You may use footnotes on dates. You would add a footnote to a date to indicate source, uncertainty about year, or numerous other reasons. You enter the footnote indicator on the date by entering a date as described above (standard or non-standard), followed by the carat and a number, e.g.

3/13/1916^1 or 2 JAN 1980^3

The number that you use refers to the note that you will add later in a note field (see section 4.3.5.6).

There is no limit to the number of characters you can enter in a date field. You may have noticed that each time you make a data entry, you get a message about how many characters have been used in the record. The record length (256 characters or whatever you set it to during set-up) is the only real limit on data entry, i.e. any particular field may contain whatever you like in it, but the total number of characters in all the fields of a record can't add to more than the record length. The message that is displayed after each entry allows you to keep track of how much space you have left. (Incidentally, you can turn off the message if it annoys you--see section 4.5.)

The Auto Date field, if you are using it, is not set using the methods described above. (The choice to use Auto Date is controlled by CONFIGURE; see section 3). This field is set automatically any time you choose to edit a record, i.e. any time you answer

ANY CHANGES TO BE MADE HERE (Y/N/S/P)?

with either Y or S. You can see the value in the field displayed immediately below the name in the record menu as

(Last Updated 5/15/1983)

The value for the date can come from the date you entered when prompted when you started. The date is also accessible on the Change Parameters Menu as item I. If you are using the Auto Date field, you should make it a practice to verify that the date shown in the parameters menu is correct before editing any records.

### 4.3.5 Text Field Entry

There are a number of fields in which you can enter textual data such as names of places. These are free-form fields that can contain any information you want to put there.

Each text field is only limited in length by the size of the record, i.e. the sum of the length of all the fields can't be more than the record length limit (256 or whatever you set it to). It is advisable, however, to limit text fields to about 25 to 30 characters since they are printed in genealogy charts (when you elect to do so); overly long lines go to the edge of the printer paper or continue on the next lines, which doesn't keep the chart neat.

For footnotes you can use the carat "^" followed by a number to refer to a note field, as for dates. You could enter the supplemental information directly into the text field. Note the suggested restriction on long entries above however. You would use a footnote to indicate sources, possible alternatives, etc.

The text fields are as described in the following subsections.

#### 4.3.5.1 Entering Birthplace

The second field label is shown as

2) BORN AT:

As noted above you can enter (almost) anything you want here, for example

RENO NEV

RENO; NEVADA3

RENO NEVADA (3)

RENO, NEV. USA (UNCERTAIN)

RENO NEV--FARM 7 MILES SOUTH

would all be acceptable entries.

#### 4.3.5.2 Entering Address Or Place of Death

The fourth field label is shown as

4) DIED/LIVING AT

The entries that can be made here are almost the same as described above in 4.3.5.1., except that there is some special processing to allow recognition of a complete address. A complete address, including phone number, is useful for living persons, since these are the people in your family you may be contacting to obtain a great deal of the information

on your relatives. The entry of a complete address is only recognized if the person is living, i.e., if there is an L for LIVING in the DEATH DATE or 'LIVING' field (3).

A complete address is entered by separating each line by a semi-colon. For example

214 PINE ST.;RENO NEV. 89203;511-555-2221

would be such an entry. The SHEETS program will display or print this type of entry for an individual as

214 PINE ST.
RENO NEV. 89203
511-555-2221

The CHARTS program will extract characters between the last and next to last semicolons (usually the town and state) for printing in genealogy charts, which in the example case would look like

RENO NEV. 89203

If you don't want the zip code to print in this situation, you may precede it with a CTRL O (oh, not zero). Note that if you use a semi-colon between the city and state for a full address entry, they will appear on separate lines in the first case, and the program will extract only the state for the chart.

If you don't have a telephone number or don't want to use it, the final character of the address should be a semicolon. This is because the CHARTS program extracts the item between the last and next to last semicolons. For example, if you entered

214 PINE STREET; RENO, NEV 89203

without the final semicolon, then 214 PINE STREET would be printed instead of the town.

If you enter a full address for a deceased person, no formatting or city/state extraction is done by CHARTS or SHEETS.

#### 4.3.5.3 Entering Text Fields You Defined

If you defined any fields for yourself, they will appear starting at menu item 5. The ones that you defined as free-text can have anything you choose in them. You may use footnotes on these fields by ending your entry with a "^3" or something similar.

Likely fields of this type would be OCCUPATION, SEX, PLACE OF CHRISTENING, PLACE OF BURIAL, and RELIGION. If you were entering information for OCCUPATION, that could be any of the following:

FARMER

DIETICIAN

COLONEL IN THE ARMY

INVENTED THE PHONOTEL

or even

IRASCIBLE OLD GOAT

4.3.5.4 Entering Marriage Place

After number of marriages is entered (see 4.3.3) the menu will show a field labeled as

8) MARRIED AT

for each marriage. After you select the number (for example, 11, 15, 19, etc.) the program will display

11) MARRIED AT (MRG #1)?

The last item in the parenthesis shows you the marriage number, since there can be several such entries. You can put place names in this field, just as was described in 4.3.5.1.

4.3.5.5 Entering Marital Status

After number of marriages is entered (see 4.3.3) the menu will include one or more items labeled as

#) MARITAL STATUS

This one does have some unique processing. Marital status is viewed as the current or final status of a marriage (or potential marriage). EDIT recognizes the four usual status values

MARRIED
WIDOWED
DIVORCED
ENGAGED

and abbreviates these to the first letter in order to save diskette space. (Note that a person is recognized as SINGLE from your entry of

'0' in the NUMBER OF MARRIAGES field.) The CHARTS and SHEETS programs expand these to the full word in their displays and printing. You are not limited to these four values and could enter anything else you want; if you do this, your entire entry will be stored.

Questions can arise as to which one of the four status values is appropriate, especially when dealing with marriages of deceased people. "Engaged" and "Divorced" are relatively unambiguous since both people in a marriage have the same status. But consider a marriage where one partner dies before the other -- is the status for both to be "Married"? In this case we have used "Widowed" for the longer-lived partner and "Married" for the other in our own use of the programs. You may want to avoid the issue entirely by using only "Married" or by creating your own status terms.

When you first enter marriage information for one of the three other marriage fields (SPOUSE, MARRIED ON, MARRIED AT), EDIT will automatically insert an 'M' for "Married" in the MARITAL STATUS field for that marriage. You can change the value if it isn't correct. For example, when you first tell the program there were two marriages for Millie Acorn, it saves eight fields, four for each marriage, but leaves each field empty. When you then fill in

14) MARRIED ON (MRG #2)? <20 APRIL 1870>

the program also automatically inserts an 'M' into field 16, the second Marital Status field.

If you are stepping through all the fields, you can change it when you come to it, or later. If you'd like to check to see if the M is present otherwise, just answer <D> to the question

CHANGE WHICH ITEM NUMBER?

in order to regenerate the record display.

#### 4.3.5.6 Entering Notes

After you enter something larger than 0 for number of notes (see 4.3.3), you can enter text for each of the notes. The program asks in the form

#) NOTE 1?

where "#" is a field number and depends on whatever else you have entered.

The note fields are intended for short notes of interest and for footnotes. Long passages of textual information should not be put here

since they rapidly use up the available space and may not print or display very nicely in the CHARTS and SHEETS programs. Use the TEXT program or your word processing program for storage of significant textual data.

Notes of interest could include sources or facts about the person that you want highlighted, e.g. a special invention or an event during the person's life. You could also include notes to yourself here about additional research needed. When notes are displayed or printed by the CHARTS and SHEETS programs, they are preceeded by the note number and enclosed in parentheses, for example

(3: WAS RAISED BY AN UNCLE)

or (5: ADOPTED)

If you use a note as a footnote, there is no distinction in the entry of the note itself as to what kind of note it is, i.e. you enter all notes in the same way. The only difference with footnotes is that they are referenced from other fields, as described above about the use of the carat '^'. Footnotes would generally indicate sources of information (the same note could be referenced from several other fields) or qualifications of some other field (e.g. "date not necessarily exact")

It has been noted in several places that the carat "^" is the footnote character. You can choose a different footnote character if this one doesn't suit you by using the CONFIGURE program. Some caution is advised, however. If you have made extensive use of the carat and then change the footnote character to something else, the carat remains where you stored it with your data. On text fields this may not be important, but it is critical for proper decoding of the values in date fields. For example if you decide to use "*" instead of "^" for footnotes and have the date 11031901^2 somewhere in your data, it will be printed exactly like that instead of as 11 Mar 1901. Another impact of changing the character late is to be found in CHARTS. One of the parameters there is for suppressing the printing of notes in a chart. If you have this set to ON or TRUE, the footnote references are also stripped from any other fields that get printed. Changing the footnote character will cause CHARTS not to recognize those you have stored, and they will be printed. If you do decide to change footnote characters, you can, of course, edit all the fields that have them to change the character to its new value. You can find all these fields using the SEARCH program.

If you put the footnote indicator in the NUMBER OF NOTES field, it has a special meaning (we don't think you needed a footnote to explain why you had 8 notes, or did you?). When used here it is a "note selector" that is used by CHARTS and SHEETS to select which notes are to be printed (depending on a parameter setting). The characters following the

footnote characters should be a string of 1's and 0's that correspond to the notes and say, essentially "I want this one, I don't want that one, this one's good" etc. Let's see how this works with an example. Suppose you had the following notes:

(1: National Archives)
(2: History of Arkansas by Tyler)
(3: I'm not sure about this)
(4: Worked as engineer at World's Fair)
(5: Look for more info on this)
(6: Adopted)

If you were printing a chart that was to include some notes, you may not want the 3rd and 5th notes to appear. You could suppress them by placing

6Δ110101

in the NUMBER OF NOTES field for this person, and setting a program parameter (see later sections). The "110101 means "print" for each 1 and "don't print" for each 0, by position. The leading "6" is the number of notes, of course. Similarly, to print only the first 2 notes and suppress the rest you would use 6∧110000 for NUMBER OF NOTES. If any notes that are suppressed also have footnote references from other fields, the reference is also stripped. In the above examples if you had 2Δ3 in the NUMBER OF CHILDREN field (showing you were uncertain about the number of children by referring to note 3), it would print only as "2", not as "2∧3", if you suppressed note 3.

Since there is a tendency to type notes that are too long, EDIT includes a reminder message that occurs when you enter more than 25 characters for a note. The reminder asks

THAT NOTE IS A BIT LONG, REENTER?

If you answer <Y>, then you are given the opportunity to type the entire note again. If you answer <N>, the note is saved just as you entered it--no truncation will occur. For example

11) NOTE 1? <SHE WAS A BIT BATTY>

will not cause the reminder message to occur and the note would be saved as entered, while

11) NOTE 1? <SHE WAS A BIT BATTY IN HER LATER YEARS>

would cause the reminder to occur, and you could save it anyway or perhaps reword it. If you don't want to have this reminder, or if you

want it to occur on something more than 25 characters, you can accomplish that using CONFIGURE; see section 10 for details.

### 4.3.6 Entering People

There are three different types of standard fields for people, namely parents, spouses and children. The total number of fields is variable depending on the number of marriages and the number of children that you enter (see 4.3.3). You may also have defined your own people fields. All people fields are entered in the same way. You may also use footnotes in people fields.

In each person field you can enter either the person's record number or the person's full name. The two types of entries are NOT equivalent and the consequences of choosing one over the other are significant. If you choose to enter a full name, the name is stored (in the record you are editing) exactly as you enter it; the name uses space in a record equivalent to the length of the string. For example if you enter

6) MOTHER? <AUDREY ACORN>

in Millie Acorn's record, then 12 of the characters available in Millie Acorn's record will be used. On the other hand if you had set up a record for Audrey Acorn using the name editing features of EDIT (see 4.2), then you would have a record number for her, say 27. If you entered

6) MOTHER? <27>

in Millie Acorn's record, then EDIT stores only the number of Millie's record, i.e. two characters. Furthermore, any time that number is encountered in the displays and printing of all the programs in FAMILY ROOTS, it will be converted to the name you entered (or changed) for record 27. You can see this happen by entering such a number and then asking for a regeneration of the record menu (type a letter in response to CHANGE WHICH ITEM NUMBER). You should not mix the entry of names and numbers. For example, entering <27 AUDREY ACORN> uses 15 characters in Millie Acorn's record and is not recognized as a number. Similarly, entering <AUDREY ACORN (ID=27)> uses 20 characters and is treated as a full name rather than a number.

Besides storage, there are other significant consequences of the choice between number vs. name which we'll talk about in a moment, but we need to go into some reasons for choosing one over the other first.

Most notably, whenever you use numbers you also have a record set up for the person corresponding to the number, or intend to set one up soon. This implies that you want to keep track of information for this person

about their life and relationships. This will be the usual case in your genealogy research. In some cases you will have names where you are not interested in maintaining detailed information; examples could include children who died young, selected spouses where there are multiple marriages, or non-related spouses of distant relatives. Rather than use some of your valuable disk space by creating a full record for such a person (mostly empty in all probability), you would note the existence of these people only as full names in the records of the people with whom they are associated.

Another use of name over number could be when you have little information on a person, are not yet ready to start a record, but intend to change later. Note that since you can edit a record anytime, you can easily change from name to number or vice versa whenever you want. In our own research, we have found it to be less troublesome to use only the name first, and then convert to number when more information becomes available on a person, as opposed to creating a record and later deciding it wasn't needed. A little judgment is needed if you want to use your disk space to best advantage, but ultimately, the choice is your own--EDIT doesn't constrain you. However, as mentioned before, you need to be aware of the other consequences.

"Numbered names" (i.e. names which are associated with a record number) are the basis for several automatic update functions (called complementing) and for the linking of records to automatically produce genealogy charts and group sheets in the CHARTS and SHEETS programs. Thus when you choose to use numbered names rather than entering full names, the work-saving EDIT functions can occur and printouts can be produced. Complementing refers to the automatic completion of information in records other than the one you are editing, e.g. inferring a parent relationship based on a child entry; a complete description is available in section 4.4.

The fields in which people can be entered are

6) MOTHER
7) FATHER
9) SPOUSE or #)SPOUSE
#) CHILD#1 etc.

plus your own fields (e.g. GODFATHER).

If you leave a field blank, no assumptions are made. When you enter people fields with numbers, it is probably a good idea to verify your entries before going on to the next record you want to edit. When you regenerate the record menu, you can usually see the full name displayed for verification purposes. There are times when the name is not shown in this display; this is when a change of diskettes would be needed to

access the name. In this case you would see the number followed by (NAME NOT ACCESSIBLE) in the record display.

When you enter a name for a person, you aren't constrained to just the name. It can occasionally be useful to include other information in the field as well. In a number of occurrences we have included the birth and death years of an infant who died young in the person's record, e.g.

15) CHILD #2? <GEORGE FOOTE(1873-75)>

There is undoubtedly other such useful information you could include.

Footnotes are used in people fields in the same way as for others. For example entry of

6) MOTHER? <27^1>

would be recognized as record 27 with a reference to note number 1.

## 4.4 Complementing

Complementing refers to the automatic entering of inferred data in records other than the one you are editing. This section covers all the inferences used. In general complementing saves you considerable entry of data, because you only enter the information once and EDIT puts it in all the appropriate places. Nonetheless there may be times when you want to disable complementing, and you are provided four parameters under the CHANGE PROGRAM PARAMETERS option accessible from the EDIT main menu and several other places; see the next section (4.5) for details.

A word of caution is needed, too. If you make entries in a person's record, normally corresponding information will be stored in other people's records. Suppose you later find that a relationship you entered was in error and change it, e.g., a parent ID might be changed from ID 562 to ID 728. Complementing to the new record will occur, but information formerly inserted in the old record will not be deleted. In our example, information is inserted into record 728, but the information in record 562 remains unchanged and should be edited by you.

The following are the inferred automatic entries done by comlementing:

1) If marriage information is entered for a record, the MARITAL STATUS field is filled-in in the same record if blank (mentioned previously).

2) When a FATHER or MOTHER field is entered for a record, the CHILD field is completed in the parent's record.

3) When a CHILD field is entered for a record, the appropriate parent field is completed in the child's record.

4) When any marriage information is entered in a record, the same information is placed in the record for the appropriate spouse.

5) When a CHILD field is entered for a record, that same child is placed in the record of the appropriate spouse; this inference is not always possible.

6) When a CHILD field is entered for a record, the opposite parent field in the child's record is completed if it can be determined from the spouse information.

7) When a DIED/LIVING AT field is entered for a parent, EDIT asks if the same place should be saved for each spouse and each child.

We will (hopefully) clarify what this is all about by going through an example for each case.

The automatic placement of an 'M' for married in the MARITAL STATUS field whenever you enter spouse, marriage location or marriage date was discussed in detail in 4.3.5.5; please refer to that section for examples. Note that this automatic entry only occurs when the MARITAL STATUS FIELD is blank. If the field is not blank, whatever is there isn't changed.

Next let's look at the entry of a parent. Suppose John and Millie Acorn have a child Yolanda, who have record numbers 4 (John), 23 (Millie), and 32 (Yolanda) respectively. When record 32 is edited (Yolanda's), you would enter

6) MOTHER? <23>

7) FATHER? <4>

After you complete your editing and type

CHANGE WHICH ITEM NUMBER? <'return'>

EDIT will retrieve record 23 (Millie's) and look to see if it has a child with record number 32. If not it will check to see if there is a blank spot available to put child 32 into (we're still in record 23). The check to see if Yolanda is present as a child in record 23 is not restricted only to the search for number 32; if it can find Yolanda's name, it will replace it with a 32, which then links the two records. In any case child 32 will be inserted into record 23 if it's not there already; if no space was available EDIT increases the NUMBER OF CHILDREN

field (in record 23) by one. After it goes through all this, it does the same thing again for Yolanda's father by inserting child 32 into record 4 if it's not there.

Continuing in order down the list, let's look at what happens when a child field is entered. Let's use the Acorn family again, records 4, 23, and 32. In this case we have the entry

14) CHILD #1? <32>

in either John (4) or Millie's (23) record. Consider Millie first. The program knows it has to get record 32 (Yolanda's) and put the number 23 (Millie's) in either the MOTHER or the FATHER field. How does it decide whether Millie is a mother or a father? If you have defined a SEX field, EDIT will use any information you saved in it. Otherwise it tries to use the parent's name to decide. In Millie's case you will have stored her name as FIRST NAME -- Millie, LAST NAME AT BIRTH -- 'blank', MARRIED LAST NAME -- Acorn. Since Millie has a non-blank married last name, EDIT infers that she is female and stores the number 23 in the MOTHER field for record 32, Yolanda. Now consider the case where child 32 was entered in record 4 for John. Again EDIT must retrieve record 32 and decide whether John is a father or a mother. It will use your SEX field, or check the name if that isn't available. In this case the absence of a married last name isn't sufficient to guarantee that John is a man (he might be an unwed mother or a divorcee with a name change), so EDIT asks for confirmation

IS JOHN ACORN MALE?

If you answer <Y>, then the number 4 is stored in the FATHER field for record 32, Yolanda. If you answer <N> then 4 would be (incorrectly) placed in the MOTHER field. Note that in all cases the entries in Yolanda's record (32) are made unconditionally, i.e. EDIT does not check to see if the MOTHER and FATHER fields are blank before changing them; you can make this conditional if you wish by changing a parameter discussed in the next section.

Now let's move on to the entry of marriage information, again using John and Millie Acorn. This case is completely reciprocal, i.e. the processing is the same regardless of which one is entered first. The fields to be substituted are MARRIED AT, MARRIED ON, and MARITAL STATUS. As you might expect, you can put whatever you want in these and no complementing will occur if you fail to enter the SPOUSE # as well, either during this pass at editing or previously.

Suppose the following entries were made in Millie's record (23):

10) MARRIED ON? <23 MAY 1937>

11) MARRIED AT? <RENO, NEVADA>

Then EDIT would want to store that information in John's record (4) but it would need to know which marriage this was, for John. In order to find out, EDIT asks you

WHICH MARRIAGE IS THIS FOR JOHN ACORN?

If you don't know and answer with a <'return'>, no complementing will occur. When you answer with a number, it fills in that marriage for John. Suppose you answer <2>. Then when you finish editing record 23 (Millie's) EDIT will retrieve record 4 (John's), increase the NUMBER OF MARRIAGES field (in record 4) to 2 if it's smaller than that, put 05231937 (or 23051937) into field 14 (marriage date for second marriage), put RENO, NEVADA into field 15 and put M into field 16. The substitution is unconditional, i.e. EDIT doesn't check to see if the fields are blank.

The complementing for MARITAL STATUS is a little different than the others. If you (or the program) entered 'MARRIED', 'ENGAGED', or 'DIVORCED', then the same thing is entered into the complement record. If you entered something other than the four standard values, no complement entry is made since EDIT doesn't "understand" it.

These cases get a little harder to describe toward the end of the list. The next case is the placement of a child into the spouse's record. Let's stay with John, Millie and Yolanda for the moment. Suppose you entered

14) CHILD #1? <32>

in Millie's record (23). EDIT then checks the marriage information in Millie's record to see if there are any spouses. If there is exactly one then that record is retrieved and the child placed in it if appropriate. Thus in our example EDIT retrieves record 4 (John's), checks to see if there is a 32 (Yolanda) in any of the CHILD fields, and inserts it if it's not there. In the insertion process the program may need to increment the NUMBER OF CHILDREN field if no empty field is available.

The insertion of a child is more complicated when there are multiple marriages with multiple spouses entered. EDIT recognizes one situation where it is able to insert the child, but must give up otherwise. This situation is when you have entered the child into the mother's record

and EDIT is able to determine the father by matching last name at birth for the father and child. Suppose Millie Acorn had two marriages, the first to Ralph Jones (say record 7) and the second to our friend John. Also suppose she had a child by each marriage, the first being Mary Jones in record 18. Then when Mary is the child that is entered, EDIT compares the "Jones" of Mary Jones with the "Jones" of Ralph Jones, finds they match and concludes that Mary should be entered into record 7 (Ralph). Similarly when Yolanda is entered, "Acorn" is compared to "Jones", found to mismatch, then compared to "Acorn" of John Acorn, found to match, and Yolanda gets inserted into record 4 (John's). The important point for you to note out of all this is that you should always enter children into the mother's record in preference to the father's record if you want to save yourself some work.

The sixth case of complementing is the insertion of the opposite parent into the child's record when the CHILD field is completed. This one depends on the case discussed above, i.e. if it is possible to insert an entered child into the opposite spouse's record, then THAT opposite spouse is the appropriate parent for inserting into the child's record. For our example let's again use Millie's expanded clan. Suppose the entry in record 23 (Millie's) is as follows:

```
14) CHILD #1?   <18>                (Mary Jones)
```

Then as described above EDIT determines that Ralph Jones (record 7) is the father. Eventually EDIT retrieves record 18 (Mary Jones) and inserts the number 7 into the FATHER field (as well as the insertion of 23 into the MOTHER field described earlier). Again note that if multiple marriages are involved, you should enter children into the mother's record to save yourself some work.

The final case of complementing concerns place of living or addresses. This one doesn't depend on any of the previous ones but does depend on a parameter that explicitly turns it on or off, the fifth one in the list of parameters (see the next section). This case also works identically for either of the parents. If we assume the Acorn family above is still breathing and enter

```
3)   DEATH DATE OR 'LIVING'? <L>

4)   DIED/LIVING AT?     <2 COWPATH LANE; TAOS, NM;>
```

for Millie Acorn in record 23, EDIT would ask if that address was the right one for each spouse and child, after having saved Millie's data in her record. (If there is no "L" in the third field, no attempt at

complementing will occur.) According to the above family relationships, you would see

```
IS RALPH JONES
LIVING AT 2 COWPATH LANE; TAOS, NM?     <N>

IS JOHN ACORN
LIVING AT 2 COWPATH LANE; TAOS, NM?     <Y>

IS MARY JONES
LIVING AT 2 COWPATH LANE; TAOS, NM?     <Y>

IS YOLANDA ACORN
LIVING AT 2 COWPATH LANE; TAOS, NM?     <Y>
```

For each <Y> answer that you give, EDIT stores an "L" in the DEATH DATE or 'LIVING' field for the person in question. According to the above answers, the two fields would be changed for records 4 (John's), 18 (Mary's), and 32 (Yolanda's) but not 7 (Ralph's). A <Y> is the only answer that causes storage to occur, i.e. if you press <'return'> because you don't want to answer the question, nothing will change. Storage is usually unconditional, i.e. if anything was in those two fields before, it is lost, but this can be made conditional by changing a program parameter (see the next section). Note that complementing of addresses only works in one direction of the relationship. Thus if you entered an address or locale for Yolanda, EDIT would attempt to complement for HER husband and children, not for her parents and siblings.

Four parameters are provided for your control of complementing as described in the next section. It is a good practice to check the complemented records to see if the data was entered accurately.

## 4.5 Changing Program Parameters

When you enter to EDIT's main menu, you will note that the third menu item is

```
3)  CHANGE PROGRAM PARAMETERS
```

If you select that now, you will see another menu of nine or ten items as follows:

```
A)  SHOW SIZE AFTER EACH INPUT
B)  DO COMPLEMENTING
C)  UNCONDITIONAL SUBSTITUTION
D)  ENTER SPOUSE'S CHILDREN
E)  COMPLEMENT ADDRESS
F)  ADD NAMES SEQUENTIALLY
G)  NEXT NAME ID
H)  STEP START NUMBER
I)  SAVE LAST ID ON EXIT
J)  DATE
```

The last item won't appear if you're not using the Auto Date feature.

Each time you select an item and enter a value, you enter to this menu. To escape back to the main menu, press 'return' instead of a letter. As noted in previous sections, there are many other places where you may access this menu as well. If you got here from other than the main menu, you will resume your previous operation when finished here.

Parameters A through F, plus I, have on/off (or true/false) values. The note below the menu reminds you (or instructs you if you are a novice) that '1' means "true" (or on) and '0' means "false" (or off). Your response to the question asking for a new parameter value should be 0 or 1. You can change parameters G, H, and J by entering an appropriate value followed by an <'return'>. If you accidentally ask for the wrong parameter, answer the question with an <'return'> and the old value will be preserved. You can then select the right one when the parameters menu is regenerated.

We'll talk about the effects of each of the parameter selections below. This discussion assumes you have already read the relevant sections about EDIT. Note that the usual values can all be reset using the CONFIGURE program (section 10).

a) You will recall that a message is displayed after each data entry you make for a record showing you how much space is used in the record. While this is useful information, we felt that some people might find this message annoying. The occurrence of the message is controlled by the first program parameter and it is normally on. You can turn it off by selecting the parameter and entering a <0> in response to the new value question, i.e.

```
PRINT SIZE AFTER EACH INPUT?      <0>
```

b) The second program parameter turns all of complementing on or off; it is normally set to on. If you turn it off, the program will not

do any of the complementing described in section 4.4. Normal use of this parameter might be to turn it off, make an entry or correction on which you were previously having a problem, then turn complementing on again.

c) The third program parameter controls unconditional complementing. When it is on, complement fields are changed regardless of their previous content. When it is off, EDIT checks the content of fields to see if they are blank before entering data. If the field is blank, the new data is entered and if not blank the field is not changed. Unconditional complementing is normally on, since the last data you enter is probably the most accurate.

d) The fourth program parameter controls automatic entry of the spouse's children and of the opposite parent in the children's records. This capability is normally on. You might want to turn it off if EDIT is inaccurately making entries or if you don't like the order in which the names are inserted.

e) The fifth parameter controls complementing of addresses. It is normally on. If it is on, the address questions are asked and fields changed when you give your OK. If it is off, the questions are not asked and no complementing will occur. You would probably turn this off if the families you are dealing with have grown children no longer living with their parents.

f) The sixth parameter controls how names are added. It is normally on unless you reset it in CONFIGURE. If it is on, EDIT assumes that the next name you want to add should become associated with the ID number in the seventh parameter, NEXT NAME ID. If it is off, EDIT asks you what ID number you want to use whenever you try to add a name. Your choice depends on how you prefer to add names.

g) The seventh parameter is the ID number of the next name that will be added if sequential name addition is being used (parameter F). When you use EDIT for the first time, its initial value is 1. Every time a name addition is attempted, 1 is added to this parameter. After you have used EDIT at least once, the initial value is the larger of

    1) one more than the last value used,
or  2) the value in the CONFIGURATION file.

You would reset the value if you wanted to begin a sequence of names in a different place.

h) The eighth parameter is the start position for stepping through the fields when you are editing a record. It is normally preset to 1,

which means starting on the Date of Birth field. You would set it to 0 if you wanted to edit the person's name as well as his or her record during the stepping procedure. It can be set to any other value as well and could, for example, be used to step through only the marriage information; the appropriate value for this depends on how many fields you defined for yourself.

i) If it is on, or 1, the ninth parameter causes the program to save the last ID number you used when adding names sequentially (parameter F on). If you didn't add any names at all or if you didn't try to add names sequentially (parameter F off), then nothing will be saved. If at least one name was added sequentially, EDIT will save the last ID used on the Main Programs diskette when you exit; if that diskette isn't available in a drive, EDIT will ask for it. If the parameter is off or 0, none of this occurs, regardless of what you did during your session. The default is 'on', since you will usually want to resume adding names where you last left off when you next use the program. This parameter was added primarily for library users of Family Roots, since formerly each user affected the next person that ran the program.

j) The last parameter is the date. This will not appear if you are not using the Auto Date feature since EDIT has no other need for a date. The initial value is set from the answer you gave when prompted for a date when you started, if you have selected this feature. When first starting EDIT it is advisable to check the date to be sure it is correct. The date is automatically stored in every record that you add or change.

   If you run another main program except LISTS before using EDIT and change the date there, that new value will be the one used by EDIT.

## 4.6 Exiting EDIT

When you choose EXIT on the main menu or press <'return'> as your choice on the main menu, the EXIT menu will appear with one of four choices for you to make:

1) RUN ANOTHER PROGRAM
2) CHECK FREE SPACE
3) RETURN TO 'EDIT'
4) END SESSION

If you choose the first, EDIT must have a program diskette available in drive 1 so it can show you what programs are available. You will be prompted for one with a message like

```
PLACE PROGRAM DISKETTE IN DRIVE 1:
PRESS ANY KEY WHEN READY
```

EDIT then reads the program diskette, and the next thing you see on your screen is the menu of programs contained on that diskette. (Note: EDIT may "know" there is a program diskette already available; however, there is no way to prevent a crash if it tries to read it but you have removed that diskette or switched it.)

You may sometimes wonder how much space you have left in the computer's memory. You check it using choice 2 on the EXIT menu. The response may take a few seconds if you don't have much left. The number shown is the remaining space, in number of characters (or bytes). The number will remain displayed until you press a key on the keyboard, after which the EXIT menu is regenerated. Actually, it appears as if the number just disappears. This number is totally unrelated to the amount of space left on a data diskette.

If you didn't mean to get out of EDIT, i.e. you pressed the wrong number or you pressed 'return' by misteak (oops), you can get back to the main menu by pressing <3> on the EXIT menu. You would also use this if you took a little detour to check on your free space before continuing.

Finally, the fourth choice on the EXIT menu is a true exit. When you pick this one, you are back at the BASIC level. If you do this by mistake, you can get back to EDIT with variables preserved by typing GOTO 20000. You should be a bit wary of doing much after a GOTO 20000 since the internals of the program can easily get messed up. It is usually better to restart by

```
LOAD"START",8
RUN
```

(where you put the program diskette in drive 1:) if it is not essential to preserve something you just did. Note that person records and names are saved on the diskettes as you work, so there is seldom much of your data in memory at one time.

If you press <'return'> as your exit choice, that is the same as pressing <1>, i.e. it is assumed you want to continue your session using a different program.

## 4.7 Miscellaneous Information on EDIT

This section either reiterates or exposes various features of EDIT which you may find useful.

a) Whenever you see

PRESS ANY KEY TO CONTINUE

the program is pausing so that some information which may be of interest to you doesn't scroll off the screen (disappear off the top of the screen). You can go on by pressing any key, as suggested.

b) If you are editing a series of records and need to escape back to the main menu, type <CTRL Z>. Be patient. The program will check for it at the next logical break point, not immediately.

c) In general if you have no answer for a question or no data to supply, pressing the 'return' key will either let you escape or preserve the previous data.

d) EDIT will not allow you to put more than the maximum number of characters, i.e. 256, or whatever you set it to, into a record. An error message will result if you try. You will be put back to the record menu to try to shorten the record if you elect to do so. The shortening effort doesn't need to be restricted to only the latest entries. The only constraint is on the total number of characters in a record, not on which fields contain them.

e) If you encounter an error and need to restart the program without erasing the variables, type GOTO 20000. This will work most of the time, but not always, since sometimes the BASIC pointers are messed up. When you have to do this, your first action should be to store any work (e.g. added names) you have already done onto the diskette, just in case of further problems.

f) EDIT saves names on the diskettes in groups, usually 15. There is a fixed amount of space available for the 15 names, as defined by you when you used CONFIGURE the first time. Usually the space is quite adequate since long and short names will appear in any one group, and they balance each other out. Infrequently you may get a message

NOT ENOUGH SPACE FOR CHANGED NAMES

This means that you had a group of names that were all long and used up the available storage space. This group is not saved when the message occurs. To fix the problem you may shorten one or more names in the group, or you could disperse the names so that long ones don't all appear together as a group.

# 5. DETAILED USE OF CHARTS

The CHARTS program prints pedigree and descendants charts from the data you store on diskette using the EDIT program. Since the EDIT program is central to the understanding of the data, we suggest you read about EDIT if you haven't done so already. For the most part, options for specific data won't be discussed here. In order to get started with CHARTS, you can use the procedure described in section 3 and choose CHARTS from the programs menu, or you can get to the programs menu after having run one of the other FAMILY ROOTS programs.

The drive with the program diskette will whirr for a while as CHARTS is being loaded, followed by a message like

PRESS ANY KEY WHEN YOUR DATA DISKETTE IS IN THE DRIVE

Be sure that at least one data diskette is present and also that every drive has some diskette in it. When you press a key, CHARTS will read every diskette to find out the location and identity of the data diskettes.

## 5.1 CHARTS Main Menu

After the diskettes are checked, the CHARTS main menu will appear, giving you the following choices:

1) PRINT DESCENDANTS CHARTS
2) PRINT FREE-FORM PEDIGREE CHARTS
3) PRINT STANDARD PEDIGREE CHARTS
4) PRINT COMPRESSED PEDIGREE CHARTS
5) CHANGE PROGRAM PARAMETERS
6) CHECK DISKETTES
7) EXIT PROGRAM

The titles are fairly indicative of the function to be performed. The first four choices cause one or more charts of the type indicated to be printed on your printer or shown on your screen. The program parameters that you can control mainly have to do with how things are formatted for printing. CHECK DISKETTES causes all of the drives to be reexamined, in case you switched diskettes. And, of course, EXIT ends your session with CHARTS. In later subsections we'll discuss the results of each of these choices in more detail, as well as the parameters available.

## 5.2 Accessing Records and Names

When you select any of the first four options of the main menu, you will need to tell CHARTS which people or record numbers you are interested in. You are given a choice of specifying a number range, a list of

numbers or parts of a name, and sometimes a list in memory. In fact this choice works exactly the same as in EDIT, and we suggest you reread (read?) section 4.3.1 if you need to refresh yourself. That way we can avoid having to write the same section again here, to our great relief.

Each person you select via the access menu is the starting point for a chart; you do not have to select all the people that you want to have appearing somewhere in the chart. Thus if you choose a pedigree chart for yourself, CHARTS determines all the relationships and includes the appropriate people -- your mother, father, grandparents, etc. Similarly a descendants chart for your paternal grandfather includes your father and his brothers and sisters, all their children, and so on.

For each name that satisfies your access selection, the name is retrieved from the diskette. If the diskette isn't available, you will be asked to load it into a particular drive. Once the name is retrieved, you will be asked a question like

```
PRINT FREE-FORM PEDIGREE CHART FOR
HENRIETTA TWINKLETOES WADSWORTH

OK TO CONTINUE (Y/N/D/P)?
```

with the specific type of chart to be printed mentioned. This gives you the opportunity to verify the selection before continuing with the chart. Choosing <Y> or <'return'> sends you on your merry way, while <N> goes back to your access choices to find the next one. The 'P' is here to let you access the CHANGE PROGRAM PARAMETERS menu before starting, since most of these affect how the various charts are printed (see 5.4 for more details). After using <P> you will be returned to this same place with the above question repeated. If you want to remove yourself from a self-made trap and return to the main menu, type <CTRL Z>; this might happen if you were too ambitious with your access selections. Choosing <D> puts the chart on the display screen instead of the printer.

## 5.3 Printing Genealogy Charts

You can print automatically generated charts showing either predecessors or descendants for each person selected as a starting point. There is one type of chart for descendants (free-form) and three types of charts for predecessors, the free-form, the standard (formatted), and the compressed. Examples of each are shown on the following pages. On free-form charts you are given the option of printing only names or of printing both names and other information appearing in records on the direct lineage. It should be emphasized that CHARTS constructs the charts based on the numbers entered in person fields using the EDIT program; if you have entered a name rather than a number in a person

field, only that name will appear on a chart and no further ancestors or children related to that name will be found or printed.

During the printing of a chart, it will not be unusual for CHARTS to ask you to switch diskettes. This is because a record on one diskette points to a record on another via the person numbers you used. When CHARTS asks

```
PLEASE PLACE DISKETTE NUMBER 3
INTO DRIVE 2:
PRESS ANY KEY WHEN READY
```

just follow the directions. The diskette number refers to the one set up by EDIT, which should be marked on the diskette label (if it isn't, use the WHAT utility to figure out which diskette is which). If you don't have the requested diskette or you want to abort the chart, answer <N> or <CTRL Z>; you will be returned to the main menu.

A number of the program parameters affect all of the charts, while some affect only particular ones. The particular ones are discussed in context with the charts they affect. The ones that affect all charts are as follows (also see section 5.4 for more information):

a) USE MONTH NAMES. You use this to select the date format, either like 9 Jun 1850 or 09/06/1850, for all dates that are stored in the standard way (for information on the standard method of storing dates, see section 4.3.4). Other dates are printed exactly as you saved them, for example: About 1840.

b) PRINT ID WITH NAMES. If you have this on, the ID number for a person is printed with the name, either before or after it depending on the type of chart.

c) TOP-OF-FORM AFTER PRINTS. This controls whether the printer will eject a page (go to the top of the next sheet of paper) when it is finished with a chart. This is here to let you save some paper, since computers are great at wasting paper.

d) PRINT SIZE. This is your selection for the size of print, in number of characters per inch, that will be used for the chart. The possible sizes are determined by your equipment capability and what you set using CONFIGURE.

e) USE LAST NAME FIRST. This controls whether the names in the chart are printed as

```
            AMANDA HEMMINGBONE
or          HEMMINGBONE, AMANDA
```

f) PRINT MARRIED NAME. For married women this controls whether their maiden or married name will appear in the chart.

g) TAB BEFORE HEADER. A "header" is the information printed before a chart that shows, usually, who the chart is for and perhaps other information like date of preparation. CHARTS includes standard headers that you may use, and this parameter affects how wide the left margin is for the header. It is used to position the header on the left or right so it can be seen if you bind your charts.

h) ASK FOR HEADER. You use this to define your own header if you don't want to use the standard one. A typical use would be to insert the name of the preparer of the chart at the top. When CHARTS asks for the header, there are a series of questions involved. See section 5.4 if you want the details.

We'll look at each type of genealogy chart in the following discussion, giving you your options and describing how to read the chart.

### 5.3.1 Printing Descendant's Charts

The descendants chart starts with the person you selected and shows all people (from your diskettes) directly descended from that person. This chart may contain only names or you may elect to include all the other information for each person in the chart as well. This choice is governed by parameter 5, PRINT NAMES ONLY, on the parameters menu. It is an on/off or true/false type of value, and usually starts out being false, meaning "include everything." The parameter does not affect the appearance of the other parent in the chart, i.e. 'MOTHER:' or 'FATHER:' will appear after each name if the parent NOT on the direct line is available in the person's record, regardless of the parameter value. Although it is not shown in the figure, this chart can continue for many pages, depending on how much information you have, how many generations you choose, and what information you include.

The standard header printed for the descendants chart shows who the chart is for (i.e. whose descendants) and the date the chart was printed. You may use this header or define your own, as controlled by the 14th parameter on the parameters menu.

After the main header, column headers are printed, like

```
                                    GREAT
                          GRAND     GRAND
PERSON      CHILDREN      CHILDREN  CHILDREN    etc.
```

See figure 1 for an example. You read the chart by following the vertical lines down the sheets. Thus, for example, all great grandchildren's names would appear immediately after (no spaces) the dotted line that begins from the GREAT GRAND CHILDREN header. In the figure you should find the 3 children of Josiah Bice by following the CHILDREN line down the page, each of the children's children appear after the parent's name, etc. If you choose to print more generations than can comfortably fit the width of your paper under the usual scheme, CHARTS omits the header and halves the spacing in order to squeeze everything in.

Information printed close to the right margin may try to run over. In that case, a new line is added and the extra information is aligned under the beginning of the line. See figure 2 for an example. Note that if you would like to have a wide right margin, you should set your available paper width in CONFIGURE to a value smaller than the actual width. For example if your paper is 8½ inches wide, saying it is 7½ inches will leave a 1 inch margin.

There are five parameters which you can select which will affect the printing of a chart, in addition to those that affect all the charts, namely

a) the maximum number of generations (normally 7)

b) the appearance of notes on the chart when you have selected to include everything (normally on)

c) the selective suppression of notes (normally off; also see section 4.3.5.6)

d) the inclusion of empty fields when you have elected to include everything (normally off)

e) whether you want gaps between pages (normally false)

You can access four of these parameters using option 5 from the main menu or by typing 'P' for parameters when you are asked to verify the person's name before continuing. See section 5.4 for more information.

### 5.3.2 Printing Pedigree Charts

A pedigree (i.e. predecessor) chart starts at the left margin with the person you selected (one chart per person selected) and shows the ancestors of the person progressing toward the right. There are three

DESCENDANTS OF JOSIAH BICE (ID=19) 19 JAN 1984

```
                                GREAT
                        GRAND   GRAND
PERSON      CHILDREN    CHILDREN CHILDREN
!           !           !        !
!JOSIAH BICE (ID=19)
!           !
!           !ALONZO W. BICE (ID=175)
!           !     MOTHER: HARRIET COCHRAN (ID=18)
!           !           !
!           !           !HARRIET BICE (ID=482)
!           !           !     MOTHER: MARY DAVIDSON (ID=78)
!           !           !
!           !           !EMEL BICE (DIED AT 2) (NO ID)
!           !           !
!           !           !WALTEN BICE (ID=417)
!           !           !     MOTHER: MARY DAVIDSON (ID=78)
!           !
!           !MARY LUCINDA BICE (ID=176)
!           !     MOTHER: HARRIET COCHRAN (ID=18)
!           !           !
!           !           !HARRIET LAVINA MAPES (ID=419)
!           !           !     FATHER: JACOB MAPES (ID=65)
!           !           !
!           !           !FLORENCE A. MAPES (ID=418)
!           !           !     FATHER: JACOB MAPES (ID=65)
!           !           !
!           !           !ANTHEN D. HOSTETLER (ID=446)
!           !           !     FATHER: HENRY ADAM HOSTETLER (ID=66)
!           !           !
!           !           !ROLLEY R. HOSTETLER (1883-6) (NO ID)
!           !           !
!           !           !ELMER B. HOSTETLER (ID=429)
!           !           !     FATHER: HENRY ADAM HOSTETLER (ID=66)
!           !           !
!           !           !ROY W.D. HOSTETLER (ID=497)
!           !           !     FATHER: HENRY ADAM HOSTETLER (ID=66)
!           !
!           !WILLIAM HENRY BICE (ID=16)
!           !     MOTHER: HARRIET COCHRAN (ID=18)
!           !           !
!           !           !LAURA BICE (ID=17)
!           !           !     MOTHER: ELIZABETH YEAST (ID=15)
!           !           !           !
!           !           !           !ESTHER JOSEPHINE MAYER (ID=20)
!           !           !           !     FATHER: ERNEST JACOB MAYER (ID=13)
!           !           !
!           !           !MARY E. (MOLLY) BICE THOMPSON (ID=135)
!           !           !     MOTHER: ELIZABETH YEAST (ID=15)
```

FIGURE I

DESCENDANTS OF WILLIAM HENRY BICE (ID=16)
19 JAN 1984

```
                                                    GREAT
                                          GREAT     GREAT
                          GRAND           GRAND     GRAND
PERSON      CHILDREN      CHILDREN        CHILDREN  CHILDREN
!           !             !               !         !
!WILLIAM HENRY BICE (ID=16)
!       B: 07 Apr 1860 @ KANSAS
!       M: 29 Sep 1881 TO ELIZABETH YEAST (ID=15) @ YORK NEB
!       D: 05 Oct 1886 @ SO.OF WILLIAMSBURG VA
!       (1: DIED OF TYPHOID FEVER)
!       4 Children
!           !
!           !LAURA BICE (ID=17)
!           !       B. 03 Sep 1883 @ O'NEAL NEBRASKA
!           !       M. 06 Jun 1916 TO ERNEST JACOB MAYER (ID=13) @
!           !          KLAMMATH FALLS OREGON
!           !       OCC: TEACHER
!           !       D: 05 May 1970 @ LAS VEGAS NM
!           !       (1: A.B. DEGREE 1933 NMNU)
!           !       1 Child
!           !       MOTHER: ELIZABETH YEAST (ID=15)
!           !           !
!           !           !ESTHER JOSEPHINE MAYER (ID=20)
!           !           !       B: 17 Oct 1920 @ KLAMMATH FALLS ORE
!           !           !       2 Marriages
!           !           !       M: 20 Aug 1939 TO HARRY MATTHEW VORENBERG
!           !           !           (ID=23) @ LAS VEGAS NM
!           !           !       Widowed
!           !           !       RM: 25 May 1979 TO HOWARD JONES (ID=24) @
!           !           !          AMARILLO TX
!           !           !       Living @ AMARILLO TX
!           !           !       3 Children
!           !           !       FATHER: ERNEST JACOB MAYER (ID=13)
!           !           !           !
!           !           !           !STEPHEN CARL VORENBERG (ID=1)
!           !           !           !       B: 13 Mar 1943 @ LAS VEGAS NM
!           !           !           !       M: 09 Jan 1969 TO PATRICIA JEAN
!           !           !           !          MINGER (ID=2) @ NASHUA NH
!           !           !           !       OCC: ENGINEER
!           !           !           !       Living @ LEXINGTON MA 02173
!           !           !           !       (1: CO-OWNER OF CHARTING COMPUTER)
!           !           !           !       1 Child
!           !           !           !       FATHER: HARRY MATTHEW
!           !           !           !               VORENBERG (ID=23)
```

FIGURE 2

different formats for pedigree charts that can be printed by the CHARTS program, namely

1) free-form
2) standard
3) compressed

Examples of each of the charts are shown in Figures 3, 4 and 5 respectively. The choice of type of chart is made at the main menu (in case you jumped into this).

The features of each chart, their uses, and the program parameters that affect them are discussed in the following sections.

### 5.3.2.1 Printing a Free-Form Pedigree Chart

The free-form pedigree chart is related to the format used for the descendants chart, as you can see by comparing Figures 1 and 3. It also may contain names only or all the information for a person based on the setting of the PRINT NAMES ONLY parameter. With more than 3 or 4 generations selected, this type of chart often runs for several pages.

The standard header printed for the free-form chart shows who the chart is for (i.e. whose ancestors) and the date the chart was printed. You may use the standard header or may define your own based on the setting of the ASK FOR HEADER parameter.

The advantages of the free-form chart are that a great deal of information can be packed into it and that it can show a large number of generations in one chart. Admittedly it may be a little difficult to read until you get used to it.

The column header at the top of the chart is your guide for reading the relationships (see Figure 3). For example if you follow the line down the page starting at

GRAND
PARENTS

everybody touching the line at the right is that relation to the person whose chart it is. If you start reading at the left of the chart, the father will appear above the person, one line right, while the mother will appear below. This continues as you progress to the right. If you examine the figure, you'll see that sometimes the mother or father is missing; in this case CHARTS doesn't leave a blank spot indicating omitted information. Only the information that is available is used, and it is packed into the available space.

```
          PREDECESSORS OF EPPA HUNTON   (ID=408)          03/07/1983


                    GRAND
PERSON     PARENTS  PARENTS
!          !        !
!          !        !WILLIAM HUNTON (ID=552)
!          !        !     B: CA 1725 @ LANCASTER CO VA
!          !        !     M: CA 1750 TO JUDITH KIRK (ID=553) @ FAUQUIER CO. VA
!          !        !     D: 12 Feb 1809 @ FAIRVIEW NEAR NEW BALTIMORE
!          !        !     (1: LEFT LANCASTER CO. VA 1750 TO FAUQUIER)
!          !        !     (2: WILL P. 398 RIXEY BOOK-2/12/1809)
!          !        !     9 Children
!          !
!          !JAMES HUNTON (ID=551)
!          !     B: 31 Jul 1763 @ FAIRVIEW FAUQUIER CO VA
!          !     2 Marriages
!          !     M: 06 Feb 1786 TO HANNAH LOGAN BROWN (ID=555) @ KING GEORGE CO. VA
!          !     RM: 01 May 1809 TO ELIZABETH MC NISH (ID=415)
!          !     OCC: FARMER
!          !     D: D @ THE VALLEY ADJOINING FAIRVIEW
!          !     8 Children
!          !         !
!          !         !JUDITH KIRK (ID=553)
!          !         !     B:  @ ?
!          !         !     M: CA 1750 TO WILLIAM HUNTON (ID=552)
!          !         !     D: D @ FAIRVIEW FAUQUIER CO VA
!          !         !     (1: FAIRVIEW FAMILY HOME NEAR NEW BALTIMORE)
!          !         !     11 Children
!
!EPPA HUNTON (ID=408)
!     B: 30 Jan 1789 @ FAIRVIEW FAUQUIER CO VA
!     M: 22 Jun 1811 TO ELIZABETH MARYE BRENT (ID=556) @ FAUQUIER CO VA
!     OCC: TAUGHT SCHOOL OFFICER WAR OF 1812
!     D: 08 Apr 1838 @ FAUQUIER CO VA
!     (1: VA LEGISLATURE)
!     11 Children
!         !
!         !HANNAH LOGAN BROWN (ID=555)
!         !     B: 11 Feb 1765 @ KING GEORGE CO.
!         !     M: 06 Feb 1786 TO JAMES HUNTON (ID=551) @ KING GEORGE CO. VA
!         !     D: 04 Mar 1806 @ ?
!         !     8 Children
```

FIGURE 3.

FREE-FORM PEDIGREE CHART

CHART NO:


FIGURE 4.
STANDARD PEDIGREE CHART

CHART OF MARY VIRGINIA (MOSS) RECTOR (ID=33), SCHAUMBERG ILLINOIS

1. MARY VIRGINIA (MOSS) RECTOR (ID=33) b 31 Aug 1897, ARKANSAS, liv SCHAUMBERG ILLINOIS, m 21 Jun 1921, FORT SMITH ARKANSAS.
2. ELIAS RECTOR (ID=39) b 13 Jun 1868, FORT SMITH ARK, d 18 Apr 1953, FORT SMITH ARKANSAS, m 10 Jan 1889, FORT SMITH ARKANSAS.
3. ANNA LUCILLE HUNTON (ID=58) b 04 Nov 1866, VIRGINIA, d 31 Oct 1954, PARK RIDGE ILL, m 10 Jan 1889, FORT SMITH ARK.
4. ELIAS (MAJ) RECTOR (ID=53) b 28 Sep 1802, HAIDSTOWN VA FAUQUIER CO, d 22 Nov 1870, ARKANSAS, m 26 Nov 1835, FT SMITH ARK.
5. CATHERINE JAMIMA DUVAL (ID=54) b --/--/1818, WELLSBURG VA (NOW W.VA), d 13 Dec 1891, FT SMITH ARK., m 26 Nov 1835, FT SMITH ARK.
6. JOHN BRENT HUNTON (ID=63) b 27 Sep 1821, FAUQUIER CO VA, d 30 Apr 1900, FT SMITH ARK, m 01 Oct 1861.
7. MARY MOSS (ID=63) b ?, FAIRFAX VA, d CA 1884, FT SMITH ARK, m 01 Oct 1861.
8. WHARTON RECTOR (ID=381) b 1772-3, VA, d ?, ?, m PRE 1806, VA.
9. MARY VANCE (ID=489) b NORTH CAROLINA, d PRE 1806, ?, m PRE 1806.
10. WILLIAM DUVAL (ID=73) b --/--/1784, FREDERICK CO. MD, d 30 Jun 1851, FT SMITH ARK, m PRE-1820, WELLSBURG BOONE CO. WVA.
11. HARRIET TABITHA DODDRIDGE (ID=74) b ??/??/1802, WELLSBURG W VA, d 15 Jan 1841, FORT SMITH ARK, m PRE-1820, WELLSBURG BOONE CO. WVA.
12. THOMAS E. HUNTON GEN. (ID=534) b 04 Aug 1772, FAUQUIER CO VA., d 27 Oct 1826, VA. BURIED IN JOS. HUNTON FAM. CEMETERY, m 20 Aug 1817, VA.
13. MATILDA BRENT (ID=610) b 15 Apr 1787, VA, d 19 Apr 1854, VA, m 20 Aug 1817, VA.
14. FREDERICK RECTOR (ID=376) b 16 Jul 1750, HAIDSTOWN VA, d 24 Oct 1811, OAK HILL KASKASKIA ILL TERR., m 07 Feb 1770.
17. ELIZABETH CONNOR (ID=388) b --/--/1755, NORFOLK VA, d 18 Sep 1811, KASKASKIA ILL. TERRITORY, m 07 Feb 1770.
20. BENJAMIN DUVAL (3) (ID=671) b 05 Nov 1746, Q.ANNE PAR. PR. G. CO. MD, d 06 May 1828, MD, m ??/??/1772, MD.
21. JEMIMA TAYLOR (ID=724) b MIDDLE PLANTATION MD, d PRE1807, m ??/??/1772, MD.
22. JOSEPH DODDRIDGE (2) (ID=538) b 14 Oct 1769, W.VA/PA, d 09 Nov 1826, m PRE1795.
23. JEMIMA BUCKEY (BUKEY) (ID=682) b ??/??/1777, ?, d SEPT 1829, m PRE1795.
24. WILLIAM HUNTON (ID=552) b CA 1725, LANCASTER CO VA, d 12 Feb 1809, FAIRVIEW NEAR NEW BALTIMORE, m CA 1750, FAUQUIER CO. VA.
25. JUDITH KIRK (ID=553) b ?, d D, FAIRVIEW FAUQUIER CO VA, m CA 1750.
26. THOMAS C. BRENT (ID=689) b POST 1774, d POST 6/30/1831, HANCOCK TOWN VA, m VA.
27. NELLIE PEYTON (ID=687) m VA.
32. JOHN RECTOR (ID=366) b 01 Dec 1711, TRUPBACH NASSAU-SIEGEN GERMANY, d 11 Mar 1773, RECTORTOWN VA, m -- Mar 1731.
33. ANNA CATHERINA FISHBACK (ID=368) b --/--/1714, GERMANNA VA, d --/--/1775, HAIDSTOWN VA, m -- Mar 1731, VA.
34. LEWIS CONNOR (ID=378) b ?, d D, ?, m NORFOLK VA.
35. ANN WHARTON (ID=379) b ?, d D, ?, m NORFOLK VA.
40. BENJAMIN DUVAL (2) (ID=534) b 29 May 1719, Q. ANNES PAR. PR G CO MD, d ??/??/1800, MD, m ??/??/1743.
41. SUSANNAH TYLER (ID=38) b 24 Feb 1717, MD, d POST1800, m ??/??/1743.
42. RICHARD TAYLOR (2) (ID=675) d ??/??/1757, MD, m .
43. JEMIMA GODMAN (ID=673) d PRE1763, m .

FIGURE 5.

COMPRESSED PEDIGREE CHART

The example in Figure 3 also has included on it information about the people in the chart. This information applies to the name directly above it in each case, not to the name below. If you choose to print more information than can usually fit the width of your paper, CHARTS omits the column header and halves the spacing between the vertical lines, as shown in the example in Figure 6. For 8½ inch paper with 16.5 characters per inch size, this collapse will occur if you elect to print more than 10 generations. For larger print sizes, the collapse occurs at a smaller number of generations. This feature allows you to squeeze many generations into a chart without being overly restricted by your paper width.

As with the descendants chart, information printed close to the right margin may not fit on one line. In this case it is aligned on the next line beneath the related data. There may be occasions when CHARTS has difficulty doing this because there are no separator characters (spaces or punctuation) available as a splitting point. In this case it "gives up" and wraps it to the next line.

There are a number of additional parameters you can choose beyond those that affect all charts. These are the same as the ones for the descendant's chart described in 5.3.1 namely,

a) the maximum number of generations (normally 7)

b) the appearance of notes (normally on)

c) the selective suppression of notes (normally off)

d) the inclusion of empty fields (normally off)

e) the gaps between pages (normally false)

See section 5.4 for more information. If you want to change any of these parameters, you can select '5' from the main menu or press 'P' when you are asked to verify the person selected before continuing.

#### 5.3.2.2 Printing a Standard Pedigree Chart

The Standard chart is probably quite familiar to you, as it is often used by genealogists. The chart is printed on a single sheet of paper and includes a person, parents, grandparents, and great-grandparents, as shown in Figure 4. If you asked for ID numbers to be printed with the names, they appear in front of each name. The birth, marriage and death (if applicable) dates are printed. The corresponding 'places' are also printed if there is enough space on the line for something intelligible, i.e. truncation may occur but at least 12 characters will be printed for each place. In the case of multiple marriages, the marriage information shown is only the one pertinent to the spouse that appears in the chart.

PREDECESSORS OF HANS MATHEMEY MINGER (6) (ID=527) 03/07/1983

```
0    1    2    3    4    5    6    7    8    9    10   11   12   13   14   15
!    !    !    !    !    !    !    !    !    !    !    !    !    !    !    !
!    !    !    !    !    !PETER MINGER I (ID=667)
!    !    !    !    !
!    !    !    !    !HANS MINGER (2) (ID=666)
!    !    !    !    !    !
!    !    !    !    !    !ANA UNKNOWN I (ID=747)
!    !    !    !
!    !    !    !PETER MINGER (3) (ID=639)
!    !    !    !    !
!    !    !    !    !BARBI LINIGER (2) (ID=688)
!    !    !
!    !    !HANS MINGER (4) (ID=731)
!    !    !    !
!    !    !    !MADLENA KOPS (3) (ID=668)
!    !
!    !HANS MATHEMEY MINGER (5) (ID=26)
!    !    !
!    !    !ANA LINIGER (4) (ID=683)
!
!HANS MATHEMEY MINGER (6) (ID=527)
!    !    !    !    !    !
!    !    !    !    !    !PETER MINGER I (ID=667)
!    !    !    !    !
!    !    !    !    !ZACHARIAS MINGER (ID=589)
!    !    !    !    !    !
!    !    !    !    !    !ANA UNKNOWN I (ID=747)
!    !    !    !
!    !    !    !CHRISTIAN MINGER (ID=587)
!    !    !    !    !
!    !    !    !    !ELISABETH KAMEL (ID=598)
!    !    !
!    !    !HANS MINGER  (ID=583)
!    !    !    !
!    !    !    !ANNA HARMI (ID=588)
!    !
!    !ELIZABETH MINGER (5) (ID=683)
!    !    !
!    !    !STINA MERZ (ID=586)
```

FIGURE 6.

DENSE FREE-FORM PEDIGREE CHART

If one or more of the relatives aren't available in your FAMILY file (as generated by EDIT), that space in the chart will be left blank. However, the dashed line and the

B
M
D

do appear. This makes the chart easy to read, and it is convenient to fill in the chart in longhand if you carry it with you in your familial searches. Note that if the person is living, the "D" is replaced by "Living" along with any data you may have stored about that.

The standard header for a standard chart consists of the words "CHART NO." positioned to the right or left according to the TAB BEFORE HEADER parameter. This allows you to assign a number of your own choosing to each chart, providing a means of interconnecting them. You can define your own header which will appear instead of the standard one by setting the ASK FOR HEADER parameter.

The advantage of the standard chart is its familiarity and its uncluttered appearance. Its disadvantage is that it is highly structured. This means that the spaces for information are limited, resulting in the possibility of showing only certain information. It also may mean that truncation of your data may occur since there is no good place to put it. Finally, the number of generations doesn't vary, meaning that several charts may need to be linked to form the larger picture. The "disadvantage" might sometimes be viewed as an advantage if your objective is to bind the charts in book form, since in this case there is no "continuation" or "overlap" problem.

Beyond the parameters that affect all charts, there is only one unique to the standard chart. This is the one called CASCADE STANDARD CHARTS. When this is on, CHARTS will generate more than one chart if you have enough data available. The "extra" charts are the continuation of the one you selected. For example if there is at least one parent indicated in the great-grandparents position, a chart will also be produced for that great-grandparent. Furthermore, if parents are found for the great-grandparents in the generation of the extra chart for the great-grandparent, more charts will be composed. This goes on until all of your data of this type is exhausted, or until the memory in CHARTS allocated to this is used up. The latter depends on quite a few factors but could occur for charts containing the ninth generation. No message appears -- the chart just isn't printed.

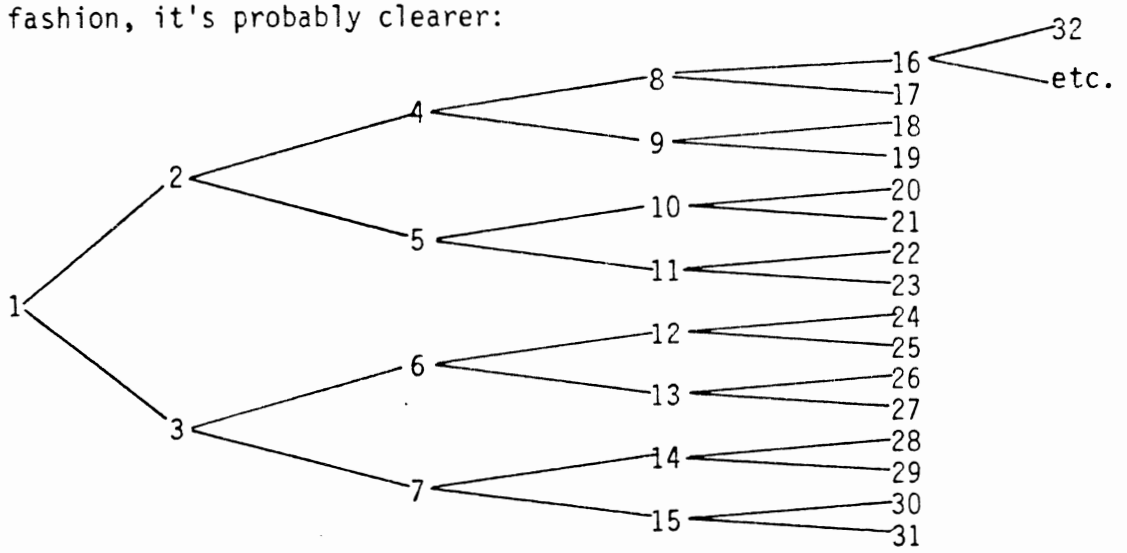
### 5.3.2.3 Printing a Compressed Pedigree Chart

The compressed pedigree chart is almost not a chart at all. It represents an attempt to squeeze as much information as possible into as little space as possible. As you can see in Figure 5, each line contains information for one person, and the people are listed one right after the other.

Included in each line is the birth, marriage and death information pertinent to the pedigree of the person chosen. In particular, only the marriage that produced the parents or grandparents, etc. is shown. The type of data is indicated by a one to three character mnemonic (easily recognizable) preceding the information; the following ones are used:

| | |
|---|---|
| b | born, date and place |
| liv | living, place |
| d | died, date and place |
| bur | buried, date and place |

The number at the start of each line indicates the relationship according to the German chart numbering system. The first number is always 1, the father is 2, the mother is 3, and all succeeding relationships have the father of the later generation as twice the number, with that person's wife being found by adding 1. That seems a little difficult to describe accurately. If you look at it in tree fashion, it's probably clearer:




The compressed chart can run to more than one page. Its length is determined by how much information you have stored and by how much space is available to generate it. This chart, unlike the others, is generated entirely in the computer's memory before any printing is done.

That means that there must be enough space available to hold all the ID numbers of the people involved. It also means that it is normal for there to be a lot of disk activity, with nothing else showing, while the chart is being composed.

The chart is actually saved in the top part of the space used for a list of names in memory, the one you sometimes see on the access menu. The delivered limit of that space is 99 names, which is enough for 6 generations, including the person chosen. That number (the 99) can be changed using CONFIGURE to allow for more generations; it is available as the MAXIMUM NUMBER LIST SIZE. Be a little careful, however. If you try to make it too big, you may get an OUT OF MEMORY error. If you increase it to 129, you can add one more generation, while 257 might add yet another. Since this space is concurrently used for the list in memory feature, if you are accessing names using a list, the space actually available for the chart will be reduced. For example, with 40 names in memory and a maximum list of 99 defined, only 59 spaces can be used for the chart, which only allows for 5 instead of 6 generations.

If there is no parent supplied for one of the people in this chart, the line for that person is omitted. If you examine the example chart in Figure 5, you will see that all line numbers between 1 and 63 don't appear. The cause is a missing relative.

The standard header for the compressed chart highlights the person's name and separates it from the body of the chart with a line, to avoid confusion between the header and the first entry in the chart. You can, of course, define your own header as for the other charts as controlled by the ASK FOR HEADER parameter.

There are no parameters that uniquely affect the compressed chart. All the ones that apply to all charts are pertinent here, of course. Note that if you choose to include ID numbers for people, those are printed after each name and are in addition to the numbers shown at the start of each line.

That covers all the charts. Next comes the details on the parameters.

## 5.4 Changing Program Parameters

There are fifteen parameters used by CHARTS that affect the way things are displayed or printed. A value is normally assumed for each of these parameters (called a default) so you don't have to worry about setting all of them when you're just starting. (You can change the starting values using CONFIGURE.) There is a menu and procedure to change the

values, accessed by typing '5' from the main menu or by typing 'P' from one other place: in response to the question asking for verification of the name (see 5.3).

The menu shows a brief title for each parameter and its current value, followed by the question

WHICH (A-O)?

meaning "which letter". When you choose a letter, CHARTS asks you what you want the value to be. If you press <'return'> in response to the WHICH? question, you'll be returned to where you came from.

Note that many of the parameters are of the on/off or true/false type. A message is displayed with the parameters menu to remind you (or educate you) that '0' means off or false, while '1' means on or true.

The following paragraphs discuss each parameter:

a) USE MONTH NAMES. This is a true/false parameter. It is normally set to 'on', or 'true'. When it is on, the three character abbreviation for the month is used in printing all dates where this is possible. An example date of this type is 13 Jun 1926. If it is off, or false, the date is printed with all numbers using the familiar slashed format. In this case the order of the day and month depends on the value you selected for DAY/MONTH ORDER in the CONFIGURE program. An example of this format would be 25/06/1922 in the order day-month, and 06/25/1922 in the order month-day. The standard order for genealogists is day-month. Imprecise dates such as About 1850 are printed exactly as stored, and are not affected by this parameter.

b) MAXIMUM GENERATIONS. The default is 7, the nominal maximum is 10 and the minimum is 2. The maximum can be reset using CONFIGURE. The number means generations not including the person selected, e.g. 3 for predecessors includes great-grandparents. This number is the limit on number of generations that are printed on the free-form predecessor and descendant charts. If your information doesn't reach the limit then it doesn't affect your printout. The header for this number of generations is printed.

c) PRINT ID WITH NAMES. The default is 'on' or 'true'. This causes the person's ID number to appear with any name that is output. The number is printed after the name in all charts except the standard one, where it appears in front. The default is 'on' since your normal use of charts is to work with them, and using the numbers

provides faster record retrieval. It also sometimes helps resolve ambiguity in cases where you have people with identical names. You may want to turn this off (value '0') before printing charts for sending to your relatives.

d) TOP-OF-FORM AFTER PRINTS. The default is 'on' or 'true'. This applies only to the printer. This causes the printer to move the paper to the top of the next sheet whenever it finishes one printing task, i.e. one chart. Ejecting pages like this makes for neater printing, but it can waste a lot of paper.

e) PRINT NAMES ONLY. The default is 'off' or 'false'. This affects what information is included in the free-form charts. If it is off, both names and data are included in a chart. If it is on, only names are printed, but the alternate parent is included in descendants charts (the one not on the direct lineage). You probably like to see all the data as you are working with it, which is the rationale for having this off. It makes for very long charts in general, and you will probably find the names-only version easier to read.

f) SUPPRESS NOTES ON CHARTS. The default is 'off' or 'false', meaning that notes will normally appear if you have all data (not names only) for the free-form charts. The notes referred to are your entries in the NOTE fields in your records. If you have chosen to use notes as reminders to yourself or as indications of progress, you may not want such "clutter" to appear in finished charts you publish or send to your relations.

g) CASCADE STANDARD CHARTS. The default is 'off' or 'false'. This affects only the standard charts. When it is off, only one chart is printed per name selected. When it is on, CHARTS will try to extend the number of generations shown for the selected person by printing charts that can be linked together. The usual way that you use this might be either of the values, but we had to pick one to start out with. If you don't like it, change it using CONFIGURE.

h) PRINT SIZE. The default is 16.5 characters/inch or your minimum print size as set by CONFIGURE. A common set of print sizes is:

```
16.5 char/inch      (smallest)
12   char/inch
10   char/inch
 8   char/inch      (largest)
```

Since there are so many different printers available, your printer may use a different set. The smallest size is usually preferred

because it packs the most information on the page. You might like to use a larger print size for legibility or if you are restricting the number of generations. You don't have to worry about giving the precise value -- pick a number in the above range, like 11.5 char/inch, and CHARTS will use the size closest to that. If your printer doesn't have controlled character sizes, this parameter has no effect.

i) PRINT EMPTY FIELDS. The default is 'off' or 'false'. When this is off, CHARTS includes in the free-form charts only those fields that are not empty. When a field is empty, no line or space for that field appears. On the other hand, when this parameter is on, a place for every field can be seen. This gives you a means of verifying how complete your information is. Actually, "all fields" should be somewhat qualified, i.e. if you have entered 0, 1 or 2 for number of marriages, only that many will show rather than the nominal maximum of 7. Furthermore, some fields appear on the same line on a chart and the decision to include or omit the entire line is based on the content of all the fields, not just one. For example, if you have connected fields for Date of Burial and Place of Burial, these will print on one line; with this parameter off, both the date and place would have to be empty before the line was omitted from a chart.

j) USE LAST NAME FIRST. This affects whether every name is shown as "TOPHILEES, MEFIS G." or "MEFIS G. TOPHILEES". The first type appears when this parameter is on, and the second type when it is off. The default is 'off' or 'false'. This should be somewhat qualified. If you enter full name rather than a number in one of your name fields (see 4.3.6), it will be shown or printed exactly as you saved it, and is not affected by this parameter.

k) SELECTIVELY SUPPRESS NOTES. This one is normally 'off' or 'false'. When it is off it has no effect on whether notes are printed or not. When it is on, the NUMBER OF NOTES field is checked to see if there is a Note Selector present (see section 4.3.5.6). If the Note Selector is present, only the fields you selected are printed. If the Note Selector is missing, all notes are printed (if there are any). This parameter may become overridden by your selection for SUPPRESS NOTES ON CHARTS, i.e. if full suppression of notes is on, no notes are printed regardless of the Note Selector. If a note is not printed because of the Note Selector, any footnote references in the other fields are also omitted.

l) PRINT MARRIED NAME. This is normally 'off' or 'false', meaning that a woman's maiden name is used instead of her married name. If it is on, the married name is used. This parameter does not affect names stored directly instead of a number (see 4.3.6). If the USE

LAST NAME FIRST parameter is on, the first name shown will be the maiden name if the PRINT MARRIED NAME parameter is off and the married name otherwise.

m) TAB BEFORE HEADER. This is the number of spaces to put in front of all header lines, whether you use the standard ones or define your own. It allows you to position the header to the right or the left in case you prefer one or the other position due to binding or ease of viewing. Its default value is 10. If you choose a value too large, you may experience wrap-around on headers you defined, i.e. the end of the line may print at the start of the next line.

n) ASK FOR HEADER. This is normally 'off' or 'false'. When it is off, the standard header of the type described with each chart will be printed. When it is on, you will be asked a series of questions to define a chart header. The questions are as follows:

First a check is made to see if there is a header already saved from a previous series of questions. If there is you are asked

```
USE PREVIOUSLY DEFINED HEADER?
```

Answering <Y> omits the remaining questions, and the old header will be printed again on whatever chart you're doing. If there is no old header, or if you answer the above by <N>, off we go into the other questions. First you need to specify how many blank lines to start with (zero is OK), then supply your lines of text, and end with the number of blank lines to follow. You might have a sequence like

```
HOW MANY BLANK LINES AT THE TOP?   <2>
TYPE UP TO 13 LINES.  USE 'ENTER'
TO END:
LINE 3:   <Prepared by K.F. Gallina>
LINE 4:   <31 Aug 1982>
LINE 5:   <'return'>

HOW MANY BLANK LINES TO FOLLOW?    <1>
```

After that your header will be repeated back to you, with verification requested, like

```
LINE 1:
LINE 2:
LINE 3:   Prepared by K.F. Gallina
LINE 4:   31 Aug 1982
LINE 5:

IS IT O.K.?
```

If you answer <Y>, the header will be used (without the "LINE #" being printed, of course). If you answered <N>, you start all over again. You should note that if you want to show who the chart is for or the date it was printed, you must insert lines to that effect since such data is not retrieved from its places within the program.

p) DATE. This parameter is initially set when you started, if you are using that feature. If you changed the date while running one of the other Main programs (except LISTS) the revised value will be preserved when you arrive in CHARTS.

In addition to the 15 parameters described above, there is one which is not accessible on the menu but can be changed using CONFIGURE. (The menu in CHARTS is full, allowing no space for additional parameters without adding another menu.) The parameter is:

q) LINES PER PAGE. This affects only the two free-form charts. It is a number between 0 and 66. It is normally 0. When it is 0, the parameter is ignored and the free-form charts continue from one sheet to the next with no inter-page gap, i.e. no white space. When the parameter is not 0 (typically 55), about that number of lines are printed on each page of the chart. After approximately that number of lines is printed, the paper is moved to the top of the next sheet, the column header is printed again, and the chart continues. The reason the number of lines is approximate is that the information for one person won't be split between pages.

## 5.5 Checking Diskettes

One of the main menu choices is CHECK DISKETTES. This causes the diskette in each drive to be read, in order that CHARTS may know the location and identity of each diskette. You should use this if you switch diskettes. Furthermore, the ONLY time you should switch diskettes when not told to do so is when you are at the main menu, followed by this choice. If you switch diskettes at any other time without being told, you may destroy some of your data, may place some data in the wrong record, or worst yet, destroy one of your data diskettes. Don't risk it! The only exception is that program diskettes may be swapped at any time.

As extra added protection for yourself, you should make backups of your data diskettes. You spent (will spend) many hours preparing them. Don't risk having to do that over due to a "simple" mistake or machine error. It is prudent to have at least two separate sets of backups in addition to your working set, i.e. the ones you usually use. You should update your backups at least at the end of each session, and perhaps more often if you have long sessions. (Yes, this has been said before.

Yes, this is an odd place to say it again. No, it can't be over-emphasized.)

## 5.6 Exiting CHARTS

Exiting CHARTS is almost the same as exiting EDIT. The only difference is that there is no list of names to save. The menu choices are identical. Please see section 4.6 for more information.

## 5.7 Miscellaneous Information on CHARTS

Several of the items on EDIT discussed in the miscellany section 4.7 are valid here, too. Please reread that if you need to. The ones that pertain to CHARTS are:

a) Any question may be answered with <'return'>
b) CTRL Z aborts any chart
c) GOTO 20000 gets you back into CHARTS after an error, usually.

# 6. DETAILED USE OF SHEETS

The SHEETS program prints or displays the information you store for one person, and prints a family group sheet in the format used by the Mormons. If you haven't read the section on the EDIT program yet, we suggest you do so; it is important to the understanding of what you can do here. In order to get started with SHEETS, you can use the procedure described in section 3 and choose SHEETS from the programs menu, or you may get to the programs menu after having run one of the other FAMILY ROOTS programs.

The drive with the program diskette will whirr for a while as SHEETS is being loaded, followed by the message

```
PRESS ANY KEY WHEN YOUR DATA DISKETTES
ARE IN THE DRIVES.
```

Be sure that at least one data diskette is present and that every drive has some diskette in it. When you press that key, SHEETS will read every diskette to determine the location and identity of each.

## 6.1 SHEETS Main Menu

After the diskettes are checked, the SHEETS main menu will appear, giving you the following choices:

```
1)  DISPLAY INDIVIDUALS
2)  PRINT INDIVIDUALS
3)  PRINT FAMILY GROUPS
4)  CHANGE PROGRAM PARAMETERS
5)  CHECK DISKETTES
6)  EXIT PROGRAM
```

As usual, the titles are indicative of the function to be performed. The first two choices are basically the same, the only difference being where the results are placed. The third choice puts together the family group based on a husband or wife selected. The program parameters mainly affect how the data is printed or shown. Checking diskettes is how you swap diskettes under your own volition. And exit exits, oddly enough! We'll discuss each of these items in more detail after a brief section (that will seem familiar) on accessing names and records.

(If this whole section seems familiar so far, that has been more than coincidence.)

displayed or printed. If you are displaying, there is a pause after each record which you end by pressing any key (you will see PRESS ANY KEY TO CONTINUE at the end of the display). There may also be intermediate pauses which prevent the display from scrolling off the top of the screen before you've had a chance to look at it. This depends on the amount of data saved for a person. For printing there are no pauses. All records that you selected are output in succession until the list is complete or until you terminate using CTRL Z. You are returned to the SHEETS main menu at the end of the cycle.

If a person you selected isn't available on one of the diskettes currently in a drive, SHEETS will tell you which diskette it needs and where to place it. If that is a problem or if you don't want to do that for any reason, answer <N> or <CTRL Z> to the instructions, and you will be returned to the SHEETS main menu.

The presentation of the information in a record is formatted to make it easy to read, and related facts are grouped. An example of a complete output is shown in Figure 7. In all cases each non-blank field caused outputs. By setting a parameter, all fields can be shown, whether empty or not. Date fields are formatted depending on the value of the USE MONTH NAMES parameter when they are found to be of the standard type, or the date is shown exactly as stored otherwise. Person fields containing numbers are converted to the person's name, or are otherwise shown exactly as stored (also see below). The record number is also normally shown, but can be suppressed for a "finished" look (NO ID means the full name is stored). Notes are enclosed in parentheses with the note number and a colon preceeding the text you entered. Other text fields are shown exactly as stored except for when a full address is present, as described in 4.3.5.2.

Only the number field 'NUMBER OF CHILDREN' is explicitly displayed or printed, but inferences derived from 'NUMBER OF MARRIAGES' are shown. If the latter field is blank, MARITAL STATUS: UNKNOWN is output, and if the field contains a zero, MARITAL STATUS: SINGLE is shown. In addition if the NUMBER OF CHILDREN field is blank, 'UNKNOWN' will be shown instead of a number.

If you are displaying, some of the names contained within a record will not be displayed. This occurs when the name is referenced using a number, and the diskette having that number is not currently in a drive. For this case you will see something like

```
NUMBER OF CHILDREN:  3
     1)  CORNELIUS PHILPOT (ID=362)
     2)  (ID=1776) (NAME NOT AVAILABLE)
     3)  SMOKEY PHILPOT (ID=365)
```

```
JOHN BRENT HUNTON (ID=62)
   (Last Updated 30 Dec 1982)

BORN: 27 Sep 1821
  AT: FAUQUIER CO VA
NUMBER OF MARRIAGES: 2
MARRIED TO: ANN ELIZA RIXEY (ID=728)
         ON: 13 Apr 1842
         STATUS: Widowed
REMARRIED TO: MARY MOSS (ID=63)
         ON: 01 Oct 1861
         STATUS: Married
DIED ON: 30 Apr 1900
      AT: FT SMITH ARK
NUMBER OF CHILDREN: 12
     1) ANNA LUCILLE HUNTON (ID=50)
     2) ALFRED HUNTON (ID=258)
     3) CHARLIE HUNTON (ID=410)
     4) EVA HUNTON (ID=419)
     5) EDGAR HUNTON (ID=257)
     6) GEORGE B. HUNTON (ID=421)
     7) MAMIE HUNTON (ID=256)
     8) MATILDA HUNTON (ID=254)
     9) ROBERTA HUNTON (ID=422)
     10) JOHN W. HUNTON (ID=248)
     11) MOSS HUNTON (ID=432)
     12) MARTHA HUNTON (ID=433)
FATHER: THOMAS E. HUNTON GEN. (ID=534)
MOTHER: MATILDA BRENT (ID=610)
OCCUPATION: ENGLISH PROFESSOR
(1: MOVED TO FT SMITH 1882)
(2: WOOLEN MILLS TO SUPPLY SOLDIERS DURING CW)
(3: OPENED SCHOOL AT E RECTOR'S SEPT 1882)
```

FIGURE 7.

INDIVIDUAL SHEET

The reason for doing it this way is that a diskette would have to be switched to get the name, which would destroy the display in doing so because of the instructions put to the screen. All names are accessed if you are printing rather than displaying.

Fields you define for yourself appear at the end of each sheet. If you described any fields as being related to each other (e.g. date and place of something), they will be printed together. See the section on CONFIGURE for information on defining related fields.

The individual sheet normally starts with the person's name. Two things may precede it depending on parameter settings. If you have the PRINT ACCESS CHOICES parameter on, the number range, number list, or name access choice that you made will be printed before the first sheet in the set. If you have the ASK FOR HEADER parameter on, you will be asked to define a header before the first sheet is printed, and that header will be printed on all the sheets in the set. If you have both of these on, the "Access Choice" indication comes first.

The TEXT program is used to save free-text passages for individuals. This might include a description of the person's life or other such pertinent facts, which you might like to have appear on the same page as the standard information stored using EDIT. One of the parameters allows you to do this. If you have it on, after each individual sheet is printed you will be told

```
INSERT TEXT DISKETTE IN DRIVE B:
FOR SPUDKNUT
PRESS ANY KEY WHEN READY
```

The text diskette is then searched and any text is printed if found. If the person is not there, you will be given another chance. If you change your mind or can't find the right diskette, answer with <N> for NO, which gives you the next name accessed, if any, or with <CTRL Z>, which puts you back to the main menu. Don't put back the standard data diskette until told to do so -- you may damage your data otherwise. If you want to print text for some people but not others as you work through a list, you may want to separate the lists to put all the text ones together, since all printing is done without preplanned pauses. The details on how to make text diskettes are available in section 9.

All except two of the parameters which are available on the CHANGE PROGRAM PARAMETERS menu affect the printing of information for an individual. However, a smaller set of these affect the display. You access these parameters from the main menu, item 4, or by typing <P> when you are told

```
PRESS ANY KEY TO CONTINUE
```

which appears during display only. The pertinent parameters are listed below. For more detail than is provided here, please refer to section 6.5. Note that "printed" and "printed or displayed" are not used loosely in the following list.

a) USE MONTH NAMES affects the display and printing format used for dates stored in the standard format. Example alternates are 2 Aug 1827 or 10/08/1792.

b) SHOW EMPTY FIELDS affects the display and printing of fields that have no entries in them.

c) SHOW ID AFTER NAMES affects the display and printing of the person's ID number after the name, like

    JOHN F. KLOSETT (ID=26)

d) TOP-OF-FORM AFTER PRINTS affects whether one individual's sheet or more than one are printed per page of paper.

e) USE LAST NAME FIRST affects the order in which names are displayed or printed if they are stored as numbers.

f) PRINT ACCESS CHOICES causes the selections of people you made via the access menu to appear before the first individual sheet.

g) SELECTIVELY SUPPRESS NOTES affects the display and printing of notes when a Note Selector is present on the Number of Notes field (see section 4.3.5.6).

h) SHOW MARRIED NAME causes the display and printing of a woman's married vs. maiden name.

i) TAB BEFORE HEADER is the number of spaces printed in front of a header you defined (there is no standard one) used for positioning purposes.

j) ASK FOR HEADER affects whether you may define a header to be printed in front of every sheet.

k) APPEND 'TEXT' FILE gives you the opportunity to print information saved using the TEXT program on the same page as an individual sheet.

## 6.4 Printing Family Groups

A family group sheet collects all the pertinent information for a family unit and prints it. The family unit is a husband and wife plus all the

children of that union. Other husbands of the wife or wives of the husband and their offspring would be the subject of different group sheets.

The format used for the group sheet is the standard one prómoted by the Church of Jesus Christ of the Latter-Day Saints, the Mormons; an example group sheet made by SHEETS is shown in Figure 8. The information requested by their standard form will be included in a sheet if you have that information available. In particular, dates and places of christening and burial are used; if you have defined these fields for your own use, SHEETS will know which they are and include the information stored there in the sheet.

One difficulty inherent in the Mormon form is its width, since it packs a great deal of information in a horizontal format. Consequently SHEETS must have at least 120 characters of width available in order to construct a group sheet. If that much is not available, you are given an opportunity to reset character size. If your printer can't support 120 characters of width due either to insufficient paper width or lack of a capability to change print size (or both), you won't be able to print group sheets. Depending on your feedback, we will consider adding a group sheet in a narrower vertical format in a future update, if there is a demand for it.

A family group sheet is started by your choice of the husband or the wife to be used. You are first shown the name of the person found from your access selection, and you are asked to verify before proceeding with something like

```
PRINT GROUP SHEET FOR
JANE WENTWORTH

OK TO CONTINUE (Y/N/P)?
```

If you answer with <Y> or <'return'>, generation of the sheet will continue, while <N> goes back for your next access selection if any. Choosing <P> gets you the CHANGE PARAMETERS menu; the parameters affecting group sheets are listed briefly at the end of this section and in detail in section 6.5.

After you verify the name, SHEETS checks to see if that person has exactly one spouse, and uses him or her if so. If there are no spouses with numbers available, the sheet generation is cancelled. If there is more than one spouse, you will be asked which one. For example, suppose

HUSBAND: JAMES HUNTON (ID=551)
Born 31 Jul 1763 Place FAIRVIEW FAUQUIER CO VA
Marr 06 Feb 1786 Place KING GEORGE CO. VA
Died D Place THE VALLEY ADJOINING FAIRVIEW
Bur. Place
HUSBAND'S FATHER: WILLIAM HUNTON (ID=552) HUSBAND'S MOTHER: JUDITH KIRK (ID=553)
HUSBAND'S OTHER WIVES: ELIZABETH MC MISH (ID=415)

WIFE: HANNAH LOGAN BROWN (ID=555)
Born 11 Feb 1765 Place KING GEORGE CO.
Died 04 Mar 1806 Place ?
Bur. Place
WIFE'S FATHER: WIFE'S MOTHER:
WIFE'S OTHER HUSBANDS:

| M/F | CHILDREN | WHEN BORN | WHERE BORN | FIRST MARRIAGE | WHEN DIED |
|---|---|---|---|---|---|
| 1 M | CHARLES HUNTON (ID=404) | 04 Jan 1787 | VA | | 1854 |
| 2 M | EPPA HUNTON (ID=408) | 30 Jan 1789 | FAIRVIEW FAUQUIER CO VA | 22 Jun 1811 ELIZABETH MARYE BRENT (ID=556) | 08 Apr 1880 |
| 3 M | THOMAS LOGAN HUNTON (ID=405) | 23 Apr 1802 | VA | ANN D. D. MOXLEY (NO ID) | |
| 4 F | MARGARET L HUNTON (ID=416) | 01 Mar 1805 | | ARTHUR BLACKWELL (NO ID) | |
| 5 | SILAS B 10/23/1794 (NO ID) | | | | |
| 6 | JAMES B 7/1/1791 D 6/19/1791 (NO ID) | | | | |

SOURCES OF INFORMATION

OTHER MARRIAGES

4-JOHN BROWN (NO ID)

FIGURE 8.

FAMILY GROUP SHEET

you choose a sheet for Aubrey Wentworth, and he had three wives, Jane, Arlene and Claire. Suppose also that you entered numbers in Aubrey's record to show the relationship to Jane and Claire, but Arlene was stored as a name rather than a number (see 4.3.6). You will see

```
WHICH SPOUSE DO YOU WANT ON THE SHEET:
     1)   JANE WENTWORTH
     2)   ARLENE WENTWORTH**
     3)   CLAIRE WENTWORTH

(** NO RECORD AVAILABLE)

CHOICE (1-3)?
```

If you choose 1 or 3, generation will continue since information is available. If you choose 2, you will see

```
THE HUSBAND AND WIFE'S RECORDS ARE NOT
CONNECTED.  SHEET GENERATION IS NOT
POSSIBLE AT THIS TIME
```

followed by a return to the next name accessed, or the main menu if there were none. The presence of records for both the husband and wife is necessary because the children of the union are found by matching the two records. You could generate a sheet using Arlene by returning to EDIT to create a record for her.

Once the question of which husband and wife combination has been settled, SHEETS next needs to figure out which is the husband and which the wife. If you have defined a SEX field for yourself and have stored data there for these people, that is how the decision is made. If that can't be done (no SEX field or nothing stored), SHEETS then tries to see which is the woman by checking if a Married Last Name is present for either person. If there is still no success, the last resort is to ask you

```
IS AUBREY WENTWORTH MALE?
```

We hope it is obvious what a Y/N answer produces. A <'return'> answer causes an assumption of YES.

The group sheet starts with a header if you define one, as controlled by the ASK FOR HEADER parameter. There is no standard header, so the first thing that appears if you don't request a header is the husband's information. The top part of the sheet has the husband's name, followed by important date and place combinations like birth, death, marriage. Alternate marriages for the husband are then shown, if any. Next comes

a similar section for the wife, with exactly the same possibilities except that the marriage date and place are not repeated.

The children of this husband and wife are found by comparing the children you have stored in the husband's and wife's records. Those that are in both places are used. For example suppose Aubrey's record shows 3 children

```
DAN WENTWORTH  (ID=401)
GABE WENTWORTH (NO ID)
JUNE WENTWORTH (ID=402)
```

while Claire's record shows these 3 children

```
JUNE WENTWORTH (ID=402)
DAN WENTWORTH  (ID=386)
GABE WENTWORTH (NO ID)
```

Notice that the two Dan's are different people, since they have distinct ID's. The children that will be included in the group sheet will be June and Gabe.

It is usually preferable that the children in the sheet be listed in the order of birth, from the oldest to the youngest. SHEETS will attempt to put them in order if you have the PUT CHILDREN IN ORDER parameter on, or will use the order in the husband's record if it is off. SHEETS can do the ordering if all of the children's birthdates (in their own records, not in the parent's ones) are in the standard format (see section 4.3.4), since the program can tell what the month, day, and year are in this case. If there are non-standard birth dates or if there are children without records, SHEETS will still attempt to order the children if you have the parameter on, but it may not produce an order you like -- all those with dates that can't be deciphered are put at the end of the list. You may prefer to have the parameter off in these cases, or you could correct the birthdates using EDIT.

Each child is printed with a particular set of information. If the person is saved as a name rather than a number, only the name is shown and nothing else. Numbered people have more. First is the person's sex. If you have defined a SEX field for yourself, anything saved there is used. If that isn't available, SHEETS checks to see if the person has a Married Last Name saved; if so F is entered for sex. If none of these work, you are asked

```
IS JUNE WENTWORTH MALE?
```

with any answer not <N> considered to be <Y>.

Next comes the child's name, date and place of birth, first marriage if any, and date of death if approprate. The first marriage includes the date and the name of the spouse. If there are other marriages for any of the children, they are saved and printed at the bottom of the sheet.

The last section of the sheet is for showing sources. Sources are assumed to be stored in the notes for the husband, wife and children. However, other information might also be present in the notes, and SHEETS has no way to tell other than asking you. The first question is

```
OMIT SOURCES?
```

in case you want to avoid deciding which notes to include in this particular sheet. Otherwise each note is retrieved and shown to you on the screen for your decision as to whether to include it. You may see something like

```
NOTE 1 FOR JANE WENTWORTH:
JANE HELD WOMEN'S GOLF CHAMPIONSHIP 1937

INCLUDE IN SHEET?  <N>

NOTE 2 FOR JANE WENTWORTH:
INFO OBTAINED FROM DAUGHTER BARBARA

INCLUDE IN SHEET?  <Y>
```

If you have the same source indicated in different records, this also gives you the control to prevent multiple printing of the same source. If you want to omit all further notes, answer the question with <CTRL E> (E as in erase). If you want to escape back to the main menu, type <CTRL Z> as usual. CTRL E and CTRL Z will have the same effect if there are no more group sheet requests waiting based on your access choices.

There are ten program parameters that affect group sheets. These are indicated briefly below, with details on each available in the next section, 6.5.

a) USE MONTH NAMES affects date formatting for standard dates.

b) SHOW ID AFTER NAMES affects whether an ID indication is included with each name.

c) TOP-OF-FORM AFTER PRINTS causes the printer to position the paper to the top of the next page when finished.

d) USE LAST NAME FIRST does what it says. Really!

e) PRINT ACCESS CHOICES affects whether the indication of your Access Choices will appear before the first sheet.

f) PRINT SIZE controls the size of print used, and must be small enough to allow 120 characters per line.

g) PUT CHILDREN IN ORDER affects whether an attempt is made to order the children by birthdate.

h) SHOW MARRIED NAME controls maiden vs. married name.

i) TAB BEFORE HEADER controls the positioning of any header you may have defined

j) ASK FOR HEADER controls whether you will be asked to define a header.

## 6.5 Changing Program Parameters

There are fifteen parameters available in SHEETS that affect the printing and display of the individual or group sheets, or both. A starting value is normally assumed for each of these, so you don't need to worry about setting them when you are just learning to use SHEETS. You can change the starting values by resetting them using the CONFIGURE program as described in section 10.

There is a menu and procedure for changing parameter values, accessed by selecting <4> from the main menu, <P> from the Continue display request, or <P> from the person verification before a group sheet. The menu shows the brief titles for each of the parameters you may have seen mentioned above, along with its current value. To change a value, press the letter in front of the parameter name and supply the new value in response to the question asked. If you made the wrong parameter selection you may preserve the old value by pressing <'return'>. After each change the menu is regenerated, and you can inspect it to see that your change was properly detected. You can escape to the source of the parameter selection access by pressing <'return'> instead of the letter.

Since the procedures for changing parameters are the same in all the main programs, you might want to refer to the corresponding sections for other programs if you are confused or need more details, e.g. 4.5 for EDIT or 5.4 for CHARTS. In fact a great many of the parameters in SHEETS are the same ones that appear in CHARTS, so you may find it useful to refer to 5.4.

The following paragraphs discuss each parameter:

a) USE MONTH NAMES. This is a true/false parameter. It is normally set to 'on', or 'true'. When it is on, the three character abbreviation for the month is used in printing all dates where this is possible. An example date of this type is 13 Jun 1926. If it is off, or false, the date is printed with all numbers using the familiar slashed format. In this case the order of the day and month depends on the value you selected for DAY/MONTH ORDER in the CONFIGURE program. An example of this format would be 25/06/1922 in the order day-month, and 06/25/1922 in the order month-day. The standard order for genealogists is day-month. Imprecise dates such as About 1850 are printed exactly as stored, and are not affected by this parameter.

b) PRINT EMPTY FIELDS. The default is 'off' or 'false'. When this is off, SHEETS includes in the free-form charts only those fields that are not empty. When a field is empty, no line or space for that field appears. On the other hand, when this parameter is on, a place for every field can be seen. This gives you a means of verifying how complete your information is. Actually, "all fields" should be somewhat qualified, i.e. if you have entered 0, 1 or 2 for number of marriages, only that many will show rather than the nominal maximum of 7.

c) SHOW ID AFTER NAMES. The default is 'on' or 'true'. This causes the person's ID number to appear with any name that is output. The number is printed after the name. The default is 'on' since your normal use of sheets is to work with them, and using the numbers provides faster record retrieval. It also sometimes helps resolve ambiguity in cases where you have people with identical names. You may want to turn this off (value '0') before printing sheets for sending to your relatives.

d) TOP-OF-FORM AFTER PRINTS. The default is 'on' or 'true'. This applies only to the printer. This causes the printer to move the paper to the top of the next sheet whenever it finishes one printing task, i.e. one sheet. Ejecting pages like this makes for neater printing, but it can waste a lot of paper.

e) SIZE OF LEFT MARGIN. This is the number of spaces used for individual sheets. The actual size of the margin in inches depends on your default print size setting that you selected when you first used CONFIGURE. The usual default in spaces is 10. If you set this too large, your sheet won't look right due to wrap-around, i.e. lines starting on one line continuing on the next. You may set this to zero if you want no margin. Note that you can force a right margin by setting your paper width in CONFIGURE smaller than is actually present, for example, 8 inches when 8.5 is available.

f) USE LAST NAME FIRST. This affects whether every name is shown as "TOPHILEES, MEFIS G." or "MEFIS G. TOPHILEES". The first type appears when this parameter is on, and the second type when it is off. The default is 'off' or 'false'. This should be somewhat qualified. If you enter full name rather than a number in one of your name fields (see 4.3.6), it will be shown or printed exactly as you saved it, and is not affected by this parameter.

g) PRINT ACCESS CHOICES. This is usually off. When it is on, your Access Choices are printed before the first sheet. This is available to let you make a printed record of what you selected if you wish. The outputs would look like

```
     PRINT INDIVIDUALS:  81 TO 463

or   LIST = 26, 42, 81, 63, 27, 27, 62

or   PRINT FAMILY GROUPS HAVING THE
     FOLLOWING NAMES IN COMMON:
          " 'WENTWORTH' "
```

where the last example shows that your choice was all people born Wentworth.

h) PRINT SIZE. The default is 16.5 characters/inch or your minimum print size set using CONFIGURE. A normal range of values might be 8 to 17 char/inch. This parameter is used only for the group sheet; the individual sheet is printed in the size you defined as your preferred standard size using CONFIGURE. The group sheet must have at least 120 characters per line available because of the amount of information per line. If your printer can't change character size, this parameter has no effect.

i) PUT CHILDREN IN ORDER. This is usually on. It applies only to group sheets. When it is on, SHEETS will try to order the children in the sheet from oldest to youngest by birthdate. The success of the operation depends upon whether the birthdates are saved in the standard date format (see 4.3.4) for all of the children. If this parameter is off, the children will appear in the same order as they were saved in the husband's record.

j) SELECTIVELY SUPPRESS NOTES. This one is normally 'off' or 'false'. When it is off it has no effect on whether notes are printed or not. When it is on, the NUMBER OF NOTES field is checked to see if there is a Note Selector present (see section 4.3.5.6). If there is, only the fields you selected are printed. If the Note Selector is missing, all notes are printed, if there are any. If a note is omitted due to the Note Selector, any footnote references from

other fields will also be suppressed. This parameter affects only the individual sheets.

k) SHOW MARRIED NAME. This is normally 'off' or 'false', meaning that a woman's maiden name is used instead of her married name. If it is on, the married name is used. This parameter does not affect names stored directly instead of a number (see 4.3.6). If the USE LAST NAME FIRST parameter is on, the first name shown will be the maiden name if the PRINT MARRIED NAME parameter is on and the married name otherwise.

l) TAB BEFORE HEADER. This is the number of spaces to put in front of a header line for the headers you have defined. It allows you to position the header to the right or the left for ease of viewing. The default value is 10 spaces. If you choose a number too large, you may experience wrap-around of the header.

m) ASK FOR HEADER. This is normally 'off' or 'false'. When it is off, no header is printed with either the individual or the group sheets. When it is on, you will be asked to define a header. Please see section 5.4 for details on the steps used to define a header. For individual sheets, one header is used on every page for the entire set of names accessed. For group sheets, a header may be individually defined for each sheet.

n) APPEND 'TEXT' FILE. This is normally 'off' or false'. When it is on, you are given the opportunity after each individual sheet to insert any text for the same person saved using the TEXT program. When the parameter is off, no extra printing is done and SHEETS proceeds directly to the next person you selected via the access menu.

p) DATE. The date is hardly used at all by SHEETS. It only appears in one of the access choice listings. It is initially set from the answer you gave when prompted for a date on starting, if you are using that feature. If you change the date here, it will have the same new value when you exit SHEETS to one of the other main programs except LISTS. Although the date was not really necessary for this program, we preferred to have it available for future changes if needed. (The BASIC variable is DY$ if you want to include the date in any custom changes.)

## 6.6 Checking Diskettes

This main menu item allows you to switch diskettes and tell SHEETS about it. We repeat our admonition not to change diskettes unless told otherwise. Please see section 5.5 for more detailed nagging.

## 6.7 Exiting SHEETS

Exiting SHEETS is just like exiting CHARTS and almost like exiting EDIT, but with no names to save. Please see section 4.6 for details on the exit menu.

## 6.8 Miscellaneous Information on SHEETS

Several of the items on EDIT discussed in section 4.7 are valid here, too. Please reread that section if you need to. The items that pertain to SHEETS are:

a) PRESS ANY KEY TO CONTINUE is used to prevent information from scrolling off the top of he screen before you see it.

b) CTRL Z aborts to the main menu

c) Any question may be answered with <'return'>

d) GOTO 20000 usually (not infallibly) gets you back into SHEETS after an error.

## 7. DETAILED USE OF LISTS

The LISTS program constructs lists of people's names in alphabetic or numeric order and can also be used to make lists of empty name slots or ID numbers. This is really a program for manipulating names in a variety of ways. There are several familiar ways to select the names to be included in a list, as well as a new one, the one to pick out all names that sound alike. Lists can be stored in memory, saved to diskette, retrieved from diskette, and merged. You'll see how all of this works in the following sections. If you need to be reminded about the four components of a name in FAMILY ROOTS, you would do well to reread section 4.2 on EDIT before reading this section.

LISTS can't talk to the other main programs like the others do among themselves. This means that any lists of names made using the LISTS program won't be resident in memory any more when you move on to another main program, nor is the date preserved if you make any changes to it here. There is a very good reason why LISTS doesn't talk, namely, it needs much more space for names than the others do, and it would force that space to be held free by the other programs even though they need to use it too.

A method has been provided to pass names from LISTS into the other programs via use of diskette. LISTS can save names to diskette and the READER program can then read the diskette to save the list in memory. When the list is in memory in READER, others of the main programs can be selected and run, with that list being preserved. This is only valid for a small list, usually 99 names or less, that will fit in the available memory space.

In order to get started with LISTS, you can use the procedure described in section 3 and choose LISTS from the menu of programs, or you can get to the menu of programs after having run any other program. If you get the wrong program diskette in the drive, there is a selection on the menu of programs that allows you to get the right one.

The drive with the program diskette will whirr while LISTS is being loaded, followed by a message like

PRESS ANY KEY WHEN YOUR DATA DISKETTES ARE IN THE DRIVES

Be sure that at least one data diskette is present and that there is some diskette in every drive. When you press a key, LISTS checks all the drives to find the location and identity of the data diskettes.

## 7.1 LISTS Main Menu

After the diskettes are checked the LISTS main menu will appear, giving you the following choices:

1) MAKE ALPHABETIC LIST
2) MAKE NUMERIC ORDER LIST
3) MAKE SPECIAL LIST
4) CHANGE PROGRAM PARAMETERS
5) CHECK DISKETTES
6) EXIT PROGRAM

The first two choices produce a list of names, either alphabetic by surname or in ascending ID order, depending on the choice. After selecting one of these you will be asked to select the names to be included using the access menu. Selecting the third item on the above list produces a menu of seven special functions that make lists, repeat lists previously done, etc. as described in detail in a subsequent section. The final three items should be familiar by now if you are reading this manual from front to back, since they appear on all the main menus.

Following the section on name access, results of each of the selections from the main menu is described in detail.

## 7.2 Accessing Names, Including SOUNDEX

When you select either of the first two items on the main menu, you will be asked to choose which set of names to include in the list. This access menu has five items instead of the usual 3 or 4, as follows:

1) NUMBER RANGE
2) NUMBER LIST
3) NAME SETS
4) SURNAME SOUNDEX
5) WHOLE DISKETTE

The first two access choices work exactly as described for EDIT in section 4.3.1, except in this case only the names will be retrieved, not the records.

The third choice works almost the same as for EDIT, but with one exception; you can ask that upper/lower case differences be ignored between what you specified and what is selected. This is done with the

IGNORE UPPER/LOWER CASE parameter, which can be accessed and changed by typing <P> on the access menu above. An example will show what happens with this. Suppose you say you want to find everybody with "Ann" as part of their first name. If the parameter is off, then "Joann Quickly" will not match and won't be listed, since the "a" in Joann is lower case but you specified upper case "A". On the other hand she will be added to the list if the parameter is on, since you told LISTS that "a" and "A" were to be treated the same. If you can find the right names with the parameter off, it is better to do it that way, since the search for the right names with it on takes significantly longer to do.

If you ask for WHOLE DISKETTE, LISTS checks to see if there is only one data diskette available in a drive. If so, that one is used. If not, LISTS will ask you which of the data diskettes to use, with

```
WHICH DRIVE (1-4)?
```

where the number of drives agrees with your system, not our mythical one. If you respond with <'return'> you will be returned to the main menu -- generating a list is not a brief operation and LISTS doesn't know which diskette you want. If you supply a drive number that doesn't have a data diskette in it, you will see (oddly enough)

```
THAT DRIVE DOESN'T HAVE A DATA DISKETTE
WHICH DRIVE (1-4)?
```

Once you supply a valid drive, LISTS starts the process of retrieving names.

The SURNAME SOUNDEX choice is what you use to find a set of people whose last names sound alike although they may be spelled differently. When you make this choice you will be asked

```
MAKE ALPHABETIC LIST FOR ALL
SURNAMES SOUNDING LIKE:
```

where you must supply a name. If you press <'return'> you are back to the main menu.

When you give a name, LISTS will search all data diskettes that are available in a drive for surnames that sound like it, i.e. LISTS will not ask for any other diskettes. If you want a large search to be done, you will have to start the search several times with different diskettes in the drives, save the results to a diskette (see section 7.4.4), and merge lists from diskettes (see section 7.4.1).

On SOUNDEX searches, the surname at birth is always searched, but others can be searched too depending on parameter settings. If you have the

You might think that every name is saved only once, but this is not necessarily the case. In alphabetic lists it is often valuable to include married women under both their maiden and married names, for convenience in finding their ID numbers when you use the list as an index. How a woman will appear in a list is controlled by the two parameters USE MAIDEN NAME and USE MARRIED NAME. If one or the other of these is on, the woman's name will appear in that form, and if both are on she will appear twice. For example, Wendy McNair Sharpe could appear as "McNair, Wendy" or "Sharpe, Wendy McNair" or both depending on the parameters. This works for both alphabetic and numeric ordered lists, even though it is more useful in the alphabetic one.

If you change your mind about the list you requested while the names are being accumulated in memory, you can use <CTRL Z> to stop it and return to the main menu. The partial list will remain in memory and can be viewed or used from the Special Lists selection on the main menu. When you start another access choice, the partial list (or an old list that you are finished with) will be lost.

One other parameter affects what is saved in memory for the number range, number list, and entire diskette accesses. If the SHOW EMPTY NAME SLOTS parameter is on, any blank name found will be saved in memory and included in the final list produced. If the parameter is off, these empty slots will not be stored and won't occupy space in memory. You may want to use this feature to find the empty slots or gain a better picture of how you have used a diskette. This parameter is probably more pertinent to numeric order lists but works for alphabetic as well. The list of empty slots is forced to the end of the alphabetic list.

The only difference between alphabetic and numeric lists as finally output is the order of the names. The formatting of the output and the parameters that control it affect both types of lists in the same way. The names in the numeric order list appear in the order they are found from your access choice. Alphabetic lists have the names ordered by surname.

After the names are all stored, LISTS will output the numeric list. The alphabetic list has to be alphabetized first, as described a little later. LISTS checks the OUTPUT TO PRINTER parameter to see where to send the list. If the parameter is "off", the list will be shown on the screen, and "on" directs it to the printer.

If the list goes to the screen, you can control the speed of display. The means for doing this are the SCREEN SPEED parameter. If you set it at 100% of the possible speed, it will zip past, while at 1% it will

seem related to the slowest of snails. We like it best in the 70% to 80% region ourselves. You can experiment to find your own speed by allowing the list to start at some speed, and typing <CTRL Z> if it is too slow or fast. You can then change the parameter and restart the list using the third item from the main menu (later sections give more detail on how to do this). You may need to do this more than once before arriving at a speed you like.

When viewing the list on your screen, there are no pauses to prevent scrolling because you can adjust the speed to be sure of seeing everything. However, at the end of the list you will see

PRESS ANY KEY TO CONTINUE

to prevent returning too rapidly to the main menu before you have seen the last few names.

Printed lists are made as rapidly as your printer can take the names, i.e. the speed parameter has no effect. There are some differences, however. The first is that a header will appear in front of the list. There is a standard header which indicates the type of list and date prepared, or you may define your own header by setting the ASK FOR HEADER parameter and answering the questions (see section 5.4 for the questions used). Either type of header may be positioned horizontally using the TAB BEFORE HEADER parameter. There is also the SIZE OF LEFT MARGIN PARAMETER which you can use for the obvious purpose.

An example of a numerically ordered list is shown in Figure 9. Each line first shows the ID number for the person followed by the person's name. The name can be shown as first name then last name, or as last name first based on how you set the SHOW LAST NAME FIRST parameter. The names are grouped in sets of 5 for easy reading.

Now let's consider the wrinkles added by alphabetizing. After the names have all been stored in memory, there will be a pause while LISTS gets itself set up to alphabetize. You will see

PLEASE WAIT ...
INITIALIZING ARRAYS

on your screen. If you selected SHOW EMPTY NAME SLOTS, the pause will be longer than otherwise while all the "empties" are moved to the end of the list. When alphabetizing starts, the message on your screen changes to

ALPHABETIZING NAMELIST

along with an estimate of how long it will take and an indication of progress being made. The time should be treated as an estimate only;

NUMERIC LIST 03/07/1983

| RECORD INDEX | NAME | PAGE |
|---|---|---|
| 401 | HUNTON, THOMAS | |
| 402 | HUNTON, ANNIE | |
| 403 | GREEN, GILBERT HUNTON | |
| 404 | HUNTON, CHARLES | |
| 405 | HUNTON, THOMAS LOGAN | |
| 406 | HUNTON, THOMAS EDWARD | |
| 407 | HUNTON, CHARLES HENRY | |
| 408 | HUNTON, EPPA | |
| 409 | VANCE, MARY | |
| 410 | HUNTON, CHARLIE | |
| 411 | BECKER, HERMANN | |
| 412 | FISCHBACH, THEIS OF OBERFISCHBACH | |
| 413 | MOSS, GEORGE | |
| 414 | SORRELL, AGNES | |
| 415 | MC NISH, ELIZABETH | |
| 416 | HUNTON, MARGARET L | |
| 417 | HUNTON, SARAH LUCELIA | |
| 418 | HEIMBACH, JOHANN | |
| 419 | HUNTON, EVA | |
| 420 | HUNTON, EPPA (4TH EPPA) | |
| 421 | HUNTON, GEORGE B. | |
| 422 | HUNTON, ROBERTA | |
| 423 | HUNTON, MILTON KIRK | |
| 424 | HEIMBACH, JOST | |
| 425 | HUNTON, FRANCES | |
| 426 | BRENT, JAMES | |
| 427 | HUNTON, PRISCILLA | |
| 428 | DUVALL, SAMUEL | |
| 429 | BOOKEY, SAMUEL | |
| 430 | STRICKLER, ABRAHAM | |
| 431 | FOSTER, JAMES W. | |
| 432 | HUNTON, MOSS | |
| 433 | HUNTON, MARTHA | |
| 434 | KEYSER, CHARLES HAMPTON JR. | |
| 435 | RIXEY, PRESLEY MOREHEAD | |
| 436 | RIXEY, RICHARD LEWIS | |
| 437 | EGE, JOHANN | |
| 438 | RIXEY, FRANCES JANE ELIZABETH | |
| 439 | HAGAR, JOHN HENRY | |
| 440 | RIXEY, SAMUEL TURNER | |

FIGURE 9.

NUMERICALLY ORDERED LIST

the actual time depends on how well your names are sorted to start out with and on how similar they are to each other. Example times might be 2 minute for 200 names or 9 minutes for 600 names.

Part of the display message is intended to help you gauge how the sort (i.e. alphabetization) is progressing; this is the message appearing below mid-screen beginning 'BOX' IS ONE LESS THAN A POWER OF 2, etc. This might seem a bit confusing at first. Hopefully some explanation will clarify it. The message refers to the display line at the bottom, which shows 'BOX=number' and which changes every so often. It would be nice to tell you that the sort was 3/4 done or something like that, but the sort doesn't work that way. The sort uses the Shell-Metzner algorithm, which is one of the fastest ways to do sorting on a computer for lists like this. Its basic approach is to divide the names into roughly equal size boxes, trade names between boxes, then divide each box in half and do the same thing again. The variable BOX that you see is the size of a box. When the box size changes to 1, the sort is nearly finished. But on the other hand, the smaller the box, the longer it takes to finish the trading; on the average about 1/3 of the total sorting time has yet to be used when the change to BOX=1 occurs.

As an example if you had 215 names, you would see BOX start out at 127, change to 63 fairly soon, change to 31 after a longer delay, then 15, next 7, 3, and finally seem to take a while on BOX=1. After the delay on BOX=1, the printing will start. If your printer isn't ready, a reminder message will appear on the screen.

Almost everything in FAMILY ROOTS can be aborted using a CTRL Z, but having that capability while alphabetizing extracts a price -- extra time. If you are willing to sacrifice the abort to get a faster sort, you can set the ABLE TO ABORT ALPHA parameter "off". You will probably want to have it "on" for lists of 200 names or less since the time difference will be very small. For longer lists you may save as much as 1/4 of the estimated time. With the parameter off, the only way to stop is to CTRL C, but you probably will have to use START again to get back into LISTS; it is likely that the usual error recovery of GOTO 20000 will be very unreliable.

An example alphabetic list is shown in Figure 10. As you can see, everything is similar to Figure 9 except for the order of the names in the list. The SHOW LAST NAME FIRST parameter can be used to affect how each name appears, and the Header and margin parameters also are applicable.

After the list is complete, you will be returned to the main menu.

INDEX TO NAMES 03/07/1983

| RECORD INDEX | NAME | PAGE |
|---|---|---|
| 411 | BECKER, HERMANN | |
| 429 | BOOKEY, SAMUEL | |
| 426 | BRENT, JAMES | |
| 428 | DUVALL, SAMUEL | |
| 437 | EGE, JOHANN | |
| 412 | FISCHBACH, THEIS OF OBERFISCHBACH | |
| 431 | FOSTER, JAMES W. | |
| 403 | GREEN, GILBERT HUNTON | |
| 439 | HAGAR, JOHN HENRY | |
| 418 | HEIMBACH, JOHANN | |
| 424 | HEIMBACH, JOST | |
| 402 | HUNTON, ANNIE | |
| 407 | HUNTON, CHARLES HENRY | |
| 404 | HUNTON, CHARLES | |
| 410 | HUNTON, CHARLIE | |
| 408 | HUNTON, EPPA | |
| 420 | HUNTON, EPPA (4TH EPPA) | |
| 419 | HUNTON, EVA | |
| 425 | HUNTON, FRANCES | |
| 421 | HUNTON, GEORGE B. | |
| 416 | HUNTON, MARGARET L | |
| 433 | HUNTON, MARTHA | |
| 423 | HUNTON, MILTON KIRK | |
| 432 | HUNTON, MOSS | |
| 427 | HUNTON, PRISCILLA | |
| 422 | HUNTON, ROBERTA | |
| 417 | HUNTON, SARAH LUCELIA | |
| 406 | HUNTON, THOMAS EDWARD | |
| 405 | HUNTON, THOMAS LOGAN | |
| 401 | HUNTON, THOMAS | |
| 434 | KEYSER, CHARLES HAMPTON JR. | |
| 415 | MC NISH, ELIZABETH | |
| 413 | MOSS, GEORGE | |
| 438 | RIXEY, FRANCES JANE ELIZABETH | |
| 435 | RIXEY, PRESLEY MOREHEAD | |
| 436 | RIXEY, RICHARD LEWIS | |
| 440 | RIXEY, SAMUEL TURNER | |
| 414 | SORRELL, AGNES | |
| 430 | STRICKLER, ABRAHAM | |
| 409 | VANCE, MARY | |

FIGURE 10.

ALPHABETICALLY ORDERED LIST

## 7.4 Making Special Lists

When you choose item 3 on the LISTS main menu, a new menu of 7 miscellaneous items appears. We'll refer to it as the Special Lists menu but you will note that not every item actually produces a list even though all are related to lists in some way. You can perform the following functions from here:

a) merging two alphabetic lists into a longer one

b) showing a list from a diskette without saving all of it in memory (it might be too long to fit)

c) loading a list from a diskette into memory

d) saving a list you just made to a diskette

e) alphabetizing a numeric order list that's in memory (regardless of how it got there)

f) repeating the output of a list to your screen or the printer

g) making a list of the empty slots on your data diskettes.

Each of the above corresponds to one of the menu choices, and you may also type <P> to access the Change Parameters menu from here. The following sections describe each function in detail.

### 7.4.1 Merging Alphabetic Lists

An alphabetic list of names in the computer's memory is restricted in size to what will fit there. This depends on many things, but it is usual that only one diskette's worth of people or less can be alphabetized at once. The way you get a longer list is to alphabetize several separate lists, save each to a diskette and then merge them two at a time to build the larger list. A merged list does not get saved in memory but must be directed to your screen, the printer, or a diskette, and you should set the parameters for this before starting -- see later. Directing it to a diskette is the means for constructing even larger lists, by merging it later with other such lists.

Please consult section 7.4.4 on how to save a list to diskette. For this section you need to be aware that the diskette(s) used for this is a scratch one, i.e. this is not your usual data diskette, but is one used to store a list, probably temporary, and may have other "junk" on it. The diskette needs to have been formatted using the usual procedure described in your disk reference manual.

In order to merge the alphabetic lists, LISTS needs to know where to find them, and what their names are. You will be asked

WHICH DRIVE HAS THE FIRST LIST (1-3)?

(in a 3 drive system), and, after you answer that

WHAT IS THE NAME OF THE FILE ON THE DIS-
KETTE THE LIST WILL READ FROM?

These are equivalent to telling you to switch diskettes if you didn't have your scratch diskette in a drive already. For example, if you answer <2> and data diskette 14 is in drive 2, you should remove data diskette 14 and insert a scratch one before answering. If you answer the first question with a <'return'> you are whisked back to the Special Lists menu. However, if you answer the second question with a <'return'>, that's like saying "I don't remember the name," and you will be shown the list of files on the disk you selected. After that you are asked the second question again. What should your answer be? It should be the name of a file that you made up when you saved a list previously. For example you might have called it QUIGWORTHS when you made it, and should type that now. (See section 7.4.4 on what types of names are allowed).

After you do the above for the first file, you need to do the same for the second, i.e. say which drive to find it in, and the name of the file. It is O.K. if both drives are actually the same one with the same diskette, if that's how you saved the two lists from before. You might have both the QUIGWORTHS and WARTLEYS on the same diskette.

Next the LISTS program checks to see that both lists are alphabetized. If either one isn't, you're told so with

NAMES IN WARTLEYS AREN'T ALPHABETIZED

with a quick hop back to the Special Lists for remedial exercises.

Two parameters affect where the merged list goes to -- if OUTPUT TO PRINTER is on, that's one place it goes, and if off, to the screen; while SAVE LIST ON DISKETTE directs the result to a scratch diskette. Both of these outputs can happen at the same time. If you are saving to diskette, you must define where to put it in a similar manner to that described above and in section 7.4.4. The destination for the merged list may be the same diskette as any of the sources, but the file name MUST be different. The input file will be destroyed if it has the same name.

The resultant list looks much like any alphabetic list, except it may be longer. (Nothing prevents you from using this for shorter lists too.)

Like the alphabetic list generated in memory, you can affect the formatting of the output and the inclusion of the standard or a custom header by setting the parameters appropriately. The parameters for selecting a woman's maiden or married name or both don't work here, since it is assumed you took care of this when you did the original alphabetizing of each of the files before merging.

### 7.4.2 Showing a List from Diskette

You use the second choice on the Special Lists menu to review or print a list of names that you previously saved on diskette with either the LISTS (see 7.4.4) or the SEARCH (see 8.3) program. If you are displaying it, this gives you the chance to examine the list before trying anything else with it, and you can produce extra printed copies of an older list by directing it to the printer. The destination is controlled by the OUTPUT TO PRINTER parameter.

When you choose this option, you must specify where the list is to be found and what its name is, the same as for other operations with lists on diskettes. You will first see

```
WHICH DRIVE IS THE LIST TO BE
READ FROM (1-3)?
```

and you should insert the appropriate scratch diskette in that drive before typing your answer. This is followed by

```
WHAT IS THE NAME OF THE FILE ON THE DIS-
KETTE THE LIST WILL BE READ FROM?
```

If you don't remember the name, you may press <'return'> and you will be shown what is on that diskette, with another chance to answer the question. If you want release from this apparent trap, type <CTRL Z>.

The list now spews forth from said diskette for your viewing pleasure until it is finished or until you've seen enough and end it with a <CTRL Z>. If you're watching it on your screen, you can change the viewing speed using the SCREEN SPEED parameter. If you are putting it on the printer, the usual formatting parameters work, but you can't select which form of a woman's name is used.

That seems about it for this one.

### 7.4.3 Loading an External List

You can use the third choice on the Special Lists menu to load a list from a diskette into memory. You would use this to load and then alphabetize a list of names previously saved to diskette, which is

especially useful if the list was the result of some work using the SEARCH program. You could also use a list previously saved by LISTS too. The size of the lists which this option will accommodate is obviously limited to what will fit in your computer's memory. LISTS will tell you soon if this particular list is too big. One diskette's worth of names should almost always fit.

As with other scratch diskette manipulations for lists of names, you must specify which diskette to find it on, and the name of the file. You will see

```
WHICH DRIVE IS THE LIST TO BE
LOADED FROM (1-2)?
```

at which time you should insert the appropriate disk if it's not already present before you answer the question. Next comes

```
WHAT IS THE NAME OF THE FILE ON THE DIS-
KETTE THE LIST WILL BE LOADED FROM?
```

with the legal answers being an existing file name, <'return'>, or <CTRL Z>. The results are the same as noted in the previous section.

When your list is saved you can do anything with it that you can do with any other list in memory. This includes saving it to diskette, alphabetizing it (if it isn't already), and outputting it to your screen or printer. LISTS knows whether the list is alphabetic or not and will tell you if you try to do something you shouldn't.

### 7.4.4 Saving a List to Diskette

You would use the fourth choice on the Special Lists menu to save a list of names in memory to a diskette. You might do this to preserve a list you just made, or to merge it with other alphabetic lists to form larger ones. You might preserve a list because you need the convenience of making extra copies on your printer easily in the future or because you need a record of the state of your data at some particular date.

The diskette upon which the list is to be saved must be a scratch one, i.e. not one of your numbered data diskettes. It must have been formatted using the usual procedure described in your disk reference manual. You should not put lists onto your numbered data diskettes because there is not enough space both for this and the standard data. If you accidentally save a list to one of these diskettes, you should eliminate this file (not the whole diskette).

You would eliminate an unwanted file by doing

```
OPEN 8,8,15
PRINT#8,"SO:JUNEBUGS"
CLOSE 8
```

where JUNEBUGS is the name you chose to save it to as described below. While a list may seem to fit on a numbered data diskette if you accidentally put one there, you will likely have problems when you try to use that diskette later for the regular data. Save yourself problems -- eliminate the problem file first.

You can save any list that is stored in memory. It may have arrived there through some effort on your part using the main menu selection 1 or 2, or you might have loaded it from another (or the same) diskette. It's not ridiculous to do that last thing -- you might have loaded a list generated by SEARCH, then alphabetized it, and finally needed a magnetic copy for future reference.

After you press <4> on the Special Lists menu, you will see

```
WHICH DRIVE IS THE LIST TO BE
SAVED TO (1-4)?
```

where the number of drives will be as you set it for your system using CONFIGURE. You should have your scratch diskette in the drive before answering the above question, which may require removing a program or data diskette to do so. The next question provides a name for the file on the diskette as follows:

```
WHAT IS THE NAME OF THE FILE ON THE DIS-
KETTE THE LIST WILL BE SAVED TO?
```

The name you supply can be any string of characters, limited to 16 in length. Legal names could be A12 BAR ONE or AS2ONEZY or HITHERE. We suggest you choose a file name that is indicative of the purpose of the list, since it may be preserved for a while, and may be difficult to remember later. For example a name could be

```
PARMWORTS SNDX
```

We like to use SNDX as part of the name meaning Soundex and LIST meaning list. It is O.K. to give a name of a file that already exists on the diskette, but the old contents of the file will be lost if you do that. If you need to see what's on the diskette before saving onto it, press <'return'> and you will be shown its contents, followed by the question again. If you need to escape this, type <CTRL Z>.

After the second question, the list is saved and you are returned to the Special Lists menu. Two values are saved with each list -- one that shows whether the list is alphabetic or not, and the other that says how many names there are. These are used when you try to read the list into the computer again using one of the other Special Lists choices.

### 7.4.5 Alphabetizing an Old List

The fifth choice on the Special Lists menu will cause a numerically ordered list of names that is saved in memory to be alphabetized. This could be used in at least two ways. If you went through a search of the list of names and wanted both a numerically ordered printout and an alphabetic one as your result, you would probably use item 2 on the main menu to generate the first list, then alphabetize and print it with this choice. (The alternate method of searching twice would take longer.) Another possibility might be that you generated a list of names as a result of searching people's records with the SEARCH program (which is never alphabetically ordered) and you wanted that list alphabetized before printing.

Once you make this menu choice, the result is the same as if you had selected the generation of an alphabetic list from the main menu, but without the search for names. This starts with the

```
PLEASE WAIT ...
              INITIALIZING ARRAYS
```

display and continues as described near the end of section 7.3. Please see that section for further details. When the alphabetizing is done there will not be any output and the Special Lists menu will appear; if you want to see the result, use the "repeat an output" option, described in the next section.

### 7.4.6 Repeating an Output

The sixth choice on the Special Lists menu is for making a printout or viewing a list of names which resides in the computer's memory. The list may have gotten there by a search you just did, or may have been read in from a diskette as described in the section 7.4.3. The list may be in alphabetical or numerical order, and LISTS knows which it is. This option is used when you want extra copies of a printed list or when you want to reexamine a list on the screen. If you have not just made a list or have not read anything from diskette, there will not be anything in memory to view, and LISTS will tell you so.

After making this choice, it happens. The formatting parameters are pertinent for the printer output, and the screen speed parameter affects the speed of display. Typing <CTRL Z> aborts the whole thing and returns you to the Special Lists menu. Details on the effects of the parameters may be found in sections 7.3 and 7.5.

### 7.4.7 Listing Empty Slots

The last choice on the Special Lists menu examines all of the data diskettes that are in the drives to locate the unused ID numbers. If you don't understand what this means, please refer to section 4.2. You would use this option to find the unused ID's so that you can add names to them using EDIT, or you might want to develop an idea of how much of each diskette was being used.

An example list is shown in Figure 11. You may direct the list of numbers to the printer or your screen using the OUTPUT TO PRINTER parameter. For printed output the only parameters that have any effect are the SIZE OF LEFT MARGIN and TOP-OF-FORM AFTER PRINTS. For output to the screen, the speed of display is controlled by the DISPLAY SPEED parameter.

When you choose this option, each complete data diskette is read, and the display or printout for that diskette follows. After that, each additional data diskette is read in turn and output. If you want to analyze diskettes not currently in the drives, you must return to the main menu, switch to the new diskettes, select CHECK DISKETTES by typing <5>, and return to the Special Lists menu to select the last item again. If you want all of these lists to appear on the same piece of paper, you should select the TOP-OF-FORM parameter off, since it will insert its ejection of a page when it finishes with all of the available data diskettes (not after each diskette).

## 7.5 Changing Program Parameters

There are fifteen parameters used by LISTS that affect printing, display, and diskette usage. A value is normally assumed for each of these, making it unnecessary to set them when you're first learning how to use the program. The assumed values can be changed using the CONFIGURE program.

There is a menu and procedure for changing each parameter. The menu can be accessed by selecting 4 from the main menu or by typing 'P' from any other menu in LISTS. The menu shows a brief title for each parameter and its current value, followed by a question about which you want to change (by letter). The procedure for changing parameters in LISTS is the same as for the other FAMILY ROOTS programs, and you may wish to

Empty name slots for data diskette
number 1 are as follows:

```
 36  37  38  39  40  41  42  43  44  45  46  47  48  49  50  51  52
 53  54  56  57  58  59  62  63  64  65  66  67  68  69  70  71  72
 73  74  75  76  77  78  79  80  81  82  83  84  85  86  87  88  89
 90  91  92  93  94  95  96  97  98  99 100 101 102 103 104 105 106
107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123
124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140
141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157
158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174
175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191
192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208
209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225
226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242
243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259
260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276
277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293
294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310
311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327
328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344
345 346 347 348 349 350 351 353 354 355 356 357 358 359 360 361 362
363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379
380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396
397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413
414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430
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482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498
499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515
516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532
533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549
550 551 552 553 554 555
```

FIGURE 11.

LIST OF EMPTY SLOTS

refer to the other similar sections for more description. Many of the parameters are identical as well. The following paragraphs describe each parameter:

a) TOP-OF-FORM AFTER PRINTS. This is normally on. When it is on, the printer will move the paper to the top of the next page when it is finished with the last printout. If it is off, no extra paper movement will occur. This is used to conserve paper if you wish.

b) SIZE OF LEFT MARGIN. This is the number of spaces used for the left margin, and is normally 10. The actual width in inches depends on the character size you are using, which is the normal default size set using CONFIGURE. You would use this to allow space for binding.

c) ASK FOR HEADER. This is normally off. When it is off, the standard header showing type of list and date will be printed. When it is on, you will be asked a series of questions to define the header you want printed. Please refer to section 5.4 for the details on how a header is defined.

d) TAB BEFORE HEADER. This is the number of spaces used in front of any header, a standard one or otherwise. It is normally 10 spaces. You would use this to position a header to the right or left of the page for ease of viewing when bound.

e) OUTPUT TO PRINTER. This is normally on. If it is on, your list of names or list of empty slots is directed to the printer. If it is off, the list can be viewed on your screen. You might use this parameter to store a list in memory and view it before deciding whether you wanted a printed output of it. If you don't have a printer, this parameter has no effect.

f) SAVE LIST ON DISKETTE. This parameter affects only the results of merging two alphabetic lists. Lists in memory are saved to diskette by menu selections as described in section 7.4.4. The parameter is normally off. When it is off, merged lists are directed only to your screen or printer. When it is on, merged lists are also output to a scratch diskette file of your choice (see 7.4.1). You would use this parameter to create a larger alphabetic list on diskette to use in additional merging operations.

g) USE MAIDEN NAME. This is normally on. When it is on, a woman's maiden name will be included in an alphabetic or numeric list made by searching the names on your data diskettes. In alphabetic lists the name will be placed in the list according to the Last Name at Birth. When the parameter is off, a woman's married name will be

used. This parameter works with the next one and they are not independent. If one or the other of them is on, then that form of the woman's name is used. If both are on, then both forms are used. And if neither are on, the married name is used. If a woman is not married, these two parameters have no effect.

h) USE MARRIED NAME. This is normally on. When it is on, the married form of a woman's name will be included in a numeric or alphabetic list made by searching the names on your data diskettes. In alphabetic lists, the name will be placed in the list according to its Married Last Name portion. When it is off, only the Maiden Name form may be used, but it depends also on the previous parameter. See paragraph g).

i) SHOW EMPTY NAME SLOTS. This parameter is normally off. When it is on, empty name slots that satisfy your search access criteria (i.e. within a number range, for a number list, or for a whole diskette) will be included in the numeric or alphabetic list. In numeric lists they appear in the order accessed, while in alphabetic lists they are moved to the end. When the parameter is off, empty names slots are discarded when they are found, and will not appear in a list. This parameter is independent of the Special Lists menu choice for making lists of empty slots. You are likely to use this parameter (as on) to create a printed numeric list to use in filling in the empty spaces. For example, it is very convenient to have such a list while you are adding names using EDIT, and to jot each name onto the paper as a temporary reminder as you work.

j) SHOW LAST NAME FIRST. This is normally on. When it is on, a person's last name will appear first, followed by a comma, then the first names and Title. If a woman's married name is used, the Last Name at Birth appears between the first names and Title. When the parameter is off, the first names come first (amazing!), then last name(s) and finally title. Your choice here is mostly a matter of preference. We find it more natural to see a list that was alphabetized have the part of the name that was mainly used for that appear first.

k) SCREEN SPEED (1-100%). This is used to affect how speedily a list of names is displayed on your screen if that's where you're looking at it. If you are printing your list, this parameter has no effect (see paragraph e). It is normally set to 100, which is the fastest possible, and a number in the 70 to 80% range may be a good value to choose. You may type the % or not -- it has no effect.

l) ABLE TO ABORT ALPHA. This is normally off. when it is off, an alphabetization in progress can be aborted by typing <CTRL Z> on your keyboard. When it is on, you will not be able to abort an alphabetization except by CTRL BREAK or power off. The parameter may be used to speed up the alphabetization of long lists, but will not have any appreciable effect on short ones.

m) SEARCH TITLE WITH SOUNDEX. This is normally off. When it is on, the Title part of each name examined using the Soundex (see 7.2) will be checked to see if it sounds like the surname you supplied. This is provided in case you used the title as a place to put alternate surname spellings (optional). When it is off, the Title is not checked by the Soundex.

n) IGNORE UPPER/LOWER CASE. This is normally off. When it is off, the search for names with the Name Set access (item 3 on Access Menu) will use name parts exactly as you supplied them, e.g. DeVoe is different from Devoe. When the parameter is on, upper and lower case forms of the same letter are treated the same, i.e. DeVoe is the same as Devoe. You might need this if you entered names using a mix of upper and lower case or if your family names exhibit such variations. It takes considerably more time to find the names with the parameter on, rather than off. The parameter has no effect on Soundex searches, which are always done as if this parameter were on.

p) DATE. The date is used in the standard headers for the two types of lists. If you want a date in a header you define, you must put it there. The date is obtained from your answer to the date prompt upon starting, if you are using that feature. When you change the date here, that will not have any effect on the other programs.

## 7.6 Checking Diskettes

You should not switch diskettes in your disk drives unless told to do so or unless you are at the main menu. On the main menu you must select CHECK DISKETTES by typing <5> after you switch, so that LISTS can find out where and what everything is. Elsewhere in LISTS you may be told

```
PLEASE PLACE DISKETTE NUMBER 1 INTO DRIVE 2:
PRESS ANY KEY WHEN READY
```

which is an appropriate place to switch diskettes as directed. Another place is when you see a message like

```
WHICH DRIVE IS THE LIST TO BE SAVED TO?
```

which appears when you are saving lists in memory to a scratch diskette. You should switch the diskettes before answering the question.

The usual strictures about possibly destroying data and making backups discussed in other similar sections apply (5.5, 6.6, etc.) The technology doesn't yet support having your hands slapped by a mechanical contrivance that emerges from your screen.

## 7.7 Exiting LISTS

When you select <6> or press <'return'> on the main menu, you will see the exit menu. The choices are exactly the same as described for EDIT in section 4.6, which you may reread if you need refreshing.

## 7.8 Miscellaneous Information on LISTS

Several of the items on EDIT discussed in the miscellany section 4.7 are valid here too. Please reread that section if you need to. The items that pertain to list generation and manipulation are:

a) Any question may be answered with a <'return'>.

b) CTRL Z aborts any operation in progress, with the exception of alphabetizing if you have set a parameter to disallow the abort.

c) GOTO 20000 usually gets you back into LISTS after an error.

(You guessed it. This one isn't quite blank.)

# 8. DETAILED USE OF SEARCH

The SEARCH program searches through the records you created (using the EDIT program) looking for whatever information you have selected. There are five types of searches which, when used singly or combined, enable you to find records satisfying almost any search criteria you wish. Use of SEARCH won't be very useful until you have a considerable number of records, although you may use it even when there is only one record.

In order to get started with SEARCH, you can use the procedure described in section 3 and choose SEARCH from the programs menu, or you can get the programs menu after having run one of the other FAMILY ROOTS programs. After your choice the drive will whirr while SEARCH is loaded, followed by a message like

PRESS ANY KEY WHEN YOUR DATA DISKETTES ARE IN THE DRIVES

Be sure that at least one data diskette is present and that there is some diskette in every drive. When you type a key, SEARCH will check every drive to find the location and identity of each diskette.

## 8.1 General Principles for Search

When SEARCH is ready you will see the main menu with the following choices:

1) PERFORM A SEARCH
2) OUTPUT SEARCH RESULTS
3) CHANGE PROGRAM PARAMETERS
4) CHECK DISKETTES
5) EXIT PROGRAM

We need to discuss in general what happens when you do a search before dealing with the specific types of searches.

Each time you set up a search, you are asked to define

a) what to search for (the character, data, etc.)
b) where to search for it (what fields)
and c) which records to search (what people)

SEARCH then methodically proceeds to look in the fields of every record you selected to see if what you're looking for is there. When it finds something, the person's ID is saved in memory and the name is shown on your screen. After the search is completed you are returned to the main menu.

Note that the result of your search is a list of names stored as ID's in the computer's memory. In order to preserve or view the list you must specifically choose to output it. If you want to examine the records to see what was found, you must run another of the FAMILY ROOTS programs to do so, but the list will still be available in memory after moving to the other program, making that a simple matter. You may save the list on diskette and load it into the LISTS program to alphabetize or print it nicely. And the list remains in memory to be used as the choice of records for more searches.

Only the records having non-blank names are searched, in order to save time just in case you have a lot of unused slots. Also you can stop the search after it has begun by typing CTRL Z, which you might do if you found what you were looking for or if you made a mistake in setting up the search. When you abort a search the names saved thus far are preserved for output or further use.

Let's examine the implication of reusing a list in memory for another search. Each of the five searches available is an OR search. This means that you can specify a large number of items to look for on any one pass through the records, and if any ONE of the items is found, the record is said to have satisfied the search. You do AND searches by specifying searching for one value, then reusing the results to search for another value, and so on until you're finished. This type of search means that the records found must satisfy ALL of the criteria you set up, not just ONE.

An example may clarify this. Suppose you wanted to find everybody who was born in LAS VEGAS and died in CALIFORNIA between 1960 and 1970. You would first set up a search of all the records for "born in Las Vegas". All the records would be searched and several would be found; the numbers for those would be saved in the computer's memory, say 13, 27, 59, 81 and 428. You would then set up another search for people who "died in California". You instruct the program to search only the five record numbers saved from the last search. Suppose three of those satisfy the search, 27, 59 and 428. Finally you set up a search for "people who died between 1960 and 1970". Again you specify to the program to search only the three records whose numbers were saved, and only one record satisfies your search, number 59. You can output that number to your printer, the screen, or a diskette; or you might move to the EDIT program to change the record; or you might use SHEETS just to see what's there or print a group sheet for the person.

The actual search of records can take a while since many records are usually retrieved and examined. Typically about 1/2 second would be needed for each record searched. If you watch your display, you will see a message showing what record is being searched. When a record is found to satisfy you criteria, the name is displayed.

The following sections describe the five types of searches in detail, followed by a discussion of how to output the results and what that looks like. After that comes a description of the parameters available in SEARCH.

Note that if you want to search the list of names, you should use LISTS program rather than SEARCH.

## 8.2 Performing Searches

You initiate a search by selecting <1> on the main menu. The result of that effort is another menu, which we'll call the SEARCH menu, that gives you the option of one of five types of searches:

1) SEARCH CHARACTER STRINGS
2) SEARCH DATES
3) SEARCH FOR NAMES
4) SEARCH FOR NUMBERS
5) SEARCH FOR EMPTY FIELDS

When you make one of these choices, you are asked to specify which fields to search and what values in those fields are of interest. Subsequent sections describe in detail how to answer the questions and what the results are.

After you select the fields and values of interest, you choose the records using the usual access menu that was described in section 4.3.1 for EDIT. The menu choices are exactly the same and the results are nearly the same, but modified by one of the parameters, IGNORE UPPER/LOWER CASE. When you do a Name Set search, you can require that the name you supply must match what's found exactly, or you can have the difference between upper and lower case of the same letter ignored. Examples of the effects of this parameter may be found in the similar discussion for LISTS, section 7.2. For further details on the access choices and how they work, please refer to section 4.3.1. Note that the menu choice

LIST IN MEMORY

does not appear unless there is a list present.

### 8.2.1 Searching for Character Strings

You choose to search for character strings by typing <1> from the SEARCH menu. You will first select which fields you want to be searched in each record and then you choose the character strings to be found. The search is for embedded strings, e.g. if you're looking for YORK, then YORK, NEW YORK, and YORKY would all satisfy the search.

The IGNORE UPPER/LOWER CASE parameter affects the results of the search. If the parameter is off, New York and NEW YORK are considered to be different because, for example, the "e" and the "E" are distinct. Conversely, with the parameter on, those two forms would be the same. Your choice of which to use depends on how you entered your data and on how long you're willing to wait -- the search with the parameter on takes much longer. It may often be faster to include both (or multiple) forms to search for, rather than using this parameter. For example, searching for New York, NEW YORK, New YORK and NEW York is faster than using one of them and asking that upper/lower case differences be ignored.

You are first shown a list of all the variables you can choose. You select up to 10 of these by number. (You can increase that limit using CONFIGURE.) After you choose 10 variables the program will proceed automatically to the next step, or you may select fewer by pressing <'return'> in answer to the question, e.g.

```
WHICH NUMBER?  <5>
NEXT NUMBER:   <'return'>
```

The list of variables includes all fields. There is some redundancy between this list and the other possible types of search, but you should note that the searches are done in different ways. In particular if you search a date field (including 1, 3, and 8) as a character string you may get some unexpected results if you're not careful (e.g. searching for 11 would give positive results for 11 April 1918, 1 November ????, 3 March 1911, or 4 January 1762).

If you choose to search any of the variables related to marriages, then all corresponding fields are searched. Thus if you chose <'9'> for PLACE(S) OF MARRIAGE, there would be one field checked when there is one marriage, two checked when there are two, and so forth. If the search results are positive you will probably want to examine the record further.

Once you have selected your variables, SEARCH shows you the list you have chosen and gives you a chance to do it again, in case you made a mistake. If you answer <N> to

```
OK TO CONTINUE?
```

then you begin again. If you type anything else (usually 'return') you will proceed to the next step. This philosophy for answering these confirmation questions is general and consistent, i.e. it is assumed everything is OK unless you say it isn't.

The next step is to pick up to 10 character strings to search for. You type each string of interest then press 'return'. When you have enough, type only the <'return'>. The program again asks you for confirmation by showing you your list. If you reject it you return to select the entire list of strings again.

Once you have verified all selections, the program displays the access menu. At this point you may want to type 'P' to change parameters (you will return to this point when you finish), before you make your record access selection. The parameters that have any effect for this search are USE LAST NAME FIRST and SHOW MARRIED NAME for the display of names found, and IGNORE UPPER/LOWER CASE for the Name Set access.

An example of a complete selection could be as follows:

```
WHICH NUMBER:       <2>
NEXT NUMBER:        <4>
NEXT NUMBER:        <'return'>

YOU HAVE SELECTED:

2)   PLACE OF BIRTH
4)   PLACE OF DEATH/LIVING

OK TO CONTINUE?     <'return'>

PICK UP TO 10 EMBEDDED CHAR-
ACTER STRINGS TO SEARCH FOR IN:

2)   PLACE OF BIRTH
4)   PLACE OF DEATH/LIVING

FIRST STRING:       <BOSTON>
NEXT STRING:        <CHARLESTOWN>
NEXT STRING:        <NEWTON>
NEXT STRING:        <WALTHAM>
NEXT STRING:        <'return'>

SEARCH CHARACTER STRINGS WILL BE:

1)   BOSTON
2)   CHARLESTOWN
3)   NEWTON
4)   WALTHAM

OK TO CONTINUE?     <'return'>
```

As described in 8.1, the results of the search are names and numbers output to the screen and saved in memory.

### 8.2.2 Searching on Dates

You choose to search dates by typing <2> from the Search menu. You are then faced with a decision on one of three different types of searches:

1) SEARCH FOR DATE BETWEEN TWO YEARS
2) SEARCH FOR YEAR BETWEEN TWO DATES
3) SEARCH FOR APPEARANCES OF MONTH/DAY

where "date" refers to something in a record and "year" means a number you will supply.

An example of the first type would be a search for "everybody born between 1775 and 1850". You would use the second for "everybody alive in 1863" or "everybody married after 1927". You would use the third to find everybody born in a certain month or certain day, e.g. "everybody born in March" or "everybody who was married on June 6". Note that if you want to search for a specific date including year, you should use the search on character strings. Also note that only dates in the standard format (see 4.3.4) are searched; the others are ignored.

After you make your choice on type of search the general sequence of questions is similar to 8.2.1 but the specific choices are different. You will first be asked the fields (variables) you want to search, followed by the values you want to search for. The three standard date variables are always

1) DATE OF BIRTH
2) DATE OF DEATH OR 'NOW'
3) FIRST VALID MARRIAGE DATE

plus the Auto Date and any date fields you defined for yourself.

You select the dates by typing the number in front, i. e. 1, 2 or 3 in the above list, and perhaps 4 or 5 if there are more shown to you.

#### 8.2.2.1 Searching for Date Between Two Years

When you choose this option, you can select any or all of the date fields for searching. You end your selections by pressing only <'return'> in response to the questions. After you make your selection, you are given the chance to start again in case of errors.

Next you must supply two years. When the search starts, each field you have chosen will be checked to see if the year in the date stored there

lies between the two years you supplied, including those two years. You must supply exactly two year values -- you are returned to the main menu if you don't (under the assumption that you changed your mind). The year values must be exactly 4 digits long; if you need a year less than 4 digits, use preceeding zeros (we're jealous!).

If you want to search for exactly one year, you should choose both your year values the same. After you've chosen your two years, you're given the chance to verify or do it again.

After you make your access choices, the search begins.

#### 8.2.2.2 Searching for a Year Between Two Dates

When you choose this option you must select exactly two date fields--you will be returned to the main menu if you don't. After you make you choices, you are given the chance to start over in case you made a mistake.

Next you must select exactly one year, four digits long. Every record accessed will be checked to see if this year lies between the years in the two date fields you chose, including those years. After you've chosen the year, you're given the chance to verify it.

The search starts after you make your access selections.

#### 8.2.2.3 Searching for Months and Days

When you select this option you can choose any or all of the date fields. You end your selections by pressing 'return', e.g.

```
        FIRST DATE NUMBER:      <2>
        NEXT DATE NUMBER:       <'return'>
```

You are then given the chance to verify your selection before continuing.

Next you may supply up to 31 combinations of month and day, in response to

```
        FIRST MONTH/DAY (MMDD):
or      NEXT MONTH/DAY (MMDD):
```

The MMDD means two digits each for month and day. For example, 29 January is 0129 and 3 July is 0703. If you want to search only for months you can use zeros for days or leave them off, e.g. 03 or 0300 would cause a search for March, any day. Likewise if you want to search for days only, use zeros for the month, e.g. 0021 causes a search for

the 21st of any month. When you type <'return'> instead of a value, your input is done and you are given the chance to verify your entry and try again if needed. If you have selected day/month order in CONFIGURE, the questions shown above and the responses will have the day and month in reverse order.

Finally you must make your choices from the access menu, and the search starts.

### 8.2.3 Searching on People

You choose to search on people by typing <3> from the Search menu. You first choose the variables to search and then the people you want to search for. SEARCH shows you the variables that you can search, namely,

1) MOTHER
2) FATHER
3) SPOUSES
4) CHILDREN

plus any person fields you may have defined for yourself. Since person searches often use all the fields, you are asked

DO YOU WANT TO SEARCH ALL NAMES IN EACH RECORD?

A <Y> answer bypasses the further choice of variables. If you want particular fields, answer <N> or <'return'> for the question, and supply numbers to pick the fields; answer <'return'> when you have enough. You don't have individual control over spouses and children searches, e.g. you can't search only second spouses or third children fields; if you need to do that you should do the more general search, then examine the individual records (using SHEETS or EDIT) for those found. When you finish choosing fields, the list is shown to you for verification and restart if needed.

Next you choose the names to search for. You may do this by name or number, but number would be the usual choice. When you supply a name, the program searches for the exact name as entered. This search is slightly faster but less general than searching for embedded character strings; you should use the "Character String" search if you are unsure of the name or spelling.

SEARCH asks you for name/number one at a time until you answer with <'return'> to end the list. You may search for up to 10 names at the same time.

When you supply a number, the program displays the name corresponding to that number and asks for confirmation. This helps you find the right numbers if you are unsure. A typical sequence might be:

```
FIRST NUMBER OR NAME:          <23>

THAT IS THE NUMBER FOR:

     MILLIE ACORN

USE IT?          <N>


FIRST NUMBER OR NAME:          <24>

THAT IS THE NUMBER FOR:

     CHUCK BROWN

USE IT?          <Y>

NEXT NUMBER OR NAME:           <'return'>

YOU HAVE CHOSEN:

1)   CHUCK BROWN

OK TO CONTINUE:      <Y>
```

The access menu then appears and the search begins after you make your selections.

Note that you might have chosen to search the people fields for numeric character strings rather than this. If you did, SEARCH wouldn't display the name corresponding to the number for your confirmation. Also the results might be different, e.g. if you said use '21' then 216, 521 and 21 all satisfy the search as character strings.

### 8.2.4 Searching on Counts

The search on counts is quite similar to the search on names, except that there is no confirmation of name needed. You elect to search on counts when you type <4> from the Search menu. SEARCH shows you the variables you can search on, namely

```
1)   NUMBER OF MARRIAGES
2)   NUMBER OF CHILDREN
3)   NUMBER OF NOTES
```

plus any count fields you may have defined for yourself.

You choose one or more of these by supplying the number 1, 2, etc., ending the list with an 'return' e.g.

```
FIRST NUMBER:       <2>
NEXT NUMBER:        <1>
NEXT NUMBER:        <'return'>
```

You are then shown the list for verification before continuing.

Next you supply the actual values to search for. You type these one at a time until your list is complete, then press <'return'>. You can supply up to 10 numbers.

Here comes the access menu once again, and the search begins when you make your choices.

An example may be of interest. Suppose you wanted to find everybody with 3 or more marriages. Then the sequence would be as follows:

```
1)   NUMBER OF MARRIAGES
2)   NUMBER OF CHILDREN
3)   NUMBER OF NOTES

FIRST NUMBER:       <1>
NEXT NUMBER:        <'return'>

YOU HAVE CHOSEN:
1)   NUMBER OF MARRIAGES

OK TO CONTINUE?     <'return'>
```

```
CHOOSE UP TO 10 NUMERICAL VALUES TO
SEARCH FOR

FIRST NUMBER:       <3>
NEXT NUMBER:        <4>
NEXT NUMBER:        <5>
NEXT NUMBER:        <6>
NEXT NUMBER:        <7>
NEXT NUMBER:        <'return'>

YOU HAVE CHOSEN:
1)   3
2)   4
3)   5
4)   6
5)   7

OK TO CONTINUE?     <'return'>
```

### 8.2.5 Searching for Empty Fields

You choose to search for empty fields by typing <5> from the Search menu. This kind of search is quite similar to searching for strings except that the string in this case is empty. The differences between this and the character string search are that you don't need to define what you're looking for, and all types of fields can be searched, including count fields.

You will probably use this type of search to help you find where to fill in missing information. For example, you might have the 15 children of the NICHTIG family stored in ID's 1156 through 1170 and want to find which ones are missing the marriage information. You could look at each one yourself, or you could set up a search in the range 1156 to 1170 for empty NUMBER OF MARRIAGES field. SEARCH would then provide you with a list of the ID's to change or examine. Obviously, the larger the number of records to be searched, the more desireable it is to use SEARCH rather than look at each one yourself.

You will be shown a list of all the variables you might want to check for missing information. You can select up to 10 of these by number. SEARCH won't check individual marriage fields such as the place of the third marriage, but you can search for any marriage locations missing out of the total marriages indicated by each Number of Marriage field. In other words if Joe has 1 marriage and John has 3, SEARCH will test only for that many marriages, 1 and 3 respectively. Similarly SEARCH won't check for whether the third child is missing but you can use the program to find if any of the children fields have been left blank.

After you have chosen your fields of interest and typed

NEXT NUMBER: <'return'>

to indicate "that's all", you are shown the list for verification. When you do

OK TO CONTINUE? <'return'>

the next thing that appears is the access menu--there wasn't anything else before that to choose because you're looking for "empties". (nickel per bottle?)

## 8.3 Outputting Your Results

The results of your search or searches are now stored in memory and you want to have a look at them or save them? Type <2> from the main menu to get the choice of three places to put the names:

1) OUTPUT TO SCREEN
2) OUTPUT TO PRINTER
3) OUTPUT TO DISKETTE

Let's see what happens with each of these and expose the parameters that affect them. You can get the parameters menu by typing <P> from here. More details on the parameters will be found in the next section, 8.4.

The screen output shows up to 20 names at a time and then pauses with

PRESS ANY KEY TO CONTINUE

This gives you the chance to see everything before it scrolls off the top of the screen. You can type <CTRL Z> at any time to abort the display and return to the main menu. The effective parameters are the same two that control the format of a name for display during a search, i.e. USE LAST NAME FIRST and SHOW MARRIED NAME.

The printed output includes a header and the names for people who satisfied your searches. The header can be the standard one or one you define for yourself, as controlled by the ASK FOR HEADER parameter. An example of a printed output with standard header appears in Figure 12. As you can see, the standard header shows what selections you made to arrive at the list, i.e. the type of search, variables searched, and values used. Most of the other parameters are in effect here as well:

a) you can have the printer move the paper to the top of the next page when the output is finished;

```
SEARCH FOR DATE BETWEEN TWO YEARS:
   DATE OF BIRTH
   CHRISTENED ON

SEARCH FOR THE FOLLOWING VALUES:
   1800
   1899

SEARCH CHARACTER STRINGS:
   PLACE OF BIRTH
   PLACE OF DEATH/LIVING
   PLACE(S) OF MARRIAGE
   BURIAL PLACE
   CHRISTENED AT

SEARCH FOR THE FOLLOWING VALUES:
   GERMANY
   GERM
   WAGON MOUND
   WAGON
   MOUND

RECORDS FOR THE FOLLOWING PEOPLE SATISFIED THE SEARCH:

    ID    NAME

     8) VORENBERG, SIMON
     9) HARRIS, THERESA
    11) HARBERG, CARL
    12) MAYER, GOTLIEB FREDRIC
    13) MAYER, ERNEST JACOB
    93) VORENBERG, EMMA
    94) VORENBERG, CLARA (KATHINKA)
    95) VORENBERG, JULIA
```

FIGURE 12

SEARCH PRINTED OUTPUT

b) you can set the size of the left margin to allow for binding;

c) you can set the order in which the parts of the names are printed--last name first or vice versa;

d) you can have a woman's married or maiden name used; and

e) you can position the header to the right or left side of the page for visibility purposes.

The output to diskette is quite similar to saving a list of names on diskette using the LISTS program, and, in fact, the format in which they are stored is identical. You would use this type of output to pass your results to LISTS for alphabetizing or printing. SEARCH needs to know which diskette to store on and what to call its output. The first is found by asking you

WHICH DISK DRIVE FOR OUTPUT (1-2)?

The drive should contain a scratch diskette, or you should insert a scratch diskette before answering. If you don't know what is meant by a scratch diskette, please see section 7.4.4 or 7.4.1. The name for the output is found by asking

WHAT DO YOU WANT TO CALL THE LIST?

We suggest you pick a name that is descriptive of the search you just did, since it is easy to forget what's in a file named something like "ABCDJ2M". Also remember that names can be any string of up to 16 characters. If you answer this question with a <'return'>, you will be shown what's on the diskette; this gives you the chance to choose an old or new name for storage. After the diskette contents is shown you will be asked the question again. To gain release from this trap if you change your mind or have a problem, type <CTRL Z>.

None of the parameters have any effect when outputting your search results to a diskette. If you want to preserve the date of the search, you should include the date as a part of the file name.

## 8.4 Changing Search Parameters

This section discusses the CHANGE PARAMETERS menu for SEARCH. You get that menu by typing <3> from the main menu or <P> from any other menu. There are eight parameters available, with default values; the default values can be reset using the CONFIGURE program as described in section 10.

You elect to change any item by typing the letter shown in front of the name, e.g.

WHICH? <C>

results in

USE LAST NAME FIRST?

When you supply a value you are returned to the CHANGE PARAMETERS menu. If you press a letter by mistake and want to preserve the old value, just press <'return'> when it asks for the new value. To escape from this menu, press <'return'> in response to 'WHICH?'.

a) TOP-OF-FORM AFTER PRINTS. This is normally on. When it is on, the printer paper will be moved to the top of the next page when output is complete. When it is off, no extra paper movement occurs after printing. You would use this to conserve paper, or to have your outputs on separate pages.

b) SIZE OF LEFT MARGIN. This is used to allow for binding room and is normally 10 spaces. The actual width in inches depends on what your default print size was set to, using CONFIGURE.

c) USE LAST NAME FIRST. This is normally on. When it is on, every name is shown or printed with the last name first followed by a comma and the remainder of the name. When it is off, the last name appears before the title. The part of the name that appears first for a married woman depends on the next parameter.

d) SHOW MARRIED NAME. This is normally off. When it is off, a woman's maiden name is used for display and printing. When it is on, the woman's married name is used. If the woman has no Married Last Name saved, this parameter has no effect.

e) TAB BEFORE HEADER. This is used to position the header on a printed output to the left or right of the sheet for ease of viewing. It is specified in number of spaces, and is usually 10. It affects both standard and user-defined headers. Choosing a very large value may cause wrap-around of some of the header lines.

f) ASK FOR HEADER. This is normally off. When it is off, the standard header is used on printed output. When it is on, you will be asked a series of questions to define a header. Please refer to section 5.4 for details on how a header is defined.

g) IGNORE UPPER/LOWER CASE. This is normally off. When it is off, different forms of the same letter are considered distinct in Name Set accesses and character string searches. When it is on, upper and lower case distinctions are ignored.

h) DATE. The current date is used in the standard header for printed output. It value is set from your answer to the prompt for date upon starting, if you are using that feature. The value is first set at the time you start up, and is preserved when you move among the FAMILY ROOTS main programs (except LISTS).

## 8.5 Checking Diskettes

It has been said before. Try section 5.5, 6.6, or 7.6. Don't switch diskettes without doing this from the main menu, unless you are told to switch or are asked the question about where to store a search result (see 8.3).

## 8.6 Exiting SEARCH

When you press <4> or <'return'> on the main menu, you get the exit menu. This corresponds to the exit menu for EDIT with identical results. Please refer to section 4.6 for more details if you need them.

## 8.7 Miscellaneous Information on SEARCH

Several features discussed for EDIT are valid here as well. Please refer to section 4.7 for complete details. The following are applicable:

a) Any question may be answered with a <'return'>

b) CTRL Z aborts any processing in progress and returns you to the main menu

c) PRESS ANY KEY TO CONTINUE is used to prevent information from scrolling off the top of the screen before you have seen it.

d) GOTO 20000 usually gets you back into the program after an error, but be cautious.

# 9. DETAILED USE OF TEXT

The TEXT program stores, retrieves, edits, prints and displays free-form textual information on the people in your list of names. It is not a general text editing or word processing program, but rather a "card file" system with retrieval based on the names you have set up using the EDIT program. The TEXT program doesn't use the FAMILY file set up by EDIT but needs the (numbered) data diskettes from EDIT in order to retrieve names. In addition you will need to format one or more blank diskettes for use as text storage media before you begin. If you don't know how to do this, please consult the brief description in section 3 or your operating system reference manual. Data diskettes used for text will be called "text diskettes" or "text data diskettes" in this section; these are distinct from the numbered data diskettes used by the EDIT program.

To begin, get into FAMILY ROOTS and select the TEXT program from the Programs Menu, or get to the Programs Menu from any other program and do likewise. The program diskette will whirr while TEXT is loaded, followed by

PRESS ANY KEY WHEN DATA DISKETTES ARE IN THE DRIVES

If you have 1 drive, you should have a numbered data diskette inserted, while for more than 1 drive you should have the numbered diskette and a corresponding text diskette loaded. You must have some diskette in every drive before proceeding. After pressing a key, TEXT checks all the drives and finds the location, identity and type of all the diskettes.

## 9.1 Text General Principles

The initial access to the data on the diskettes is similar to the EDIT and other main programs, but after that you'll find that TEXT is quite different. We need to explain the general philosophy and structuring of information on each diskette before we proceed with a discussion of the main menu. The textual information is stored in the SUPPLEMENT file on each diskette. Also on each diskette there is a DIRECTORY file that keeps track of whose information is in SUPPLEMENT on this particular diskette, and a COUNTERS file that keeps track of how space is used in SUPPLEMENT. The structure is such that every text diskette is independent of every other, but the program helps you in determining who is on which diskette.

There is no automatic splitting of information on one person across diskettes, but there is nothing to prevent you from having information on the same person on different diskettes. You could use this to advantage by keeping different sets of diskettes for different purposes. For example, one set could record facts for a person, the second could record notes to yourself on research progress and work to be done, while a third might contain anecdotes. You need to be careful about labelling

if you adopt such a system, since your diskette collection could become unmanagable in terms of finding what you want.

There is a record structure within the SUPPLEMENT file which it helps to understand. The entire file is partitioned into 128 character segments. These segments are allocated to text for a particular person one at a time as needed. This means that a person's whole record (i.e. the full text) in a file is of somewhat arbitrary length and is bounded only by the space in the file, which in turn is only bounded by the space on the diskette. This scheme allows efficient use of the space on the diskette, since very little of that space will normally be blank or wasted.

Note that the independence of the files from diskette to diskette, coupled with the efficient use of space on each, gives you an essentially unlimited capability to store data about your family. Retrieval by name or number helps you to find the information easily and quickly.

The internal structure of the SUPPLEMENT file is used by you in controlling a record. When you look through a person's record, you do so in 128 character segments, although there is also a command to print an entire record as a unit. .Additions to a record are done in 128 character segments, which you can select to have done each time you press 'return', or you may hold these additions until a longer section of text is ready to store. The choice is controlled by a parameter and is a trade-off between many short waits as you go, or one longer wait at the end. You may find the pauses a little annoying at first, but remember that we traded this against efficient use of space. Changes and deletions to a record are also on a 128 character basis, rather than on individual words.

Before working with a text diskette, the program needs to retrieve the name to be used from one of the standard diskettes developed using EDIT. The text diskette is accessed for addition of that person or for checking to see if that person is already there. This implies that there must be a correspondence between the two types of diskettes for successful retrieval or addition of information. You can make the selection of the right diskette a little easier on yourself by choosing a labelling system (physical, i.e. pen/pencil) but in any case TEXT helps you find the right ones by giving you repeated tries. For the standard data diskettes the instructions from the program are always specific, i.e.

LOAD DISKETTE 33 INTO DRIVE 2

Text diskettes have no such distinct identities, which is why several tries may sometimes be needed.

You may find this program a bit annoying to use with a 1 drive system, because a lot of diskette switching will be needed. In a typical access you will have a program diskette inserted to load TEXT, must then insert a standard data diskette to retrieve some names, may have to switch standard diskettes if the correct names aren't there, then insert one or more text diskettes until the correct one is located. The situation isn't impossible--it just involves a lot of activity on your part.

TEXT will tell you when it needs a text diskette or a standard data diskette. The general rule about not switching or changing diskettes applies here as much as it does in the other programs. When the drives are checked at the beginning of the program (or as forced by you from the main menu), TEXT finds the standard and text diskettes. If you didn't have a text diskette in a drive, TEXT will check one of the parameters to see where you want to put it and ask for the exchange there when it's ready.

We hope all the above doesn't appear too complicated, because it really isn't. Once you try the program, you will find it very simple to use.

Now we can get back to the main menu. The main item in the list is the one for working with text records, which is the subject of most of the remainder of section 9. You can also print or display a list of the people on a text diskette and show how much space has been used. These help in finding the right diskette and in choosing who to put where, respectively. There are also a few parameters you can change, which are mainly used for printing.

When you choose to work with text records by typing <1> from the main menu, you are then shown the access menu. This is where you select the people you want to work with, by number range, by number list, by name list or (sometimes) by list in memory. This is the same as was described for the EDIT program in section 4.3.1. Please refer to that section if you need a refresher. After you make your selections you get the opportunity to work with the text record for each person satisfying your access selection.

## 9.2 Working With Text Records

When you start working with a text record for a person based on an access selection, the program first checks to see if that person is on a text diskette you have in the drive. The DIRECTORY file for each diskette is checked in turn until the person is found. If the person's number is not in any of the DIRECTORY files, you're given the

opportunity to switch diskettes, in case you're searching for the right one. The choice looks like this:

```
IGNATZ MARVIN SCHLAFIG
ISN'T CURRENTLY ON THOSE DISKS.  YOU MAY
ADD HIM/HER TO THE ONE IN DRIVE 2 OR
TRY ANOTHER.

TRY ANOTHER?          <Y>

PRESS ANY KEY WHEN READY
```

At this point you can switch any or all of the text diskettes but should not disturb the standard data ones if they are there. When you tell the program to proceed anyway, (answer <N> or <'return'>), it assumes you want to add the person to the text diskette in the highest lettered drive; however, the person isn't actually added until you have entered some textual information.

If the person you selected is in the DIRECTORY file, the first segment of the text record is read, which contains the person's name. This name is compared to the one retrieved from the standard data diskette and you are told if they are different. You can proceed even if they are different, but the message gives you some protection against using or destroying text data accidentally. Mismatches may arise if you modified a person's name but didn't change the person. In this case you would usually proceed, and TEXT would update the reference name in its record. More dangerous mismatches can occur if you are using several different sets of standard data diskettes and get the wrong one, or if you erase a name via the EDIT reinitialization capability and then reuse the number. These cases require more careful consideration on your part of what to do.

Once past these initial checks, you're now in TEXT command mode. Ten single-letter commands appear at the top of the screen which you will use to examine, change, add, and print the textual data. These commands may vanish occasionally but will always reappear when TEXT is ready for a command.

You use the commands by typing only the single letter in response to the asterisk prompt, without any 'return' following. The "*" is your clue that TEXT is ready for a command. Since a single letter is admittedly cryptic, one of the commands is H for HELP, which will display a reminder about what the commands are. If this is your first time with the program, try the H command to get a feel for how it works. The Q command, for QUIT or EXIT, gets you out of the command mode and goes to your next access selection, or back to the main menu if there are no

more. The V command (Variable) gets you to the CHANGE PARAMETERS menu. The use of each of the other commands is discussed in the following sections.

### 9.2.1 Using the A Command (Add)

You invoke the ADD command by pressing A. You use the Add command to start a person's text record when there's nothing there yet, and also to add text at the end of the record. When you invoke this, TEXT automatically moves to the end of the record while displaying what's there. It is normal to have a lot of disk activity at this point.

You then start typing the information that you want to save. You don't need to be concerned about typing text in 128 character segments for storage, since the program partitions your input automatically. However, you should not type extremely long pieces of text at a time, say over 140 characters (not a fixed size), since the program will then have problems segmenting it. A message asking for re-entry will result if the program finds it impossible to do segmentation. We would recommend using 'return' after every 1 to 2 lines of text on your 80 character display (80 to 160 characters).

You have a choice about when TEXT will store the information you're entering onto the diskette. This can be after each time you type 'return', or after many uses of 'return'. The choice is controlled by the ACCUMULATE BEFORE STORING parameter. Choosing one way over the other is a matter of when you want the pause for storage to occur. If you select to have it after each 'return', there will be many short pauses, while if you defer storage, a relatively long pause will occur when it happens. The choice is mostly a matter of personal preference.

If you defer storage until text you entered has accumulated in memory, the opportunity to store will be taken in one of two ways:

1) memory space has been used up and needs to be cleared out so you can continue, or
2) you type only a <'return'> to indicate you are finished and want to be able to enter a new command.

In other words you can force a storage or get back to command mode by typing two successive <'return'> entries with nothing between.

When text is saved on a diskette, you may want to squeeze blanks or preserve them, and you can control that using the SUPPRESS EXTRA BLANKS parameter. The reason for providing this is for space conservation,

since each blank is a character and occupies space on the diskette. With the parameter on, text entered as

This has many spaces.

becomes

This has many spaces.

Having this parameter on will allow you to squeeze a little more onto each diskette.

If you want to indicate a paragraph boundary, type <CTRL P> (for Paragraph) before starting to type the new paragraph. This will be detected for formatting of output on your printer.

### 9.2.2 Using the F/B/S Commands (Forward/Backward/Start)

When you have text stored on the diskette, you can move through the record in single-segment (128 character) steps, or reposition yourself at the beginning of the record. You would do this to examine content or to position yourself to change something or print something.

You position yourself at the start of the record by typing S. You move forward in the record by typing F and backward by typing B. Each time you do this, something is displayed on the screen:

1) (START), showing you are positioned at the front of the record,

2) (END), showing you are positioned at the end of the record, or

3) the text data that was just passed by.

The third item needs a particular viewpoint to clarify what's going on. Each time you move using F/B, you are considered to be positioning yourself (actually a pointer) on the boundary between two segments of the record. If you move backward in the record, you are moving from one segment boundary to the preceeding segment boundary, and in the process you're passing over a piece of text stored in the segment between the boundaries. That text is what is displayed. The corresponding thing happens in the forward direction.

You need not worry about damaging something if you try to move beyond the start or end boundaries. The program knows where you are and that you can't move any further. Try it and see.

### 9.2.3 Using the P/L Commands (PRINT/LIST)

You use the P command to print a single segment on the printer and the L command to list the entire record for the person on the printer. An example listing is shown in Figure 13. The start segment is preceded by a line telling who the printed output is for and date generated, unless you choose to define your own header. This is controlled by a parameter. If you don't have a printer, neither of these commands does anything.

In order to use the P command, you need to position yourself using the F/B commands. Whatever text that was last displayed on your screen will be what is printed when you type P. If you wanted to print, say, only the first few segments, you would position yourself to the start of the record, then do F, P, F, P, F, P etc. until you've printed as much as you want.

If you use L to print the entire record, then your position in it doesn't matter. The entire record will be printed in any case. When the printing is done, the position is at the end of the record.

Many of the program parameters affect the formatting of the printed output. Many of these are probably familiar by now. The parameters are as follows:

a) SIZE OF LEFT MARGIN affects the margin space available for binding.

b) INDENT PARAGRAPHS affects whether the first line of each paragraph is tabbed 5 extra spaces.

c) ASK FOR HEADER affects whether the standard or your own special header will be used.

d) TAB BEFORE HEADER affects the horizontal positioning of any kind of header.

e) LINES PER PAGE allows insertion of inter-page gaps (if your printer doesn't automatically do this already).

f) SHOW ID AFTER NAMES affects the inclusion of ID in the standard header.

g) SHOW MARRIED NAME affects the form of a woman's name in the standard header if she's married.

h) DATE is the date that will appear in the standard header.

BENJAMIN DUVAL III:

Benjamin Du Vall (Du Val), son of Benjamin and Susannah Tyler, enlisted as a private on December 4, 1776. He was advanced to sergeant on 22 December 1779. His service was continued. (See pages 36, 200, 382, 407 of the muster roll of Maryland.)

His brother Gabriel, afterwards Chief Justice of the U.S. Supreme Court, enlisted as a private. Edward Du Val, another brother, became a lieutenant and was killed at Camden. Still another brother, Isaac, an officer, was killed at Eutaw Springs, having been wounded at 'ninety six' 'whilst leading the forlorn hope'.

(See old records in Charleston, S.C., and also documents of Gen. Isaac Harding Du Vall of Wellsburgh W.Va.)

These three successive Benjamins descend from Mareen Du Vall, the Huguenot of Nantes, France, himself a man of wealth and political power prior to his death in 1694.

(See his will of 1694.)

(Information obtained from DAR records.)

FIGURE 13

TEXT PRINTED OUTPUT

### 9.2.4 Using the M/D Commands (MODIFY/DELETE)

You use the M (Modify) command to reenter the text in one segment of the record and the D (Delete) command to eliminate one segment. The affected segment is the one you last passed over using the F/B commands (see 9.2.2), which is displayed on your screen.

When you modify a segment you may shorten or lengthen it. It doesn't have to be the same length as before. TEXT automatically adjusts the succeeding segments for any significant change in length. Note that if you only need to modify one word, you still must reenter the entire line. If you need to modify more than one segment you must move to the next one using F or B. Working from start to end in a record making your changes is more efficient than end to start. The SUPPRESS EXTRA BLANKS parameter affects any modifications made here.

When you delete a segment, all of the text in that segment will vanish. Since this can be rather damaging, you are asked to confirm that you want to delete it. You must type the entire word 'YES' in response to

(your text)

WILL BE DELETED IF YOU TYPE 'YES'.

The segment that is cleared out is then freed for reuse and the blanked segment will not be part of that record any longer.

If you want to insert text in the middle of a record, you should use the M command.

### 9.2.5 Using the C Command (COMPRESS)

When you have made a lot of modifications and deletions, there may be empty spaces in the segments of a record. This affects the way a record appears when it is printed using the L or P commands. To eliminate the space you may use the C Command.

The C command eliminates the space from the current segment position to either the end of the record or the next paragraph marker, whichever it finds first. The current segment position means wherever you positioned yourself using the F/B/S commands. If enough space is made available, any freed segments are allocated for reuse by TEXT, thus conserving your diskette space.

The SUPPRESS EXTRA BLANKS parameter has no effect here. The only space eliminated is that at the end of each segment plus any completely empty segments.

It is normal to have a lot of disk movement when you use the C command, and it may take a little time to finish, especially if you have a long record without any paragraph markers.

## 9.3 Listing the People on a Diskette

You may wish to find out which people are on a particular text diskette. You might do this in looking for the right diskette to use, to print a list to be stored with a diskette, or perhaps to print a master directory of all of your diskettes. You can make a list of the people by selecting option 2 from the main menu. The output may be to your screen or to the printer and is controlled by the PRINTER ON FOR DIRECTORY parameter. Default is to your screen.

The list of people is generated from the names stored in the text records rather than the standard list of names generated using EDIT. If you want to abort the generation of the list, type CTRL Z. You might do this if you found what you were looking for. If the text file is empty, a message is displayed and no list created.

## 9.4 Showing Space on a Diskette

Since one of your decisions is who to put on which diskette, it often helps to know how much space remains. You can find out by typing <3> from the main menu. You should normally allow enough space for at least 1 to 2 printed pages of information per person. One page equates to about 32 segments in a diskette record.

## 9.5 Changing TEXT Parameters

There are twelve parameters that you can change from the CHANGE PARAMETERS menu that will affect certain ways the program operates and makes printed output. You access this menu by typing <4> from the main menu or by typing <V> from command mode. A list of the parameters is displayed along with their current values. You may change one by typing the letter in front in response to the WHICH question, e.g.

```
WHICH?          <B>
```

results in

```
SIZE OF LEFT MARGIN?
```

If you specify a new value, the old value is replaced. If you respond with only a <'return'> the old value is preserved. You can change as many parameters as you like; each time you are returned to this menu. When you're finished, press <'return'> in response to WHICH.

The following parameters are available:

a) PRINTER ON FOR DIRECTORY. The default is 'off' or 'false'. This affects only the output destination for the list of people on a diskette. When it is off, the directory can be viewed on your screen.

b) SIZE OF LEFT MARGIN. The default is 10 spaces. This affects all outputs to the printer. This effectively allows space at the left of a sheet for binding purposes.

c) INDENT PARAGRAPHS. This is normally off. When it is off, each paragraph (as indicated by your CTRL P markers) is started only by skipping a line when you print it. When it is on, a line is skipped and the first line of the paragraph is moved to the right 5 spaces.

d) ACCUMULATE BEFORE STORING. This is normally on. When it is off, text is saved to the diskette each time after you type 'return'. When it is on, text is accumulated in memory and not saved to diskette until there is no more space available or until you are finished with entries for one person. Because a pause occurs during diskette storage, the choice is one of where and how long you want to tolerate the pause. See section 9.2.1 for further details.

e) SUPPRESS EXTRA BLANKS. This is normally off. When it is off, text you enter is saved exactly as you enter it. When it is on, two or more blanks (spaces) in succession are compressed to a single blank. The parameter is used to conserve space on your text diskettes, allowing slightly greater storage on each.

f) ASK FOR HEADER. Does this seem familiar? It is. It is usually off and affects whether the program uses the standard header (name

and date) or one you define for yourself. See section 5.4 for a refresher course.

g) TAB BEFORE HEADER. Ah! Another old friend! This is the number of spaces used in front of any header and is provided for positioning purposes. Normal value is 10. There is more on this in 5.4 too.

h) LINES PER PAGE. This is the maximum number of lines that will be printed per page and is normally 55. You would use this to prevent printing from occurring on the very bottom and top of the page, i.e. to leave an inter-page gap. A page ejection is done by TEXT when this limit is reached.

i) SHOW ID AFTER NAMES. This is normally on. It affects any displayed or printed names. When it is on, the person's ID number is shown after the name like "(ID=2927)". When it is off, no such ID is shown. This helps you locate people by their ID numbers and resolves ambiguities in the case of similar names.

j) SHOW MARRIED NAME. This is normally on. When on, a woman's married name is printed or displayed. When off, her maiden name is shown. The parameter has no effect for single women.

k) DATE. The date is printed in the standard header. It is set from your answer to the prompt for date when you started, if you are using that feature. The value is first set at the time you start FAMILY ROOTS, and any changes you make here will be preserved in any of the other main programs except LISTS.

(Hooray! The last enumeration of program parameters is finished!)

## 9.6 Checking Diskettes

Don't switch diskettes unless told to do so or unless you can force TEXT to examine all the diskettes in the drives. The latter is available on the main menu by typing <5>. We're repeating ourselves! Try section 5.5 (or several other such possibilities) if you need to see it again.

## 9.7 Exiting TEXT

When you press <6> or <'return'> from the main menu, you get the exit menu with its four choices. This corresponds exactly with what you have seen in the other main programs. Please consult section 4.6 for more information.

## 9.8 Miscellaneous Information on TEXT

This section collects a few miscellaneous comments, some new and some reiterated, for ease of reference. Some of the comments correspond to what was said in the similar section on EDIT, 4.7. Here goes:

a) If you have an error that unceremoniously dumps you to BASIC, you can often recover by typing GOTO 20000. This does not always work, since the internals of the computer may sometimes be so messed up that nothing short of powering off and on again will fix it. If the GO TO 20000 appears to work, it is advisable to do only what is necessary to save work in progress, since things may still be flaky.

b) A CTRL Z for aborting works for some things but not others in TEXT. In particular you will not be able to abort a compress operation or a saving of text on diskette--to allow the abort could cause pointers within the program to become messed up, with consequent loss of your information.

c) Any text entries may be printed using the SHEETS program as described in section 6.3. However, you gain a little more flexibility in formatting by moving back and forth between the two programs. It does cause significantly longer delays to do it this way however.

(De-whited on purpose.)

# 10. DETAILED USE OF CONFIGURE

Much of what you can do using the CONFIGURE utility was discussed briefly in section 3 on getting started. This section covers some of those points in more detail now that you are more familiar with FAMILY ROOTS. Other features not described previously are also covered.

CONFIGURE is the program that manages the CONFIGURATION file on the program diskettes for you. That file tells each of the other programs

a) What equipment you have, where it is, and how to operate it.

b) How your diskettes are set up.

c) How you want the programs to operate, e.g. the date order to be used, nominal maxima, and other such items.

d) What your special fields are, plus whether you're using Auto Date or not.

e) What the starting values for all the program parameters are.

The CONFIGURE program allows you to access and change all of those values through a series of menus, and, in some cases, a sequence of questions and answers. Having access to the CONFIGURATION file in this way is a very powerful tool for you, since it allows you to customize FAMILY ROOTS to you own preferences and needs.

CONFIGURE can be run by inserting the appropriate program diskette or by obtaining the programs menu after exiting any other program. No data diskettes are needed by CONFIGURE, so no pause for diskette switching is needed. In addition, Configur may be entered directly when you are in BASIC by typing

```
LOAD"CONFIGURE",8
RUN
```

## 10.1 The CONFIGURE Main Menu

After a slight delay for initializing and reading the CONFIGURATION file, the main menu appears. It shows the following six choices:

1) SET HARDWARE CONFIGURATION
2) SET RECORD PARAMETERS
3) SET DEFAULT PARAMETER VALUES
4) SAVE CONFIGURATION FILE
5) PRINT FILE CONTENTS
6) EXIT

You used 1, 2 and 4 when you first set up your system. Items 1, 2 and 3 expose additional menus to help isolate exactly what you want to change. Item 4 is used to save the CONFIGURATION file to all of your program diskettes, and item 5 can be used to make a listing of the current contents of your file. Subsequent sections will discuss selected items accessed using 1 and 2, and will provide details and examples for selections 3 and 5.

At the bottom of the main menu you will notice the question

WHICH (1-6,#)?

The "#" sign is how you gain direct access to the CONFIGURATION file using the parameter indices (see Figure 14 a few pages ahead for a sample listing). If you use the "#" you're on your own since little guidance will be provided about the effects of any changes you make. Also, some parameters are coded in certain ways and you can cause severe problems for yourself by setting values that won't be recognized. These cautions are provided to make you wary of using this feature, but it is available if needed. In general you are much better off accessing any value through the menus and questions, since this provides proper formatting and range checking where needed.

If you get your CONFIGURATION file messed up, you may delete the file and run CONFIGURE--the program will re-create a good file in its memory, but you may have to reset the diskette formatting parameters and hardware items before you are able to operate.

Of Special Note: you may change anything in the CONFIGURATION file at any time via the CONFIGURE menus without affecting your data, EXCEPT for the diskette formatting parameters, where a warning is given. Our novice users have often been concerned that a change like adding a disk drive might destroy their data, but this is not the case. You only need to be cautious if you get a warning.

## 10.2 Miscellaneous Hardware Details

The hardware menu appears when you select <1> from the main menu, and shows the following choices:

1) SET PRINTER CONFIGURATION
2) SET DISK CONFIGURATION
3) SET DISPLAY CONFIGURATION

Selecting any of these results in a question and answer session to help define the needed parameters. We feel that the question and answer format combined with the information provided in section 3 is probably sufficient. If you think some area related to the above hardware is not sufficiently described, we would appreciate that feed-back.

A few minor points can be made with respect to the above hardware:

a) If you want to allow a right margin on your printed outputs, you should set your printer paper width to less than its maximum. For example, if your paper is 8 inches wide, saying it is 7 inches wide will leave a 1 inch margin on the right.

b) If you have more than 2 disk drives, you may find it convenient to specify that you have only 2 when first starting. This is because you must always have some diskette in every drive when each program begins, and you won't have many data diskettes when first using FAMILY ROOTS.

## 10.3 Setting Record Parameters (User Fields)

You access the menu for setting record parameters by typing <2> on the CONFIGURE main menu. The difference between the parameters you can set from this menu and those available from the third menu item is that these parameters affect several programs, whereas those are peculiar to individual programs. The menu choices are

1) DEFINE USER FIELDS
2) SET MAXIMA
3) DEFINE DISKETTE FORMATTING
4) MISCELLANEOUS

The maxima available by selecting 2 are self explanatory. As an example of usage, you may find you don't have enough space to enter children for everyone. To correct that problem simply reset the MAXIMUM NUMBER OF CHILDREN here from the usual 15 to whatever you need, say 20, and save the CONFIGURATION file on all program diskettes, including both the Main and Auxiliary program diskettes.

The miscellaneous choices are for the day/month order in dates, for Auto Date inclusion, and for the footnote character. These have all been discussed previously in many places. You should recall the implications of changing these:

a) you will need to correct all dates manually if you change the day/month order
b) you will need to correct all the footnote indicators manually if you change it
c) changing Auto Date from on to off or vice versa results in a mix of entries in your records--some with it and some without.

We do not recommend doing anything with defining diskette formatting (Item #3) after you have saved any data. Doing so may result in loss of your data or in not being able to access it. You are given a warning when you select this option.

That leaves defining user fields, which probably needs more description. When you choose <1> from this menu, you will be asked a series of questions to define field labels, their types, and their interrelationships. You can do this at any time. However, if you change a field from one meaning to something unrelated, be aware that any data entered under the old meaning doesn't vanish--you must erase it or move it yourself. For example if you changed the first user field label from DATE OF BURIAL to SEX, any dates saved there previously would now appear labelled as SEX until you change them.

First you are asked how many of your own fields you want. This may be anything between 0 and 9. If you press <'return'> in answer to the question, the old value will be preserved, but the questions keep coming. This allows you to change the label, type, or relationship if needed. The program next begins cycling through the number of fields you said you wanted. You can redefine a title from something like

DATE OF BURIAL

to

BURIAL DATE

with no impact. If the title shown to you is adequate, you don't need to reenter it--pressing <'return'> will preserve the former value. If you choose a title with more than 10 characters, you will be reminded that the title is somewhat long, and given a chance to reenter it. You may use long field titles if you wish, but if you do so, some of the FAMILY ROOTS outputs may not appear very neat. Note that only the first three characters of a field title are used when printing the free-form charts.

After defining each title, you must then say what kind of field it is--free-form, date, person, or number. Examples of each are as follows:

a) free-form:
PLACE OF BURIAL
PLACE OF CHRISTENING
SEX
OCCUPATION
RELIGION
SPECIAL ID

b) date: DATE OF CHRISTENING
DATE OF BURIAL
SEALING DATE

c) person: GODFATHER
GODMOTHER

d) number: NUMBER OF MEDALS

If in doubt, select "free-form" since there is no special checking done on such a field. Date fields follow the rules and methods set forth in section 4.3.4, and person fields are interpreted as discussed in 4.3.6. Number fields only have a special interpretation in the SEARCH program.

After all of your fields are defined using the above, you are shown the list and asked for the relations between them, if any. No relationships is a valid situation. What is needed here is the linking of fields like BURIAL DATE and BURIAL PLACE. You can see the result of each entry on the menu after doing it and can make corrections as necessary. To exit the questions, press <'return'>. One word of caution is needed here: don't link fields circularly, i.e. in the example cited, don't have BURIAL DATE pointing to BURIAL PLACE and BURIAL PLACE pointing to BURIAL DATE at the same time.

FAMILY ROOTS uses the field relations to decide when to print two fields on the same line or close together. This occurs in CHARTS and SHEETS. The field pointed to appears after the one doing the pointing. More than 2 fields can be linked.

If you make a mistake in your entries, select DEFINE USER FIELDS and run through the questions again. It can be done very quickly because 'return' preserves values you don't want to change.

## 10.4 Setting Default Parameter Values

You can set the default or starting value for the parameters peculiar to each program by typing <3> from the main menu. When you do that, CONFIGURE gives you a menu of all the programs (plus a miscellaneous category) and asks which one you want. When you choose, you will get a menu showing the parameters described for each program in the previous sections (e.g. the list shown in 6.5 for SHEETS).

The difference between changing the value in each program and changing it here is that the one you enter here becomes the start-up or usual value. Therefore any changes you make may cause some of our statements in earlier sections about usual or default values to be incorrect.

If you select a value to change, you must enter the value followed by a 'return'. Remember that '0' still means false and '1' still means true here.

You will find a few parameters here that aren't available on your Change Program Parameters menus, but still affect only particular programs. These were discussed in previous sections so don't need much discussion here. An example is the LENGTH OF 'LONG LINE' for the EDIT program, which controls whether you are prompted about long notes, as described in 4.3.5.6.

The following parameters have not been explicitly discussed elsewhere in the manual; or, we often get questions about them:

a) MAXIMUM NUMBER LIST SIZE. This is the maximum number of ID's that can be stored in the computer's memory when you specify a Number List or Name Set from the Access Menu (see section 4.3.1). It is also the space used to construct the Compressed Pedigree Chart (see section 5.3.2.3). It has nothing to do with the maximum number of names in memory in the LISTS program; this maximum is set automatically by using almost all of the available memory and cannot be set directly by you.

b) LARGEST NUMBER. This is the largest ID number the computer will accept. Normally there is no reason to change it. It may be made smaller but not larger.

c) MAX. NAME LIST MEMORY PAGES. Names are normally stored on your diskettes in sets of 15, called pages. Some of these pages may be in the computer's memory at any one time. The maximum number of pages allowed in memory at one time is set by this parameter. If you set it larger, you may experience less disk activity. If you set it too large, you will experience lengthy pauses while the computer tries to clear out characters not being used at the moment. You should not set it smaller than 2. We recommend leaving it at 5.

d) NUMBER OF SEARCH LIST ITEMS. This is the maximum number of parameters you may select to search in, using the SEARCH program. See section 8.2.1 for further details.

e) SEPARATOR IN NAMES. Please refer to section 3.2.2.2.

f) PROMPT FOR DATE. This is a true/false parameter and is set to 'true' by us. When it is true, you will be asked for the current date whenever the START program is run (this occurs when you start your session and after exiting CONFIGURE and LISTS). Your choice is to remember to set the date properly on one of the Change Program Parameters menus each time you run, or to have the program remind you with a question.

## 10.5 Printing the CONFIGURATION File Contents

You can make a listing of the CONFIGURATION file contents by typing <5> from the main menu. Your printer parameters must have been defined before you can do this. An example is shown in Figure 14. The index value appearing at the left is the count of the item in the file. If you use the "#" access from the main menu (see previous cautionary statements in 10.1), it is this index that you use. The next column shows the current value in your computer's memory--it isn't in the file until you've stored it there if any changes were made. The third column provides a brief description of the parameter.

You will probably not need to make such a listing under normal circumstances. It is available to help diagnose problems. Note that some fields are packed or coded; for example, two digits appear at the end of each user field definition.

CONFIGURATION FILE CONTENTS 1984

| INDEX | CURRENT VALUE | DESCRIPTION |
|---|---|---|
| 1 | 2 | PRINTER TYPE |
| 2 | 4 | PRINTER DEVICE |
| 3 | 5 | CHARACTER COLOR |
| 4 | 0 | SPARE |
| 5 | 0 | SPARE |
| 6 | 32 | INDEX TO DEFAULT CHARACTER SIZE |
| 7 | 8 | INDEX TO DEFAULT CHARACTER CONTROL |
| 8 | 1 | NUMBER OF DISK DRIVES |
| 9 | 1 | DISK DEVICE # HARD WIRED |
| 10 | 2 | NUMBER OF PRINT SIZES |
| 11 | 0 | SPARE |
| 12 | 5 | CODE FOR PRINTER COMMANDS |
| 13 | 7 | CODE FOR NORMAL PRINTING |
| 14 | 26 | AVERAGE NAME LENGTH |
| 15 | 664 | SECTORS AVAILABLE ON ONE DISKETTE |
| 16 | 256 | LENGTH OF ONE 'FAMILY' RECORD |
| 17 | 10 | MAXIMUM NUMBER OF NOTES |
| 18 | 15 | NAXMUM NUMBER OF CHILDREN |
| 19 | 7 | MAXIMUM NUMBER OF MARRIAGES |
| 20 | 10 | MAXIMUM NO. OF GENERATIONS |
| 21 | 0 | SPARE |
| 22 | 39 | SCREEN WIDTH - 1 |
| 23 | 8 | USEABLE PAPER WIDTH IN INCHES |
| 24 | 99 | MAXIMUM NUMBER LIST SIZE |
| 25 | 1 | DAY/MONTH ORDER (YES/NO) |
| 26 | 1 | AUTO DATE USED (YES/NO) |
| 27 | 25 | LENGTH OF 'LONG LINE' |
| 28 | 536870912 | LARGEST NUMBER |
| 29 | 0 | SPARE |
| 30 | 0 | PROMPT FOR DATE |
| 31 | 0 | SPARE |
| 32 | 10 | CHARACTER PER INCH VALUE |
| 33 | 16.5 | CHARACTER PER INCH VALUE |
| 34 | 0 | CHARACTER PER INCH VALUE |
| 35 | 0 | CHARACTER PER INCH VALUE |
| 36 | 15 | NAMES PER NAMELIST RECORD |
| 37 | 5 | MAX. NAMELIST MEMORY PAGES |
| 38 | 122 | CUSHION FOR NAMELIST RECORD |
| 39 | 0 | SPARE |
| 40 | 0 | SPARE |
| 41 | 0 | SPARE |
| 42 | 10 | NUMBER OF SEARCH LIST ITEMS |
| 43 | 0 | SPARE |
| 44 | 1 | NUMBER OF USER-DEFINED FIELDS |
| 45 | 0 | SPARE |
| 46 | 0 | SPARE |
| 47 | 0 | SPARE |

FIGURE 14.

CONFIGURATION File Contents

| INDEX | CURRENT VALUE | DESCRIPTION |
|---|---|---|
| 48 | 0 | SPARE |
| 49 | 8 | DEVICE FOR DRIVE 1 |
| 50 | 9 | DEVICE FOR DRIVE 2 |
| 51 | 10 | DEVICE FOR DRIVE 3 |
| 52 | 11 | DEVICE FOR DRIVE 4 |
| 53 | 0 | SPARE |
| 54 | 0 | SPARE |
| 55 | 49152 | SYS ADDRESS |
| 56 | 49155 | SYS ADDRESS |
| 57 | 49158 | SYS ADDRESS |
| 58 | 49161 | SYS ADDRESS |
| 59 | 1 | SEX FIELD INDEX |
| 60 | 0 | SPARE |
| 61 | 0 | BURIAL FIELD INDEX |
| 62 | 0 | CHRISTENING FIELD INDEX |
| 63 | 0 | SPARE |
| 64 | 0 | RESERVED |
| 65 | | PRINTER START CONTROL |
| 66 | | PRINTER STOP CONTROL |
| 67 | 1984 | DEFAULT DATE |
| 68 | ^ | FOOTNOTE CHARACTER |
| 69 | % | SEPARATOR IN NAMES |
| 70 | 19 | FIRST TWO YEAR DIGITS |
| 71 | | SPARE |
| 72 | CHR$(18)+CHR$(20) | CONTROL FOR CHARACTER SIZE |
| 73 | CHR$(15) | CONTROL FOR CHARACTER SIZE |
| 74 | | CONTROL FOR CHARACTER SIZE |
| 75 | | CONTROL FOR CHARACTER SIZE |
| 76 | SEX00 | USER DEFINED FIELD |
| 77 | | USER DEFINED FIELD |
| 78 | | USER DEFINED FIELD |
| 79 | | USER DEFINED FIELD |
| 80 | | USER DEFINED FIELD |
| 81 | | USER DEFINED FIELD |
| 82 | | USER DEFINED FIELD |
| 83 | | USER DEFINED FIELD |
| 84 | | USER DEFINED FIELD |
| 85 | | SPARE |
| 86 | | SPARE |
| 87 | | SPARE |
| 88 | | SPARE |
| 89 | | SPARE |
| 90 | | SPARE |
| 91 | | SPARE |
| 92 | | SPARE |
| 93 | | SPARE |
| 94 | | SPARE |
| 95 | | SPARE |
| 96 | | SPARE |

FIGURE 14

CONFIGURATION File Contents (cont'd)

| INDEX | CURRENT VALUE | DESCRIPTION |
|---|---|---|
| 97 | | SPARE |
| 98 | | SPARE |
| 99 | | SPARE |
| 100 | | SPARE |
| 101 | | SPARE |
| 102 | | SPARE |
| 103 | | SPARE |
| 104 | | SPARE |
| 105 | 1 | SHOW SIZE AFTER EACH INPUT |
| 106 | 1 | DO COMPLEMENTING |
| 107 | 1 | UNCONDITIONAL SUBSTITUTION |
| 108 | 1 | ENTER SPOUSE'S CHILDREN |
| 109 | 1 | COMPLEMENT ADDRESS |
| 110 | 1 | ADD NAMES SEQUENTIALLY |
| 111 | 1 | NEXT NAME ID |
| 112 | 1 | STEP START NUMBER |
| 113 | 1 | SAVE LAST ID ON EXIT |
| 114 | 0 | SPARE |
| 115 | 0 | SPARE |
| 116 | 0 | SPARE |
| 117 | 0 | SPARE |
| 118 | 0 | SPARE |
| 119 | 1 | USE MONTH NAMES |
| 120 | 7 | MAXIMUM GENERATIONS |
| 121 | 1 | SHOW ID AFTER NAMES |
| 122 | 1 | TOP-OF-FORM AFTER PRINTS |
| 123 | 10 | SIZE OF LEFT MARGIN |
| 124 | 0 | SUPPRESS NOTES ON CHARTS |
| 125 | 0 | PRINT ACCESS CHOICES |
| 126 | 0 | SHOW EMPTY FIELDS |
| 127 | 0 | USE LAST NAME FIRST |
| 128 | 0 | SHOW NAMES ONLY |
| 129 | 0 | CASCADE STANDARD CHARTS |
| 130 | 0 | SELECTIVELY SUPPRESS NOTES |
| 131 | 0 | SHOW MARRIED NAME |
| 132 | 10 | TAB BEFORE HEADER |
| 133 | 0 | ASK FOR HEADER |
| 134 | 0 | LINES PER PAGE |
| 135 | 0 | SPARE |
| 136 | 0 | APPEND 'TEXT' FILE |
| 137 | 1 | PUT CHILDREN IN ORDER |
| 138 | 0 | SPARE |
| 139 | 0 | SPARE |
| 140 | 0 | SPARE |
| 141 | 10 | TAB BEFORE HEADER |
| 142 | 1 | OUTPUT TO PRINTER |
| 143 | 0 | SAVE LIST ON DISKETTE |
| 144 | 1 | USE MAIDEN NAME |
| 145 | 0 | USE MARRIED NAME |

FIGURE 14

CONFIGURATION File Contents (cont'd)

| INDEX | CURRENT VALUE | DESCRIPTION |
|---|---|---|
| 146 | 0 | SHOW EMPTY NAME SLOTS |
| 147 | 1 | SHOW LAST NAME FIRST |
| 148 | 100 | SCREEN SPEED (1-100%) |
| 149 | 0 | ABORT ABILITY ON ALPHA |
| 150 | 0 | SEARCH TITLE WITH SOUNDEX |
| 151 | 0 | SPARE |
| 152 | 0 | SPARE |
| 153 | 0 | IGNORE UPPER/LOWER CASE |
| 154 | 0 | SPARE |
| 155 | 0 | SPARE |
| 156 | 0 | SPARE |
| 157 | 0 | SPARE |
| 158 | 0 | PRINTER ON FOR DIRECTORY |
| 159 | 10 | SIZE OF LEFT MARGIN |
| 160 | 1 | DRIVE FOR TEXT DISKETTE |
| 161 | 0 | INDENT PARAGRAPHS |
| 162 | 1 | ACCUMULATE BEFORE STORING |
| 163 | 0 | SUPPRESS EXTRA BLANKS |
| 164 | 0 | ASK FOR HEADER |
| 165 | 10 | TAB BEFORE HEADER |
| 166 | 50 | LINES PER PAGE |
| 167 | 0 | SPARE |
| 168 | 0 | SPARE |
| 169 | 0 | SPARE |
| 170 | 0 | SPARE |

FIGURE 14..

CONFIGURATION File Contents (Cont'd)

(The pristine beauty of this page is despoiled to make the next page odd-numbered.)

# 11. USING THE UTILITIES

At this time there are six utilities; BLANKS, WHAT, CREATE, RENUMBER, ADDRESS and READER. Each will be described in a separate section below. A program qualifies as a utility if it is either small or performs some special function not in the genealogical mainstream. Thus CONFIGURE, described in sections 3 and 10, is also a utility. Each utility is accessed by selecting it from the menu of programs. If it is not on the menu you currently see on your screen, insert a different program diskette in the drive (switch diskettes) and select the last item on the menu, called "PROGRAMS", to generate a new list of programs.

## 11.1 The BLANKS Utility

BLANKS prints blank charts of the standard, formatted type on single sheets of paper. It is executed by selecting it from the programs menu after booting or after exiting another program.

BLANKS asks how many charts you want and then proceeds to print them. You might find this program both interesting and useful to adapt to other purposes. The format is controlled by the data statements in the middle of the program. If you change them, the program will print whatever you set up.

Note that it is possible to print blank individual sheets using the SHEETS program. To do that, you will need to find an unused ID. First get into the EDIT program and set the number of marriage, number of children, and number of notes fields for that ID to however many you want of each to appear on your blank form. Next get into the SHEETS program, set the PRINT EMPTY FIELDS parameter to on, and finally print individual sheets for the unused ID. You can get more than one form by using the Number List access selection and entering the same ID for as many times as you need blank forms.

## 11.2 The WHAT Utility

We hope that name doesn't cause problems if you talk to somebody about this--it could be an old Abbott and Costello routine repeated.

Anyway ... WHAT will tell you the supposed identity of any diskette. We say "supposed" because it is possible to mess up a diskette. This is one way to find out. You could also use this to find out the proper number for a standard data diskette in case you forgot to label it. You execute WHAT by selecting it from the programs menu.

When it starts, WHAT asks you which drive to check. It then reads the control file on the diskette in that drive and will say the diskette is one of four types:

a) a program diskette
b) a text diskette
c) a standard data diskette
d) not a FAMILY ROOTS diskette

If it is a standard data diskette, you also get the following information:

1) the diskette number
2) the number of people per diskette
3) the average name length assumed
4) the space available on an empty diskette
5) the length of one FAMILY record in characters
6) the length of one NAMELIST record in number of names
7) the cushion for name length variances

You will usually not be interested in the second thru seventh items. They are provided in case FAMILY ROOTS rejects a diskette due to incorrect parameters. These parameters must agree with the CONFIGTN.DAT file before the programs will accept any data diskette.

After getting the information for one diskette you may ask for another drive, or you may switch diskettes and analyze another in the same drive. Press <'return'> in answer to the question to exit WHAT.

## 11.3 The CREATE Utility

CREATE makes empty standard data diskettes. Any time you need a new standard data diskette you must either run CREATE to make one or copy an empty one made previously with CREATE. The diskette number is assigned when you first use the empty diskette with the EDIT program. The diskettes you use will be formatted by CREATE.

You execute CREATE by selecting it from the programs menu. CREATE then tells you to insert the diskette to be created in a drive. There's nothing more for you to do after that except note progress on the screen. See section 3.3 for more details on how and when to use CREATE.

## 11.4 The RENUMBER Utility

RENUMBER allows you to reassign the ID numbers for people on your diskettes. You may reassign individual numbers or may redefine an entire

diskette's worth. You execute RENUMBER by selecting it from the programs menu. PLEASE: be sure you have made backups before you start this; it's easy to make a mistake and wipe out something valuable.

When RENUMBER starts, you're asked

```
1) RENUMBER INDIVIDUALS
2) RENUMBER WHOLE DISKETTE
WHICH (1,2)?
```

If you choose the first, you will need to supply pairs of old and new numbers. If you select the second, you will need to define a new diskette number and say which diskette. In either case you will need your ENTIRE set of data diskettes since every record must be checked for appearances of the old ID number. Obviously this is not an operation you will undertake lightly or with only a few minutes to spare.

When you select 1, you are then asked

```
VERIFY THE ID'S?
```

If you answer <Y>, the name for each number in the pairs you are about to supply will be shown to you before the number is accepted. This will probably entail some switching of diskettes to retrieve the names. An example sequence could be

```
OLD NUMBER?     <822>
THAT IS THE ID FOR
JAMES M. FREEPOT
ACCEPT?         <Y>

NEW NUMBER?     <1528>
THAT ID IS NOT NOW IN USE
ACCEPT?         <Y>

OLD NUMBER?     <823>
THAT IS THE ID FOR
JON K. FREEPOT
ACCEPT?         <N>

OLD NUMBER?     <824>
THAT IS THE ID FOR
JUNE FREEPOT KENILCAMP
ACCEPT?         <Y>
```

```
NEW NUMBER?     <1582>
THAT IS THE ID FOR
HARVEY WIGWORM
ACCEPT?         <Y>

OLD NUMBER?     <'return'>
```

In this example if you don't reassign Harvey Wigworm, his old record will be wiped out when June Kenilcamp's overwrites it.

It is obviously much faster to omit the verification, but you should exercise great care lest you inadvertently wipe something (somebody!) out.

The capability to renumber a whole diskette is provided to allow you to merge formerly independent diskette sets. You will be asked to define the new diskette number either by directly supplying the number or by providing one ID that will be on it, analogous to what is done to define a diskette number in EDIT. The new diskette number should not be one you currently have in your set. Since RENUMBER has no way of knowing how many diskettes you have in your set, there is no way to verify your entry. Please be careful.

After you've specified who's to be renumbered, you will be asked

```
OK TO START?
```

as one last safeguard. When you answer <Y>, RENUMBER will direct you in what diskettes to insert and where. Just follow the instructions.

## 11.5 The ADDRESS Utility

ADDRESS is used to print an address list for living people whose addresses are stored on the standard data diskettes. The people used must have an "L" for "Living" stored in their Death Date or Living field to be considered, and the entry in the DIED/LIVING AT field must have at least 1 semicolon, indicating a full address is stored there. Refer to section 4.3.5.2 if this doesn't make sense to you.

You can use the usual name access methods described in section 4.3.1 to choose the set of people; in addition you may ask that a whole diskette be examined.

ADDRESS has a parameters menu of its own, which is used in much the same way as in the Family Roots main programs. There are nine or ten parameters available. The parameters are all common to other programs except one, called LINES BETWEEN LABEL TOPS. When this is set greater than zero, it is assumed that you are printing directly onto gummed

labels. In this case, the parameters relating to headers, top-of-form, and lines per page will have no effect. When you have the LINES BETWEEN LABEL TOPS set to zero, it is assumed you are printing on your normal sized paper as defined in the configuration file. In this case, if you set the LINES PER PAGE greater than zero, ADDRESS will attempt to fit that many on one sheet before doing a top of form. Otherwise, printing will continue even across the page boundaries.

After you specify the names to use, the program proceeds to examine each record and print the name and address for those that are valid. ADDRESS will tell you which diskettes to insert and where.

## 11.6 The READER Utility

READER is used to put a previously generated list of names into memory for use by another of the FAMILY ROOTS programs. The list to be read will have been generated by either the LISTS program or the SEARCH program on a scratch diskette; please refer to sections 7.4.4 and 8.3 respectively on how to save lists to diskette. After READER has been executed successfully, the

LIST IN MEMORY

option on the Access Menu for EDIT, CHARTS, SHEETS, SEARCH, TEXT and ADDRESS will appear; please refer to the discussion near the end of section 4.3.1 if you don't understand what this means. If you want to put a list into memory for use by the LISTS program, see section 7.4.3 for more information.

When you run READER, it first provides you some reminders about the uses of a List in Memory and then asks for the scratch diskette to be read. While the list is being read, the screen message will show what type of list it is--alphabetic or numeric. (The message may only flash briefly if the list is very short.) When the list has been read, the screen then shows how many ID's are stored, and the exit menu will then appear after a short time. You can "hurry up" the appearance of the exit menu by pressing any key.

Not every list of names will fit in memory. The number of names that can be accommodated is determined by the MAXIMUM NUMBER LIST SIZE parameter, which can be set using CONFIGURE and is normally 99. If your list won't fit, READER will tell you so. In this case READER gives you two options:

1) Put as many names as possible into memory starting from the beginning of the list, or
2) Skip some number of names and then put up to the maximum into memory.

If you choose the second option, you will also need to tell READER how many names to skip. Actually, there is a third option not provided by READER: go to CONFIGURE to make the MAXIMUM NUMBER LIST SIZE bigger; refer to sections 10.4 and 5.3.2.3 for more information on that.

## 12. DEALING WITH SOME COMMON PROBLEMS

Many of the problems you might encounter and how to deal with them have been mentioned in previous sections. This section pulls those together in one place for ease of reference and adds a few you may not have heard of before.

Some of this represents our experience and feedback from you, our customers. We appreciate hearing from you, especially when it helps us prevent the same problem from occurring with our other customers. Please let us know of any problems you think should be added here.

Here they are:

a) BASIC error messages. Various kinds of errors can cause you to be dumped into BASIC with a cryptic error message. If you need to get back into the program to preserve something you were doing, GOTO 20000 will get you back to the main menu in most cases. If that doesn't work, you will have to begin again from the START program.

As for the error messages you might get, some we should be told about. SYNTAX ERROR is definitely our problem and needs fixing, although we certainly hope there are none left. OUT OF MEMORY error doesn't necessarily mean you ran out of memory--it is usually caused by the internal pointers getting messed up somehow. DISK FULL is your problem--you probably have something extraneous on the diskette which must be removed. I/O ERROR is a bad diskette sometimes, but not always. The best way to guard against it is to make frequent backups. If you get this error, try rotating the diskette mylar within its shield until the alignment hole is visible (do this by hand), then try reading the diskette again. This has often fixed the problem for us.

Also see item n.

b) Diskettes won't read. If your disk drives won't read our program diskettes, your drives may need to have their speed adjusted. It is a simple operation which any computer dealer should be able to do for you. There are also programs available that allow you to do this for yourself. Be careful about voiding warranties, however. If it turns out we've sold you a bad diskette, we'll replace it, free-of-charge of course.

c) Programs hang. If you try to start one of our programs and it seems to hang up, you may not have your equipment configuration set correctly. To solve this problem run CONFIGURE again and review all hardware parameters. Please see section 3.1 and subsections for more details on this.

d) Printer won't work. If your printer won't print, review all of the controls you specified in CONFIGURE. If after checking everything out, it still doesn't work, please contact us. With the wide variety of printers on the market today, it is difficult for us to anticipate all possible ways that a printer might be controlled.

e) Missing CONFIGURATION. If you get a message that your CONFIGURATION file is missing, it is. To get it back, get into CONFIGURE directly (load "CONFIGURE",8 followed by RUN) and reset all the parameters to their correct values. To be sure that you have the right diskette formatting parameters, you may want to run the WHAT utility to see the values you used before.

f) Data scrambled. Sometimes you may see totally unexpected values in places, such as a name where the date should appear. The computer's internal pointers are partially messed up. (This can be caused by sparks or improper grounding). The cure is to restart.

g) Name storage overflow. Names are stored in sets (nominally 15 per set) on the diskettes. While each name can have a variable length, the overall limit for the set can't be exceeded. If you use a number of long names in succession, you may hit the limit and EDIT will refuse to store the names. You can try using a different ID for some of the names, or you can shorten one or more of the names. See also sections 4.2.1 and 4.7.

h) Data overflow. When entering information in a person's record, EDIT shows you how much space you have used out of the total available. If you exceed the limit, EDIT won't save the record. You can correct this by shortening some of the information in the record. Try abbreviating state or country names, for example.

i) Scrambling diskettes. If you have separate data diskette sets that use the same parameters, it is possible to insert a diskette from one set while working with the other. This may cause writing the wrong data on the diskette if you are using EDIT. The best way to fix this is to prevent it and to make frequent backups. To fix it otherwise you will have to review ALL the records on the diskette and correct those in error.

j) Won't accept diskette. Every program checks the data diskettes used to be sure the right formatting parameters are present. If they're not, the program gives you a message and dies. The problem is a mismatch between the data diskette and the CONFIGURATION file. Use the WHAT utility to find the correct parameters and change the CONFIGURATION file.

k) Diskette erased. If FAMILY ROOTS erases one of your diskettes, you may contact us. Be prepared to discuss copyright violations.

l) End of Data Error. This message from BASIC can have various causes. One likely one is that you don't have the same CONFIGURATION file on both the Main and Auxiliary Programs diskettes. To correct this, use the CONFIGURE program to save the file on all program diskettes as described in section 3.2.2. Since this error can have other causes, this may not repair the problem.

m) Dates not printing right. There are two main causes of this. Either you didn't enter the dates in the accepted formats described in section 4.3.4, or you changed the date order control parameter described in section 3.2.2 after having entered some dates. Some problems with correct entry format have been no use of spaces (e.g. 23Aug1972 with no spaces will not be recognized) and use of dashes with the wrong format (e.g. 23-Aug-1972 won't be recognized but 23-11-1972 will be). If your problem was caused by changing the control parameter, you will have to reenter the dates that aren't being printed correctly.

Another problem can occur when you choose not to use standard dates. If you enter dates like 3Aug1972 (no spaces), that won't be printed correctly when the USE MONTH NAMES parameter is on, since it is the same length as a standard date. Make sure such dates are 9 digits long, e.g., 03Aug1972.

n) Out of Range (BASIC) error. This can have various causes. One possibility is a program error which we should be notified about. Another case involves correct use of the CONFIGURATION file, namely, having the correct copy on all Program diskettes. One situation which occurred was that a customer had increased the maximum children to 17 and made some entries. He subsequently forgot about that, later changed the maximum children back to 15. When he tried to retrieve the information for that person with 17 children, this error occurred. The fix is simple--change the maximum and everything is again OK.

o) Data diskette not recognized. This will happen if the file that has the diskette identity (named CONTROLS) is overwritten, destroyed, or erased somehow. One way this can happen is if you succeed, despite program warnings, in putting a CONFIGURATION file

onto a DATA diskette. There are other possible ways unrelated to the program. As long as the FAMILY and NAMELIST files are still present, you can recover from this error as follows:

Make an empty data diskette using CREATE. Next copy the CONTROLS file from the empty one onto the problem diskette. Finally, get into the EDIT program via the usual procedures, and tell EDIT which diskette this is, when it asks. After doing this you should check the information for several people to be sure the files are OK. If you didn't make a backup, do so! Shame on you!

p) Order of children wrong in group sheet. Turn the PUT CHILDREN IN ORDER parameter off. See section 6.5 for more information.

q) Printer goes haywire. You may have a control character in the data you entered which has been interpreted by your printer as a control for itself, not exactly a desired result. You need to abort your operation using CTRL Z and then turn your printer off and on again to clear the garbage out of it.

r) Screen full of garbage. This odd occurence would happen after you select a program from the programs menu and it starts to load; the screen then fills up and the computer dies. The cause is probably one of the sizes being set too large to fit in your memory. You need to power off, power on after counting to 10, get into CONFIGURE directly (load "CONFIGURE",8 followed by RUN). You can't reliably get into CONFIGURE any other way with this problem. Once you are into CONFIGURE, check the maxima and set some smaller if possible. The usual culprit on this one is MAXIMUM NUMBER LIST SIZE; see section 10.4 for more information about this parameter.

s) All names show as NO ID You are not entering numbered names properly if you have this problem. Please review section 4.3.6 again. The most common error of this type is entering both the name and the ID. For example, if the name Dorfy Ditmyer has been associated with ID number 627 (as described in section 4.2 and subsections), then the correct entry in a person field would be like

```
(5) FATHER?    <627>
```

but the following would be incorrect

```
(5) FATHER?    <627 DORFY DITMYER>
or
(5) FATHER?    <DORFY DITMYER 627>
or
(5) FATHER?    <DORFY DITMYER (ID=627)>
```

t) Date missing. If you don't have a date on your program parameters menu, you left the date parameter empty in the CONFIGURATION file. Run CONFIGURE and enter anything for the date. You can later modify the date each time you run.

u) LISTS doesn't recognize data diskette. When you use a scratch diskette with LISTS, it marks the drive as not having a standard data disk in it. If you use your standard data diskette to store or retrieve a scratch list, LISTS won't know it's there any more. To cure this, return to the LISTS Main Menu and select CHECK DISKETTES.

(Oh, no!! Not another blank page!!)

## 13. WRAP-UP

Thanks for taking the time and effort to read this user's guide. We hope it has been worth it. We'd like to reiterate that your ideas and suggestions for improvements and new products are welcome. We are constantly seeking to enhance our product and want to know your desires. Some future possibilities that come to mind are:

a) A program to compute statistics on your family, e.g. average number of marriages, average number of children, locality distributions, etc. Is this essential, or just interesting?

b) A program to check the consistency of your data. This hasn't been essential so far because of the complementing features in EDIT. Such a program could check whether dates for a person are in the proper order and plausible, as well as comparing dates with parents' and childrens' records. Other possibilities?

c) A program to output the relationship of any two people you specify. We have seen some nice graphic presentations of this type. It's nice, but do you need it?

d) A utility to make check lists for carrying with you on your trip to the library, archives, town hall, etc. If you need something like this, an example of what you are now using would be helpful.

e) A program to make reports, with the ability to include as little or as much information you wish, sorted according to the specified fields. Very useful for comparisons and for checking possible holes, but very time consuming to generate -- do you need it?

That's about it!

Good hunting with your genealogies!

(Guaranteed, absolutely, the final and last blank page!)

# APPENDIX A

## SPECIAL CHARACTERS USED BY FAMILY ROOTS

The following characters have a special meaning under certain circumstances when used in FAMILY ROOTS from the keyboard. Please examine the referenced section if you need more information.

| Character | Section | Use |
|---|---|---|
| CTRL E | 4.2.2<br>4.3.2<br>6.4 | Erasing an entry. |
| CTRL O | 4.3.5.2 | Suppress zip code printing. |
| CTRL P | 9.2.1 | Paragraphing in TEXT. |
| CTRL Z | 3.5<br>4.7<br>etc. | Abort procedure and return to main menu. |
| ^ | 10.3<br>4.3.3<br>4.3.4<br>& others | Footnote referencing |
| P | 4.2.1<br>& others | Ask for Change Parameters menu |
| S | 4.3.2 | Step through fields |

# APPENDIX B

## QUINSEPT STANDARD POLICIES

QUINSEPT has the following standard policies which you may like to know about:

a) We offer a 90 day unqualified guarantee of satisfaction on all our software. The 90 days begins on the date of purchase. If for any reason you decide not to keep Family Roots, you may return it to where you bought it for full refund - that means to the store, mail order house, or us. Note that ALL copied materials, including backup diskettes, must be returned with the package.

b) We offer our customers a commission on sales generated via referrals. The commission is 10% of the net price we receive. To collect the fee, the new customer must mention the referral at some point during the sale, and the referring customer must claim the payment or credit. We will be happy to accumulate credits against future purchases if you wish.

c) Updates of our software are made 2 or 3 times per year and are announced to all registered users. The updates included fixes to reported bugs and incorporate additional features. We offer replacement diskettes and updates at the same low price per diskette. In addition, users may send us any of their own diskettes to get an update at the diskette replacement price minus the cost of diskettes. Users may get the current version at any time by sending us diskettes and the appropriate payment, i.e. they need not wait for an announcement of update. Furthermore, a user need not purchase an update to qualify for purchase of succeeding ones. The price at the time this is written is $7 per diskette on our diskette, or $5 per diskette on a user's diskette; this is subject to change without notice.

d) We have local representatives in many metropolitan areas. These people may be contacted for support as needed. Please be aware that some of this service may incur a charge, to be negotiated between you and the representative.

e) Although we have no formal association with the QUINSEPT USER GROUP, we do support it in various ways. We supply the group with the names and addresses of all new registered users on a periodic basis. We also submit news items and product information of general interest for inclusion in the newsletter; actual inclusion is at the editor's option.

# APPENDIX C

## ERROR CODE MEANINGS

52 Block header not found on disk.
53 Sync character not found.
54 Data block not present.
55 Checksum error in data.
56 Byte decoding error.
57 Write-verify error.
58 Attempt to write with write protect on.
59 Checksum error in header.
60 Data extends into next block.
61 Disk id mismatch.
62 General syntax error.
63 Invalid command.
64 Long line.
65 Invalid finename.
66 No file given.
71 Command file not found.
82 Record not present.
83 Overflow in record.
84 File too large.
92 File open to write.
93 File not open.
94 File not found.
95 File exists.
96 File type mismatch.
97 No block.
98 Illegal track or sector.
99 Illegal system track or sector.
102 No channels available.
103 Directory error.
104 Disk full or directory full.
105 Power up message, or write attempt with DOS Mismatch.
110 Invalid error message received from the drive.
113 Invalid reservation of space tried.
114 Out of memory on disk.
115 Array not found.
116 Mismatch in dimensions of arrays.
117 Record not available.
119 Record too long.
120 Record not available.
121 Variables missing in the record.
122 Variable length over 255 characters.
125 Count field has more than 3 digits.
126 Count field is greater than 255.
127 Namelist page index too big.

(We fooled you. Here's another blank page.)