Family History System

Manual for September 1997 Update

FAMILY HISTORY SYSTEM
with Extensions

by

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August 25, 1998

A set of programs for maintaining files of personal data including FAMILY relationships

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The Manual for the Sept 1997 update to the Family History System is distributed as a set of Microsoft Word documents, one for each of the above sections. Each section begins with a table of contents for the sub-sections within that document. Page numbers for each section begin with 1 and are prefixed by the roman numeral for the section.

I Introduction

I want to thank you for choosing the "Family History System" for organizing and reporting the results of your research into your own family history. Although I first began work on these programs for the purpose of "computerizing" the information in a family booklet prepared by a distant cousin, I have been pleased to find that this software has proven useful to so many others with similar interests.

Using this software, you will be able to build one or more "family files", each of which may have information for more than 32000 individuals recorded in it. (Each file is limited to the size of the disk(s) on which it resides. On 360k, 5 ¼" floppies a file may have as many as 3600 names, on 720k 3 ½ diskettes a file may have as many as 7200 names, and on an HD diskette a family file can have more than 12000 names.) Provision is made for recording family relationships as well as names, dates and places. No limits are placed on the number of relationships that may exist for each individual or for the number of generations of ancestors or descendants that may be recorded.

The basic system produces Ancestor, Descendant, Relative and Family Group reports, Ancestor (tree) Charts and a variety of "BOX" style charts. Blank worksheets and charts may be produced to record information for entry into the system. You may also print a variety of summary reports and detail lists of information from selected records. The extended system, available only to registered users of the software, adds the ability to process records in sorted sequence.

Requirements for running these programs are:

- an IBM PC, PCjr, PC XT, AT, PS/2 or compatible computer
- at least 1 diskette drive
- an 80 column monitor
- at least 512k of memory (RAM) – **NOTE:** This is up from 256k for previous versions of FHS
- DOS 2.0 or later

A printer is recommended for making full use of the system but is not required for creating, maintaining or displaying information in the system files.

The basic set of programs in the Family History System is provided for your use without any implied obligation for payment to the author for that use. Unmodified copies of the "distribution diskette(s)" (the diskette(s) on which you received the basic set of programs) may be freely shared with others. No fee may be charged for such copies beyond that required to cover the expense of media, postage and handling incurred in producing them unless written permission is given by the author.

Those who find the basic set of programs useful and would like to receive additional options may become "registered" users by sending $35.00 to:

Phillip E. Brown

834 Bahama Drive

Tallahassee, Fla. 32311-7363

Registered users will receive the most recent update to the extended system and will be notified of future major updates, as they become available.

NOTE: *This manual documents all features of the Family History System, including those that are available only to registered users. Previously, there were separate manuals for the basic set of programs and the system extensions. I have tried to make it obvious which features are not available in the publicly distributed version of the software (those are ones which involve the creation and use of Index files that allow you to process records in sorted sequence). Making the*

documentation of these limited features available to all may help users decide whether the benefits provided to registered users are worthwhile to them.

While I have tried to make these programs as easy to use as possible without reducing the available options, the on-screen help is limited to brief menus of program functions. I hope you will come to this manual occasionally to try to clear up any questions you may have about the operation of the programs or simply to find out more about features of the software that may not be obvious in casual use. I realize that this is not the "tutorial" type of instruction booklet that many would like, but I have tried to include descriptions of every aspect of the operation of the software.

I.A A Note for Users of Earlier Versions

Those of you who may be upgrading from an earlier version of the programs should be interested in knowing that, during the 12 years that the system has been distributed publicly, there have been no changes to the file format that affect your being able to use your existing "Family History System" data files with the programs in this update. After installing these programs, you should be able to continue working with your previous family files just as before. This update to the software *does* introduce changes to the family file format (e.g. new Event records) that are incompatible with earlier versions. If you use those features then your family files will become incompatible with earlier versions of the software.

There were errors in some earlier versions of the file update program that may have caused problems involving program maintained information that "connects" the various pieces of an individual's record together. There is a utility program (the "pointer validation" option, Main Menu selection F3-E-F6-1) which can help you to locate and eliminate any such program generated file errors as well as errors that may have resulted from a prematurely interrupted file update session. I encourage you to review Section X.A of this manual describing that option.

There have been so many changes to the programs in this update that nearly all sections of the manual have been affected in some way. I hope that you will review all of it at some time so that you do not miss out on any enhancements that it may reveal to you.

I.B A Note for Users of Other Genealogy Software

If you have information stored in files prepared by other genealogical software, you may be able to transfer much of that information into a FHS family file without having to "rekey" any of it. This set of programs includes a utility program that makes use of the GEDCOM format for transfer of genealogical information. If the software that was used to prepare your other files also supports that format, and many of today's most popular programs do, you may be able to EXPORT information from those files (using that software's GEDCOM utility) and IMPORT them into a FHS file (using the FHS utility). Please read Section IX.A for more information about the GEDCOM utility.

I.C Significant Changes to Notice in this Update

This update to the Family History System software is the result of more than three years effort and contains more changes than any other single update since the programs were introduced back in March of 1985. While the primary purpose of these revisions was to allow the user to customize the software for other languages, there have been many enhancements that are of more general interest.

These changes include:

the ability to switch family files by selecting from a list of labeled family file "setups" (these file setups also provide support for placing family files in directories apart from the FHS programs)

the ability to switch printer configurations by selecting from a list of labeled printer "setups"

support for larger .OTH datasets (64,000 records instead of 32000); this doubles the space available for comments

a set of user modifiable "system tables" which provide control over such things as:

- the single-key responses to system messages
- the "soundex" grouping of special characters
- the uppercase translation of special characters

- types of EVENTS that can be recorded in the new Event record type
- the data TAGs that are used in GEDCOM files

Placement of all program messages in a user modifiable Message Definition File permits:

- changing the default response to messages (the response that the program assumes when you simply press the space bar or enter key)
- modifying the text of messages to accommodate other languages
- printing a list of all messages

Placement of all formats for screen displays in a user modifiable Screen Definition File permits:

- modifying the text appearing in screen displays to accommodate other languages
- printing a list of all screen definitions, including a formatted screen display

Placement of all standard report descriptions in a user modifiable Report Definition File permits:

- customization of report features, including: default report options, relationship labels, gender codes, etc.
- modifying the text of all report headings, titles, field labels and footings to accommodate other languages or your own preferences
- allows use of Report Definition File for language other than the one used for the "user interface" (that is, the language used in the program messages and screen displays)
- printing a list of all report definitions

Enhancements to the File Update program:

- Relationship Calculator *
- new Event Record (provides support for BAPTism and BURIal events, among others)
- support for "Long Place Names" which may be up to 41 characters in length
- ability to manually resequence children when birth dates are not known
- ability to "page forward and backward" through lists (search results, children), multiple occurrences of record types (marriages, work records, education records, etc.) and comments
- "hilited" menu items indicate presence of information in a family file record
- additional search items (birth and death places)

New types of Reports and Charts:

- Ancestor and Descendant Summary reports *
- a Relationship Summary Table *
- 5 Generation style of Ancestor Chart
- Ancestor Chart in "Vertical Box" format (similar to the previous "Descendant Box chart")
- Family File Record Summary report
- Listing of Search Results in the file update program
- Detail list of selected records in ID sequence * ("free format" lists are new to this update)
- "Merged Group Reports" can be printed in Relationship sequence; Group reports can also include the text of comments under a child's name record in the "Children" section of the report
- "Register" style of merged group report for producing booklets of information for Ancestors, Descendants or Relatives

(reports/charts marked with an * were previously available as extended options for registered users)

New GEDCOM program provides support for 5 styles of GEDCOM files, including some that permit transferring all types of information between FHS Family Files.

I.D Program Support

While I have encountered (and corrected) a number of errors during my use of the system, there are no doubt errors remaining in some of the programs, hopefully none serious. If you should find any, I would appreciate very much your sending a description of the problem to me so that I may try to correct it. You may reach me:

by postal mail at: Phillip E. Brown, 834 Bahama Drive, Tallahassee, FL 32311-7363 USA

by email: pbrown@fhs.tallahassee.net

I do not promise phone support for the programs because all work on them is done from my home and I cannot promise to be there at any specific times.

I have prepared a WWW site on the Internet to provide information about the Family History System. The site is entirely text based at this time with no graphics to download. As a result, the response is reasonably quick and you should be able to access the site with any web browser. At the site, you can find out about any reported problems and download the most recent copies of all programs that are in the public version of the software. You can also keep up with plans for future updates or enhancements. The URL for the site is: HTTP://fhs.tallahassee.net

If you received the public version of the software on diskettes from the author of the programs, you will find a copy of all of the HTML text documents and sample reports from the site on one of the them. Section II.A.4 of this manual describes how you may install the documents on your hard drive so that you can browse this information (as it existed at the time the diskette was prepared) without having to be ONLINE.

I.E Copyright Information

All Family History System programs and documentation are copyrighted by their author. While the programs that make up the publicly distributed version of the software and the documentation for the programs may be freely used and distributed without any requirement of payment to the author for that use, no fee may be charged for such copies beyond that required to cover the expense of media, postage and handling incurred in producing them unless written permission is given by the author. The programs that support the system extensions are only provided to registered users of the software. Those programs may be used only by the registered user and members of their immediate family.

Versions of the language customization files (TDF, SDF, MDF and RDF files as described in Section VII) that have been modified to support other languages are the property of the person who performed the customization except that the introductory panel, INITS001, in the SDF file must retain the copyright statement of the program's author.

The family files created by the Family History System software are the property of the FHS user that created them.

II Getting Started

II.A Installing the Software

The basic set of programs in the Family History System is distributed on four 5 ¼" diskettes (360k), two 3 ½ (720k) diskettes, or a single 5 ¼" HD (1.2M) or 3 ½ HD (1.4M) diskette. The diskette(s) should be labeled B1, (B2, B3, and B4) for identification purposes during the installation of the programs. Registered users will receive an additional diskette (labeled X1) which has programs supporting the system extensions. If your diskettes do not have external labels marked in this way, you may identify each diskette by placing it in a drive and displaying a Directory list of the diskette contents. You will find that:

the B1 diskette will have a file named: FHSDISK.B1
the B2 diskette will have a file named: FHSDISK.B2
the B3 diskette will have a file named: FHSDISK.B3
the B4 diskette will have a file named: FHSDISK.B4

The B1 diskette has an "orientation" procedure that may be started by placing the diskette in a drive of your PC, making that the "default" drive, and entering: FHS

The contents of this manual are provided as a set of MS Word formatted documents on a diskette. You can view or print the document using MS Word 6.0, a compatible word processor, or a MS Word Viewer utility which can be obtained from Microsoft's WWW site. You can find out more about this by entering: FHS MANUAL

These "distribution" diskettes contain many files, which are not required during the normal operation of the system. For instructions on how to create a working copy of the programs, without those unnecessary files, place the B1 (or X1) diskette in a drive, make that the default drive, and enter: FHS INSTALL

II.A.1 PROGRAMS

The Family History System programs can be installed on a floppy diskette or a hard disk. To install the programs onto one HD diskette (5 ¼" 1.2M or 3 ½ 1.4M), with the distribution diskette(s) in the A drive and the receiving diskette in the B drive, first format a blank diskette. Then place the B1 diskette in the A drive, make that the default drive, and enter: FHS INSTALL PGMS A B. Repeat the process with the X1 diskette if you have it.

To install the programs onto your hard drive (drive C) from the distribution diskette(s) in the A drive, place the B1 diskette in the A drive, make that the default drive, and enter:

FHS INSTALL PGMS A C

The programs will be placed in a FAMILY directory of the destination drive. A "DATA" sub-directory will be created under the FAMILY directory for your own family information. Additional sub-directories (WORKFILE, TRANSFER and REPORT) will be created for other "temporary" files that are produced during an FHS work session. Again, repeat the process for the X1 diskette if you have the registered version.

If you have previously installed an earlier version of the Family History System in the FAMILY directory, they will not be affected by the installation of the new programs. The program names in earlier versions of FHS are of the form

"FAM----.EXE", whereas the programs in this update of FHS are of the form: "FHS----.EXE". After you are satisfied that you no longer need the earlier version of the software, you can remove the earlier programs, runtime library and option files using the DOS commands:

```
DEL \FAMILY\FAM*.EXE
DEL \FAMILY\BRUN30.EXE
```
and and `DEL FAMILY\*.OPT`

After installing the programs on diskettes, you may start the system by placing the program diskette in drive "A", making that the default drive and entering: `A>fhs97`

If the programs are installed on a hard disk (drive C for this example), you will start the system by entering:
`C>fhs97`
or by entering: `C>cd \family` and then `C>fhsinit`

II.A.2 INSTALLING THE PROGRAMS UNDER WINDOWS

The Family History System Programs will run as a DOS application under any version of Windows (3.x, 95, NT). There are some special considerations when using the programs in those environments however.

To install the programs under Windows 3.1 from a diskette in the A drive to a directory on your C drive, place the B1 diskette in the A drive, click on "File" in the Program Manager menu bar, then click on Run, type:

`A:INSTALL PGMS A C` and press Enter.

(Under Windows 95, click on START, then click on RUN, type: `A:INSTALL PGMS A C` and press Enter.) Then repeat the procedure for the X1 diskette.

After the installation is complete, you can create an icon to start an FHS session under Windows. Under Windows 3.x, click on "File" in the Program Manager menu bar, then click "New", click "Program" and enter: C:\FAMILY\FHSINIT.EXE as the program name and press Enter. Under Windows 95, place the mouse cursor on a position of the desktop where you want to create the icon, press the right mouse button, click on "New" and "Short Cut". Enter: C:\FAMILY\FHSINIT.EXE as the command and assign a name to the short cut, such as "FHS". You will start an FHS session by double clicking on the icon. When you end the FHS session, by pressing the F10 key from the Main Menu, you will return to Windows.

There are some special settings to consider under Windows 95. After you have created an FHS shortcut on the desktop, place the mouse cursor on the icon, press the right mouse button and then click on "Properties". You can use the "Screen" tab settings to choose whether the session will run in a Window or use the Full Screen. You should also select the "Misc" tab and move the "Idle Sensitivity" slide bar to the low (left) end. (This will stop Windows from pausing the FHS programs when they occasionally look for a keypress while doing other work.) Among the "Misc" settings, you should also turn off the "check box" for "Alt+Enter" as a "Windows Shortcut" key. (The "Alt+Enter" key combination has a special significance when updating screen format definitions in FHS. Turning off the key combination as a Windows Shortcut key allows the FHS programs to know when you press those two keys together.)

To print reports with FHS, or with any DOS application under Windows, it is necessary to assign a DOS printer "port" to your Windows printer. DOS printer ports are normally designated with the identifiers LPT1:, LPT2:, etc. Under Windows 3.1, an identifier of this type is always assigned to installed printers. Under Windows 95 or NT you must specifically state that a printer will be used by DOS applications when the printer is added or you must subsequently "capture" a printer port by changing the printer "properties". (Right click on the printer icon, then click on "Properties" and choose the "Details" tab. Click on "Capture Printer Port" to assign a DOS printer device identifier to the printer) The chosen printer port (LPT1:, LPT2:, etc) should then be entered as the DESTination for your FHS Printer Setup for the printer. (Use Main Menu selection F3-C to examine and modify the FHS Printer Setup tables)

II.A.3 SAMPLE FILES

There are two sets of sample files that are provided on the distribution diskette(s) for the basic set of programs. One contains information about the descendants of Adam as recorded in the Bible Book of Genesis. The other contains information about the family of Prince Charles of England. You can install these files in GENESIS and ROYAL sub-directories of the FAMILY directory by placing the B1 diskette in a diskette drive, making that the default drive, and entering:

`FHS INSTALL GENESIS x y` or `FHS INSTALL ROYAL x y`

where “x” is the drive ID for the diskette drive and “y” is the drive ID of the hard drive where your FHS programs are installed. The family files will be installed, respectively, in GENESIS and ROYAL sub-directories of the FAMILY directory on the “y” drive. The Family File Setup table that is distributed with FHS already contains entries for these sample files.

II.A.4 HTML Documentation and Sample Reports

The diskette(s) with the public version of the software includes the file FHSHTML.ZIP from which you can install a set of HTML documents and sample reports that have been taken from the FHS web site, fhs.tallahassee.net. You can then examine this information without having to spend time ONLINE. To install the information on your hard drive, place the B1 diskette in a diskette drive, make that the default drive, and enter:

```
FHS INSTALL HTML  x  y
```

where “x” is the drive ID of the diskette drive and “y” is the drive ID of the hard drive where the FHS programs were installed. The “Home Page” will be installed as the file $FHSHOME.HTM in the FAMILY directory. Other files will be installed in sub-directories HTML, DOCS, and REPORTS. To view the information, start your WWW browser software (e.g. Netscape Navigator or MS Explorer) and set the address to: C:\FAMILY\$FHSHOME.HTM (Under Windows 95 you could simply click on START, then on RUN. Type: C:\FAMILY\$FHSHOME.HTM and press Enter. You can also create a “shortcut” for this file on the desktop. You could then begin a session of browsing these documents by double clicking the icon for the shortcut.)

II.B Beginning a Family History System Work Session

When you begin an FHS work session, the screen will be cleared and reformatted with the system’s “introductory panel”. This panel, which shows the “update” of the program diskette that you are using, will only appear for a few seconds, after which the MAIN MENU of system options will appear.

NOTE: *To cause the Main Menu panel to appear more quickly, press a key on the keyboard when the introductory panel appears.*

```
                          Family History System
                                MAIN MENU
   F1  Initialize/Display/Update Family files
   F2  Produce Reports
       A. Ancestor/Descendant/Relative    D. Search/Select/LIST/Summary
       B. FAMILY Group Reports            E. Tiny Tafel
       C. Ancestor/Descendant CHARTs      F. Report/Chart INDEX
   F3  Utility Functions
       A. Change File Name Table          D. Export/Import Data
       B. Customize System                E. Validate File
       C. Change Printer Controls         F. Create Index File
   F4  Set DATE,TIME & Date FORMAT     DATE: 00-00-0000  TIME: 00:00:00
   F8  Execute DOS Commands (DOS 3.0 or later)
   F10 End FHS Work Session
```

View 1: Main Menu

The Main Menu panel above shows three options that do not appear on the Main Menu panel for the basic set of programs. Those options are:

F2-E Tiny Tafel
F2-F Report/Chart INDEX
F3-F Create Index File

These are extended options that are provided only to registered users.

II.B.1 MAIN MENU Program

In addition to being the first functioning panel that you will see when entering the system, the MAIN MENU provides the only "authorized" and "safe" means of exiting the system (by pressing F10). You are never far from the MAIN MENU. It can be reached from any of the programs in the system by pressing the "F9" key.

The purpose of the MAIN MENU is to permit you to easily select the system function that you wish to perform. These functions include:

F1 Display/Update/Create Family History System data files

F2 Produce Reports or Charts

F3 Perform Utility Functions

F4 Set current DATE, TIME and DATE Format

F7 Execute DATECALC utility. (This isn't on the menu but will work for those who are using DOS 3.0 or later. This utility may also be run as a memory resident TSR program in DOS 2.1 or later versions of DOS. For more information, see Section XIII of this manual)

F8 Execute DOS Commands (DOS 3.0 or later)

F10 End FHS Work Session (Return to DOS or WINDOWS)

The system functions are selected by pressing the indicated "function key". If any other key is pressed, a soft tone is sounded and nothing else happens. When a "legal" key is pressed, the corresponding function key designator, next to the function description on the screen, will be hilited. If you have selected a function, such as F2, that has several options to choose from, you will be prompted to enter a character corresponding to the one you wish to select.

When you have fully described the system function you wish to perform, the program which performs that function will be read from the program diskette and given control. If the program cannot be read from the diskette (for example, if the correct program diskette is not in the "default" drive, or the drive door is open, or the program diskette is for some other reason unreadable), the message:

"Put Program diskette in default drive..."

will appear on the bottom line of the screen. The "default drive" is the one from which you are running the programs (or the one that appears in the DOS Prompt). If you are able to determine the reason for the problem and correct it (for example, by putting the correct program diskette in the appropriate drive), you may press the "space bar" and the system will make another attempt to read the program from the diskette. If for any reason you decide not to continue with the selected option, you may press the "ESC" key and you will be able to reselect any MAIN MENU option. (The ESCape key is recognized by most programs in the set as an operator request to terminate a process that has been started)

NOTE: *The above message may occur even when you are running the programs from a hard drive. If you have used the F8 key to go to a DOS session and returned to FHS with the current drive or directory located somewhere other than the FAMILY directory where the programs are installed. In that case, simply press the F8 key again to return to DOS, change the drive/directory back to the FAMILY directory, and return to FHS by typing EXIT.*

II.B.2 Setting CURRENT DATE, TIME and DATE Format

The setting of the current date, time and default format for entering dates are the only system functions that are performed within the MAIN MENU program. Because the current date is used to determine the ages of living persons that appear on some of the reports and in the file maintenance program, it is important that it be properly set if any reports are to be produced. The time is not used by the system and is only included for your convenience.

If you press the F4 key, you will be prompted to:

Select: 1) Change DATE and TIME 2) Change DATE Format

If you select "2) Change DATE Format", you will be prompted to:

Select: 1) MM-DD-YYYY 2) DD.MM.YYYY 3) YYYY.MM.DD

If you press "1", "2" or "3" the format for the current date will be changed accordingly. The format that appears there will be the one that must be used for entering dates in the file update program and in the Search/Select/LIST program.

The format that you select will be the one used during the remainder of the working session. You will also be asked if you want to:

Save Date Format in FHSCONFG?….(Y/N)

If you reply "Y" then this will become the default date format that will be used in future FHS work sessions.

If you select "1) Change DATE and TIME", you will be prompted to:

Enter the current DATE and TIME

and the cursor will appear at the left most character of the displayed date. You must enter the date in the format displayed. Further, it must be a valid date and not be before "Jan 1,1980". After entering the date, the cursor will automatically advance to the first character of the time. The time must be entered in the form HH:MM:SS. You may use the 24-hour convention for denoting AM or PM. Press the TAB key to switch between the Date and Time fields. After you have typed in the date and time to your liking, you may indicate to the program that you wish to reset the current values by pressing the RETURN or ENTER key. If an error is found in either the date or time, a tone will be sounded and you may correct the error.

If for any reason you wish to terminate the option, you may press the ESC key and you will then be able to reselect any of the MAIN MENU options.

II.B.3 Temporary Exit to a DOS Session

Main Menu option F8 allows you to temporarily exit to the DOS prompt where you may enter DOS commands for doing such things as making backup copies of your family files. To return to your Family History System working session, enter the DOS EXIT command. Before returning to FHS you should assure that the "current drive and directory" are set to the location of the FHS programs.

Several other of the FHS programs also allow you to use the F8 key to begin a temporary DOS session, although this option may not appear among the program options shown on the screen. Again, you return to the Family History System by entering the EXIT command at the DOS prompt. In this case, you will return to the FHS program that was in control when you began the DOS session.

II.B.4 Where do you go from here?

Your first interest no doubt is to begin entering your family information into an FHS Family File. If you are new to this software, you can begin right away by selecting Main Menu option F1 (File Update Program) to INITialize a family file and begin entering information into it. Section IV describes the program that is used for that purpose. But you may want to look over Section III before that to become familiar with the keystroke conventions for entering information into the formatted displays that you will find in the File Update program.

If you have used earlier versions of the Family History System to create one or more family files, then you will want to copy those family file datasets to the \FAMILY\DATA directory of your hard drive and use Main Menu option F3-A to prepare the Family File setup table entry or entries for those files. Section VI of this manual describes the Family File Setup program.

III Family History System Design

This section of the manual provides descriptions of some of the features of the software that resulted from decisions made during the design of the system. There is a lot of information here which is not really necessary for using the programs but it may help you to have a better understanding of the way the software works. There are several sections that do contain some essential information. Those sections are III.III.D through III.III.G.

III.A Modular Program Design

It was impossible to include all functions of the system within a single program, however the software was designed so that each major function would be accomplished by using a single program. This "modularity" simplifies the tasks of maintaining the software and expanding the system to include new options. It also reduces the amount of memory required on the PC's that run the software.

III.B Table Driven Design

One of the most significant changes in this update of the Family History System involves the use of many Tables to control the software's operation. (A "table" is simply a list of values for program variables or options) In doing this, the system also:

provides utility programs for customizing the tables
stores the table values in files external to the programs
allows the user to identify the table files that will be used during a working session.

A later section of this manual provides a detailed description of these system tables and their customization.

III.C Use of Work Files

The software uses a variety of external "work" files to hold the results of certain extended operations. These include "relationship" work files (which hold information about relationships to an individual), "select" work files (which hold the results of Search operations), Index files (which hold the results of "sort" operations), and "reference" work files (which are used to print report/chart indexes in the extended system). Originally, these work files were necessary to allow for the

limited memory and slow operation of PC's in the early 1980's. Today, the work files still speed up the printing of most reports and charts and allow the sharing of information between programs in the system. See page III-5 for a more detailed description of the software's files.

III.D Fixed Formatted Displays

All of the programs of the system make use of "static" formatted screen displays. When the Family History System was first introduced in 1985, many programs for personal computers made use of "scrolling" text for presenting information on the screen. Today the FHS screen displays are no longer "novel", in fact many would consider them to be "old fashioned", but they are still serviceable for creating files and presenting options for printing reports. This manual frequently uses the term "view" to refer to each of these formatted screen displays.

III.D.1 Segmented Screen in the File Update Program

Because of the complex nature of the Family History System files and the variety of information that can be stored in them, the file update program (Main Menu option F1) uses a "segmented" screen to display and update information in these files. Within that program the standard 24x80 screen area is divided into 4 "viewing areas": upper left, upper right, lower left and lower right. A 5th viewing area occupies the lower half of the screen. (The Report Customization program, F3-B-F5, also makes extensive use of segmented displays of this type)

Different information is displayed in the various viewing areas so that up to 4 types of information may be viewed at one time without interference. Of the several viewing areas that may appear at one time on the screen, one will be designated the "current viewing area" and will be distinguishable by its being enclosed by a "hilited" border. The hilited border is moved from one viewing area to another by selecting options (or terminating requests using the ESCape key).

While viewing information for one of the record types that may occur multiple times, ordered by some date, you will be prompted by one of the messages:

"Press PGUP key for earlier record"
or "Press PGUP, PGDN for other records"
or "Press PGDN for later record"

if there is some record of that type which precedes or follows the one currently being viewed.

The lower half of the screen is used as a fifth viewing area for displaying lists of individuals resulting from a "search" of the system files or a request to list the children of an individual or of a marriage. Individuals may be selected from these lists for display of related information by following the instructions in the "view". Others in the list may be selected for display at a later time by returning to the list (after pressing the ESCape key in the "view" of Name record information).

In the upper right corner of most viewing areas is the "relative generation level" of the individual(s) whose information is displayed. This level is adjusted whenever a parent/child relationship is crossed and is set to 0 whenever an individual is selected for display based upon something other than a parent/child or spouse relationship (spouses are assumed to be in the same generation level).

III.D.2 Full Screen Mode of Data Update

Part of the decision to use static formatted screen displays in which data is shown in fixed labeled areas of the screen called "fields" was the plan to permit you to update the displayed information directly on the screen within the limits of the field containing the data. This has the advantage that you may make changes to any of the fields without prompting from the program. You may return to previous fields to correct errors and you may view all changes made before submitting the changes to the program for processing.

Certain conventions have been established to make use of many of the PC's special function keys to simplify the updating of information on the screen. Actually two sets of conventions were established, one for the update of text stored as comments, and the other for the update of information displayed in discrete fields on the screen. These sets of conventions will be described separately in the following paragraphs.

III.D.2.a) Updating Screen Displays (Other than Comments)

The following conventions describe the entry of information into formatted screen displays:

- The "cursor control keys" can be used to move the cursor anywhere within the active viewing but information can only be typed on the screen when the "blinking" cursor rests in an "updatable" field on the screen
- The "TAB" key (just to the left of the "Q" key on most keyboards) may be used to move the cursor to the first position of the next "updatable" field on the screen (if there is no next field, the cursor goes to the first updatable field on the display)
- The "SHIFT+TAB" keys (press the SHIFT and TAB keys simultaneously) may be used to move the cursor to the last previous updatable field on the screen (if there is no prior field, the cursor goes to the beginning of the last updatable field on the screen)
- The "HOME" key moves the cursor to the first updatable field on the screen
- The "END" key moves the cursor to the last updatable field on the screen
- The Enter or Return Key moves the cursor to the first updatable field of the next line (when updating 2 or more lines of data on the screen)
- The "CTRL+END" keys erase (replaces with blanks) all characters from the cursor position to the end of the field containing the cursor
- Pressing the ESCape key while the cursor is in a field whose contents have changed will remove the changes from the field; Pressing the ESCape key while the cursor is in an unchanged field will terminate the update and restore the contents of all changed fields
- The "DEL" key removes the character at the cursor position and moves all trailing characters (in the field) one position to the left
- When a character is entered in the last position of an updatable field, the cursor is automatically "tabbed" to the next updatable field
- For some fields (e.g. Record ID, DATES) you will only be permitted to enter numeric digits; a tone is sounded if other characters are entered
- When entering information in a multiple digit numeric field, the entered digits will be right-justified as they are entered, replacing the previous contents of the field on the screen; (this is a new "feature" in this update)
- When entering values in date fields, it is unnecessary to enter the "delimiter" characters in the date... these will be automatically skipped over as you enter the date; (this is a new "feature" in this update)
- For some fields (e.g. SEX, File names) entered alphabetic characters will automatically be changed to upper case
- When entering NAME record information in the file update program the CTRL+R key combination is used to simplify the repetitive entry of information such as surname or birth/death places. Pressing the CTRL+R keys will restore the cursor field with the last displayed contents.

Entered updates are committed by pressing a function key designated by the program (usually F1) or by pressing the ENTER or RETURN key if no function key is designated. Pressing the ESC key terminates the update request without any changes being made.

III.D.2.b) Updating Comment Displays

The following conventions describe the updating of comment information

a. Cursor control keys:

Right arrow - moves the cursor right one position; at the end of a line the cursor goes to the beginning of the next line; at the end if the last line, the cursor moves to the first position of the first line in the comment viewing area

Left arrow - moves the cursor left one position; at the beginning of a line the cursor goes to the end of the previous line; at the beginning of the first line, the cursor moves to the last position of the last line in the comment viewing area

Up arrow - moves the cursor to the next line up, same column; from the top line in the comment viewing area, the cursor moves to the same column of the bottom line

Down arrow - moves the cursor to the next line down, same column; from the bottom line in the comment viewing area, the cursor moves to the same column of the top line

HOME key - moves the cursor to the first position of the current line

END key - moves the cursor to the last non-blank character of the current line after the current cursor position

ENTER key - moves the cursor to the first position of the next line.

b. Special Update keys:

DEL key - erases character at cursor position and moves characters following it to the left one position

Ctrl + END - Erases current character and all characters following it on the line

INS key - toggles a "character insert" mode. When this mode is in effect a "^" character appears in the lower right corner of the screen.. Characters entered at the cursor location will cause the current character at that location, and all subsequent characters on the line to be moved right one position. The last character on the line will be truncated

BKSP key - same as Left arrow key

ESCape key - removes all updates made to the current line since moving the cursor to the line. (If the current line has not changed, pressing the ESCape key terminates the Comment display and returns to the originating viewing area)

c. Special function keys:

PGDN key - moves the current line to the top of the screen and displays the succeeding lines. If the current line is at the top of the page, the next full page of text is displayed. Changes which have been made to the displayed text lines will be written to the file

PGUP key - moves the current line to the bottom of the screen and displays the preceding lines. Changes made to the current page of text are written to the text file

F2 key - Inserts a blank line before the line in which the cursor is located

F3 key - Requests to "Delete" the current line. The current line is shown in "reverse video" and the user is asked to confirm that the line is to be "deleted".

The numbers shown in the upper right corner of the viewing area are the number of the first text line on the screen, and the total number of text lines for the comments. The first number may be greater than the second in the case that it is a new line that no operator action has yet caused to be added to the text of the comments.

Pressing the F1 key causes all unrecorded updates on the current display to be written to the file and then returns you to the view from which the comment display was requested.

III.D.2.c) NOTE: Concerning the Formatting of Comments in Reports

When entering comment information you should take into consideration the following conventions for joining comment lines together to form blocks of text when comments are included in reports produced by the system:

- Three successive blanks at the beginning or in the middle of a comment line will cause all text on that line to the right of the blanks to be ignored
- A blank character is placed between two successive comment lines only if the last character of the first, or the first character of the second one is a space. (This permits a word which has been typed across a line break to be joined back together properly) Additional blank characters at the end of a comment line are dropped
- The backslash "\" character is recognized as a request to begin a new line of text in the formatted output. Two successive backslash characters result in a blank line being inserted between the preceding and following blocks of text when the comments are formatted for reports

- You may enclose parts of your comments in “curly brackets” or “braces”, that is “{” and “}”, and the report programs may be instructed to omit that text from the comments that are printed. This allows you to remove sensitive or conjectural remarks from reports that are distributed to others.

III.E System Messages

The bottom line on the screen is reserved for displaying messages. In some cases, these messages ask for a response from the operator (such as “Y” or “N”); if a “single-key” response is expected, you do not have to use the ENTER or RETURN key to indicate the end of your response. Some messages are merely informational; these will be terminated by an ellipsis (...) which indicates that the program is waiting for you to press any key on the keyboard to show that you have received the message so that the program may continue.

One of the customization files includes the text of all messages. This file also identifies the “default” response to messages that allow multiple “single key” replies. (The “default” response is the one that will be assumed by the program if the user “responds” by pressing the Enter key or Space Bar).

III.F Use of Program Function Keys

The system has been designed to take full advantage of the PC’s function keys for simplifying the selection of program options. Allowable function keys are indicated on the currently displayed panel. Pressing an “illegal” key will result in the sounding of a soft tone without any further action. This (1997) update to the software includes changes to the way some function keys are used in the report programs. This was done to provide more consistent use of function keys in those programs.

III.G Use of the ESCAPE Key

The ESCAPE key, labeled “Esc” on most keyboards, is used almost uniformly as a request to terminate an operation without further action. It only has effect, however, at those times that the program is looking for input from the keyboard. It cannot be used to interrupt the adding of a record to the files after you have requested for the information to be written to disk, and it sometimes cannot be used to interrupt the creation of a work file.

One extended operation, which may be interrupted is the printing of reports. After each line of a report is written to the output device, the report program looks for input from the keyboard. If some key has been pressed, the printing is interrupted and a message such as:

“Waiting at page xxx line yyy...”

is displayed on the bottom line of the screen. If the ESCape key is then pressed, the report is terminated; pressing any other key causes the program to continue the printing of the report. The SPACE BAR is a convenient key for pausing and continuing a scrolling report.

NOTE: *Pressing the PGDN key to continue a report will result in the program’s pausing at the top of the next page. This can be useful if you wish to print just one or two full pages of a report or if you need to add paper to a printer before continuing to print a report*.

The ESCape key is the standard means for returning from one “viewing area” of the segmented display used in the file maintenance program to the previous “viewing area” from which control was passed as a result of some operator request.

III.H Family History System Datasets and Files

This section provides a more detailed description of the FHS Family File format and the Work Files that were mentioned previously.

III.H.1FHS Family File

The file used in the Family History System to store information about individuals and their family relationships consists of three datasets containing variable format “records” which are “linked” together into a “hierarchic” logical file structure. Pictorially, a portion of the logical file structure is represented by the diagram on the next page.

In that diagram, each of the "boxes" represents a record type in one of the system's datasets. In some cases, (for example: child records, marriage records, and address records) a "logical record" may include multiple records of information of that type. The number of multiple records is essentially unlimited (there can be no more than 32000 occurrences of the name or address records and no more than 64000 of the other types of records). Records containing information of the various types are "logically connected" by a system of program maintained "pointer" fields. Though this structure may appear a bit more complex than the more common "flat" file which has a single fixed record type, the advantage in using the hierarchic structure is that there is no need to "reserve" space in a dataset (other than a 2-character pointer field) for types of information that may or may not be recorded for an individual at some time in the future.

The only information that the user needs to provide to the system to begin retrieving information in one of these extended logical records is that required for locating the name record of the individual about whom the information has been recorded. The basic "record key" that the system requires is the "ID number" for the individual. This is a number, which is assigned to each individual by the system at the time his/her Name is initially entered into the system. These numbers are assigned sequentially (ID #216 will be assigned to the 216th person entered into the system). The ID numbers assigned two individuals need not indicate any particular relationship between the individuals. These ID numbers may (optionally) appear in reports produced by the system and may also be determined by "searching" the files for other information (such as surname, given name or birth date) using the search option of the file maintenance program.

While the ID numbers of two individuals need not indicate any blood relationship between them, these numbers are used to define the only type of relationship that you are required to establish between individuals. The relationship of father or mother to a child is specified by recording the ID numbers of the parents in the Name record for the child. All other blood relationships between individuals are determined from the complete system of parent-child relationships recorded in this way.

Perhaps it should be noted that the system provides for recording additional information (educational, occupational, military, health and special event information). Further, address and comment records may also be created under each of these record types.

While the system provides for extensive "commenting" with the comments or remarks being logically connected to the appropriate record type, care should be taken in the use of this feature of the system because of the limited number of records in the "...OTH" dataset of miscellaneous information. It is not intended for writing a person's life history or for extended anecdotes, but rather for recording notes concerning sources of, or explanations for, information found in the record.

In the cases where multiple record types are permitted within a logical record, the records are automatically maintained in some "natural" order. For all but comment records, this is based upon a date stored in the record. Children are ordered by increasing birth date; marriage records by decreasing date of marriage, and address records by decreasing beginning date of residency. This has the unfortunate consequence that unknown birth, marriage or beginning dates (recorded as 00/00/0000) may result in information appearing out of chronological sequence in the file and in reports. The order is automatically adjusted as the correct information is determined and recorded. You may consider entering a "best guess" for unknown dates, making note of the fact in comments for the record type. (It now is possible to manually resequence the children of an individual in the view which shows a list of children in the File Update program)

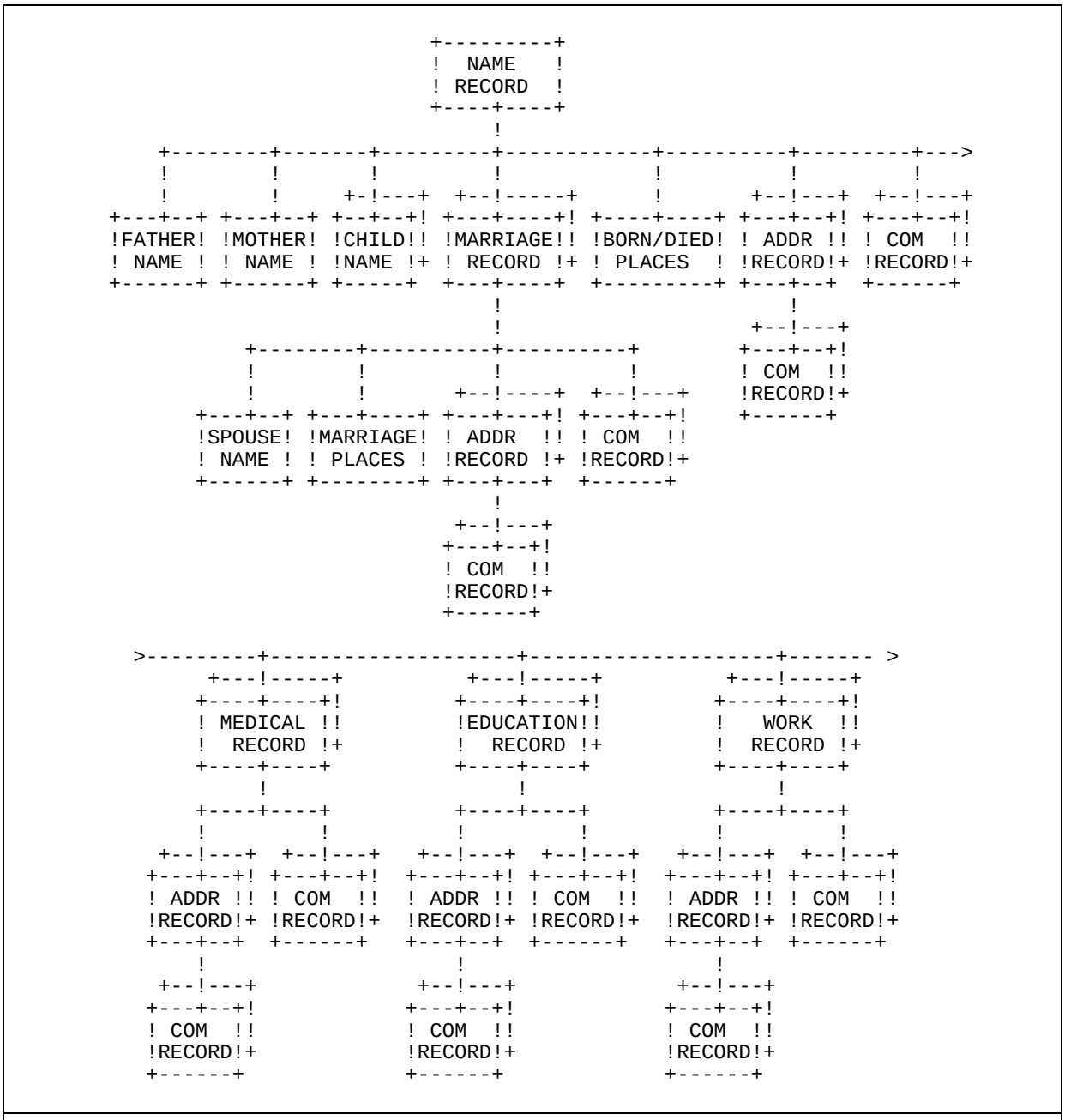


Figure: FHS Family File Structure Diagram

This discussion of the Family History System data files will conclude with a brief description of the datasets that comprise the file. There are three such datasets:

1. Name dataset - each record is 100 characters long; information stored includes surname, given name, date and time of birth and death, sex, and father and mother ID numbers. Up to 3600 name records may be stored on a single DS/DD diskette, or 32000 records may be stored on a hard disk
2. Address dataset - each record is 108 (short format) or 153 (long format) characters long; information stored includes: beginning and ending dates, 2 address lines, city, state/province, zip or postal code, and phone number. The Long format address record also provides a field for the country. Up to (3500 short, 2300 long) address records may be stored on a single DS/DD diskette, or up to 32000 may be stored on a hard disk

3. Miscellaneous INFO dataset - each record in this dataset is 50 characters long. Up to 7000 records may be stored on a 5 ¼" DS/DD diskette; up to 65000 may be stored on a hard disk.

   Record types include:

   - Spouse, family or marriage record
   - Birth/Marriage/Death location record
   - Comment record (1 record for each line of comments)
   - Event Records
   - Occupation, Education, Military and Health records.

III.H.2PROGRAM "WORK" FILES

There are several types of "work" datasets that are used in the Family History System. These are semi-temporary files that are used to store information derived from certain processes so that those sometimes-lengthy processes do not have to be repeated too frequently. Among these work datasets are the RELATIONSHIP Work Files, the NODE Work File, the SELECT Work file, the REFERENCE Work file, and the INDEX File. The following paragraphs provide more complete descriptions of these work files.

III.H.2.a) RELATIONSHIP WORK FILES

A Relationship Work File must be created prior to producing the ancestor, descendant or relative reports, a register style group report, or the ancestor charts. Although there appear to be three types of relationship files: Ancestor, Descendant and Relative, in fact these all share a common format, the only differences being in the number of generations of ancestors or descendants that are searched in order to build the work file. When building an Ancestor work file, no search is performed for descendants at all. When building a Descendant work file, no search is performed for ancestors, while in creating a Relative work file, the program first searches for all ancestors and then all descendants of the ancestors. You may specify the maximum number of generations (of ancestors and descendants) that are to be included in the work dataset. This is done to permit you to exercise some control over the extent to which lines of ancestry or descendancy will be followed in producing the report. A relationship work file may be reused (without recreating it) if no new or changed relationships have been recorded in the family file that was used to create the work file.

III.H.2.b) NODE WORK FILE

The "Generalized BOX Chart" program uses a NODE Work File to record the column, generation level, and relationships between the "information boxes" of a horizontally arranged box chart. These locations are determined by the type of relationships recorded (ancestral or descendant), the "base record", and the type of "alignment" that a node has with respect to related nodes in the next generation level. The alignment may be changed without having to re-create the NODE Work file, and a report of "Chart Statistics" can be printed from information in the Node Work File.

III.H.2.c) SELECT WORK FILE

Another type of work file used by many programs in the Family History System is the SELECT file. Among these programs, the File Update and Search/Select/LIST programs use these files to store Search Results and the Validation program uses them to store lists of ID's for records that have errors of one type or another. This file is essentially an ID sequenced "check list" of individuals that have been chosen for processing. It permits the system to isolate the sometimes, complex process of selecting ID #'s within certain programs and to pass the results of the selection process to other programs in the system.

III.H.2.d) REFERENCE WORK FILE

The March 1990 update of FHS introduced another type of Work file, the REFERENCE work file, which contains notes concerning the ID's that appear in a particular report or chart and the location of each appearance within that report or chart. This work file is used by a program in the extended system to print report indexes. These indexes may be printed for ancestor, descendant, relative and family group reports, as well as sets of ancestor charts, ancestor maps and ancestor/descendant "box" charts. In this (1997) update, these reference work files can contain references from multiple reports and charts, making it possible to print a single index for a booklet that contains several reports or

charts. One of the Global Report Options controls whether the report programs should ask the user if a Reference File should be created when a report or chart is printed. This allows the unregistered user to turn off these queries.

III.H.2.e) INDEX FILES

The Family History System INDEX File is one that contains a complete but re-ordered sequence of ID #'s. The reordering is accomplished by Sorting the ID#'s based upon the contents of certain fields; for instance the ID's may be sorted in Birth date sequence, or in alphabetic sequence of Surname and Given Name. The option for creating an INDEX file is one of the "extensions" provided to registered users of the system. Even within the public version of the Family History System, there are opportunities to use these Index files; for example, to print Merged group reports in a sorted sequence or to print Sorted Summary reports in the Search/Select/LIST program. It is also possible to export records in sorted sequence using an Index file and Index files are used in the File Validation program to find "duplicate" records. But the most interesting reports and charts produced by the Family History System, those that emphasize the relationships between members of your family, have no need of the Index files.

III.H.2.f) UNMATCHED WORK FILES

Each of the WORK files has a "header" record which contains a variety of information used by the programs to identify the type of work file, its "origin", and how to get to the work file records. Included in this header information are the Date and Time of "Creation" for the NAME File that was used to build the work file. This "Creation DATE-TIME Stamp" of the NAME file is used to distinguish the name file from all others. (It actually can only distinguish between name files that were not created within one minute of each other, and it cannot distinguish between two copies of the same name file) If you attempt to use a work file with a name file which doesn't match this date-time value, then you will get a message like:

"Unmatched Work File..." or "Unmatched INDEX File..."

This should tell you that you have to rebuild the work file for the family file that you are now using, or that you must change the name of the work file to one that was created for the family file that you are processing.

IV (F1) The File Update Program

"Family Files", where your family information is stored, are initialized and updated in the system's FILE UPDATE Program which is selected by MAIN MENU option F1. This program is distinguished by its use of "segmented" displays in which different types of information may be shown in rectangular portions of the screen occupying the upper right, upper left, lower right, lower left, or lower half of the screen. The previous section of this manual discusses in more detail the design of these displays and the general rules for updating information on them. In the following discussion I will refer to each of the formatted segments of the screen as a "view".

The first "view" you are shown in the file update program, presents the Menu of options available in that program. This view provides the only "legal" means for EXITing the file maintenance program (by pressing "F9" to request a return to the system's MAIN MENU display). At that time, all "open" files will be "closed" and all updates, which may have been held in memory by DOS will be permanently written to your family files. If you are running the programs from diskettes and the program diskette has been removed from the default drive (for example if a separate data diskette has been placed in that drive) you will be prompted to replace the program diskette at the appropriate time. You should not replace the program diskette before being prompted to do so because the "open" files may not have been completely updated yet. (You are never "far" from this list of primary options while in the file maintenance program. It can be reached from any part of the program by pressing the ESCape key enough times)

```
      FHS File Update Program
           Primary Options

   F1  OPEN/CLOSE/INITialize Files
   F2  ADD New record to NAME file
   F3  DISPLAY Info for ID:_____
   F4  SEARCH Name file
   F5  Relationship Calculator
   F6  Reset Change Flags (00/00/0000)

   F9  RETURN to MAIN MENU
```

View 2: File Update Program Primary Options

The first option selected whenever the file update program is being used is "F1", Open/Close/INITialize Family Files. (It is automatically selected for you when you first enter the program) When a program "opens" a file, it is requesting that the operating system permit the program to read information from or write information to the file. Ordinarily this is done automatically by a program without the user's having to do anything, and in fact, all other programs in this system will automatically open and close the files as needed and offer no separate operation for performing that function. In the file update program however, because the files remain open for long periods of time to process multiple user requests and because a file could potentially become "damaged" if the user were to change data diskettes or "illegally" exit from the system (for example, by turning the machine off) while the file is open, you must explicitly "close" the family file that you are processing before "opening" another. All open files will automatically be closed when you return to the MAIN MENU program. (See the section: "Importance of "BACKING UP" your FAMILY Files" on page IV-11 for a discussion about protecting yourself from loss of information in damaged files)

NOTE: *The first time you use the FILE UPDATE program, you will probably see the message:*
Unable to OPEN file: FAMILY.NAM...

at the bottom of the screen. This is because the file has not yet been Created (INITialized). You should press the ESCape key to erase the message from the bottom of the screen. Then press the F3 key to Initialize the family file. Press ESCape again to move the active viewing area to the Menu of Primary Options of the File Update program. Then press F2 from that view to enter the first record in your family file.

IV.A Opening, Closing and Initializing Family Files

When the "Open/Close/INIT" option is selected from the View of File Update Program Primary Options, you will see displayed in the upper right viewing area a list of the three "parts" of your family file... each of them referring to a separate "dataset" that is used to store your family information. The last line of the viewing area shows the options that may be "function key" selected from this view. You should also note that the "hilited" border moves from the upper left to the upper right viewing area. While in this program, the "active" view (the one from which program options may be selected) is enclosed by a "hilited" border.

```
              Family File
RUSSELL My Family File_________________

Dataset  Ver   LastUpdate  Recs  Free
NAME      _    ___________ _____
ADDRESS   _    ___________ _____ _____
MISCINFO  _    ___________ _____ _____
           File is CLOSED

F1 CHANGE F2 CLOSE F3 INIT F6 SUMMARY
```

View 3: Family File Information

NOTE: *The term "dataset" is used here to refer to a named area on a diskette or hard disk, which contains a program or data. I am told that this term is peculiar to an IBM environment, but it is one that I find natural and will use frequently in this document. Many people will use the term "file" for what I am calling a dataset, however I usually think of a "file" as a collection of logically related information and as such it may consist of several datasets. When I speak of a "Family File" I will mean the entire collection of information that is stored in the three datasets described here.*

Three datasets are used by the system to store your family history information. You might think of these as three card files used to store different types of information. The first dataset, the NAME dataset, is used to store basic information concerning an individual, including the name, sex, birth and death dates of the individual. The second dataset is used to store the various types of ADDRESSes that are permitted in the system. The third dataset of OTHER data or (MISCellaneous INFOrmation) contains: birth, death and marriage places; marriage records; health, education, military, work and event information; and notes or comments.

Because you may wish to maintain multiple family files, with different dataset names or located on a different drive or sub-directory, the Family History System makes use of Family File "SETUPs", stored in an "FDF" (Family Definition File) dataset. Each SETUP is given an 8-character name and a short descriptive label. Most programs in the Family History System allow you to switch family files by selecting a SETUP from the list of the existing family file descriptions. Main Menu selection F3-A is used to maintain the Family Definition File. Pressing F1 provides that option in this view of Family File information. Section VI of this manual describes the procedure for maintaining family file definitions.

If this is your FIRST time using the system you will want to "INITialize" or "create" the file by selecting option F3. (If the datasets already exist when you select this option you will be asked to confirm that it is okay to DELETE the datasets during the process of re-initializing them. Be WARNED that REinitializing a set of family datasets will result in the LOSS of ALL DATA currently stored in them) After the file has been Initialized, in future executions of this program you will use F1 to simply OPEN the files.

> **NOTE:** *When you INITialize a family file, you will be asked whether you want to allow the use of Long (41 character) place names and whether to use the Short or Long format for address records. The "short" format is the one that was part of the original file design, providing 5 digit zip codes and 3-3-4 digit phone numbers. The "long" format provides a free form, 13-character phone number field, longer postal codes, and a "country" field. Each "short" address record occupies 108 characters of disk space. A "long" address record takes 152 characters of disk space.*

When the datasets are open you may return to the view of main options of the file update program by pressing the ESCape key.

IV.A.1 Family File Record Summary Report

Option F6 in the view of the Family File datasets provides a new report that gives a summary of the records that are used in your family file. It will tell you how many name records have either or both parents recorded, how many have children, how many have comments, addresses, or any of the Miscellaneous (Medical, Educational, Military, or Occupational) Record types associated with them in the file. This report can help you watch the overall growth of information in your family file.

IV.B Entering Information into Your Family File

In what follows, I will *not* attempt to fully describe all the options available in the file maintenance program, however I will try to describe the following:

- ADDING a NAME record to the file
- Recording MARRIAGE information
- Recording Events and Other "Miscellaneous" types of information
- Maintaining ADDRESS information.

I hope that you will experiment to become familiar with these and other parts of the file maintenance program so that you may determine which options of the program are appropriate for recording the historical information of your family.

IV.B.1 Adding a Name Record to the File

If you are just beginning to enter information into your family file then, after opening the files and returning to the primary menu of file maintenance options, you will select option "F2 ADD a Name Record" to place the first Name into your family file. The "active" viewing area will move to the upper right corner of the screen which will be formatted with labels describing the information that you may enter into the name record.

```
Name Record for ID:    1  (RGL=___)
Surname _____________________  Use _
  Given _____________________________
 Birth  DATE 00-00-0000_  TIME 00:00
       PLACE _____________________
 Death  DATE 00-00-0000_  TIME 00:00
       PLACE _____________________
   Sex  _     Age ____
 Father ID ______ Mother ID ______
F1UPDT F2ParentF3Child F4Spouse F5More
```

View 4: Name Record

You will note that the assigned record ID (on the first line of the screen) is "1". Each NAME record that you create will be assigned an ID number that just indicates the order in which the records have been entered into the file. These ID numbers are used to identify records for the purpose of defining relationships between them (such as parent-child or spousal relationships) but the value of the ID number itself has no special significance.

You should be aware that all name records are entered into an FHS family file in the same way, through this little "viewing area". Parents and spouses must be entered first as a NAME Record before they can become parents and spouses. A child becomes a child (and a parent a parent) only when the parent's ID number is entered as a "Mother ID" or "Father ID" in the child's record.

Of course the ID # of a parent cannot be entered into a child's record unless a record has previously been created for the parent. Because of this, it is easiest to enter information starting with an earlier generation and working forward, though this is certainly not necessary. If the parent's record is added after the child's, then you may go back and update the child's record with the correct ID number for the parent to establish the parent-child relationship.

When you start to enter information into a Name record, the blinking cursor appears in the 1st position of the SURNAME field. Pressing the "TAB" key (to the left of the "Q" on most keyboards) causes the cursor to advance successively to other updatable fields on the screen. You will note that pressing the ENTER or RETURN key will move the cursor to the first position of the first updatable field on the NEXT line. The previous section of the manual, concerning the "System Design", describes other rules for entering information into the formatted displays used in this program.

Although the Birth and Death places appear in the view of the name record information, they are not actually stored in the NAME record. Because this information is not generally known for distant ancestors or relatives, I have made these fields part of a separate record. If neither location is known, leave the fields blank and no space will be used in your family file. Entry of anything in either data item will result in the creation of a single 50-character record for storing the information. (If you requested support for Long Place Names when the file was created, each place name can be up to 41 characters long and if either name is longer than 22 characters, each will be stored in a separate 50-character record.)

I have allowed for recording the times of birth and death in the NAME record. Although this is also information which is not generally known about distant ancestors or relatives, in this case a total of only four "characters" are required to store both times so relatively little space is lost if these times are unknown or you decide not to maintain a record of them. The times should be entered in "24 hour" format to indicate AM or PM. That is: 02:15 would be 2:15 AM and 14:15 would be 2:15 PM.

You will note four unlabeled single-character fields to the right of the birth/death dates and father/mother ID's. These are used to identify special "status" values for those fields. For the Birth/Death dates, the recognized values are "?", indicating a questionable date, and "!", indicating a date that is verified by primary source information. The status fields for the parent ID's can be "?", indicating that the parent/child relationship is uncertain, or "*", indicating that it is an adoptive relationship.

The "Use:" field to the right of the Surname field was added in February 1987 to handle a "problem" that arises when creating indexes (an extended option), creating MailMerge files or printing reports using the Search/Select/LIST option. With those options you are permitted to request that a woman's surname be replaced with that of her (most recent) husband, which seems more appropriate for things like Birthday or Anniversary lists. However this didn't take into account the situation in which a woman chooses to continue using her own surname after marriage. A value of "Y" entered in the "Surname...Use:" field of a married woman tells those programs that her own surname is always to be used when building indexes or printing reports.

After all information has been correctly entered, press F1 to cause a record to be created in the file. The bottom line of the viewing area will then be replaced with a list of standard options available when displaying an individual's information.

The displayed Name record information may be modified, by pressing function key F1 twice, and making changes as above. Another record may be added by pressing the F1 key, then the F2 key and proceeding as above. Other options will be discussed in the following sections.

Please note when adding or updating a NAME record, the action of the CTRL+R keys is described as "RESTORE FIELD VALUE". This means that when you press the CTRL+R keys the field that contains the cursor will be restored to the last displayed value. This should simplify the sequential entry of records with repeated values in certain fields; for example, birth or death places, the Surnames or parent ID's of children in the same family.

IV.B.2 Creating a MARRIAGE or FAMILY Record

After name records have been created for each of the participants in a marriage, the marriage or family record may be created by pressing the F4 (SPOUSE) key in the view of name record information for either spouse (a single marriage record is maintained for both spouses). The "current viewing area" will shift to the upper left corner of the screen, which will be formatted with descriptions of the information stored in a marriage record. If a marriage has previously been recorded for the spouse whose name record is displayed, information from the most recent marriage record will be shown. A new record may be created, by pressing the F1 key, then the F2 key. If no marriage record currently exists for the displayed spouse, the view will be ready for information to be entered. If you do not want to enter information at that time, you may press the ESCape key to return to the Name record viewing area.

```
Family Record for ID=_____ (RGL=___)
 Spouse ID ______     Last Anniv ___
  Name _____________________________
       _________________________  Age ____
  Born ___________ Died ___________
  Married_____  00-00-0000
    Place _____________________
  ___________  00-00-0000
    Place _____________________
      F1 SAVE F2 Update SPOUSE ID
```

View 5: Marriage or Family Record

When entering marriage information, the other partner in the marriage is described by pressing the F2 key, typing the record ID for that individual and pressing the ENTER or RETURN key. The individual's NAME record will be retrieved and descriptive information displayed to confirm that the correct ID # has been entered. If it is incorrect, you may press the F2 key again to change the value of the spouse ID.

There are two unlabeled text fields preceding the two date fields for the marriage. These marriage "Status" fields describe the conditions under which the marriage was established and terminated. To update the marriage Status, Date and Place fields, use the TAB key to move the cursor to the field that needs to be updated. Although the beginning status field will normally indicate that a marriage was performed, other types of arrangements may be indicated, such as common-law (marriage), communal (living arrangement), etc.; the partners in the relationship will still be identified as spouses in all reports. The termination status field may indicate: "Wife died", "Husband died", "Divorced", "Annulled", "Agreement", etc. If a relationship is known to have terminated but the date is unknown, the YEAR of the ENDING date should be 9999. Please note that it is necessary for you to manually enter this termination date even when one or both spouses are recorded as deceased. It is not automatically updated with the death date of a spouse because that may represent an incorrect assumption on the part of the program. The report programs will take the death dates of the spouses into consideration when computing the number of years married. However a "?" will appear to the right of that number if a death date was used to determine it, to call your attention to the fact that the program has made what may be an incorrect assumption in computing it.

The PLACE fields that appear below the STATUS/DATE fields are handled similarly to BIRTH/DEATH place fields. If nothing is entered in either of the fields, then no space is taken in the file for them. If any text is entered in either field, then a single 50-character record is created to hold both 22-character fields. (If your requested support for Long Place Names when your family file was initialized, then place names can be up to 41 characters long, and if either place name is more than 22 characters long, each will be stored in separate 50-character records.)

After both spouse ID and status information have been satisfactorily entered, pressing the F1 key will cause the record to be written to the family file. If either spouse has other family records on file, the record being added will be merged with the others in reverse order of the beginning dates (so that the most recent record occurs first). If there is an earlier marriage record on file for the spouse whose name record is displayed in the NAME record viewing area, there will be a message at the bottom of the screen informing you that you may:

"Press the PGUP key for an earlier record"
or "Press PGUP/PGDN for other records"
or "Press PGDN for later record"

PLEASE NOTE: There are three separate steps to creating a marriage record:

- Enter the ID for spouse
- Update the status fields, dates and places
- Save the information in a file record.

No information is placed in the file until the last step is performed.

You should also be aware that a marriage record need not be created in order to establish parent/child relationships. Within the FHS family files, there is no forced connection between parenting and marriages. There is also no requirement that participants in a marriage be of different sexes. The "data validation" option will report such marriages as possible errors and they may present some problems when exporting information to a PAF GEDCOM file where it is necessary to designate one spouse as the Husband and the other as the Wife.

Options available to you after the marriage record has been added are shown on the bottom line of the viewing area and include:

F1 UPDATE (Change, Add or Delete)
F2 SELECT (the spouse to be displayed in Name record viewing area)
F3 List CHILDren having both spouses as parents
F4 Display/Enter RESidence information
F5 Display/Enter COMments about the family relationship.

Pressing the ESCape key in the view of SPOUSE or MARRIAGE information returns you to the Name record viewing area.

NOTE: *Deleting a marriage record* is a two-step process. Recall that a single marriage record is created for each marriage, which is connected to the Name record of each spouse. When you choose to display a marriage record, you do so while viewing the Name record of one of the spouses. If you choose to "Delete" a marriage record while viewing it, you are really only dis-associating the marriage record from the Name record of the spouse currently displayed in the Name record viewing area. The marriage record continues to be associated with the Name record of the other spouse. To fully delete a marriage record you must disconnect it from the Name record of each spouse. You can accomplish this in two ways. One is to display (and delete) the marriage record while viewing the Name record of each spouse. The other is to display the marriage record from the Name record of one spouse, then Update (F1) the marriage record, change the Spouse ID to 0 and Save the change. This will remove or disconnect the marriage record from the Name record of the "other" spouse. Then Update (F1) and Delete the marriage record to disconnect the marriage record from the Name record of the spouse currently displayed in the Name record viewing area. While this may seem unnecessarily complicated, it avoids the possibility of "losing" a marriage record (with its dates, places and status information) when you only intended to remove the marriage record from one of the spouses.

IV.B.3 Creating EVENT Records

A new EVENT record was added to the FHS family file description in this update of the software. This was done, in part, to make up for the failure to include special provision for Baptismal and Burial information in the original file design. To create Event records for a Name record (or to display Event records associated with a Name record), first display the name record and then press F5 (More) and F4 (Event). The bottom half of the screen will be cleared and reformatted for Event information. Existing event records will be displayed, or if no event records are associated with the name record, you will go immediately into Add mode for creating the first Event record.

```
                        Life Events for ID = 123
  Code   IMP COM    Date          Place              Description
BIRTH           04/10/1943  Marion, Indiana       Birth Event
BAPTISM         06/20/1966  Marion, Indiana       Baptism Event
                                    :
                                    :
                                    :
      F1 Change F2 Add F3 Delete F4 Move F5 Comments Esc Return
```

View 6: Life Events for a Name Record

If you choose F2 to Add a new Event record (or if there is no event record under the name record when you choose to display event records), the upper left viewing area will be cleared and reformatted with a list of Events as shown at right. The CODEs and Descriptions come from the EVENTS System Table. You can update that table using Main Menu option F3-B-F4-1 to add other events that may be important in your own family history. The first Event Code will be "hilited" and you can use the UP/Down cursor keys to move the hiliting to the type event that you wish to define. When the appropriate Event code is hilited, press the Enter key and the active viewing area will move to the bottom half of the screen where the Code and Description for a new event will have been added and you will be allowed to update the other fields for "IMP"ortance level, Date and Place. A one character, unlabeled field to the right of the Date field can be used to enter a single character "Date Status" field, which can have any meaning that you wish to define. It might be : ">", "<", "~", "?", etc. The IMP field is the "Importance Level",

```
CODE         Description
  BIRTH      Birth Event
  CHRISTEN   Christening
  BAPTISM    Baptism Event
  CONFIRM    Confirmation
  BARMITZ    Bar Mitzvah
  BATMITZ    Bat Mitzvah
  ADOPTION   Adoption by Parents
  MARRIAGE   Marriage

    Up/Down/Enter Select  Esc Return
```

View 7: Event List

a three digit numeric field which you can fill in with a value of 0-255 indicating the relative importance of the Event's information. The meaning of the importance levels, for instance whether a higher value is more or less important than a lower value, is completely up to you.

If the place name associated with the event is <= 22 characters long, then it will be stored in the Event record. If the place name is longer than 22 characters, and the family file supports long place names, then the truncated place name will be stored in the Event record, but a separate "Long Place Name" record will be created for the full place name.

After saving the Event record in the file, you can associate Comments with the event by pressing the F5 key and typing the text of the comments in the viewing area in the upper left portion of the screen. An Event with an associated block of comments will have a "Y" in the COM column for the event.

Events will be stored in the order that you place them and will not be automatically arranged into date sequence. You may resequence a series of events by moving them one at a time to the desired sequence. To move an Event, hilite the Event code that you wish to move using the UP/Down cursor keys. Press the F4 key to select the Event, then use the UP/Down keys to move the Event to a new position in the list and press the Enter key to complete the move.

IV.B.4 "Miscellaneous" Record Types

There are several record types that can be attached to a Name record for recording periods during the person's life. These records provide for Medical, Military, Educational and Occupational information. You can open a view for one of these information types by displaying a Name record and pressing F5 (More), F5 (Other), and then pressing the appropriate key (F1, F2, F3 or F4) for the record type that you wish to view. The viewing area in the upper left portion of the screen will be cleared and reformatted for the type information you have chosen.

While these types of information may seem to deal with Life Events, actually they deal more with "periods" of the person's life. Each record type has both a beginning and an ending date indicating the period of time during which the information applies. For a Medical record, it would indicate the time from the initial diagnosis until the "status" of the condition at the ending date. For a Military record, it would indicate the period of time that the person served at the entered rank.

If there are multiple records of a given type for a single name record, you will see a message at the bottom of the screen indicating that you may press the PGUP or PGDN keys to display other records. The records are maintained in the sequence of the Beginning date in the record.

Each record type may have Addresses and Comments associated with it.

NOTE: *The types of information covered by these "Miscellaneous" record types in the FHS family file definition are not formally supported by the standard GEDCOM descriptions and so will not be transferable to other genealogy programs using the GEDCOM Export/Import procedure. If you intend moving information between FHS and other (non-FHS) databases using GEDCOM, you should not make extensive use of these record types.*

IV.B.5 Maintaining ADDRESS Information

Address information may be recorded in a number of places within an individual's total information record. It may indicate the individual's residence, a family residence (under the spouse record), or an address related to one of the additional records for education, health, work or military information. For instance, pressing F5, then F2 in the Name record viewing area (or F4 in the Family record viewing area) moves the active viewing area to the lower left portion of the screen, showing the view that appears at right.

```
                ADDRESS RECORD
DATE1 _____________  DATE2 _____________
PHONE _____________________
LINE1 ____________________________________
LINE2 ____________________________________
 CITY ________________________
STATE _____________  ZIP _____________
COUNTRY ____________________
```

View 8: Address Record (Long Format)

The types of information, which are stored in an address record are shown below. Please note the differences between the "long" and "short" address formats:

Beginning and ending dates during which the address information was current;

Address (two 30 character lines);

Telephone (3 numeric fields in the short format, a free format 13 character field in the long format; early phone numbers using alphabetic prefixes cannot be recorded when using the short address format);

City (15 character field—20 characters in long format);

State/Province (4 character abbreviation - 12 characters in a long format record);

Zip or postal code (5 character field - 12 in the long format);

Country - (16 characters in the long format).

NOTE: *Main Menu option F3-D-1-F7 can be used to convert an older "short format" address dataset to one which uses "long" address records.*

Comments may subsequently be recorded concerning information that is particularly relevant to the address record. (This might include a physical description of a home)

Multiple addresses may be recorded of each of the previously mentioned types. All addresses under a given type record (name, spouse, health, etc.) will be sequenced in reverse order of beginning date so that the most recent address occurs first.

The Search/Select/LIST program offers an option for producing lists of latest (residence) addresses and there is an export option for creating a MailMerge format file of address information. The MailMerge file can be used with many database programs for printing mailing labels. It may also be used with many word processors for printing form letters.

IV.C Navigating your Family Tree

The File Update program has several features that allow you to quickly and easily follow a path of family relationships in your family file or to search your family file using multiple conditions on Name, birth/death dates and places. This section will describe how you can:

- List CHILDREN of an individual or "marriage" and select a child for further processing
- "Climb" the ancestor tree through PARENT relationships
- SEARCH name records.

IV.C.1 Listing CHILDREN of an Individual or Marriage

Pressing the F3 key in the display for an individual's Name record or in the display of a SPOUSE or FAMILY record results in the listing of children parented by the individual or by *both* spouses. The list appears in a viewing area occupying the bottom half of the screen. A "reverse video" hiliting will be assigned to the first child's ID. As many as 9 children may be listed; if there are more then you will be prompted to:

"Press PGUP/PGDN for more Children"

You may request to select one of the children for display in the Name record viewing area by using the UP and DOWN cursor control keys to move the "hiliting" to the ID number of the desired child, and then pressing the ENTER key. Another child may be selected by pressing the ESCape key in the Name record viewing area to return to the child list. If the child list has been overlain by other information, the lower half of the screen will be cleared and the child list will be redisplayed. Pressing the ESCape key in the viewing area for the list of Children returns control to the viewing area that was active when the child list was created.

You can follow a line of descendancy by selecting an individual for display in the Name record area, using F3 to display the children, selecting a child for display in the Name record area, pressing F3 to show the children of that child, selecting a child from that list, etc. The "*Generation Level*" that appears in the upper right corner of the Name Record viewing area indicates how many generations the selected child is from the first individual(s).

IV.C.2 Climbing Ancestor Trees through PARENT Relationships

The file maintenance program was designed so that the user could easily follow lines of ancestry (or descendancy) from one generation to another. The previous section described how you might start with an individual, list his/her children, select one of the children for display, after which the grandchildren parented by that child may be listed, a grandchild selected for display, etc. The family tree may be examined in the "reverse" direction also.

From the display of an individual's Name record information, pressing the F2 key moves the current viewing area to the upper left corner of the screen where information about the parents is displayed. From that view, the parents' children may be displayed (the full brothers and sisters of the original individual) by pressing the F3 key, or the Father or Mother may be selected for display in the Name record viewing area by pressing the F1 or F2 function keys respectively. If a parent is selected for display, then their parents (one set of grandparents of the original individual) may be displayed using the F2 key. Continuing in this way, a single chain of ancestor relationships may be examined to exhaustion.

To help you remember how far the ancestor chain has been examined, the "*Relative Generation Level*" of the displayed individual(s) is shown in the upper right corner of the Name record, parent, spouse and child displays. The generation level is reset to 0 whenever an individual is selected for viewing for some reason other than a parent, child or spouse relationship (for example, by selecting from a "search list"... see below).

IV.D SEARCHing the Name Records on File

The file maintenance program contains a procedure for performing searches of the Name records on file. This would ordinarily be used to determine the record ID for some individual whose information or family relationships were to be examined or modified.

The view for initiating searches is displayed by pressing the F4 function key from the view of primary options for the file maintenance program. The viewing area in the upper left corner of the screen will be cleared and reformatted with fields describing the criteria for limiting the search.

```
      Name File Search Options

     1<= ID <=32000  Sex:_  Changed:_
Surname: _____________________ F:_ M:_
Given: ___________________________________
00-00-0000 <=BirthDate<= 99-99-9999 _
Birth Place: _____________________
00-00-0000 <=DeathDate<= 99-99-9999 _
Death Place: _____________________
   F1SEARCH F2CLEAR Options F3Load File
```

View 9: File Update Program Search Options

The search criteria include:

limits on record ID;

the Gender or Sex code;

the Change Status of a record ("Y"=Name record changes only, "A" = any change to extended record)

Father/Mother ID Status codes (for values ?, *) entered after "F:" and "M:" respectively;

the Surname (or portion of a surname... e.g. the first 2 characters);

the Given name (or portion of a Given name);

Range of Birth dates;

Birth Date Status code (for values of ?, !) entered in position to right of upper limit on birth date;

the Birth Place (or portion of the Birth Place name);

Range of Death dates;

Death Date Status code (for values of ?, !) entered in position to right of upper limit on death date;

the Place of Death (or portion of the Death Place name).

The searches on Surname, Given name, and the place names are sensitive to upper and lower cases; i.e. neither "brown" nor "BROWN" will match a record with Surname "Brown" (but a search for "Brown" or "Br" will match). The Search/Select/LIST option, Main Menu selection F2-D, provides additional capabilities for searching name fields, including Soundex (which is not case sensitive).

The range comparisons on dates make the month-day and Year checks independently. Therefore a search with:

02/00/1930 <= Birth Date <= 02/99/1940

will locate name records with birth dates in the month of February and between the years 1930, 1940 inclusive. Also note that a value of 00/00/0000 for the upper limit on the Death Date will locate *living* persons who satisfy the other criteria.

Pressing the **F2 key** in the view of search criteria will clear all entered values for search fields.

If you press the **F3 key** in the viewing area for entering Search criteria, you will be prompted for the name of a previously created SELECT WRK file from which a list of ID's will be created. The active view will then switch to the lower half of the screen where information about the ID's in the list will be shown. The ID list can be processed in the same way as lists resulting from searching the file. (See below).

NOTE: *One use for the SELECT Work file might be to pass a list of ID's from a file validation option to the file update program. This would make it easier to examine and make corrections for conditions listed in a validation report.*

If you have entered criteria for selecting records, the search is started by pressing the **F1 key**. The current viewing area moves to the lower half of the screen and the search begins. A reverse-video display in the lower left corner of the screen shows the record ID for the name record currently being examined. The ID number will change as the search progresses through the file. The search process can be interrupted by pressing the space bar, then the search may be continued by pressing the PGDN key. If the search process is complete or has been interrupted, a message at the bottom of the screen will indicate the number of ID's in the list and the number of records that have been searched.

```
   ID      PARENTS  SEX    BIRTH      DEATH   ----SURNAME---- --GIVEN NAME----
    42      37    40  M  04-10-1943 00-00-0000 Brown          Phillip Edwin
   250     245   237  M  11-24-1965 00-00-0000 Perusek        Phillip S.
    :       :     :   :       :          :         :             :

            Up/Down/Enter Select  F1 Save LIST  F6 Print  Esc Return
```

View 10: Search Results

One of the ID numbers listed will be hilited by a reverse video "box" around the ID number. You can move the hilited box from one ID in the list to another by using the UP and DOWN cursor controls. The Name record for the hilited ID can be selected for viewing in the upper right portion of the screen by pressing the ENTER or RETURN key.

After displaying a name record selected from the ID list, other members in the *"Active Search list"* may be selected for display by pressing the ESCape key from the name record viewing area to return to the search list. (If there is an Active Child List, the first ESCape from the Name record viewing area will be to the Child List. After the child list is closed, by pressing ESCape in the Child List view, then ESCape from the Name record view will return to an active Search List)

A search list becomes inactive when another search begins or when the ESCape key is pressed in the search list viewing area.

Options that can be applied to a search list include:

F1 Save Search Results: You can SAVE the ID list resulting from a Search operation by pressing the F1 key in the view of search results appearing in the bottom half of the screen. You will be prompted for the name of a SELECT WRK dataset in which to save the list of ID's. The SELECT WRK file can be "LOADed" from the Search criteria view in the file update program. It can also be "LOADed" by other programs in the system such as the Family Group Report program, the Search/Select/LIST program, the GEDCOM Export/Import program, etc.

F6 Print Report of Search Results: You can print a report of the search results by pressing the F6 key within the viewing area for showing information about records that have satisfied the search criteria. The report will contain the ID number, Surname, Given Name, and (optionally) birth/death dates and places. This report will show the dates in the same format as they appear on the screen in the file update program instead of the "MMM DD YYYY" format used in other, more formal reports.

IV.E Using the Relationship Calculator

The "Relationship Calculator" feature is one which was previously available to registered users in a separate program but now has been made part of the public version of the software as it has been moved to the file update program. This function can be invoked in two ways:

from the menu of program options in the file update program it is option F5

from the Name Record view, press F5 (More), then F1 (RELCALC).

In either case, the formatted display shown at right will appear in the viewing area located in the lower right portion of the screen. The first line of the display shows the types of relationship rules that are to be in effect. The RULE can be "Common", "Civil Law" or "Latin" and the TYPE can be either "Patrilineal" (only paternal lines of relationship are examined), "Matrilineal" (only maternal lines of relationship are examined), or "All Lines" (both paternal and maternal lines are examined). Function keys F4 and F5 can be used to "toggle" among the RULE and TYPE selections. Function keys F1, F2 are used to enter the ID's for the records whose relationship is to be determined. If you start the Relationship Calculator from the Name record viewing area, then ID #1 will already be filled in with the ID # of the Name record that was displayed there.

```
       Relationship Calculator
 RULE: _____________ TYPE: _____________
1._____  ____________________________________
2._____  ____________________________________
 Relationship(__): _____________RGL:___
 Common Ancestor:
  _____ ____________________________________
 Born: 00-00-0000_  Died: 00-00-0000_
 AGL1: ___  Lineage: _________________
 AGL2: ___  Lineage: _________________
 F1 ID1 F2 ID2 F3 Next F4 Rule F5 Type
```

View 11: Relationship Calculator

When the first ID number is entered, the program retrieves the Name record, displays the Name on the first information line, and builds a table of all the ancestors of that ID (following the lines designated by the TYPE). This may take awhile, depending upon the number of ancestors for the individual that are recorded in the file.

When the second ID number is entered, the program retrieves the Name record, displays the name on the second information line of the viewing area, and begins to search the ancestors of the second individual (following the lines designated by the TYPE), looking for one that is in the ancestor table for the first ID. When one is found, the relationship is determined and printed on the screen along with the "relative generation level" compared to the first ID. Information about that "nearest common ancestor" is also displayed on the screen, including the generation level of the ancestor with respect to the first ID. The AGL1 line shows the common ancestor's generation level with respect to the first ID, and the LINEAGE shows the Ancestor Number (or Ahnentafel Number) of the ancestor relative to the first ID. The AGL2 line shows the same information relative to the second ID. If there are no common ancestors, "No Relation" is shown for the Relationship.

If there are multiple common ancestors, pressing "F3 NEXT" will advance to the next common ancestor in lineage number sequence. The number in parentheses before the relationship literal will increment by 1 for each additional ancestor that is found. Please note that the program does not examine those ancestors beyond a common ancestor that is found. A brother and sister have all of their ancestors in common, but only the parents will be found by this process. Also note that the common ancestor that is found is the "nearest common ancestor" to the second ID. If the ID numbers are reversed, the number and sequence of common ancestors may be different. (In the ROYAL family file, consider the relationships of Queen Elizabeth and Prince Philip)

You can terminate the process by pressing the ESCape key.

IV.F Importance of "BACKING UP" your FAMILY Files

As with all "dynamic" files whose creation and maintenance represents a considerable investment of time, the importance of keeping multiple backup copies of your family files cannot be overemphasized.

All of the information you enter is stored in the three datasets that make up an FHS family file. Using the "default" names, these are the FAMILY.NAM, FAMILY.ADR and FAMILY.OTH datasets. These are the only files that you need "backup" to preserve your data. (There are some other files that you may consider backing up. For instance the FHSCONFG.CFG, FHSFILES.FDF, FHSPRINT.PDF files in which changes that you make to the screen colors, the error tone, the date format, the file name table, and the printer table are kept. Also, the FHSRPTS.RDF file contains changes that you have made to report definitions, including changes to default report options. However these files are not part of your family information)

The standard DOS COPY utility (or XCOPY utility) should be adequate for most users to create these "backup" files. If one of your family file datasets exceeds the capacity of your backup device, then you must use the DOS BACKUP (or MSBACKUP) utility (or something equivalent) to create your backup files. These utilities will prompt you for additional diskettes if they are needed to receive the backup copy of your family information. Archiving utilities such as PKZIP or WinZIP can also be useful for making backups. The compression that they perform on the files can significantly reduce the size of the backup files allowing you to place larger files on a diskette.

The DOS RESTORE (or MSBACKUP) utility is required to bring back a file from a backup created with the BACKUP (MSBACKUP) program. Furthermore, the "backup" files that you create with the BACKUP utility cannot be used directly by the FHS programs. The backup files MUST be restored to your hard drive in order to be used by the programs. The usual COPY command is used to recover a file from backups created with the COPY command. The copies created by the COPY (or XCOPY) command ARE usable by the programs without having to copy them back to their original location. (It *would* be necessary to create a FILE SETUP to reference the family file from the backup diskettes)

You should always create a backup copy of your family file datasets after each extended update session. If you have made several changes to your family file since your last backup I would recommend always creating a backup copy of the data files before each extended file maintenance session, especially if your area is subject to power fluctuations. I would also recommend that you not reuse a backup diskette until at least two subsequent backups have been taken.

If portions of a data file do become unreadable, you are cautioned that when using standard disk utilities to remove the damaged sections, direct file pointers joining information together within the files may become unusable. It is best in this case to return to a backup copy of the files. The "pointer validation" option, Main Menu option F3-E-F6-1 described in Section X of this manual, may be able to *eliminate* the "pointer errors" but it will not be able to "correct" them.

If it is necessary to restore your family file from a backup copy, you should always restore all three datasets from the same backup copy. Attempting to restore just part of a family file will likely result in some system maintained pointer fields becoming invalid. This can cause abnormal program termination, spurious messages, or "garbage" or invalid information in reports. Again the pointer validation program may be able to eliminate the problems associated with "bad pointers" if it is necessary to "partially restore" a file, but you will have to carefully examine the resulting file to determine whether any information will have to be reentered.

V (F2) Reports and Charts

This section discusses the various types of printed output produced by the FAMILY HISTORY SYSTEM. Before actually describing the individual reports and charts however, much time will be spent on details which you may find of little interest during your initial attempts to bring your carefully entered family information to the printed page. I hope that you will return to this section at other times to become familiar with those details which should help you to better understand how the reports are put together and how they may better serve your efforts to document your family's history.

While much of the printed output produced by this software consists of standard types of reports or charts expected from a genealogical record system, that is: Ancestor Report, Ancestor (TREE) Charts and MAPs, Descendant Report, Descendant Charts, Relative Reports and Individual/Family Group Information. Some of the data items displayed or terms used in describing the reports may be unfamiliar to you. The following paragraphs describe some of these terms, including those of "ancestor", "descendant", "lineage number", "generation level", "bloodline" and "related individuals".

V.A SOME DEFINITIONS

An "ANCESTOR" of an individual refers to one of the parents, grandparents, great-grandparents, etc., of the individual. A "DESCENDANT" of an individual refers to any one of his or her children, grandchildren, great-grandchildren, etc. The parent-child relationships described are "blood" relationships and do not refer to "legal" or adoptive relationships. (Adoptive relationships may be recorded and distinguished from other parent-child relationships by placing an "*" to the right of the adoptive parent ID in the child's Name Record) Two individuals are considered to be "RELATED" or to be "RELATIVES" if they have a common ancestor. Therefore we would not consider individuals who are only "in-laws", that is "related" through marriage, to be relatives in the above sense. A "SPOUSE" refers to either partner in a marital relationship. (One aspect of this system's files and reports is that they have been designed, as much as possible, to not give a preferential status to any individual based upon gender)

The "GENERATION LEVEL" of an ancestor or descendant of an individual refers to the number of "parent-child" relationships that separate the ancestor or descendant from the individual. For example, with respect to a selected individual (who is said to have generation level 0), the generation levels of some relatives are: children (GL=+1), grandchildren (GL=+2), great grandchildren (GL=+3), parents (GL=-1), grandparents (GL=-2), great grandparents (GL=-3). Notice that descendants have positive generation levels and ancestors have negative generation levels.

The "BLOODLINE" between an ancestor and any of his/her descendants refers to a sequence of numbers, one for each parent-child relationship that separates the ancestor from the descendant, where the number for a given parent-child relationship refers to the number of the child in that generation level who is an ancestor of the descendant. For example, the bloodline (3,2,4,2) indicates that the descendant is the 2nd child of the 4th child of the 2nd child of the 3rd child of the ancestor in question.

The "LINEAGE NUMBER" of an ancestor refers to a number that is assigned sequentially to the ancestors of the individual in the following manner:

the base individual has lineage number 1

the individual's father has lineage number 2

the individual's mother has lineage number 3

the father's father has lineage number 4

the father's mother has lineage number 5

the mother's father has lineage number 6

the mother's mother has lineage number 7; etc.

In general, if an ancestor has lineage number n, then that ancestor's father will have lineage number 2n (2 times n) and the ancestor's mother will have lineage number 2n+1. These are the "counting" numbers that would naturally be assigned to persons on the traditional "horizontal" ancestor tree chart. Some relationships to notice: all male ancestors have "even" lineage numbers and all female ancestors have "odd" lineage numbers. And for a given ancestor on the chart, the lineage number of the child which appears on the chart is found by dividing the parent's lineage number by 2 (and discarding the remainder, if any. For example, an ancestor with lineage number 127 will have a child with lineage number 63 appearing on the ancestor tree... both females, by the way). Since beginning to work on these programs I have become aware that the term "Ahnentafel number" is more commonly applied to this lineage number in genealogical literature, though I have become accustomed to the term "lineage number" and so will continue to use it in this manual.

While "lineage number" and "bloodline" are convenient "numerical" concepts for describing "direct" relationships such as exist between an individual and his/her ancestors or descendants, the problem of uniquely describing one's non-direct relatives (aunts, uncles, cousins, etc.) is a bit more complicated. The very definition of "relative" given above suggests a natural approach which would combine these concepts to label relatives with a "lineage number"+"bloodline" where the lineage number is that of the "nearest common ancestor" of the two individuals (that is the common ancestor with lowest lineage number) and the "bloodline" is the one that describes the line of descendancy of the relative from the common ancestor. This is the approach that is used by this system's relative report for grouping and listing all recorded relatives of an individual.

NOTE: *It has come to my attention that there is a certain "ambiguity" in the "nearest common ancestor" when there are crossed family lines. The "nearest common ancestor" with respect to one of two related individuals may not be the same "nearest common ancestor" with respect to the other of them. In the ROYAL sample file, Queen Elizabeth and Prince Philip provide a good example of this.*

The family group report provides an option for showing the relationship and LINEAGE of the subject of the report. In that case, the LINEAGE displayed consists of:

- the LINEAGE Number if it is an ancestor
- the BLOODLINE, in the format (x,x,x,...,x), if it is a descendant, or
- the LINEAGE Number + BLOODLINE as described above if it is a non-direct relative.

NOTE: *The Register style of "merged group report", introduced in this update of the software provides an option for printing "lineage" which is somewhat different than described above. In that case a descendant "lineage" is similar to the "bloodline" described previously. But instead of being a simple sequence of child numbers it may contain child numbers (as lower case roman numerals), register number of the ancestor at each generation level, and/or the first name of the ancestor at each generation level. Further the entries in the lineage go from left to right as generations progress back, instead of from right to left as in the "bloodline".*

V.A.1 Relationship "Rules" - "COMMON", "CIVIL LAW" and "LATIN"

There are some other methods for describing relatives, which, though they assign a non-numeric and non-unique label to relatives, give a more generally understood idea of the relationship between individuals. These labels are ones such as: mother, father, cousin, aunt, grandmother, great-great-grand-uncle, etc. The Family History System supports three sets of rules for assigning such labels. Two of them are based upon the most familiar styles of relationship labels used in the U.S. One, which describes the child of a First Cousin as a First-Cousin-once-Removed, is called the "common" rules for relationships. The other, which describes the child of a First Cousin as a "Second Cousin", is called the "civil law" rule for relationships. A third rule, called the "Latin" rule, is based upon a style of relationship labels common in

some European countries. This rule assigns cousin relationships as in the "Civil" rule but avoids the use of a "grand" modifier for expressing other relationships. The "RELCODES" system table provides descriptive labels for the basic relationship categories. The Report Definition File "RELATION" table provides the actual labels that appear in reports.

V.B COMMON FEATURES OF REPORT PROGRAMS

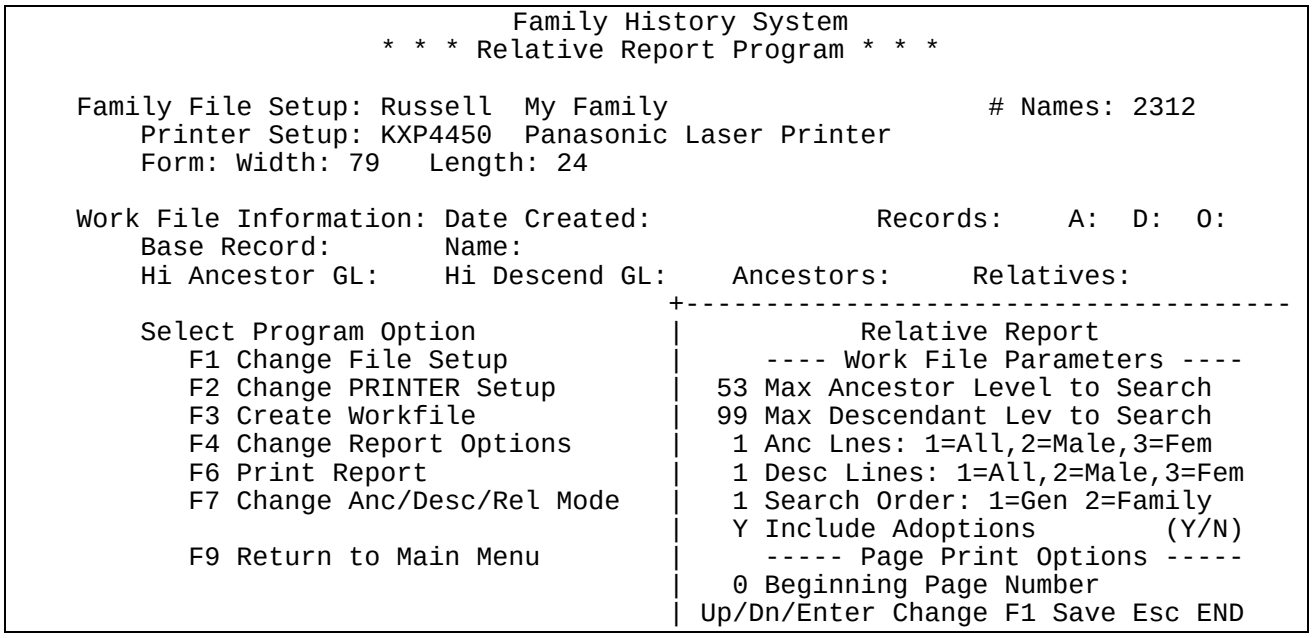
Although there are several Family History System report programs, and each has some unique characteristics, they all share some common features, including the basic screen format, the sequence of operations required for producing a report, and the use of Function Keys for selecting the various options. The following paragraphs describe some of these common features.

V.B.1 REPORT PROGRAM SCREEN FORMATS

The screen displays for each of the report programs share the following format:

The top portion of the display identifies the Family File that will be used by the report program. A Family File Setup is described by a 8-character keyword and a short descriptive label. The number of Name records in the family file will also be shown. Below the Family File description will be lines that identify the Printer Setup that will be used when printing a report or chart. This area will also show the Forms Width, and the Forms Length for the printer setup

The lower right portion of the screen is used for displaying and updating various report options



View 12: Relative Report Program Screen Display

The lower left portion of the screen describes the actions that may be performed by pressing various Function Keys.

The middle part of the screen will frequently show statistics about a WORK file that is used by the program to print a report or chart or about records that have been selected for the report by some other process.

V.B.2 REPORT PROGRAM SEQUENCE OF OPERATIONS

The steps for printing a report or chart are roughly the same within each of the report programs. They include:

- identifying the (name) records to be included in the report or chart

- choosing the options desired for the report or chart
- printing the report or chart.

Identifying the individuals to be included in a report (or chart) usually involves creating some sort of Work file that will be used for printing the report. The Work file is frequently designed to simplify the task of sequencing the records in some type of "relationship sequence". The default settings for all report options may be established by the user so that few options may require changing for printing a particular report or chart.

V.B.3 REPORT PROGRAM FUNCTION KEYS

To help you to establish a pattern for printing reports or charts, each of the report programs employs the same set of function keys for performing the common tasks described in the previous section. These function keys are:

F1 Select a Family File from the Family File Setup table
F2 Select a Printer from the Printer Setup table
F3 Create "Work" file or Identify the records to be printed in the chart or report
F4 Change report options in lower right part of screen
F6 Print the chart or report
F9 Return to Main Menu program.

In some cases, one or two additional function keys may be used for a special task within that program. For instance, in the screen display shown previously, the F7 key is used to switch among different types of reports that are produced by the same program. (The Relative Report Program also produces Ancestor and Descendant reports) Many report programs recognize the F8 key as a request to temporarily leave the system to perform some DOS operations. The screen will be cleared and the DOS prompt will appear. Return to the program by entering the EXIT command at the DOS prompt.

V.C REPORT TYPES and STYLES

The following sections describe various types of printed output that can be produced from information in your family file. The reports are classified according to their characteristics and a list of all reports and charts is provided with an indication of the classification of each one.

V.C.1 TYPES OF REPORTS (Detail Lists, Charts, Summary Reports, Utility Reports)

There is such variety of printed output produced by the Family History System programs that it is helpful to group them by common features as follows:

Detail Reports - provide information about individuals in a family file

Summary Reports - provide statistics (or numerical data) about groupings of individuals in a family file

Charts - are reports in which the format of the report (or the placement of printed information in the report) provides visual information which goes beyond the actual printed text; frequently charts will include some graphical symbols for grouping or connecting items of information

Utility Reports - provide information that does not come from a family file; these typically document information from the different "Definition Files" (that is, the FDF, PDF, TDF, SDF, MDF, and RDF files).

V.C.2 STYLES OF REPORTS (Fixed Format, Free Format, LifeLine)

Another useful classification scheme for Detail Reports involves the "style" of the report. This is a term that identifies the basic appearance of the report. The following paragraphs describe the three basic styles of reports: Fixed Format, Free Format and LifeLine Format.

Prior to March 1990, all Family History System reports were in a style that placed all information of a given type in a "FIXED" location in the report. In Ancestor/Descendant/Relative reports, a column or "tabular" format was used in which each item of information was listed in a fixed column with a descriptive heading. Family group reports appeared as "filled out" information sheets with each type of information placed in a fixed location of the report. Most of these reports required a printline of at least 132 characters. Consequently they required using compressed print with standard 8 ½ wide paper.

In March 1990, new FREE FORM styles of Ancestor/Descendant/Relative and Family Group reports were introduced in which all information was printed out in a "block" or "paragraph" format with the width of the block of text varying according to the "Forms Width". This permitted using printlines as narrow as 80 characters for most reports, allowing the use of more readable PICA or ELITE type styles.

In January 1993 a new style of Ancestor/Descendant/Relative report was introduced. It restricted the individual's information to three items... the Name, Life Span (consisting of the years of birth and death, separated by a hyphen), and a "Life Line". The "Life Line" is a line segment representing the person's life, with symbols for the events of birth, marriage(s), birth(s) of children, and death. The LifeLine is placed on the report line so that it falls appropriately within an area representing a time span, which is fixed for the entire report. For instance, a descendant report for a great grandfather might show the LifeLines distributed between the dates of 1820 and 1999. This style of report may prove useful for visually observing trends in longevity or the span of birth events in a family.

In 1997, other detail reports, such as the Search/Select/LIST reports and the Report Indexes, were also offered in styles other than the Fixed, columnar style that was previously used.

In addition to the styles of reports described here, a few reports have additional style options. These will be mentioned as part of the description of the report in a later section.

V.D Report Table - List of Printed Output

The following table shows a list of the various printed outputs produced by the Family History System with indications of the Types and Styles of each. The CODE for the report is the four-character identifier for the report entry in the Report Definition File. The codes for report "TYPE"s are: D=Detail, S=Summary, C=Chart, U=Utility and R=Relationship. (A Relationship report or chart is one that is designed to emphasize family relationships between records) A TYPE of "X" indicates that the report requires an INDEX File and so can only be produced by the extended system provided to registered users. The Codes for report "STYLE"s are: FX=Fixed Format, FR=Free Format, and TL=Time Line. Styles are only shown for detail reports as all charts and summary reports are fixed format. The table also shows the keystrokes that can be used to print the report, starting from the Main Menu. The F6 keystroke for actually printing a report or chart is omitted when the report is the only one produced by a program. In all cases, the additional keystrokes that may be required to select records or choose report options will be omitted.

CODE	TYPE	STYLE	KEYSTROKES	DESCRIPTION
	D S C U R X	FX FR TL	(From Main Menu)	
SRCH	D	X	F1-F4-F1-F6	Search Results
FSUM	S U		F1-F1-F6	File Summary Report
ARPT	D R	X X X	F2-A-1-F6-1	Ancestor Detail Report
ASUM	S R		F2-A-1-F6-2 also F2-D-F6-2-2	Ancestor Summary Report
ADUP	D	X	F2-A-1-F6-3	Ancestor Duplicates Report
DRPT	D R	X X X	F2-A-2-F6-1	Descendant Detail Report
DSUM	S R		F2-A-2-F6-2 also F2-D-F6-2-2	Descendant Summary Report
DDUP	D	X	F2-A-2-F6-3	Descendant Duplicates Report
RRPT	D R	X X X	F2-A-3-F6-1	Relative Detail Report
RSUM	S C R		F2-A-3-F6-2 also F2-D-F6-2-2	Relative Table
BLGR	D	X	F2-B-1-F6-3	Blank Family Group Form
FXGR	D	X	F2-B-1	Fixed Format Group Report
FFGR	D	X	F2-B-2	Free Format Group Report
REGR	D	X	F2-B-3	Register Style Group Report
ACHT	C R		F2-C-1-1-F6-1	Ancestor Chart - 4GEN/5GEN Style
AMAP	C R		F2-C-1-1-F6-2	Ancestor MAP
AVBX	C R		F2-C-1-2-F6	Ancestor Box Chart (Vertical)
AHBX	C R		F2-C-1-3-F6-3	Ancestor Box Chart

CODE	TYPE	STYLE	KEYSTROKES	DESCRIPTION
	D S C U R X	FX FR TL	(From Main Menu)	
				(Horizontal)
DVBX	C R		F2-C-2-1	Descendant Box Chart (Verti
DHBX	C R		F2-C-2-2-F6-3	Descendant Box Chart (Horizontal)
FPTH	C R		F2-C-3-F6-3	Family Path Chart
HSUM	S C R		F2-C-(123)-(32.)-F6-1	Horizontal Box Chart Summary
LIST	D	X X X	F2-D-F6-1	Search/Select LIST
ISUM	S X		F2-D-F6-2-1	Indexed Summary Report
TTFL	S X		F2-E	Tiny Tafel Listing
TOCR	U		F2-F-F6-1	Report Table of Contents
NDXR	D X	X X	F2-F-F6-2	Report/Chart Index
FILE	U		F3-A	File SETUP Report
TABL	U		F3-B-F4-1	System TABLEs Report
SFMT	U		F3-B-F4-2	Screen Format Table Reports
MSGS	U		F3-B-F4-3	Program Message Lists
RPTS	U		F3-B-F5	Report Definition Reports
PRTC	U		F3-C	Printer SETUP Report
GDIM	U		F3-D-1-F5-2	GEDCOM Import (Error) Report
GDLS	D U	X	F3-D-1-F6	GEDCOM File Listing
MMEX			F3-D-2-F5	MailMerge Export Options
MMLS	D U	X	F3-D-2-F6	MailMerge File Listing
PVLD	D U	X	F3-E-F6-1	Pointer Validation Error Report
DVLD	D U	X	F3-E-F6-2	Data Validation Error Report
MDAT	S U X		F3-E-F6-3	Data Comparison Report
INDX	D X	X	F3-F	Indexed Listing

V.E REPORT OPTIONS

The previous sections have indicated that many reports can be produced in optional styles, allowing you to choose the form of the report that is most useful for you. There are many other ways that the reports and charts can be tailored by changing the settings for options that control various features of the output. For instance, most detail reports allow you to choose whether an individual's name will be printed with the Surname first or last and you can choose to have the surname printed in CAPS for emphasis. Other options control whether ID #'s will be shown or whether dates, place names or relationships will be printed in a report or chart.

Actually, each report option can be obtained from three different sources:

- The Option Table for the individual report - this is the option table that is part of the definition for the individual report in the Report Definition File (RDF) being used (use Main Menu option F3-B-F5-F2 to list the reports, select the desired report, then use F2 to display the report option table for the report)
- The Global Parameters Option table of the Report Definition File (use Main Menu option F3-B-F5-F3-4 to display the Global Parameters Option table)
- The RPTOPTS system table, which is the master list of all report options (use Main Menu option F3-B-F4-1 to display the list of System Tables, then select the RPTOPTS table to view the list of all report options)

Whenever an option setting is needed by a report, the program first looks in the option table for the report. If the option is not found there, it then looks in the Global Parameters Option table. If the option is not found there, then the program obtains the setting from the RPTOPTS system table. (In the Report Definition File distributed with the software, the only option settings that are not found among Global Parameter Options or options for individual reports/charts are the ones for setting the characters for events appearing in LifeLine style reports)

V.E.1 REPORT OPTION TABLE

This section will look at portions of the full RPTOPTS system table to describe the meanings of certain option groups and a few individual options. The groups of options that you will find in the full set are:

- **Global Options** - these are options that apply to most, if not all, printed output but may not appear as options for individual reports
- **Work File Parameters** - these are not actually report options; they are settings which affect the creation of relationship word files
- **Page Print Options** - these options control aspects of the print procedure and do not affect the content of the reports
- **Report Options** - these options control the content of reports and charts; some options apply to only one or two reports; the options that apply to a particular report or chart will appear in the options menu for the individual report or chart
- **Register Options** - these options control features that are unique to the Register style of merged group report
- **Chart Options** - these options provide settings for features that are only applicable to the printing of certain charts and will appear among the options for the individual chart
- **Ancestor MAP Options** - these options apply only to the printing of Ancestor MAPs
- **Summary Report Options** - these options apply only to the relationship or indexed summary reports
- **LifeLine Event Characters** - these options describe the characters that will be used for printing the LifeLine portion of reports that are printed in that style; in the default RDF file, these are Global Parameter Options and do not appear as options for the individual reports that can be printed in the LifeLine style
- **Tiny Tafel Options** - these options control features of the Tiny Tafel report, an option which is only provided to registered users because it requires having a surname sequenced Indexed File
- **Group Report Sections** - these options control the selection of the types of information that will appear in the Family Group (or Individual Information) reports
- **Validation Options** - these options control the checks that will be performed by the Data Validation Utility (Main Menu selection F3-E-F6-2)
- **GEDCOM Information Options** - these options control the types of information that will be processed during a GEDCOM Export/Import procedure. For a type of information to be processed, it must have the appropriate option indicator set to "Y" *and* the table of GEDCOM Tags being used must support that type of information.

Each row of the RPTOPTS table shows four items of information about a report option. The items are:

- **CODE** - a four character name used to identify the option within the programs
- **TYPE** - the type of value that can be assigned to the option. Type 0 accepts any ASCII character, Types 1-20 correspond to groups of characters that represent allowed values (e.g. 1=[Y,N], 2=[Y,N,D], 3=[Y,N,A]), and Types 2x (x=1-5) allow numeric values with up to x digits
- **DEFAULT** - is the default option value in the distributed RDF file
- **DESCRIPTION** - is a brief description of the option.

The following sections will look more closely at a few of these option groups. Other groups of options may be described more fully in the section concerning the particular printed output or process to which they apply.

V.E.1.a) Global Parameter Options

This section describes those options in the "Global Options" group. These options are found in the "Global Parameters" section of the RDF file. Use Main Menu selection F3-B-F5-F3-4 to display the list of Global Parameter Options.

CODE	TYPE	DEFAULT	DESCRIPTION
-GO-	-1	-	------- Global Options -------

CODE	TYPE	DEFAULT	DESCRIPTION
CPRT	1	N	Print Copyright Line (Y/N)
EVPG	1	N	Always End on Even Page (Y/N)
AREF	1	Y	Allow REFERENCE File (Y/N)
APST	1	Y	Prompt for Next Strip (Y/N)
EURA	1	N	European Address (Y/N)
RRUL	21	1	Rel Rules:1=Comm,2=Civ,3=Latin
EXAD	1	Y	Show Adopt in Rel Labels (Y/N)
BRKT	7	S	Bracketed Comments? (Y/N/S)
SP12	1	Y	Print Spouses 1st-->Last (Y/N)
MNGP	22	2	Minimum Column Separation
MXGP	22	5	Maximum Column Separation

These are options that are likely to always be set to the same value for all reports, its value depending upon the personal preference of the user. The options are:

- *Print Copyright Line* - this controls the printing of a line at the bottom of each page of a report which identifies the source of information in the report. The content of the line is defined by Global Report Variable COPYRITE. The default content for this line is the text "Information Gathered By:" followed by the first three lines of the Address stored in the Configuration file
- *Always End on Even Page* - this controls whether an additional "blank" page will be printed at the end of reports which would otherwise have an odd number of pages. This is useful when printing reports that are to be part of a booklet in which it is common for each section (chapter, report) to begin on an odd numbered page. The "Blank page" will have headings, footings and a single line of text printed 1/3 of the way down the page. The content of the line of text is given by Global Report Variable BLNKPAGE that has as its default value the text: "This Page Contains No Information"
- *Allow REFERENCE File* - this controls whether you will be prompted to allow entries for a report to be entered into a Report Reference file from which a Report Index (and Table of Contents) can be printed. Reference files are only of use in the Extended version of FHS supplied to registered users. Therefore the default value for this option is "N" for the basic set of programs and "Y" for the extended version
- *Prompt for Next Strip* - when a report or chart requires a printline larger than that allowed by the Forms Width of the printer setup being used, the printing will be accomplished by printing multiple "strips". For example, if a report requires a printline of 132 characters and the forms width is 80 characters, the report can be printed in two strips, one for the first 80 characters of each printline and a second with characters 81-132 of each printline. This option controls whether you will be prompted at the end of such a report to print the additional strips. (Even if this option has a value of "N", the additional strips can be printed by setting the "Printer OFFSET" option to a value greater than zero. For example, a Printer OFFSET of 80 will cause the program to begin each line of the report with the 81st character of the printline)
- *European Address (Y/N)* - this controls the formatting of addresses in free format reports. If European Addresses are being used then the postal code will be printed before the city. If European Addresses are <u>not</u> being used then the postal code will be printed after the state.

  NOTE: *This option affects the formatting of all addresses. A better approach to the handling of address styles would be to allow each individual address to be identified as European or not European, however that would require a change to the address file format and will be put off to a later date.*
- *Rel Rules:1=Comm,2=Civ,3=Latin* - This option controls the selection of the set of "Rules" that will be used to construct Relationship Labels. The types of rules recognized are: 1=Common, 2=Civil, and 3=Latin. (See section V-V.A-V.A.1 above for a description of these rules)
- *Show Adopt in Rel Labels* - This option controls whether a relationship label will include an indication that there is an adoptive parent-child relationship somewhere along the path of relationships joining the related individuals. If the option setting is "Y" then an asterisk (*) will be placed in the first position of the relationship label when it is determined by an adoptive relationship
- *Bracketed Comments?* - This option controls the printing of comments that are enclosed between "curly brackets" (the symbols "{" and "}"). A value of "N" for this option will omit the printing of bracketed comments,

a value of "Y" will allow the comments to be printed without the enclosing brackets, and a value of "S" will allow the comments to be printed together with ("S"howing) the brackets

- *Print Spouses 1st-->Last* - This option controls the order in which multiple spouses will be printed in a report. A value of "Y" for this option will cause the spouses to be printed in chronological sequence, which is the reverse of the order that they are stored in the file
- When printing column style reports, the programs will insert blank spaces between the columns of information to provide separation between the adjacent items of information and to cause the report line to more completely fill the printline if the required printline is much less than the forms width. The last two option settings in the table control the minimum and maximum number of spaces that a report will be allowed to insert between two adjacent columns of information.

V.E.1.b) Work File Parameters

The next group of "report" options does not control report printing at all. Instead, these control options involved in the creation of "relationship" (ancestor, descendant or relative) work files. The creation of these work files takes place in the Ancestor, Descendant and Relative report programs, the Register style group report program, and in the program that produces standard Ancestor Charts (Forms) and Maps. Therefore, you will find options from this group among the "report options" for those individual reports and charts.

CODE	TYPE	DEFAULT	DESCRIPTION
-WF-	-1	-	---- Work File Parameters ----
MXAL	22	53	Max Ancestor Level to Search
MXDL	22	99	Max Descendant Level to Search
ORDR	21	1	Search Order: 1=Gen, 2=Family
ALNS	21	1	Anc Lines: 1=All,2=Male,3=Fem
DLNS	21	1	Desc Lines: 1=All,2=Male,3=Fem
ADOP	1	Y	Include Adoptions (Y/N)

The options in this group include:

- *Max Ancestor Level to Search* - gives the maximum number of generations of ancestors that will be identified in the relationship work file. A value of 0 indicates that no ancestors are to be placed in the file (which would make it only a Descendant relationship file). The default value of 53 corresponds to the highest generation level for which lineage numbers (ahnentafel numbers) can be accurately determined and printed by the software
- *Max Descendant Level to Search* - gives the maximum number of generations of descendants (for the base individual or any ancestors) that will be identified in the relationship work file. A value of 0 indicates that no descendants are to be placed in the file (which would make it only an Ancestor relationship file)
- *Search Order: 1=Gen, 2=Family* - this option controls the order in which descendants for an individual (or ancestor) will be searched for inclusion in the work file. The two types of search order are by *Generations* and by *Family*. A search by *Generation*s will locate all descendants in a generation level before attempting to locate any descendants in the next generation level. (All grandchildren will be located before looking for any great-grandchildren). A search in *Family* order will locate all descendants of a child before looking for any descendants of the next younger sibling. The two search orders correspond to the two styles for printing Descendant and Relationship reports, and in fact a descendant or relationship report can be printed in either style independent of the "descendant search order" that was used for creating the work file. The printed output will be the same in any case *unless* there are "crossed lines" of relationship... that is, an individual occurs multiple times on the family tree. One feature of the relationship work file is that an individual that is repeated on the family tree will not be included in the search for ancestors or descendants after the first occurrence. Instead, a "pointer" is inserted to the earlier occurrence in the work file. In reports, "pointers" to earlier occurrences of an individual in the report are given in terms of "back references" to the page and line number (or the chart and entry number) of the earlier occurrence. For these two types of backward references to coincide, it is important that the relationship work file and the printed report represent the same sequence of individuals. Therefore if you are printing a descendant or relationship report *which includes crossed lines*, a "generation" style of report should be printed using a work file created with Search Order=1 and a "family" style of report should be printed using a work file created with Search Order=2

- *Anc Lines: 1=All,2=Male,3=Fem* - This controls the types of individuals that contribute to the search for next generation ancestors. If this is set to 2 (Male) then the next generation of ancestors will only include the ancestors of men, although both fathers and mothers will be included in that next generation. If the setting is 3, then the next generation will only include the ancestors of women, though again both fathers and mothers will be included in the next generation. While this allows you to restrict your attention to only paternal or maternal relationships, this is not the option that you should choose, if you were, say, interested in *all* ancestors of your mother. In that case, you should choose your mother as the base individual for the work file and include all ancestral lines
- *Desc Lines: 1=All,2=Male,3=Fem* - This controls the types of individuals that contribute to the search for next generation descendants. If this is set to 2 (Male) then the next generation of descendants will only include the descendants of men, although both sons and daughters will be included in that next generation. If the setting is 3, then the next generation will only include the descendants of women, though again all children of those women will be included in the next generation
- *Include Adoptions (Y/N)* - This option controls whether adoptive relationships will be considered when creating the relationship work file. If this option is set to "N" then adoptive parent-child relationships (which are indicated by an "*" to the right of the father or mother ID in the child's name record) will not be included when creating the relationship work file. This affects the recording of both ancestry and descendancy. Reports or charts printed from work files, which exclude adoptions, will similarly omit the adoptive ancestor or adopted child. This can affect the child numbers assigned to children in reports and appearing in the *lineage* or *bloodlines* printed using the work file.

V.E.1.c) Page Print Options

These options control features of the printed page rather than the content or style of the report or chart.

CODE	TYPE	DEFAULT	DESCRIPTION
-PP-	-1	-	----- Page Print Options -----
BGNP	25	0	Beginning Page Number
BGPP	25	1	Page Number to Begin Printing
FOFS	23	0	Printer Offset
LREF	1	N	Show Line REF Index (Y/N)
REFL	5	L	Place REF (L/R/I/O/B)
HEAD	1	Y	Print Report Heading (Y/N)
FOOT	1	Y	Print Report Footing (Y/N)
CFRM	1	N	Continuous Forms? (Y/N)

These Page Print options include:

- *Beginning Page Number* - This allows you to print a report that will continue the page numbers of a previously printed report. The default value of 0 will normally result in the page numbers beginning with "1". However, if you have opted to record report references into a REFERENCE work file and the reference work file already has other reports recorded in it, then a value of 0 for this option will result in the page numbering beginning with the next page number after the last page of the last referenced report
- *Page Number to Begin Printing* - this is the first page number that you want the program to actually send to the report destination (screen, printer, file). If you have had to terminate the printing of a report previously, say after 30 good pages, you can set this value to 31 and reprint the report. The first 30 pages will be "skipped", although the program will have to go through all the work of formatting them, and then the printing will actually start with page 31. This option can also be used to create entries in a reference work file for a previously printed report that was not referenced. Just set this option to a large value, say 9999, and print the report, allowing report references to be recorded. The program will go through the work of formatting the report, but printing will never actually take place. When using this option to continue or repeat the printing of a report, you should make certain that all options and information are the same as in the previous printing to assure that all information will appear in the same location of the report
- *Printer Offset* - this option controls the leftmost print position that will be included in the printed report. For instance, a value of 80 for Printer Offset will cause the first print position to be the 81st character of the formatted print line. This allows you to print very wide reports or charts in "strips" on printers or forms that cannot accommodate the full print line

- *Show Line REF Index (Y/N)* - This option controls the printing of line reference numbers in the margins of reports. The numbers can be useful for locating individuals identified through back-references within the report and from references in report indexes. (The printing of report indexes is an option of the extended version of the software provided to registered users.) Actually, for the reference numbers to appear on the report page two conditions must be met. First, this option must be set to "Y", and second, the page margin settings in the printer setup that is being used must be large enough (>= 4) to accommodate the line reference numbers and the reference index character (> or <)
- *Place REF (L/R/I/O/B)* - This option identifies which margins are to be used for the Line Reference numbers requested by the previous option. Option values are: L=Left, R=Right, I=Inside, O=Outside, and B=Both sides. The chosen margin(s) for printing the index must have a value >=4 for the line reference numbers to appear on the report page. (Margin settings are given in the Printer Setup that is used for printing the report)
- *Print Report Heading (Y/N)* - A value of "N" for this option will cause the report headings to be omitted from the report. (Omitting report headings and footings from column style reports can result in a document that may be imported into a database program or word processor for subsequent processing or printing using special features of that software)
- *Print Report Footing (Y/N)* - A value of "N" for this option will cause the report footings to be omitted from the report
- *Continuous Forms? (Y/N)* - This option requests printing the report or chart without page breaks.

V.E.1.d) Report Options

This group of options controls the selection and format of information that will be printed in reports and charts. Not all options will be applicable to every report or chart. Most of the ones that apply to a particular report or chart will be included in the option menus that are assigned to the definition of the report/chart in the Report Definition File. (See the next section for more about individual report option menus)

CODE	TYPE	DEFAULT	DESCRIPTION
-RP-	-1	-	------- Report Options -------
MINM	22	20	Minimum Name Length
PLNM	22	22	Place Name Column Width
SURF	1	Y	Print Surname First (Y/N)
SURU	1	Y	Surname in UPPER CASE (Y/N)
SURH	1	N	Use Husband's Surname (Y/N)
SNDX	1	N	Print Soundex (Y/N)
PRGL	1	N	Print Generation Level (Y/N)
PLIN	1	N	Print Subject Lineage (Y/N)
PRID	1	N	Print ID's (Y/N)
PIDH	9	H	Print ID's (Y/N/H)
PPID	1	N	Print Parent ID's (Y/N)
SEX	1	Y	Print Gender (Y/N)
AGE	2	D	Age/Anniv (Y/N/D)
RELA	1	N	Show Relationships (Y/N)
#CH	1	Y	Show Number of Children (Y/N)
DATE	1	Y	Dates (Y/N)
DAT2	3	Y	Dates (Y/N/A)
DTYR	1	Y	Only Show Year of Dates (Y/N)
PLAC	1	N	Places (Y/N)
MARY	3	N	Marriage (Y/N/A)
LRES	1	N	Latest Residence (Y/N)
COMM	1	N	Comments (Y/N)
BLKL	1	N	Blank Line Between (Y/N)
BYPS	6	B	Use Bypass Logic (W/C/B/N)
ULBF	3	Y	Underline Blank Fields (Y/N/A)
RSYM	1	Y	Show REF Type Symbols (Y/N)

The report options include:

- *Minimum Name Length* - In fixed format reports, this is the minimum width of the name field. A fully formatted name can be up to 52 characters long but it is seldom necessary to allow for more than 25-30 characters for the name field. In the *outline* style of descendant and relative reports, the name field will be wider for some generations than others... in that case, this is the minimum name field width. In the *uniform* styles of those reports, this is the fixed size of the name field. (If this is set to 0 for Fixed Format lists produced by the Search/Select/LIST option then the name field will be omitted from the report.)
- *Place Name Column Width* - In fixed format (columnar) lists, this provides the width for each column of information that contains place names (Birth, Marriage, Death). The default of 22 is appropriate for use with family files that do not support Long Place Names. If Long Place Names are used, then place names can be up to 41 characters and a larger value than 22 may be desired. NOTE: Increasing the size of place name columns will increase the required forms width for printing the report.
- *Print Surname First* - A value of "Y" for this option will cause the name field to be in the form: "Surname, Given-Name". Otherwise the name field will be of the form: "Given-Name Surname"
- *Surname in UPPER CASE* - A value of "Y" for this option will cause the Surname to be converted to Upper Case when formatting the name field. This causes the Surname to be more prominent, making it easier to identify common surnames when quickly scanning a report. Entries in the UPCASE system table are used to perform upper case conversion of special or international characters when this option is selected
- *Use Husband's Surname* - This option is used when printing listings to cause the program to use the (most recent) husband's surname for the surname of a married woman. This conforms to a common custom in some countries. Actually, in formatting the wife's name, her own surname is also shown as an attachment to her Given Name. To allow for variance from this rule for individual women who choose to continue using their own surname, there is a "Surname Use" field in the Name Record. When the "Surname Use" field for a married woman is "Y", then her husband's surname will NOT be used for formatting her name in reports, even when the "Use Husband's Surname" option is in effect
- *Print Soundex* - This option controls the printing of a four-character code that is used to group together "similar sounding" names. In detail lists, the soundex shown will be for the Surname. In indexed summary reports, the soundex will be for the index key field for which the information is being summarized
- *Print Generation Level* - In the "Relationship reports" (Ancestor/Descendant/Relative reports) this option controls the printing of the "relative generation level" on the report line. This number represents the number of generations that the person on the report line is separated from the subject (base ID) of the report. In an Ancestor report for example, this would be the number of generations between the base individual and the ancestor (for Father:Mother it would be -1, for GFather:GMother it would be -2, etc)
- *Print Subject Lineage* - This group report option controls the printing of a symbol or set of symbols representing a path of relationships between the subject of the group report and the individual on whom relationships are based. For an ancestor, the lineage is just the Ahnentafel or Ancestor number. For a descendant, the lineage is the "bloodline" or a sequence of numbers representing the number of the child in each generation along the path of descendancy. For an indirect relative, the lineage is a combination of the Ahnentafel number of the "nearest common ancestor" and the "bloodline" from that ancestor to the subject of the report
- *Print ID's (Y/N)* - This option controls the printing of an individual's ID number (the sequence number of the person's Name record in the FHS family file). If marriage information is included in the report, this option also applies to the printing of the spouse's ID number
- *Print ID's (Y/N/H)* - This is a special form of the option for printing ID's described above. It is used for Ancestor Charts and Individual Family Group Reports to allow for the option (H) of only printing the ID number for the subject of the report/chart, in the Header portion of the report/chart.
- *Print Parent ID's* - This option controls the printing of the Father and Mother ID numbers in a detail report
- *Print Gender* - This option controls the printing of a code representing the Gender (Sex) of the individual. The Gender may be represented by a single character code or by a label (Male, Female). The symbols or labels used are taken from the SEXCODE global table in the Report Definition File and may not be the same as the symbols used in the Sex Code field of the name record

- *Age/Anniv (Y/N/D)* - This option controls the printing of the individual's age in reports. If marriage information is included in the report, then this option also controls the printing of the last (most recent) anniversary of the marriage. A value of "D" for this option will cause the Age/Anniversary field(s) to be included in the report, but a value will appear for the data item only if the person is Deceased (for Age) or the marriage has terminated (for Anniversary). A marriage is considered to be terminated if the ending date in the marriage record is non-zero or if either spouse has died. If the date of termination of a marriage is determined by the death date of a spouse then an asterisk (*) will be placed to the right of the Anniversary number. This is to indicate that the number is based upon an assumption of the program that may not be accurate
- *Show Relationships* - This option controls the printing of a relationship label for each relative (in an Ancestor/Descendant/Relative report or detail listing) or for the subject of a group report
- *Show Number of Children* - This option for Detail Listings controls the printing of a field representing the number of recorded children of an individual
- *Show Dates* - This option controls whether Birth/Marriage/Death dates will be printed in the report. This option appears in two forms, one, represented by table entry "DATE", in which the option values are "Y" and "N", and another, represented by table entry "DAT2", in which the option values are "Y", "N" and "A". The latter option, added in March 2000, is used in the options for horizontal and vertical box charts where the "A" value (meaning "All" dates) requests that marriage termination dates also be shown.
- *Only Show Year of Dates* - This is an option of report indexes which allows omitting the month and day from the date to reduce the space required for the field on the report line
- *Places* - This option controls the printing of Birth/Marriage/Death Place names
- *Marriage (Y/N/A)* - This option controls the printing of marriage information in a report. In some reports a value of "Y" will request the printing of just the date and place of the most recent marriage while "A" will request that "A"ll information (including the spouse's name) be printed for each marriage. When printing multiple marriages, one of the Global Report options controls the order in which the marriages will be listed
- *Latest Residence* - This option for detail listings controls the printing of information about the most recent "Residence"... a Residence is an Address record that is found under an individual's Name record or under any of the individual's Marriage records
- *Comments* - This option controls the printing of name (and marriage) comments. A separate Global report option controls the printing of those parts of comments that are enclosed in "curly brackets" ({ and })
- *Blank Line Between* - In Ancestor/Relative reports, this option controls the printing of an extra blank line before each Ancestor's report line
- *Use Bypass Logic (W/C/B/N)* - This is an option that applies to the "batch printing" of group reports; that is, the printing of a set of group reports for a list of ID numbers. It allows you to request that certain group reports not be printed *when they contain no information that cannot be found on another of the group reports that <u>is</u> being printed*. The values for this option are:

  W - indicating that a wife's group report is not to be printed if a husband's report is being printed
  C - indicating that a child's group report is not to be printed if a parent's report is being printed
  B - indicating that Both the Wife and Child Bypass rules are to be observed
  N - indicating that Neither bypass option is to be observed (all reports are to be printed)
- *Underline Blank Fields* - This is an option for the printing of fixed format group reports. Printing underscores in blank fields may make it easier to fill in missing information

- *Show Ref Type Symbols* - This is an option for the printing of report indexes requesting that each report reference be preceded by a symbol indicating the type entry being referenced. The symbols used are taken from the "REFERENC" Global Table in the Report Definition File, shown below.

Table: REFERENC	Seq	Sym	Entry Type
	1		Standard Reference Entry
	2	*	Subject of Group Report
	3	sp	Spouse of Subject
	4	ch	Child
	5	F	Subject's Father
	6	M	Subject's Mother
	7	sF	Spouse's Father
	8	sM	Spouse's Mother
	9	cSp	Child's Spouse

Table 1: Reference Codes Global Report Table

V.E.1.e) Chart Options

This group of options controls options that apply to certain charts. Not all options will be applicable to every chart. Most of the ones that apply to a particular chart will be included in the option menus that are assigned to the definition of the chart in the Report Definition File.

CODE	TYPE	DEFAULT	DESCRIPTION
-CH-	-1	-	------- Chart Options --------
ALIN	1	N	Show Lineage Numbers (Y/N)
PCOD	1	Y	Show Parent Codes (Y/N)
CHNM	1	Y	Show Child Numbers (Y/N)
LKPG	1	N	Use Page Numbers to Link (Y/N)
SPBX	1	Y	Allow Boxes to Span (Y/N)
NEST	1	Y	Allow Nesting (Y/N)
SPLT	1	N	Allow 2 Lines for Name (Y/N)
NBOX	1	Y	Print Box Boundaries (Y/N)
DWTH	22	15	Box Data Width
BSEP	21	1	Box Separation
STEM	21	1	"Stem" Length
CMBD	3	Y	Combine Data Lines (Y/N/A)

The Chart Options include:

- *Show Lineage Numbers* - This option controls the printing of ancestor lineage numbers (or ahnentafel numbers) in front of the individual's name on Ancestor Charts
- *Show Parent Codes* - This option controls the printing of a single character "M"other or "F"ather code in box style ancestor charts. (This can be useful when printing mini horizontal box charts)
- *Show Child Numbers* - This option controls the printing of a child's number (in the sequence of siblings) on a descendant chart
- *Use Page Numbers to Link* - Requests that multiple 4 Generation or 5 Generation Ancestor charts be linked using page numbers instead of Chart ID codes. (Chart ID codes are more appropriate for workbooks of Ancestor Charts as they are not affected by the insertion of new charts)
- *Allow Boxes to Span* - When printing very wide box charts in strips, this option controls whether an information box on the chart is permitted to span two printed strips
- *Allow Nesting* - This Vertical Box Chart option controls whether an information box can be printed before the Ancestor/Descendant tree of the preceding box in the column has been completed
- *Allow 2 Lines for Name* - This option for provides for printing an individual's given name and surname on separate lines in an information box

- *Combine Data Lines (Y/N/A)* - This option for box charts (Ancestor/Descendant/Family Path) controls the placement of birth/death dates and places on the same data line when permitted by the chosen box data width; a value of "Y" allows placing birth/marriage/death dates and places on a single line except that the birth place and death date will not be placed on the same line. The value of "A" for the option removes the exception. A value of "N" will result in birth/marriage/death dates and places occupying separate data lines without regard to the box data width.

  NOTE: if "Combine Data Lines" is chosen, then the leading spaces on date fields will be eliminated to allow more room on the line for other information.

- *Print Box Boundaries* - This controls the printing of box boundaries in vertical box charts; (vertical box charts without the box boundaries are similar to "drop style" charts produced by other programs)
- *Box Data Width* - This is the number of print positions within each information box of a vertical or horizontal box chart. (If the box data width causes information to be truncated for some entries, the box chart programs will display the maximum box width required after the printing of the chart is complete. You can determine the required box width for a chart by first printing the chart to the screen and adjusting the Box Data Width to the required value before the final printing)
- *Box Separation* - This is the (minimum) number of blank print positions between adjacent information boxes of a horizontal box chart
- *"Stem" Length* - This is the (minimum) length of the vertical connecting lines between information boxes of a horizontal box chart.

V.E.2 REPORT OPTION MENUS - Saving Default Settings

To simplify the presentation and selection of the many options that may be applicable to a particular report or chart, most of these options are selectable from Menus that appear in the lower right corner of the screen after you have selected one of the report processing programs from the FHS Main Menu. (The options shown there are the ones that are in the Option table for the individual report as described in a previous section) Within each report program, Function key F4 is used to request making changes to the option menu. When you select that option, the "active viewing area" shifts to the lower right portion of the screen and the first report option will be hilited by "arrows" on the right and left of the item. Use the UP/DOWN cursor control keys to move the selection arrows to other options in the list. When you wish to change the setting for a hilited option, press the ENTER key, make the desired change, and then press the ENTER key again. After all report option settings appear satisfactory, press the ESCape key to terminate the procedure.

You may SAVE your preferred settings for options in these menus by pressing the F1 key when you have finished making your changes to the options. The settings are stored in the Report Definition File that is being used for the session and will be used as the default settings for subsequent sessions that use the same Report Definition File.

V.E.3 OTHER REPORT OPTIONS - "Bottom Line Prompts"

Other report options will be offered to you through "bottom line" prompts. These usually offer choices for styles of reports or for optional processes that may be performed during the printing of the report or chart. For example, when you start to print a report, most report programs will ask something like:

Select Destination: 1) Screen 2) Printer 3) File

which is simply asking whether the report output should be directed to the Screen, to a Printer (using the current Printer Setup) or to a File on disk.

Another bottom line prompt that will be offered for most reports is:

Create REFERENCE File for Index? (Y/N)

This permits you to create a WORK file that contains the locations of names referred to in the reports. One of the extended options provided to registered users will print report indexes from the REFERENCE file. (The offering of this option is controlled by one of the Global Report options: "Allow REFERENCE File (Y/N)". You can eliminate this prompt by setting that option to "N")

Each of these "bottom line prompts" has a default response that will be used if you simply respond by pressing the Enter key or the space bar. That response is provided as part of the definition for the prompt message that appears in the current Message Definition File. (Use Main Menu options F3-B-F4-3 to display or modify the current message definition file contents)

V.E.4 PAUSING AND CANCELING THE PRINTING OF REPORTS

While producing any of the reports, the printing may be temporarily interrupted by pressing the "space bar" or any of the "character keys". The report may then be continued again by pressing the space bar (or one of the character keys) or may be terminated by pressing the ESC key. If you use the PGDN key to continue a report, then the program will pause at the top of the next page of output. This may prove convenient for pausing a printer that is running low on paper. You can continue the printing by pressing any key.

NOTE: *If you do pause the printing in this way to change the paper and then continue printing, do not turn the printer off while changing the paper as the printer settings that were being used to print the report will be lost.*

V.F REPORT DESCRIPTIONS

In the following descriptions, the keystrokes required to select the report program from the Main Menu are shown, in parentheses, following the name of the report or chart in the section heading. I will sometimes refer to the Ancestor, Descendant and Relative reports as "relationship reports" because their organization is designed to emphasize the relationship between individuals. The Family Group reports give more detailed information about each individual. The Ancestor Charts and "Map" should prove useful for tracking the results of your ancestral research while the "Box" Chart options can produce "wall charts" that graphically illustrate family relationships. After becoming familiar with the various types of reports and charts, those who have access to HP Deskjet, Laserjet or compatible printers may want to look at Section XII which describes an interface to a utility which provides landscape printing of reports and charts on those printers.

V.F.1 ANCESTOR Report Program (Main Menu Option F2-A-1)

The Ancestor Report program produces three reports: a Detail report, a Summary report, and a Duplicates report. Before any of these reports can be printed however, it is necessary to identify the set of ancestors that are to be included in the report.

V.F.1.a) Creating an ANCESTOR Work File (F2-A-1-F3)

Ancestors are identified by performing an ancestor search and recording the results in an Ancestor Work File. The maximum number of generations of ancestors that are to be searched appears as one of the options for the Detail Ancestor Report. Another option allows you to choose whether or not adoptive relationships are to be included in the search for ancestors. You can also specify whether the ancestor search is to be limited to locating ancestors of just females, just males, or of all ancestors. Program option F4 can be used to modify the option settings before creating the work file. The search process is begun by selecting program option F3.

When you press F3, the program asks you for the Base ID... this is the ID number for the Name Record of the individual whose ancestors are to be located. You will also be asked to give the name of the Ancestor Work file that is to be created. The program then begins the ancestor search, recording information about the located ancestors in the WRK file. The progress of the report is shown in work file statistics in the middle of the screen. This "work" dataset does NOT have to be recreated each time an ancestor report is printed if there is no change to the family file that would change the relationships recorded in it. The ancestor work files created by this program and by the ancestor chart program are in the same format and may be used interchangeably.

V.F.1.b) Detail Ancestor Report (F2-A-1-F6-1)

The Detail Ancestor Report groups ancestors by generation level and shows the lineage numbers of the ancestors listed. Because no lines are printed for "missing" lineage numbers, (for ancestors not yet recorded in the files), this report is much more concise than the traditional ancestor chart. The lineage numbers may be used to follow lines of ancestry on

the ancestor report using the relationships described in the previous discussion concerning lineage numbers (see page V-2). (The term "Ahnentafel list" is also used for reports of this type)

Ancestor reports can be printed in three different styles: Fixed Format, Free Format and LifeLine Format. (See page V-6)

If you have decided to identify adoptive relationships (by placing an * to the right of the adoptive mother/father ID in the name record) and you have included adoptive relationships in the ancestor search, adoptive parents will be noted by an "*" to the right of the lineage number in this report.

If a child is born to related individuals, the common ancestor of those individuals will appear twice on an ancestor report for that child, once among the father's ancestors and again among the mother's ancestors. In the ancestor reports produced by this system, such common ancestors will be noted (by a backward reference following the second occurrence of the ancestor in the report) and the lineage of the ancestor will be continued only for the ancestor's occurrence with the smallest lineage number.

If you have elected to show marriage dates in this report, the date of marriage will only be shown on the line for female ancestors. The number of years married is computed from the dates in the marriage record, the death dates of the spouses and/or the current date at the time the report is produced. If the death date of one of the spouses is used to determine the number of years married, then a "*" will appear to the right of that number in the report.

V.F.1.c) Ancestor Summary Report (F2-A-1-F6-2)

The Ancestor Summary Report shows the results of accumulating certain items of information for ancestors at each generation level. The report can be printed in two styles: Horizontal and Vertical. The Horizontal format prints the items of information for a generation of ancestors on a single line. The Vertical style of report prints the items of information for a generation of ancestors in a column. The items included in the report, identified by the label that appears in the title line for the Horizontal style report, are:

- AGL - Ancestor Generation Level
- Relation - Relationship label
- M, F - the numbers of males and females
- TOTAL - the total number of ancestors at this generation level (an "*" to the right of this number indicates that it is greater than the sum of the numbers of males and females. This means that there are records with sex code other than "M" or "F")
- NOP - the number of ancestors who have NO Parents recorded (these are considered to be "Heads of Family Lines")
- BY>0 - the number of records with birth year greater than 0
- LOBY,HIBY - the low and high values recorded for non-zero birth year
- #BPL - the number of birth places recorded
- MAR - the number of name records with at least one marriage or spouse record
- #MAR - the total number of marriage/spouse records (if both spouses are in the group being summarized then the single marriage record will be counted once for each of them)
- MY>0 - the number of marriage/spouse records with marriage year>0
- LOMY,HIMY - the low and high values recorded for non-zero marriage year
- #MPL - the number of marriage/spouse records with place of marriage recorded
- DY>0 - the number of records with death year>0
- DY<9 - the number of records with 0<death year<9999 (this ignores those records which have the value 9999 for death year indicating that the person is deceased but that the year is unknown)
- LODY,HIDY - the low and high values recorded for year of death (among those records counted under "DY<9")
- #DPL - the number of records with place of death recorded.

Among the options for this report is one for counting the "Heads of Family". These are ancestors who have no recorded parents in the family file. In the horizontal style of Ancestor Summary, you can request that detail information

about these "Heads of Family" be included in the report. The detail information includes the lineage number, the full name and the years of birth and death.

V.F.1.d) Ancestor Duplicates Report (F2-A-1-F6-3)

The Ancestor Duplicates Report lists ancestors who occur more than once on the family tree. The duplicate ancestors are listed in ID # sequence. Below each ancestor's name is a line for each occurrence of the individual in the Ancestor Work file, showing the relationship and lineage number from the work file entry.

V.F.2 DESCENDANT Report Program (Main Menu Option F2-A-2)

The Descendant Report program produces three reports: a Detail report, a Summary report, and a Duplicates report. Before any of these reports can be printed however, it is necessary to identify the set of descendants that are to be included in the report.

V.F.2.a) Creating a DESCENDANT Work File (F2-A-2-F3)

Descendants are identified by performing a descendant search and recording the results in a Descendant Work File. The maximum number of generations of descendants that are to be searched appears as one of the options for the Detail Descendant Report. Another option allows you to choose whether or not adoptive relationships are to be included in the search for descendants. You can also specify whether the descendant search is to be limited to locating descendants of just females, just males, or of all descendants. Program option F4 can be used to modify the option settings before creating the work file. The search process is begun by selecting program option F3.

When you press F3, the program asks you for the Base ID... this is the ID number for the Name Record of the individual whose descendants are to be located. You will also be asked to give the name of the Descendant Work file that is to be created. The program then begins the search, recording information about the located descendants in the WRK file. The progress of the report is shown in work file statistics in the middle of the screen. This "work" dataset does *not* have to be recreated each time a descendant report is printed if there is no change to the family file that would change the relationships recorded in it.

V.F.2.b) Detail Descendant Report (F2-A-2-F6-1)

The Detail Descendant Report lists the descendants of an individual in "relationship" sequence. In doing this, individuals may be grouped either by "generations" or by "families". The generation grouping uses the "bloodline" to group and "label" the individuals listed. In so doing, individuals in the same generation who are "closely related" appear near one another in the report. Brothers and sisters appear in succession in birth date sequence, with 1st cousins, 2nd cousins, etc. grouped around them. It is also easy to locate, in previous generations, the ancestor which an individual has on that generation level by locating the individual on that level whose bloodline forms the initial sequence of numbers in the bloodline of the descendant in question.

The "family" grouping will have children located closer to their parents, though brothers and sisters will be more widely separated in the report. The report for "family" grouping may be printed either in an "outline" format with each individual's name offset according to the generation in which he/she belongs or in a "uniform" format in which the names begin in the same print position on each line and the "bloodline" of each descendant appears in full to the left of the name. (See section V.A for the meaning of the term "bloodline")

If you have decided to identify adoptive relationships (by placing an * to the right of the adoptive mother/father ID in the name record) and you have included adoptive relationships in the descendant search, adoptive relationships will be noted by an "*" to the right of the child number in the bloodline.

An individual may occur more than once among the descendants if there are "crossed" family lines. In the descendant reports produced by this system, such common descendants will be noted (by a backward reference following the second and subsequent occurrence of the descendant in the report) and the children of the descendant will be recorded only for the first occurrence of the descendant in the report.

If you have elected to show the number of years married in this report, the number is computed from the dates in the marriage record, the death dates of the spouses and/or the current date at the time the report is produced. If the death

date of one of the spouses is used to determine the number of years married, then a "*" will appear to the right of that number in the report.

V.F.2.c) Descendant Summary Report (F2-A-2-F6-2)

The Descendant Summary Report shows the results of accumulating certain items of information for descendants at each generation level. The report can be printed in two styles: Horizontal and Vertical. The Horizontal format prints the items of information for a generation of descendants on a single line. The Vertical style of report prints the items of information for a generation of descendants in a column. The items included in the report, identified by the label that appears in the title line for the Horizontal style report, are:

- DGL - Descendant Generation Level
- Relation - Relationship label
- M, F - the numbers of males and females
- TOTAL - the total number of descendants at this generation level (an "*" to the right of this number indicates that it is greater than the sum of the numbers of males and females. This means that there are records with sex code other than "M" or "F")
- BY>0 - the number of records with birth year greater than 0
- LOBY,HIBY - the low and high values recorded for non-zero birth year
- #BPL - the number of birth places recorded
- MAR - the number of name records with at least one marriage or spouse record
- #MAR - the total number of marriage/spouse records (If both spouses are in the group being summarized then the single marriage record will be counted once for each of them)
- MY>0 - the number of marriage/spouse records with marriage year>0
- LOMY,HIMY - the low and high values recorded for non-zero marriage year
- #MPL - the number of marriage/spouse records with place of marriage recorded
- DY>0 - the number of records with death year>0
- DY<9 - the number of records with 0<death year<9999 (this ignores those records which have the value 9999 for death year indicating that the person is deceased but that the year is unknown)
- LODY,HIDY - the low and high values recorded for year of death (among those records counted under "DY<9")
- #DPL - the number of records with place of death recorded

V.F.2.d) Descendant Duplicates Report (F2-A-2-F6-3)

The Descendant Duplicates Report lists descendants who occur more than once in the work file. The duplicate descendants are listed in ID # sequence. Below each descendant's name is a line for each occurrence of the individual in the Descendant Work file, showing the relationship and bloodline from the work file entry.

V.F.3 RELATIVE Report Program (Main Menu Option F2-A-3)

The Relative Report program produces three types of reports: a detail report, a relationship table, and a duplicates report. These reports include entries for all relatives of an individual found during a search of the files which:

- First locates all ancestors of the individual going back a user specified number of generations, and
- then finds all descendants of the individual and all located ancestors, going forward a user specified number of generations.

The limits on numbers of generations searched allow some control over the maximum "distance" located relatives will be from the individual used to start the search. For example, if you were only interested in "off-line" relations to the 1st cousin level, you would set the number of descendant generations searched to 2. The search process for identifying relatives is invoked using program option F3.

V.F.3.a) Creating a RELATIVE Work File

When you press F3 to create a Relative Work File, the program asks you for the Base ID. This is the ID number for the Name Record of the individual whose relatives are to be located. You will also be asked to give the name of the Relative Work file that is to be created. The program then begins the search, recording information about the located relatives in the WRK file. The progress of the report is shown in work file statistics in the middle of the screen. This "work" dataset does *not* have to be recreated each time a relative report is printed if there is no change to the family file that would change the relationships recorded in it.

The maximum numbers of generations of ancestors and of descendants that are to be searched appear as options for the Detail Relative Report. Another option allows you to choose whether or not adoptive relationships are to be included in the search for relatives. You can also specify whether the relative search is to be limited to locating ancestors/descendants of just females, just males, or of all descendants. Program option F4 can be used to modify the option settings before creating the work file.

V.F.3.b) RELATIONSHIP LABELS

An optional piece of information that may be included in the relationship reports is a label describing the relationship of the relative to the "Base ID". While you may elect to show this label in any of the "relationship" reports (ancestor, descendant or relative), it is more significant in the relative report because this report includes not only direct ancestral/descendant relationships, but "indirect" relationships as well, that is: aunts, uncles and cousins. In this case, there are two popularly used rules for describing "cousin" relationships. In one, the "civil law" rule, the child of a "first cousin" is a "second cousin". In the "common" rule, the child of a "first cousin" would be called a "first cousin once removed".

Some of the relationship labels used by these programs are:

Child, gChild, ggChild, g2gChild (great,great grandchild) etc.

Father, Mother, ggFather, ggMother, g3gFather (great,great,great grandfather) etc.

Brother, Sister, Niece, Nephew, gNiece, g2gNephew, etc.

Aunt, Uncle, ggAunt, g4gUncle, etc.

Cousin, 2Cousin, 3Cousin (third cousin), 4Cousin, etc.

1C1R (1st cousin, once removed), 2C3R, 4C11R, etc.

These labels are particularly useful for getting over that "bloodline barrier" that sometimes makes relatives seem more distant than they really are.

V.F.3.c) Detail Relative Report (F2-A-3-F6-1)

The Detail Relative Report is a combination of the ancestor and descendant reports that have been described previously. In fact the ancestor and descendant reports are "special cases" of the relative report as follows:

- the Ancestor report is a relative report in which the number of "descendant" generations searched is 0
- the Descendant report is a relative report in which the number of "ancestor" generations located is 0.

All three types of reports are produced by the same program. (You can use program option F7 to switch among the different report styles: Ancestor, Descendant, Relative, without having to return to the Main Menu program)

The relative report is like a combination of the descendant reports of the "base" individual and all the located ancestors. These individual descendant reports are presented in the lineage number sequence of the ancestors. If an individual occurs in more than one descendant report (for example the father will appear as a child in the descendant report of each paternal grand-parent) then the descendants of the individual will only appear within the descendant report for the ancestor of lowest lineage number. In subsequent "descendant" reports, only a single line of information will appear for the individual with a reference to the page and line number of the next previous reference to the individual in the relative report. This has the effect of eliminating much of the redundancy that results when producing separate and complete descendant reports for each of your ancestors.

If you have not recorded any grandchildren for ancestors, apart from the line that leads to the "Base ID", then you may find an "objectionable" amount of redundancy resulting from the children of ancestors appearing separately in the report under entries for each of the parents. I have not yet provided an option for eliminating this because I feel that the female's record of descendants should be treated equally to the male's record in the reports. As more cousins are recorded in the file, the entries for the female ancestors become more separated from those of their husbands and the

Agl\Rgl	-4	-3	-2	-1	0	+1	+2	Tot	Acc
					*	C	gC		
-0					1	4	2	7	7
				P	S	NN			
-1				2	3	7		12	19
			gP	UA	1C	1C1R	1C2R		
-2			4	8	10	15	4	41	60
		ggP	gUA	1C1R	2C	2C1R			
-3		7	10	17	12	8		54	114
	g2gP	ggUA	1C2R	2C1R	3C	3C1R			
-4	12	17	26	18	10			83	197
Total	12	24	40	45	36	34	6	197	

Report 1: Relationship Summary Table

"redundant" listing of their children becomes less noticeable.

V.F.3.d) RELATIONSHIP SUMMARY TABLE (F2-A-3-F6-2)

The summary report produced from a relative work file is in a different format than the ones described previously for the Ancestor and Descendant work files. Because of the mix of Ancestor and Descendant relationships in a relative work file, it is better represented by a "two dimensional" table than by a simple sequence of generations. This report therefore takes the form of a "relationship table" with the "relative generation levels" across the top and the "ancestor generation level" down the left side. Each entry in the table represents a "relationship category" and is labeled by an abbreviated "relationship literal" representing the category, such as: C (children), S (siblings - brothers and sisters), NN (nieces and nephews), 1C (first cousin), 2C1R (second cousins once removed), g2gP (great great grand parents), gUA (great uncles and aunts). The labels can be constructed either using the "Common" or "Civil Law" rules. (Under Common rules, the child of a first cousin is a first cousin once removed... under Civil Law the child would be a second cousin)

An example of a Relationship Summary Report is shown below.

The "*" relationship category in the first row represents the individual upon whom the relative work file is "based". The "Tot" column on the right gives the total of all numbers in the row and the "Acc" column gives the Accumulated total of the numbers in that row and all previous rows. The "Acc" number represents the number of descendants of all ancestors at that particular generation level. The "Total" line on the bottom gives the total of all numbers in each column, that is, the number of relatives in each relative generation level.

You may find it interesting to Select all persons in the file with a particular surname (using the Search/Select/LIST option) and then print a relative table to see how that surname is distributed around it.

Please note that relative files that span a very large number of generations may extend beyond the borders of a single printed page. If this happens, then only the number of columns that will fit on a single page of the report will be printed and you will be given the opportunity to print additional "strips" of the chart when the first printing is complete. The complete set of portions of the chart may then be pieced together to form a large wall chart, or if each "strip" only uses a single sheet of paper, you may place them in a binder.

V.F.4 FAMILY GROUP REPORTS (Main Menu Options F2-B-1, F2-B-2)

The FAMILY GROUP REPORT produced by the system provides a complete listing of information on record for an individual. Information that may be printed includes: personal information (name, birth/death dates and places), parents, spouse(s), spouse's parents, children, child's (latest) spouse, and all residence information for the individual. The report may also show the "other" types of information from Event, Medical, Educational, Work and Military

records. In addition, all addresses and comments relating to these records can be included in the report. You may also include a line which shows the Relationship and Lineage of the subject of the report based upon a supplied relationship work file.

When first introduced in the Family History System, the Family Group Report had the appearance of a "worksheet" with special areas for each information type. If you had recorded only partial information for an individual, portions of the report would appear as "blank" lines which could be completed as information was discovered. This style report required a printline of 132 characters, making it necessary to use a compressed (small) font for printing on standard (8 1/2") paper.

In March 1990, a new "free form" style of group report was introduced in which information was printed in blocks of text or as "paragraphs". There were no "blank" lines for missing information, and the report could adjust to "forms widths" of 80 characters or less, allowing the use of more readable type styles. The former "worksheet" style of family group report is now called the "fixed format" Group Report.

NOTE: *When the "Free Format" style of reports was introduced, I was unable to put all the instructions for both "old" and "new" report styles in a single program. Therefore you had to choose between the report styles when you selected the Family Group report option from the Main Menu. Now both reports <u>are</u> produced by a single program, but the choice of styles was left in the Main Menu program, for continuity. Within the Group Report Program, you can "toggle" between the two styles by using F7 without having to go back to the Main Menu.*

This (1997) update introduces a type of "group" report that includes features of a standard style of report called a "Register". While it is similar to the free form merged group report that will be described later, it has some unique characteristics that warrant treating it separately. The Register report will be described more fully in section V-V.F.5 on page V-26. You will probably want to produce a Family Group report for each of your ancestors (male and female) and any of their descendants who have maintained separate households. To help simplify the task of printing the many Family Group reports that you will want to be saving, you are given several options for BATCH printing of family group reports. You may enter a list of ID #'s for reports that you want printed, or you can instruct the program to read a relationship file (Ancestor/ Descendant/Relative Work file) or a SELECT.WRK file to determine which reports are to be printed. It is therefore relatively easy to print reports for all ancestors of an individual or for all descendants or relatives of a given individual.

When printing reports using one of these lists of ID#'s, you may request to BYPASS the printing of reports for children whose own group report contains no information that is not found on the one being printed for a parent or for wives whose own family group report contains no information that is not found on the one being printed for the husband. (The last option may sound a bit sexist, but I believe it probably conforms to a common procedure for maintaining files of family group reports)

Program option F6 requests the printing of reports for the selected individuals. When printing reports for ID's in a list (either entered individually or read from a file) you may specify whether to print the reports in ID# sequence, in Relationship sequence, or in the order specified by an INDEX file. (Creating an INDEX file is one of the extended options for the system) Further, you may request that the reports be printed separately or that they be merged into a single report with a line of asterisks separating individual reports. In the MERGED report, pages are numbered sequentially and line number indicators may be placed in the margin to assist in locating the source of references in the report indexes produced by one of the system's extended options. The merged family group report is intended to simplify the task of producing booklets of family information.

V.F.4.a) IDENTIFYING GROUP REPORTS TO BE PRINTED

Group reports that are to be printed are identified by giving the program the ID # of the primary subject of the report. Program option: "F3 Change SELECT Type or ID's" allows you five ways of entering these ID's. When you press the F3 key you will be asked to:

Select: 1)Single ID 2)ID List 3)REL Work File 4)Select File 5)Full File

If you choose "1", you will be asked to enter a single ID number (in the middle of the screen where it says: "Processing ID #"). The Name record corresponding to the ID # will be retrieved and the name found there will be displayed to confirm your selection.

If you choose SELECT option "2) List of ID's", the bottom line of the screen will be formatted with an "option line", and the blinking cursor will appear near the middle of the screen to the right of the label "Processing ID #:". You can enter a list of individual ID numbers by typing each one on the screen and pressing the enter key. After entering an ID#, the corresponding name record will be retrieved and the name found in the record will be displayed to the right of the ID#. You can enter a range of ID #'s by pressing the F2 key and following the prompts that appear on the bottom line of the screen. Pressing the F3 key will delete the currently displayed ID from the list.

All ID #'s entered are kept in a list in ID# sequence and you may use the PGUP and PGDN keys to move up and down the list to review previously entered ID's. The CTRL+PGUP and CTRL+PGDN key combinations will move you respectively to the lowest and highest ID #'s in the list. Near the right center portion of the screen the number of ID #'s currently in the list and the total number of name records in the file are shown. You may press the F10 key to SAVE the list in a SELECT Work file for later reuse. After you have finished adding all the ID #'s to the list that you want, press the F1 key to terminate the process. You can return to change a previously entered list of ID #'s by pressing the F3 key and then the SPACE bar.

If you choose SELECT options "3", "4" or "5" then the relationship work file, the SELECT work file or the full name file respectively, will be used to determine the ID #'s for which family group reports are to be printed. The name record for the first ID (the lowest ID #) in the resulting list will be retrieved and the individual's NAME displayed. The number of reports selected for printing and the total number of name records in the file will be displayed at the right center part of the screen. You may then proceed to change the list just as described in the previous paragraph.

V.F.4.b) GROUP REPORT OPTIONS

Program Option F4 is used to view and modify the various options for printing group reports. Among these options are ones which are used to identify the types of information that are to be included in the group reports. The table at right, a portion of the RPTOPTS system table, shows these option entries. Other report options are described on page V-7.

DEFAULT	DESCRIPTION
-	--- Group Report Sections ---
Y	Print Children (Y/N)
1	Min # Child Entries
N	Print Child's Comments (Y/N)
Y	Print Spouse(s) (Y/N)
+1	Min # Spouse Entries
Y	Print Residence Entries (Y/N)
+1	Min # Residence Entries
A	Print Comments (Y/N/A)
2	Min # Comment Lines
Y	Print Events (Y/N)
1	Min # Event Entries
Y	Print Education Info (Y/N)
1	Min # Education Entries
Y	Print Military Info (Y/N)
1	Min # Military Entries
Y	Print Medical Info (Y/N)
1	Min # Medical Info
Y	Print Work Info (Y/N)
1	Min # Work Info
Y	Print Other Addresses (Y/N)
1	Min # Other Addresses
Y	Print Other Comments (Y/N)
2	Min # Other Comment Lines

Some of the options in this table allow you to identify whether a type of information will be included in the report, while others allow you to specify the Minimum number of entries of that type that will be included. The "Min #" will apply only if the information has been chosen to be included in the report. When "filled in" group reports are being printed, all information of an included type will be shown even if the number of occurrences exceeds the "Min #" of entries for that type. If a "Min #" has a "+" sign before the number, then the report will include that number of "blank" entries in addition to any "filled in" entries of that type.

Notice that there are several options controlling the printing of comments. The first controls the printing of comments under children. The second controls the printing of comments for the Name record, Marriage records and Residence information. The last item for the printing of comments applies only to the "Miscellaneous" types of information: Medical, Military, Educational, and Health information and Events, as well as any associated addresses that may be printed for those types of information.

There are several other report options that address specific features of the Family Group Reports. These include:

- The option for underlining blanks, which only occurs among the options for Fixed Format group reports. If the value is "N", then missing information in the report will appear as "blanks", otherwise the missing information will be filled with "underscore" characters

- The "H" value for the "Print ID Numbers" option will result in the ID number only being printed for the "subject" of the group report in the heading of the report

- The option for "Print Subject Lineage" allows you to include a line showing the Relationship and Lineage of the subject of the report. If you select this option, then a relationship work file must have been previously created by Main Menu selections F2-A-1,2,3 or F2-C-1. The relationships and lineage that appear in the report will be determined from that work file

- The option for "Blank Line Between" allows you to request that a blank line be inserted between children in the group report. This came at the suggestion of a user who felt that it would make it easier to read the child information. I agree with her, but it also takes extra paper, so you are given the choice. (This option also controls the printing of a blank line before and after the separating line of "*"s in the merged group reports)

- When printing family group reports from a list of ID's, you are given an opportunity to eliminate the printing of certain reports whose information duplicates that found on another report that is being printed. This is done by entering "C", "W" or "B" next to the "Use Bypass Logic" option.

  A value of "C" for "Use Bypass Logic" tells the program to eliminate the printing of a report for a "C"hild whose parent's group report is being printed and for whom there is no information being printed in the child's report beyond that which appears in that of the parent(s). For instance, if you are printing family group reports for all descendants of an individual this option would allow you to skip printing Family Group Reports for the many persons (including minor children) who have simply been listed as a child on one Family Group Worksheet but for whom you have never received or had need to create a separate Family Group Worksheet of their own.

  A value of "W" for "Use Bypass Logic" tells the program to eliminate the printing of a report for a "W"ife if the husband's report is to be printed and her own group report would have no information on it beyond that that appears on the group report of her husband.

V.F.4.c) PRINTING FAMILY GROUP FORMS AND REPORTS

Program option F6 is used to print blank Family Group Worksheets (in the fixed format Group Report only) as well as the "filled in" Family Group Reports. When you press F6 in the "fixed format" Group Report program, you will be asked to:

Select 1) Blank Forms or 2) Filled in Forms/Report

If you select "1", you will be asked how many blank forms to print (1-9). The blank forms will include sections for the types of information you have selected among the report options and will provide the number of entries within each section that you have indicated in the "Min" options.

When you are printing "filled in" family group reports for a list of ID#'s, you will be asked to:

Select 1) ID# Sequence 2) Relationship Sequence 3) INDEXed Sequence

If you choose "2", you will be asked to identify a previously created Ancestor/Descendant/Relative work file which will be used to determine the printing sequence. The reports will be printed so that the Subjects of the reports are in the sequence determined by the relationship work file. If you choose "3", then you will be asked to identify a previously created INDEX File. The reports will be printed so that the Subjects of the reports are in the sorted sequence determined by the INDEX File. Creation of an INDEX file is one of the functions provided by the extended version of the software.

You are then given two format options for printing family group reports from a list of ID's as you are asked to:

Select 1)Separate Reports 2)Merged Reports

If you enter "1" then separate Family Group Reports will be printed for each ID in the ID List (unless bypassed using one of the Bypass settings) just as if you had printed them separately and individually. The "Merged Report" option

will result in all family group reports being printed continuously with a line of "* * * *" separating them. The pages in the "merged" report will also be sequentially numbered. In effect, this provides you with still another type of report... one that can show ALL information in the file for each individual.

When printing "Fixed Format" Group reports in a "merged report", the MINimum counts of the types of information to be included will be assumed to be zero (sections will be shown for information of a given type only if it is to be INCluded and there actually is information in the file for the individual whose family group report is being printed).

One of the options in the extended part of the system allows you to produce a printed index for these reports with the page and line numbers for each reference to each individual in any of the family group reports printed.

V.F.5 REGISTER REPORTS (Main Menu Option F2-B-3)

The Register style of report was introduced as a part of FHS in this (1997) update to provide a means of printing family booklets in a style that is widely recognized. While the program and reports are similar to the Family Group Report program and reports described in the previous section (in fact that program was the "beginning point" for the register report program), many of the options of the Family Group Report program were eliminated to accommodate the more specific characteristics of the Register report. In particular:

- A Register is only printed as a "Free Form Merged Group Report"
- The name records whose group reports are printed always consist of a collection of related records, identified by a relationship work file
- The group reports are always printed in a "relationship" sequence, determined by the work file used. For Ancestors, it is the order of the lineage (or ahnentafel) number assigned to ancestors; for descendants or relatives it is the same as the order of individuals in a descendant or relative report which groups descendants "by generations".

The special features that are associated with a "register" style of report include:

- Each record for which a group report is printed is assigned an identification number (alternatively, you can assign an identification number to each individual in the group of relatives being reported). In Ancestor registers, the identification number is just the lineage (or ahnentafel) number of the ancestor. For descendants or relatives, the identification number (or "register number") is just a counting number (beginning with 1 and incremented by 1) assigned sequentially to the individuals in the order that they appear in the relationship sequence. The identification number is used for "cross references" within the report instead of using page and line numbers as in the family group report program
- The "relationship sequence" of group reports in a family register is such that reports for individuals who are in the same generation level will be grouped together. A prominent heading will be printed at the beginning of each generation grouping.
- Children are numbered using lower case Roman numerals
- If a child is assigned a register number, then the register number will appear at the beginning of the line for the child. If all entries in the relationship work file are being assigned register numbers, then a "+" will be placed before the register number of a child who is also the "subject" of a group report that is being printed
- The "lineage" that can be optionally printed following the name of the subject of a group report in a descendant or relative register is formatted differently than the "lineage" of the earlier merged group report. Recall that a descendant lineage was a sequence of numbers within parentheses, with one number for each generation that separated the individual from the "root" of the group of descendants. For example, the sequence (4,1,3) would indicate that the individual was the "third child of the first child of the fourth child" of the "root" for the descendants. In a register report this would be printed as: (iii, i, iv), with the child numbers appearing as lower case roman numerals and the generations arranged in the reverse order. Another, more standard form of the lineage would use the register number and first name of the parent in place of the child number at each generation level. For example: (38 Michael, 15 Mary, 1 Edward) indicating that the individual was the child of Michael (reg #38) who was the child of Mary (reg #15) who was the child of Edward, the "root" for the descendant register..

This program allows you to optionally include any of these data items (child number, parent register number and first name of the parent) in the lineage. An example of a lineage that uses all three might be: (iii.38 Michael, i.15 Mary, iv.1 Edward)

In publications, the "register" style of report is almost always used for recording the descendants of an individual. The "Ancestor Register" printed by this program is more commonly called an Ahnentafel report, while the "Relative Register" is a combination of these reports as follows:

- A "Relative Register" is printed in two parts: an Ancestor Section and a Descendant Section
- The Ancestor Section of a "Relative Register" is just a "reduced" form of an Ancestor Register. The entry for each ancestor only includes the "subject information" portion of the group report, omitting the marriages, children and other optional parts of the group report. Each Ancestor is labeled with both the lineage (or ahnentafel) number and a "register number" that will be assigned to the ancestor in the Descendant Section of the report. The register number appears within parentheses before the name of the ancestor and can be used to locate the full group report for the ancestor in the descendant section of the report
- The Descendant Section of a "Relative Register" consists of a "descendant register" for each of the ancestors. Each of the descendant registers is preceded by a heading identifying the ancestor whose descendants are being recorded. The individual registers are arranged in the sequence of the ancestors in the ancestor section and register numbers are incremented continuously across all descendant registers
- Each generation grouping within a descendant register is preceded by a heading identifying the generation level, just as in a single descendant register report, however you may optionally request that the relationship that appears in the label represent the relationship to the "base record" for the entire group of relatives instead of the relationship to the "root" of the descendant register. That is, the second generation descendants of a great grand parent might be preceded by a heading of "1 COUSIN 1 REMOVED" instead of "GRAND CHILDREN"
- Wherever an ancestor appears as the subject of a group report, as the spouse of a subject, or as a child in the Descendant Section of a relative register, the ancestor's name will be preceded by the lineage number for the ancestor, within square brackets. When "lineages" are printed in the register, the lineage number of the ancestor whose descendant register is being printed will appear at the right of the lineage, within square brackets. A lineage of this form might be: (iii.124 Michael, i.72 Mary, iv.16 Edward) [4]

While the "Relative Register" described here may not be as familiar as the Ahnentafel and Descendant Register Reports, it is a natural extension of the two and should be useful for preparing personalized booklets for members of your family.

V.F.5.a) Printing Register Reports

The Register Report program is selected using Main Menu option F2-B-3. You are also asked to identify the type register report you wish to print by responding to the message:

Select: 1) Ancestor 2) Descendant 3) Relative

While all three types of register reports are produced by the same program, it is necessary to identify the type of work file that will be used by the program before it begins. Once you have begun working with the register report program, you may change to another of the three "modes" of operation by pressing the F7 key. The type of work file that is being processed, which is the type of register that will be printed, is identified by a label preceding the work file information near the middle of the screen.

NOTE: *Unlike the Relative Report program which also produces three types of relationship reports, the Register Report program does <u>not</u> use separate screen formats for the three modes of operation. As a result, the information about the relationship work file is designed to show statistics for the most complex of the work file types, the Relative work file. You will see that there are statistic fields that do not apply to some work files. For instance, the number of ancestors is not applicable to Descendant work files, and the Hi Descendant GL is always 0 for an Ancestor work file.*

V.F.5.a).1 Create a Relationship Work File

Prior to printing a Register Report, it is necessary to create a relationship work file which will be used to identify the individuals in the register, to define the sequence in which the records will be printed, to assign register numbers, and to format lineages when those are included in the report. The relationship work file is identical to ones created by the Ancestor/Descendant/Relative report program and the Ancestor Chart program. If you have previously created a work file of the desired type and there has been no change to the relationships recorded in it, then you do not have to reCreate the work file here. The information lines near the middle of the screen should help you to determine if the work file contents are appropriate for the register that you want to print. Option F3 can be used to Create or reCreate a work file within this program.

The parameters that are used to build a work file (except for the ID number of the base record) are shown among the Register Report options in the lower right portion of the screen. Although the maximum number of generations to be searched for Ancestors and Descendants are both non-zero, if you are creating an Ancestor work file then the number of descendant generations searched will be set to 0 by the program. Similarly, if you are creating a Descendant work file then the number of ancestor generations searched will be set to 0 by the program. The Search Order for descendant searches is set to 1 (Search by Generations) because Register Reports always process descendants by generations. You may use work files created using descendant searches "by Families" but they may produce unexpected results if there are "crossed" relationships in the file (that is, if a descendant appears on more than one line of descendancy because the parents have common ancestors).

V.F.5.a).2 Change Report Options

Program option F4 can be used to set appropriate values for the Work file parameters as well as other options for printing the Register Reports. Most of these options should be familiar to you by now. There are several that relate particularly to the printing of Register Reports. They are:

Use Bypass Logic (W/C/B/N) - This option may be used to omit the printing of group reports for certain individuals in the relationship work file. Recognized values for the option are:

W - requests bypassing the report for a wife if the husband's report is being printed and the wife's report contains no additional information

C - requests bypassing the report for a child if a parent's report is being printed and the child's report contains no additional information

B - applies rules for bypassing Both wives and children

N - omits the bypassing of any group reports; group reports will be printed for every individual in the work file.

Count All in Workfile (Y/N) - This option affects the assignment of register numbers to individuals in the report. If the option setting is "N" then register numbers will only be assigned to individuals who are the subjects of group reports in the register. If the option setting is "Y" then register numbers will be assigned to all individuals in the reference file. If the "Bypass Logic" option setting is "N", then all individuals will be assigned register numbers independent of this setting

Print Subject Lineage (Y/N) - This option controls the printing of the lineage of a descendant who is the subject of a group report. The next three options identify the types of information that will appear in the lineage

Show Child # in Lineage (Y/N) - Requests showing the Child Number in each entry of the lineage

Show Reg Num in Lineage (Y/N) - Requests showing the Register Number of the parent in each entry of the lineage

Roman Numerals in CAPS (Y/N) - Requests that roman numerals for child numbers be formatted with all upper case characters. This only affects the I and V characters as the X, L and C characters are always shown in upper case

Show Names in Lineage (Y/N) - Requests showing the First Name of the parent in each entry of the lineage

Show Relation in Headings (Y/N) - This controls the type heading that will appear before generation groupings in the descendant section of a Relative Register. A value of "Y" for the option will cause the generation heading to show the relationship of the descendants to the base record for the relative work file, otherwise the heading will show the relationship of the descendants to the ancestor whose descendant register is being printed.

One other option that may require explanation is the one labeled: *"Show Relationships (Y/N)"*. A value of "Y" for this option will cause a line to be printed at the beginning of each group report showing the relationship of the subject of the report to the base record for the relative work file. In this case, the lineage will be printed on that line as well, instead of being printed following the name of the subject.

NOTE: *There is only one entry in the Report Definition File for a Register Report (the "REGR" entry) instead of a separate report definition for each type of Register as in the case of the relationship reports (the Ancestor/ Descendant/ Relative reports). Therefore there is only one set of option settings to cover all three-register types. If experience proves that separate option settings would be appropriate, then additional report entries will be used.*

V.F.5.a).3 Print the Register

Program option F6 is used to print the Register. If you are printing a Relative Register then you will be asked whether you want to print all of the Register or just one of the sections by the message:

Select 1) Ancestor Section 2) Descendant Section 3) Both

If you print both sections and you are using the report option for ending reports on even numbered pages, then each of the sections of the report will end on even numbered pages.

V.F.6 Printing CHARTs (Main Menu Option F2-C)

The Family History System provides several options for printing charts that graphically represent relationships between individuals. Charts are provided that hilite either Ancestral or Descendant relationships. Another type chart, the "Family Path" chart, provides a graphical representation of the line of relationships joining two related individuals. Main Menu option F2-C is the entry point to all of the graphical chart options.

V.F.6.a) ANCESTOR CHARTS (F2-C-1)

Ancestor Charts can be printed in a variety of styles. Traditional horizontal tree charts can be printed as blank forms, for gathering information, or as sets of linked, filled in charts showing all recorded ancestors. An Ancestor MAP is a generalization of the standard chart, which shows all (up to 53 generations) ancestors in a single chart. You can also print two styles of ancestor "box" charts.

V.F.6.a).1 Standard Ancestor Charts and MAPs (F2-C-1-1)

The system produces Ancestor Charts for an individual in the traditional "horizontal tree" format, with an individual appearing on the left (center) of the page and the parents appearing to the right above (father) and below (mother) the line on which the individual is identified. You can print either "formal" ancestor charts, showing 4 or 5 generations of ancestry on each chart, or an Ancestor MAP with up to 53 generations of ancestors in a single continuous chart.

Before printing either the Ancestor Charts or Maps, you must first create an ANCESTOR Work file using program option F3. Options controlling the Ancestor search appear in the lower right corner of the screen and may be modified using program option F4. These options include the maximum number of ancestor generations that will be searched and whether adoptive relationships will be included in the search. When you press F3 to create the ancestor work file, you will be asked for the BASE ID for the work file, which is the ID number of the individual whose ancestors are to be charted. When the process is complete, the statistics for the work file will be displayed in the middle of the screen. The Ancestor work file created here is identical to the one created in the Ancestor Report program. The work file does not have to be recreated every time an Ancestor Chart or Map is produced. It need only be recreated when the base ID changes or there have been changes to the family file that affect the relationships recorded in the work file.

The charts are printed using program option F6. When you press the F6 key you will be asked to:

Select 1) Blank Forms 2) Standard Charts 3) All Generation MAP

Selection "1" is used to print blank ancestor charts for recording information prior to entering it into the system. You may print from 1-9 blank charts at one time. Blank charts can be printed in either 4 or 5 generation styles. The "Standard Charts" and "All Generation MAP" are described in the following paragraphs.

V.F.6.a).1.a Standard Ancestor Charts (4/5 Generation) (F2-C-1-1-F6-2)

If you choose to print "Standard Charts" you will be asked to:

Select Style 1) 4 Generation 2) 5 Generation

Because only 4 or 5 generations of ancestors (comprising 16 - 32 individuals) may appear on a single "formal" chart, several charts may be required to show all ancestors on file for an individual. The Family History System has been designed to produce as many "subcharts" as are required to show all recorded ancestors. In doing so, it is necessary to employ some scheme to show how to proceed from one chart to the next in a set. To accomplish this, a "chart-ID" is assigned to each of the charts produced. This chart-ID consists of the generation level of the ancestor appearing to the left on the chart, and the number of that ancestor within that generation level. Some chart-ID's would be 0-1 (the first chart of a set), 4-1, 4-2, 4-3,...,4-16,8-1,8-2,...,8-256, etc. This method of identifying charts has the advantage that charts, which are not printed, because they are empty, can be printed at a later time (when information does appear on them) and they will have a natural place in the sequence of charts, without affecting the previous Chart ID's.

Charts will be printed only if an ancestor has been recorded on the chart. If an ancestral line may be continued beyond one of the charts in the series, then the chart-ID for the appropriate continuation chart will be shown on the right side of the chart to be continued. (You may optionally request that chart linking be done using the page numbers assigned to the charts during the printing process. This would normally be done only for a fixed set of charts that are to appear in a publication)

NOTE: *Although the 5 Generation style of chart has entries for 16 additional ancestors in that 5th generation, the information for the 5th generation ancestors consists only of the name and birth/death dates. As a result, the chart linked to from the 5th generation will begin with that 5th generation ancestor to allow for showing additional information (birth/death places and marriage date and place). Therefore the total number of linked charts required for showing complete information for a set of ancestors is the same with either the 4 or 5 generation styles. However, if an ancestor at the 5th generation level does not have any ancestors or any information to show except the birth/death dates, then the chart will not be printed which has that ancestor in the first entry.*

Individual entries on a chart may be numbered from 1 to 16 (32) on each chart, or you may choose to label each entry with the lineage number of the ancestor recorded on the line.

If a parent-child relationship is an adoptive one (indicated by an "*" to the right of the parent ID in the child's name record), the adopted parent will be noted on the ancestor chart with an "*" in the first position of the NAME field.

The "Spouse of Entry #1" appearing in the lower left corner of each chart is the most recent spouse of the individual listed in entry #1 and may not be the "paired" ancestor on the chart.

V.F.6.a).1.b All Generation Ancestor MAP (F2-C-1-1-F6-3)

You may also print an ALL GENERATION Chart, which, though not as formally presentable as the Standard Charts, has the advantage of providing a complete overview or MAP of ALL (up to 53 generations) of the recorded ancestors for an individual in a single report. The format of this report is such that:

- the information for each ancestor occupies a single line (although you may optionally request that information be placed on two or three successive lines;
- no lines are produced for "missing" ancestors
- the line for the father of an individual on the report is above the line of information for the individual
- the line for the mother of an individual on the report is below the line of information for the individual
- the information for ancestors is offset 4 spaces to the right for each generation level
- all parent-child relationships are graphically represented by lines connecting the child to the parent(s).
- The information shown for each ancestor includes:

  The lineage number of the ancestor

  (Optionally) the ID # of the ancestor, within parentheses

  The ancestor's NAME

(Optionally) the birth/death dates and age, in the format b. 7 Apr 1863,d.10 Feb 1937 at age 73

(The age is shown only if both birth and death years are known. If either date's month and day are unknown an "?" will appear to the right of the age)

(Optionally) the birth/death places.

This ALL GENERATION Ancestor Chart or MAP is printed continuously in a single long report. Up to 20 generations of ancestors may be printed using compressed print on 8 ½ wide paper. Reports, which exceed the width of the available paper, can be printed out in 2 or more strips.

V.F.6.a).2 Ancestor Box Charts - Vertical Format (F2-C-1-2)

The Family History System can also produce graphical charts of ancestors with information in "boxes" connected by "relationship lines". An ancestor chart may include up to 99 generations. Large charts can be printed in "strips" which can be joined together to make a "wall chart" or you can print the full chart to a file for special processing by any (sideways or other) printing utilities you may have. (The 4PRINT utility produces nice looking charts on Laserjet or Deskjet printers)

This chart format arranges ancestors by "generation levels" with information on ancestors in the same generation level recorded in boxes that are in the same column of the chart. The father (mother, if father is unknown) of each individual is recorded in a box to the right of the individual and in the same row of the chart. If both parents are known, the mother's information box will appear in the same column but below the father's. You may request that the ancestors of each ancestor in the chart be printed before the row containing the next ancestor in the same generation, or you may permit the program to "nest" the entries together whenever possible, producing a more compact chart. (See page V-32 for an illustration of "nested" charts)

Charts can be printed as either "Mini Charts" for which each entry on the chart is a small "box" containing a single character indicating whether the entry represents a "M"other or "F"ather, or as a "Standard Chart" in which each chart entry shows information about the individual represented by the box.

The information shown for each entry may include name, birth and death dates and places, marriage dates and places, spouses' names and spouses' birth and death dates and places. All boxes of information are the same width, which you may specify. If the width is not sufficient to show the information that is to appear on a line, the data will be truncated to the size of the box. (The option "Combine Data Lines" allows placing multiple data items on a single line when the data width used for the chart permits it. See page V-16)

In addition you may request that names be shown on 2 lines, with surname and given names on separate lines. (You can request that either surname or given name will be first, and you may ask that the surname be converted to ALL CAPS for emphasis)

Another chart option allows you to print charts "without Box Boundaries". These charts have the same placement of entries on the chart, with adjoining lines, but omit the lines representing the "outlines" for the information boxes. Charts printed in this manner should require fewer lines of print.

As with other relationship reports, "crossed" family lines are noted and an ancestor that is repeated on the chart will have a "back reference" to the earlier occurrence and the ancestry will be continued only for the earliest occurrence of the ancestor on the chart. Back references are of the form: (Same as xxx,yyy) where xxx is the generation level of the earlier occurrence and yyy is the line number. Please note that the left most "generation level" is the "0" level, the next is "1", etc.

Realizing that it may be difficult to locate particular individuals on a large chart, you can create a REFERENCE file, which identifies the generation level and line number on which each individual's name appears. An extended option can then print a Chart Index from information in the REFERENCE file.

V.F.6.a).3 Ancestor Box Charts - Horizontal Format (F2-C-1-3)

This is another style of Ancestor Chart in which the information for each ancestor is contained in a rectangular "box" with boxes joined by lines of relationship. In this style of chart the arrangement is such that information boxes for ancestors in the same generation level will be in the same horizontal row. Because of the similarities of this chart to the

descendant and Family Path charts of the same style (they are all produced by the same program), see the section on the "Generalized Box Chart Program" on page V-33 for a description of this and the other charts.

V.F.6.b) DESCENDANT CHARTs (F2-C-2)

The Family History System can also produce graphical charts of descendants with information in "boxes" connected by "relationship lines". A descendant chart may include up to 99 generations. Large charts can be printed in "strips" which can be joined together to make a "wall chart" or you can print the full chart to a file for special processing by any (sideways or other) printing utilities you may have. (The 4PRINT utility described in Section VIII produces nice looking charts on Laserjet or Deskjet printers)

The chart format groups descendants by "generation levels". The two styles of descendant charts are identified by the manner in which the generation levels are arranged. The "Vertical style" chart arranges the generations vertically so that information boxes for ancestors in the same generation level are in the same column. The "horizontal style" chart arranges the generations horizontally.

V.F.6.b).1 Descendant Box Charts - Vertical Format (F2-C-2-1)

The "Vertical Format" Descendant Box Chart arranges the "information boxes" so that individuals in the same generation level are represented by boxes which are in the same column of the chart. The first child of each descendant is recorded in a box to the right of the parent and in the same row of the chart. Information boxes for other children will be placed below it in the same column. The parent's box is joined to each of the child's boxes by "lines of relationships". Children are sequentially numbered and an adopted child is denoted by an "*" to the right of the child number. You may request that the descendants of each individual in the chart be printed before the row containing the next sibling or cousin, or you may permit the program to "nest" the families together whenever possible, producing a more compact chart. (See page V-32 for a description of the "nesting" option.)

Charts can be printed as either "Mini Charts" for which each entry on the chart is a small "box" containing only the child number, or as a "Standard Chart" in which each chart entry shows information about the individual represented by the box.

The information shown for each entry on the chart may include name, birth and death dates and places, marriage dates and places, spouses' names and spouses' birth and death dates and places. All boxes of information are the same width, which you may specify. If the width is not sufficient to show the information that is to appear on a line, the data will be truncated to the size of the box. When the chart's "data width" option is large enough, multiple data items can be placed on a single line. (See the "Combine Data Lines" option on page V-16)

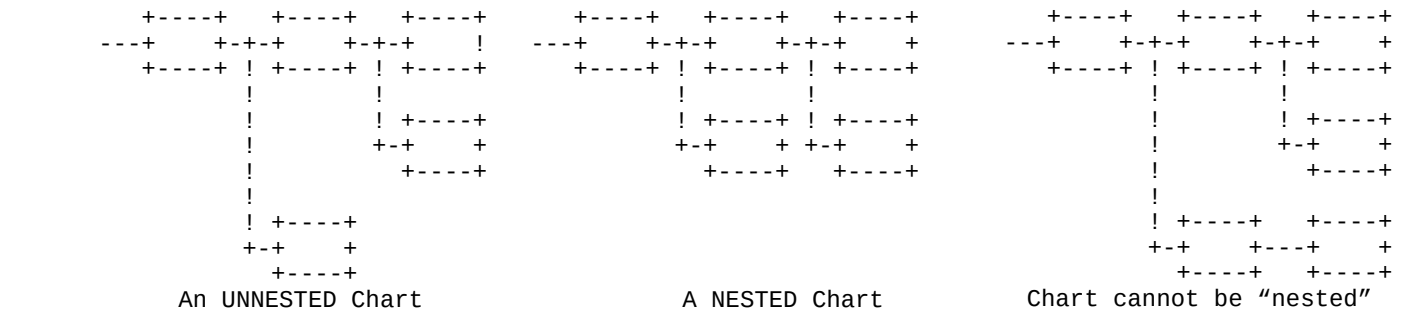
In addition you may request that names be shown on 2 lines, with surname and given names on separate lines. (You have the option of having either surname or given name first, and surnames can be converted to ALL CAPS for emphasis)

As with other relationship reports, "crossed" family lines are noted and individuals which appear more than once on the chart will have their descendants shown only for their earliest appearance in the chart. Subsequent chart entries for the same individual will have a back reference of the form: (Same as xxx,yyy), where xxx is the generation level of the earlier occurrence and yyy is the line number. Please note that the left most "generation level" is the "0" level, the next is "1", etc.

If "Show ID Numbers" is chosen as a chart option, then the ID number of each name record will appear, within parentheses, at the beginning of the formatted name. If marriages are also to be shown then the ID number area of each descendant who has another parent recorded will be in the form: (xxx:yyy) where the first number is the ID for the child's record and the second number is the ID number for the parent that is NOT among the descendants charted. This may be one of the spouse's of the parent on the chart (this may be determined by looking at the information box for the parent) or it may be the ID number of someone who was never married to the parent. If the ID of the other parent is shown, then an "*" will appear to the right of the ID if it is an adoptive relationship.

The "Allow Nesting" option controls whether or not the chart entry for a younger sibling can be placed in the chart before all the descendants of an older sibling have been charted. See the diagrams below for a comparison of nested and un-nested charts. In the charts that I have tried, nested charts require 20%-30% fewer lines than un-nested ones for the same group of descendants. Of course this is very much dependent on the pattern of relationships being charted.

Note that the chart at the right is the same whether nesting is chosen or not. The second child in the first generation cannot be placed on the chart earlier because of the space required for his/her own child.



Realizing that it may be difficult to locate particular individuals on a large chart, you can create a REFERENCE file, which identifies the generation level and line number on which each individual’s name appears. An extended option can then print a Chart Index from information in the REFERENCE file.

V.F.6.b).2 Descendant Box Charts - Horizontal Format (F2-C-2-2)

This is another style of Descendant Chart in which the information for each descendant is contained in a rectangular “box” with boxes joined by lines of relationship. In this style of chart the arrangement is such that information boxes for descendants in the same generation level will be in the same horizontal row. Because of the similarities of this chart to the Ancestor and Family Path charts of the same style (they are produced by the same program), all three charts are discussed in the section describing the “Generalized Box Chart” program on page V-33.

V.F.6.c) Family Path Charts (F2-C-3)

This style of chart was created to simplify the task of trying to determine the “path of relationships” joining two related individuals. Recall, two individuals are “related” if they share a common ancestor. Therefore there is a “line of descendants” joining each of the relatives to that common ancestor. A “path of relationships” from one relative to another would go *up* one “line of descendants” to the common ancestor and then *down* the “line of descendants” to the other relative. One way of accomplishing this would be to determine a common ancestor for the two relatives using the Relationship Calculator of the File Update Program (Main Menu selection F1-F5). Print a descendant report or chart for that common ancestor, and then determine the lines of descendancy to each relative from the report or chart.

The Family Path Chart option automates this procedure by accepting the ID numbers for the two relatives, locating the “nearest” common ancestor (if any), and constructing a “path of relationships” joining the two relatives through that common ancestor. The “Family Path Chart” is actually a *portion* of the descendant horizontal “box” chart for the common ancestor showing the lines of descendancy to the two relatives. The chart can be limited to just the individuals on the direct paths from the ancestor to the relatives or it can include the siblings of the descendants along the two paths. (**NOTE:** If one individual is an ancestor of the other, then the family path chart consists of the one line of descendancy from the ancestor to the relative who is a descendant) When siblings are included, then the information boxes along the family paths are hilited by being drawn using the “double line” box symbols among the chart drawing symbols of the printer setup being used.

V.F.7 GENERALIZED “BOX” CHARTS (F2-C-1-3, F2-C-2-2 and F2-C-3)

Subsequent to introducing the graphical descendant chart option (vertical format) described on page V-32, I received several suggestions regarding it. Some asked that there be an option for printing more “conventional” charts in an “organization chart” format with generation levels running horizontally instead of vertically, and others have requested similar “box” charts for ancestors. At least one user, referring to the ancestor map, asked if the base record might be placed on the other side of the chart so that the ancestor tree would branch in the opposite direction. The “Generalized Box Chart” program described here was written as a response to these requests.

This program, selected from the Main Menu by entering F2-C-1-3 (Ancestor Horizontal Box Chart), F2-C-2-1 (Descendant Horizontal Box Chart) or F2-C-3 (Family Path Chart), will print charts of ancestors or descendants (though not both at the same time) with generation levels arranged horizontally. The base record may be placed at

either the Top or Bottom of the chart. For descendant charts, a parent may be aligned with the first or last child or centered between the first and last child. (For Ancestor Charts, the child may be aligned with the father, mother or centered between) Finally, children may be arranged from first to last or from last to first on the chart (or for Ancestor Charts, parents may be arranged either in "Father Mother" or "Mother Father" sequence).

The "Family Path Chart" was designed to show just the part of an ancestor or descendant chart that is necessary to display the "path of relationships" connecting two related persons. It has the appearance of a descendant chart for the (nearest) common ancestor of the two, in which the only lines of descendancy shown are the ones leading to the two chosen relatives. You may optionally include the siblings of path members on the chart.

V.F.7.a) CREATING A NODE WORK FILE

Before printing a horizontal box chart, it is necessary to create a "NODE Work File" which identifies the individuals that are to be charted and the row and column of the chart in which their information boxes (or "chart nodes") will be placed. Program option F3 allows you to create the work file. For Ancestor or Descendant charts, you will be asked to enter the ID number of the "Base Record", that is the person whose ancestors or descendants are to be charted. For "Family Path" charts, you will be asked to enter the ID numbers for the two relatives whose connecting relationship path is to be charted. In this case, you will also be asked whether you wish to include the siblings of path members in the chart. Chart options control the number of generations of relationships that will be included in the Node Work File. These options appear in the lower right corner of the screen and can be updated using program option F4.

You must also identify the type of "alignment" that is to be used in placing nodes or boxes on the chart. A chart's "alignment" refers to the rule to be followed for placement of a parent with respect to the children in a descendant chart (or of the parents with respect to a child on an ancestor chart). You may choose the alignment to be:

1) First 2) Center or 3) Last

for descendant charts, or

1) Father 2) Center or 3) Mother

for ancestor charts. If you press any other key, then the alignment is "None", which may result in slightly more compact charts than the other options. Each type of alignment may prove appropriate in different circumstances. The centered alignment is probably most appropriate for a wall chart and alignment with the first child is likely to be best for placing a very wide chart in a booklet (See the next page for examples of the types of alignment)

The node work file does *not* have to be recreated every time you print a chart, although it must be recreated if the base record changes or there have been changes to the relationships being charted. You may also use F3 to simply change the alignment of an existing node work file without having to perform the ancestor or descendant search again.

After the work file has been created, information about the work file is displayed in the middle of the screen, including the number of nodes (relatives) recorded, the number of generations searched, the maximum extent of the chart (that is the number of boxes that could be placed in the widest part of the chart) and the type of alignment that was used in placing the nodes.

The small charts below illustrate the types of alignment for horizontal box charts:

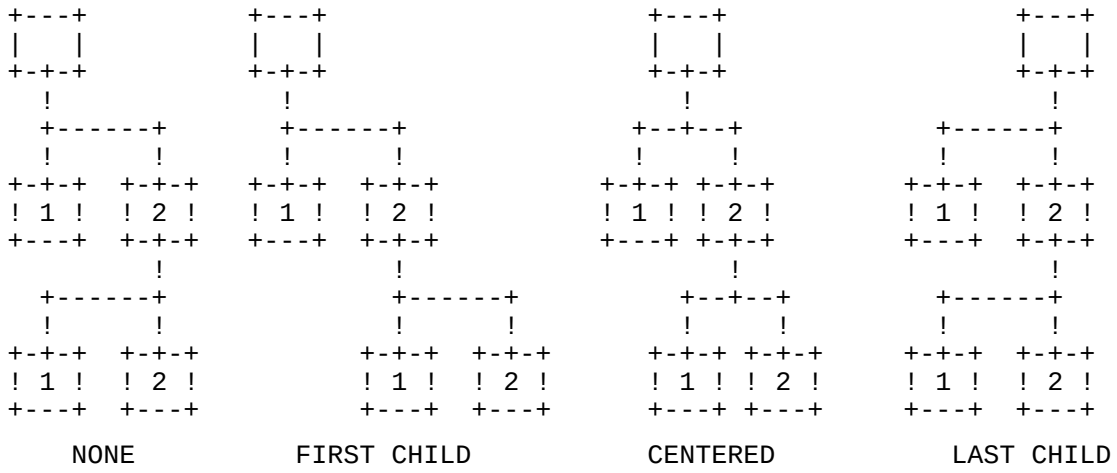


Figure 1: Types of Box Alignment

V.F.7.b) PRINTING SUMMARY REPORTS and CHARTS

Program option F6 is used to print the charts. When you select this option you will be asked to:

Select 1) Summary Report 2) Chart

If you choose to print a "Chart", then you will be further prompted to:

Select 1) Mini Chart 2) Standard Chart

Each of these report/chart options will be described more fully in the following sections.

V.F.7.c) BOX CHART SUMMARY REPORT

To help you to determine the "shape" and extent of a chart, you may select to print a brief report about a horizontal format chart that could be printed from the node work file. In addition to the information about the node work file that appears on the screen, this report will tell you the width of the chart in printed characters, based upon the values of "Data Width" and "Box Separation" among the chart options in the lower right corner of the screen. It will also tell you how many strips are required for printing the entire chart based upon the current settings of the form width and margin.

The chart summary report for a "Family Path" chart will include lines identifying: the common ancestor, the original IDs (the terminal ends of the family path), and the choice for charting siblings.

Included in the summary report is a diagram showing the basic "shape" of the chart. For each generation level, there will be a line showing the generation level, the columns of the first and last boxes on the chart at that generation level, the number of total boxes on the chart at that generation level, and a line of symbols which represent the distribution of boxes at that generation level. Boxes are represented by O's and X's. The O's represent one or more boxes at that approximate location, and the X's represent at least one box at that location for a relative that also appeared at another location in the chart (as the result of crossed family lines).

Options for printing the summary report are similar to those for printing the charts themselves. You may request that the base record be placed at the top or bottom, and you may request that children (or Father-Mother) be arranged from left to right, or from right to left.

V.F.7.d) "MINI" and STANDARD BOX CHARTS

Horizontal Box Charts can be printed either as "mini charts" or as "standard", full size charts. The "Mini Chart" option will produce a chart in which each box has a single line of information of 1 to 4 characters. The resulting chart provides a very concise representation of the ancestor or descendant tree structure. The "Standard" chart format shows

detailed information about individuals represented by information boxes on the chart. The information that may be shown includes the individual's name, birth/death dates and places, and marriages. When printing either style of chart, you are asked to select additional formatting and printing options including:

- Placement of base record at top or bottom of the chart
- Arrangement of children from left to right or from right to left
- (on ancestor charts this choice affects the placement of the father-mother pair on the chart... the "normal" ordering would place the father to the left of the mother on the chart)
- Destination of the report, chosen from among: screen, printer and file. When the full width of the chart exceeds the screen or forms width and output is to the screen or printer, then the chart can be printed in as many "strips" as will be required to produce the full chart. The printing of each "strip" requires processing every node on the chart, although only a portion of the chart is actually routed to the final destination. If the destination is a file, you will be prompted to enter the name of the file that is to receive the report output. When printing to a file you are given the option of printing the chart "Full Width" or in strips. When printing "Full Width" each line is printed for its full length (which may be thousands of characters) but only one "printing" of the chart is required.

If the print destination is the screen or printer and the full chart width is wider than the screen or forms width, then you will be prompted prior to the printing of each strip whether to:

Print Strip mm of nn (Y/N/A/E/O)

If you reply "Y" then the strip will be printed and you will be prompted again for printing of the next strip. If you reply "N" then the strip will not be printed, but you will be asked whether to print the next strip (if any). If you reply "A" then the current strip and all subsequent strips will be printed without further prompting, until you pause the printing by pressing a key. The "E" and "O" options are used for "duplex" printing of the chart strips. The "E" option requests printing only "E"ven numbered strips and the "O" option requests printing only "O"dd numbered strips. If you press the ESCape key then the printing will be terminated.

V.F.7.e) Horizontal Box Chart Options

In addition to the options selected at the time a chart is printed, there are several others, which may be set using program option F4. The procedure for examining and changing these options and the meanings of individual options are described on pages V-7 through V-16. The following paragraphs call attention to several of these options that may warrant special attention:

- The "Combine Data Lines" option controls the placement of birth/marriage/death dates and places on the same data line (when allowed by the box data width being used). This may be used to reduce the number of lines required to print a chart. A value of "Y" for this option allows birth/death dates and places to be placed on the same line, except that birth place and death date will not be placed on the same line. A value of "A" for the option removes that exception. A value of "N" for the option will result in birth/death dates and places occupying separate data lines in the information box
- The "Show MARRIAGEs" option is used to request that the names of spouses appear in the information box. The spouse information will be preceded by a horizontal line separating it from the prior information in the box
- If you choose to "Show ID Numbers" and "Show MARRIAGEs" when printing a descendant chart, then the ID of a child for whom both parents are known will appear as: (xx:yy) where "yy" is the ID number of the parent who is NOT among the descendants on the chart. This allows you to determine which (if any) of the spouses of the charted parent was the "other" parent of the child
- The "Print Child SEQ Number" option allows you to control whether the number of each child (as children of the charted parent in a descendant chart) is to be printed preceding the name of the child in the information box
- The "Print Parent CODEs" option provides a similar type of control for the printing of ancestor charts. The "parent Code" is usually "F" for Father and "M" for mother. The symbols used are the abbreviations for the Father and Mother relationship that appear in the RELATION global table of the Report Definition File

- The “Box Separation” option gives the minimum number of blank print positions that will be between adjacent boxes in the chart
- The “Stem length” refers to the minimum lengths of the line segments that join each box to the horizontal line between generation levels. A non-zero value will result in additional lines being printed between generation levels.

V.F.8 SEARCH/SELECT/LIST Program (F2-D)

This program has been provided to permit more extensive file searching than is currently available using the search option of the file maintenance program and to allow you to produce printed lists of individuals that meet the search criteria. Besides detail lists, you can produce a variety of summary reports for selected records as well. The results of the "search" procedure may be stored in a work dataset, "SELECT.WRK", which may be used in other programs to identify records that are to be processed (e.g. for updating in the file update program, for printing family group reports, for exporting to a GEDCOM file, etc.)

The figure on the next page shows the Main Screen Display that appears when you select the Search/Select/LIST option, Main Menu selection F2-D. As in other programs, you see the current Family File Setup and Printer Setup. In the middle of the screen is some information about the records that have been selected for processing. Below that is a list of program options that can be selected by pressing the indicated Function key.

When you first enter this program, the “Selection Base” will be pre-selected as the “Full File” and the total number of Name records will appear as “Primary Selections”. If you wish to print reports based upon all the records in the file, you can skip ahead to the section: “Printing Reports for Selected Records (F6)” on page V-42.

The line below the “Selection Base” indicates the number of “Selection Rules” that have been defined and the numbers of “Primary” and “Secondary” selections that have been made. This calls attention to the fact that it is possible to distinguish two groups among the selected records. Within this program, “Secondary Selections” are usually records that have been selected based upon some family relationship to records among the “Primary Selections”.

```
                        Family History System
                  * * * Search/Select/LIST Program * * *
   Family File Setup: ________ _____________________________     # Names:______
      Printer Setup: ________ _____________________________
                Form: Width:____  Length:___

      Selection Base: A.Full File  B.Select File  C.Relation WRK File  D.None
                Rules:___  Primary Selections:______  Secondary:______

      Select Program Option
         F1  Change FILE Setup
         F2  Change PRINTER Setup
         F3  Select Records to Print
         F4  Change Report OPTIONs
         F6  Print Report
         F7  SAVE/LOAD/MERGE Select File

         F9  Return to Main Menu
```

View 13: Search/Select/LIST Program Display

V.F.8.a) Selecting Records to Print (F3)

Program option F3 permits you to restrict the records to be printed in a variety of ways. When you press the F3 key, the viewing area in the lower right corner of the screen is cleared and reformatted with the fields that are used to define selection rules. A message is also written on the bottom line of the screen showing the options that you have for selecting records. The message invites you to:

Select: 1)Base Set 2)Change RULE 3)Apply RULE 4)2ND Select 5)Edit LIST

Basically, the selection process consists of:

- Identifying the set of records to which the selection process is to be applied
- Modifying the selection rule(s)
- Applying the selection rule(s) to the "base" set of records to obtain a *new* base set
- Extending the selection set to include related records
- Viewing the selected records, adding or removing individual records as appropriate.

The following paragraphs will describe each of these steps in more detail.

V.F.8.a).1 Choosing the Selection BASE

The first step in selecting records for printing is to simply decide upon the "major" group of records from which any further selection may be made. This may be the entire file, or it may be restricted to those individuals recorded in an ancestor, descendant or relative work file. It may even be those individuals who have been previously selected by some other procedure or by a previous execution of this program and whose ID's have been saved in a SELECT file. This initial group of individuals is called the "Selection Base". In some cases it may be the exact set of records you want to print so that you will not have to follow up with any searches to refine the set further.

When the option "1)Base SET" is selected, the following message appears at the bottom of the screen:

Select: 0) Current A) Full File B) Select File C) Relative Work File D) None

The meanings of these options are:

- *0) Current* - Select the Current Set of Selected Records...the purpose of this option is to allow applying some "set operations" to the current collection of records. When you select this option the following message will appear at the bottom of the screen:

  Select: 1) Only Primary 2) Only Secondary 3) Both 4) Complement

  If you choose "Only Primary" then the "Secondary Selections" will be removed from the selection set. Choosing "Only Secondary" will remove the current Primary Selections and make the current Secondary Selections into Primary Selections. If you choose "Both" then the current Primary and Secondary selections will be combined and become the new Primary Selections.

  The "Complement" option causes the Primary Selections to be changed to include all records which are neither Primary nor Secondary selections... the Secondary Selections remain the same.

- *A) Full File* - this option causes the Primary Selections to be all records in the file. There will be no Secondary Selections

- *B) Select File* - this option provides the same choices as the primary program option F7. (See page V-44)

- *C) Relative Work File* - this option allows you to bring the records identified by an Ancestor/ Descendant/ Relative WRK file into the selection process. When you choose this option, the following message will appear at the bottom of the screen:

  Select 1) Load 2) Merge 3) AND 4) Exclude

  The "Load" options requests that the WRK file records be made the Primary Selections (and the Secondary Selections be set to 0). The "Merge" option requests that the WRK file records be combined with the current Primary Selections (the Secondary Selections remain unchanged except that any new primary selections which had been secondary selections will be removed from the secondary selections). The "AND" option requests that the Primary Selections become the current Primary Selections which are also WRK file records and that the Secondary Selections become the current Secondary Selections which are also WRK file records. The "Exclude" option requests that the Primary Selections become the current Primary Selections which are NOT in the WRK file and the Secondary Selections become the current Secondary Selections which are NOT in the WRK file.

  After selecting any of these sub-options you will be prompted to enter the name of a previously created Ancestor/Descendant/Relative WRK file to be used during this operation.

- *D) None* - this option requests that both Primary and Secondary selections be set to 0. This would ordinarily be used prior to using the "Edit LIST" option to "manually" add individual records to the selection list.

After pressing a valid character key, the choice will be recorded in the "Selection BASE" part of the screen format by displaying the character in a "reverse-video box" next to the description of the base chosen. The numbers of ID

numbers among Primary and Secondary selections is also adjusted and redisplayed. At this time, the "Selection BASE" becomes the "Current Selection Set" of records to be processed.

V.F.8.a).2 Defining Selection Rules

While the "Selection Base" may be the exact set of records for which you want to print information, you may actually be interested in some subset of that collection of records. To accomplish this, you may define some "selection rules" which can be "applied to the selection base" during a "search" procedure to restrict the records in the manner prescribed by the rules. The search criteria, as shown in the viewing area in the lower right corner of the screen, may consist of up to 9 of those "selection rules".

When you select the option "2) Change RULEs", the hilited border is moved to the lower right corner of the screen where the selection rules are displayed. The top line of the view gives the number of the rule and how many rules have been previously defined. The latter number may be less than the former if the currently displayed rule has not yet been added to the set of rules. In the following discussion, a "null rule" is one in which none of the displayed selection fields have been changed from their default values.

```
        Selection Rule #_ of _
_____<= ID <=_____   SEX=_   F:_ M:_
Surname:_____________________
Given:_______________________________
00-00-0000<= Birth Date <=00-00-0000_
Birth Place:_____________________
00-00-0000<= Death Date <=00-00-0000_
Death Place:_____________________
Married:_ (Y/N/C)   Children:_ (Y/N)
Address:_ (Y/N/C)   Comments:_ (Y/N)
```

View 14: Selection Rules

Each rule is made of:

- upper and lower bounds on ID#
- gender (or sex code)
- values for the Mother and Father "status" fields ("?"=questionable, "*"=adoptive relationship)
- substring or soundex values for surname, given name, and birth & death places
- upper & lower bounds on birth and death dates
- values for birth or death date "status" fields (to the right of the date representing the upper bound for the birth/death dates...the values entered may be: "?"=questionable, "!"=documented fact)
- and whether or not an individual has a spouse, child, residence or (name record) comments recorded in the file.

NOTE: *Rules concerning the existence of marriage or residence information are established by entering "Y", "N" or "C" in the appropriate place in the RULES display. The "C" requests that only individuals who have CURRENT information of that type be selected; that is, those for whom the termination date of the most recent marriage or residence is zero.*

Using these conditions, you may define rules, which would restrict the records selected to:

- persons who are still living (Death Date <= 00-00-0000)
- persons who are deceased (00-00-0001 <= Death Date)
- persons who were living on a given date, e.g. those living on 04-10-1943 would be selected by specifying:
  (Birth Date <= 04-10-1943 and 04/10/1943 <= Death Date)
  and a second rule with (Birth Date <=04-10-1943 and Death Date <= 00-00-0000)
- persons born in Indiana (birth place substring of "IN" or "Ind")... the success of searches of this type will depend upon your consistently entering place "codes" in the same way.

When applying these rules, an individual is selected if at least one of the rules is satisfied. A rule will be satisfied for an individual only if all conditions in the rule are true for that individual.

The procedure for updating information in the displayed rule description is the same as that followed for updating other full screen displays in the system, with the following additions:

- The PGDN & PGUP keys are used to move to later or prior rules in the set
- Function key F2 will clear all fields in the currently displayed rule; ALT+F2 will delete all rules in the set
- Function key F3 will place all fields currently displayed in a hold area; These values may be restored to the display (after subsequent update of the displayed rule or after moving to another rule) by pressing the F4 key
- Pressing the RETURN key, the PGUP or PGDN keys, or the F1 key will cause the currently displayed rule to be added to the set of rules (if it is a "non-null" rule)
- Pressing the ESCape key will result in the fields in the currently displayed rule being restored to the value that they had the last time the RETURN key or a special function key was pressed;

The process of defining the rules is terminated by pressing the "F1" function key. All null rules are removed from the set, the first rule of the set is redisplayed, and options for Selecting Records to Print are redisplayed on the bottom line of the screen.

NOTE: *The conditions that can be placed upon names and places are much more flexible than simple searches for exact matches.* *Please see "Performing Substring and Soundex Searches of Names and Places" on page V-45.*

V.F.8.a).3 Applying the Rules

The procedure of "Applying the Rules" consists of examining each record among the current Primary Selections and determining whether it satisfies any of the selection rules. A record will be selected if it satisfies any one of the rules. Well, actually, a record will be removed from the selection set if it fails to satisfy every selection rule. As a result, if no selection rules have been defined, then no record will fail any selection rule and so all records in the current selection set will "survive" the search process. Also, if the process of applying the rules is interrupted (by pressing the ESCape key) the selected individuals will include not only those who passed the rules test (so far), but those in the original selection set who have not yet been tested.

You begin the search process by selecting the option: "3) Apply RULE". If there are currently both Primary and Secondary selections you will be asked whether to:

Apply to: 1) Primary Selections Only 2) Secondary Only 3) Both

The results of applying the rules to one of the groups will remain in the group to which it originally belonged. If a group (Primary or Secondary) is not chosen for applying the rules then it will remain unchanged at the end of the process.

When the process of applying the rules begins, the message: "Applying RULES to BASE" will appear on the bottom line of the screen and you will note your disk drive become active. During this process you may press the space bar at the bottom of the keyboard to get the progress report:

"Processing ID# nnn at hh:mm:ss"

This does not cause the process to wait. If you wish to terminate the procedure before normal completion, press the ESCape key.

After the process is complete (or if it has been terminated by pressing the ESCape key), the number of records that remain in the "Primary Selections" and "Secondary Selections" will be shown on the screen. If the procedure has been interrupted, the number of records "selected" will include not only those which have passed a selection rule but those in the selection base which have not yet been tested.

V.F.8.a).4 Making Secondary Selections

"Secondary Selections" are persons who are closely related to selected individuals (they appear on the individual's family group worksheet) and may include the parents, siblings, children, spouse, spouse's parents, and child's (latest) spouse. When you choose the option: "4) 2ND Select", the viewing area in the lower right corner of the screen will be cleared and a list of optional "categories" of secondary selections will appear there. The following message will also be displayed at the bottom of the screen:

```
    Secondary Selection Options
A. Parent of Selected Individual
B. Sibling of Selected Individual
C. Child of Selected Individual
D. Spouse of Selected Individual
E. Parent of Spouse
F. (Latest) Spouse of Child
```

View 15: Secondary Selection Options

"Type A-F to toggle secondary selections (Enter to Continue)"

Pressing one of the allowed character keys will cause the corresponding character next to the chosen category to be "hilited" (indicating that the category of individual's is to be chosen) or to have "hiliting" removed. The term "toggle" refers to this "on/off" effect when pressing the A-F character keys. After all desired categories have been selected, press the RETURN key to proceed. If there are currently both Primary and Secondary selections you will be asked whether to:

Apply to: 1) Primary Selections Only 2) Secondary Only 3) Both

Individuals found as a result of searching for "secondary selections" of either of the groups and who are not among the current Primary Selections will become "Secondary Selections".

When the search process begins, the message: "Searching for Secondary Selections" will appear on the bottom line of the screen. During this process you may press the space bar at the bottom of the keyboard to get the progress report:

"Processing ID# nnn at hh:mm:ss"

This does not cause the process to wait. If you wish to terminate the procedure before normal completion, press the ESCape key.

After the process is complete (or has been terminated) the number of "Secondary Selections" will be updated in the middle of the screen.

V.F.8.a).5 Edit Selection List

The fifth option for "Selecting Records to Print" allows you to view information about each of the individuals who are in the current selection list, whether Primary or Secondary selections. When you select the option: "5) Edit LIST" the viewing area in the bottom right portion of the screen will be cleared and reformatted as shown at right. Information about the first individual (lowest ID #) in the list will be shown. The type entry (Primary or Secondary) will be hilited and the total numbers of Primary and Secondary selections in the current selection set will be shown.

```
Selected Record ID: _____
Name: _____________________________
      _____________________  Sex: _
Birth Date: ____________
     Place: _____________________
Death Date: ____________  Age:___
     Place: _____________________
 Father ID:_______ Mother ID:_______
Type: Primary   (_____)
      Secondary (_____)

F1 End F2 Add ID's F3 Remove F4 Type
```

View 16: Edit Selection List

From this view you can Add single ID's or a Range of ID's to the list, delete single ID's from the list, or change the type entry from Primary to Secondary or from Secondary to Primary. You can move up and down the list by pressing the PGUP and PGDN keys. Pressing CTRL+PGUP or CTRL+PGDN will move the current entry to, respectively, the First or Last entry in the list. If you type an ID number into the updatable "Record ID" field and press the Enter key, information about that ID number will be shown. If the ID is in the current Selection Set, the position in the list will move to that entry. If the ID number is not in the list, it will be added to the list as a Primary Selection.

If you press "F2 Add", you will be prompted to:

Enter Range of ID's: First= _____ Last=_____

After typing the numbers for the "First" or lowest and "Last" or highest ID numbers in the range of ID's, press the Enter key. The ID's in the range which are not currently among the Primary or Secondary selections will be added to the list as Primary Selections and information about the "First" record in the range of ID's will be shown in the viewing area. The number of Primary Selections will be updated to reflect the additions to the list.

If you press "F3 Remove", the current displayed ID is removed from the Selection list. The count of Primary or Secondary selections will be updated and the information about the next ID in the list will be shown.

Pressing "F4 Type" will cause the selection type for the currently displayed entry to be changed from "Primary to Secondary" or from "Secondary to Primary". The count of Primary and Secondary selections will be updated accordingly.

After you have completed viewing and modifying the selection list, press the ESCape key to return to the list of options for "Selecting Records to Print".

V.F.8.b) Printing Reports for Selected Records (F6)

Program option F6 allows you to print a variety of reports, including detail lists in ID# or indexed sequence, indexed summary reports and relationship summary reports. The relationship summary reports are in the same format as those described previously on pages V-18, V-20 and V-22, except the records summarized are limited to those relatives who are among the current primary and secondary selections.

When you press the F6 key you will be prompted to:

Select 1) Detail Report 2) Summary Report

The detail reports will be described later (see page V-43). If you choose to print a Summary Report then you will be asked to:

Select 1) Indexed Summary 2) Relationship Summary

The Indexed Summary reports will be described in the next section. If you choose to print a Relationship Summary then you will be asked to:

Select 1) Ancestor 2) Descendant 3) Relative

The Relative Summary Report is in the form of the Relationship Table, described on page V-22, except the numbers in the table will represent the number of relatives in that relationship category who are among the selected records. Only lines of the table, which have at least one non-zero entry will be printed.

If you choose to print an Ancestor or Descendant summary report, then you will be prompted to:

Select Style: 1) Horizontal 2) Vertical

The Horizontal format prints the items of information for a generation level on a single line. The Vertical style of report prints the items of information for a generation level in a column. The numbers in the report represent Ancestors/Descendants who are among the records that have been selected with program option F3. Lines (or columns) for generation levels that have no representatives among the selected records will not be printed in the report.

V.F.8.b).1 Indexed Summary Reports.

Indexed Summary reports are similar to Ancestor/Descendant summary reports in the items of information that are summarized, however the grouping of records, instead of being determined by relationship levels, is based upon the high level index field for an Index File. The creation of index files is an extended option provided to registered users of the Family History System and appears as Main Menu selection F3-F in registered versions of the software. Index fields can be selected from among the data items: Given Name, Surname, Birth Date, Birth Place, Marriage Date, Death Date, Death Place and Sex or Gender code.

The date fields can be sorted in orders described by the symbols:

YMD, MDY, DMY, YM, MD, Y, M, D

Where Y=Year of the date, M=number of the Month of the date, and D= the number of the day of the date. As indicated, the dominant sort field for the date can be Year, Month or Day, and some sort orders only use a portion of the date for sequencing the records. For instance, if the high level index for the index file used to print an Indexed Summary Report is “Birth Date” and the sort sequence is “YM” then individuals who are born in the same month of the same year will be grouped together in the report and the summary lines for the groups will be printed in Year and Month sequence.

The text fields (Names, Places and Gender Code) can be sorted in Alphabetic Sequence either as full text fields or they can be sorted by the Soundex Code for the data item. If the high level index field for the index file is, for example, Surname, and the index file uses the actual value of the Surname for sorting the information, then individuals with the same Surname will be grouped together for summarizing in the report. If the Soundex Code for the Surname is used to create the Index File, then Individuals will be grouped together by the Soundex Code of the surname, placing those with different but “similar sounding” surnames together. When grouping by Soundex Code, the summary report line will begin with the Soundex Code for the field but a “representative value” for the field will also appear after the Soundex Code. The “representative value” is the actual value of the field found in the first record of the group (as they are processed in sorted sequence).

The data items that can appear in an Indexed Summary Report (in addition to the data item used for grouping the records) are:

- #M, #F - the numbers of males and females
- TOT# - the total number of individuals in the group (an "*" to the right of this number indicates that it is greater than the sum of the numbers of males and females. This means that there are records with sex code other than "M" or "F")
- BP - the number of birth places recorded
- BY>0 - the number of records with birth year greater than 0
- LoBY,HiBY - the low and high values recorded for non-zero birth year
- MAR - the number of name records with at least one marriage or spouse record
- #MAR - the total number of marriage/spouse records (if both spouses are in the group being summarized then the single marriage record will be counted once for each of them)
- MP - the number of marriage/spouse records with place of marriage recorded
- MY>0 - the number of marriage/spouse records with marriage year>0
- LoMY,HiMY - the low and high values recorded for non-zero marriage year
- DY>0 - the number of records with death year>0
- DP - the number of records with place of death recorded
- DY<9 - the number of records with 0<death year<9999 (this ignores those records which have the value 9999 for death year indicating that the person is deceased but that the year is unknown)
- LoDY,HiDY - the low and high values recorded for year of death (among those records counted under "DY<9").

The choice of data items included in a summary report is determined by the report option settings. These options can be viewed and modified using program option F4.

V.F.8.b).2 Detail Listings of Selected Records

The detail listings produced by this program are similar to the detail “Relationship Reports”, described on pages V-17, V-19 and V-21, except that the individuals are listed here in ID # or Indexed sequence instead of being listed in “relationship” sequence. The reports can be produced in three styles. In fact, the first thing you are asked when you choose to print a Detail List is:

Select Style: 1) Fixed Format 2) Free Format 3) LifeLine Format

See page V-5 for a description of these report styles.

To determine the order in which the selected individuals are to be listed in the report, you are asked to:

Select: 1) Indexed Sequence 2) ID# Sequence

If you choose to print in "Indexed Sequence", you will be prompted to:

Enter Index File Dataset Name: FAMILY.NDX_____

The printing of records in Indexed Sequence requires the use of a previously created "Index File" which contains a list of all ID numbers sorted in the desired sequence. The creation of Index Files is accomplished using an extended option (Main Menu selection F3-F) provided only to registered users. Those who are using the basic set of FHS programs will only be able to print lists in ID sequence.

You will then be asked to:

Enter Subject: _____

The text that you enter on this line should describe the purpose of the report and will be assigned to the SUBJECT system variable, which can be used to place the description line into the report heading. The default heading for Detail Lists places the text line, centered, on the second line of the report heading. If you choose to record the report in a REFERENCE work file, this text will be placed in the REFERENCE file as the report title, which would then appear in a Table of Contents printed from the REFERENCE file.

If you are printing an Indexed Report, then the data item for the primary sort field of the index will be the first data item on the line. Other items of information that can be included in (Fixed or Free format) listings include: the Name, Birth/Death dates and places, Age, Gender, Relationship, Number of Children, Comments, and (most recent) Residence Address. You can choose to print just the date (and place) of the most recent marriage, or you can choose to print a detail line for each marriage record showing detail information about the spouse. (Detail spouse information is selected by setting the "Marriage" option to "A"ll)

You can choose to place a blank line between the line(s) of information for a selected individual in the detail list. If you do not choose to separate individuals by a blank line and you have chosen to show detail information for marriages, then the spouse lines will be indented to easily distinguish them from the detail lines for selected individuals in the report.

If you are printing a Fixed Format report and the total data length for the selected items on a data line is less than the Forms Width of the Printer Setup being used, then spaces will be inserted between the columns of information to cause the information line to "expand" to fill the area between the margins. If the total data length for selected items (together with the margins) requires a greater Page Width than the Forms Width of the Printer Setup and "Addresses" is one of the data items, then the Address information will be printed on a second data line. If the required page width is still greater than the Forms Width, then you will be asked:

"Page Width is xxx but yyy is required... Continue? (Y/N)"

If you choose to continue, the line will be truncated according to the values of the forms width and "offset". (You may subsequently print the report again to get the truncated information by using the OFFSET field among the Report Options.)

V.F.8.c) Using the Selection Work File (F7)

A "Selection Work" dataset (default name = SELECT.WRK) is used to save the results of a Search/Select procedure for later use by this program or by another program in the system (for example, the EXPORT program may use this dataset to determine which individuals' information is to be written to the GEDCOM format dataset).

Processing of the selection work dataset is requested by program option F7. Choices presented to you are:

- SAVE the current selection table and rules in the dataset
- LOAD the selection table and rules information from the dataset

- MERGE the selection table in the dataset with the current selection table (this may be used to construct more complex selection tables, for instance one containing the ancestors, descendants or relatives of two unrelated individuals). The resulting selection table (in memory) will mark individuals who were selected in EITHER the previous selection table OR the SELECT work file
- AND the selection table in the dataset with the current selection table. The resulting selection table (in memory) will mark individuals who were selected in BOTH the previous selection table AND the SELECT work file
- EXCLUDE the selected individuals in the work dataset from the selected individuals in the current table. The resulting selection table (in memory) will mark individuals who were in the previous selection table but were NOT in the SELECT work file.

V.F.8.d) Performing Substring and Soundex Searches of Names and Places

In early versions of the Family History System (prior to Feb 1987) the only method of searching name and place fields was to look for occurrences of an entered string of characters within these fields. For instance, a request to search a surname field for “Br” would locate surnames “Brown”, “Braun”, “Bryan”, etc. These searches were case sensitive (a lower case character would not match an upper case character and vice versa) and matches could be found anywhere in the name field (the above request would locate a surname of “VonBraun”). However there was no option for performing “soundex” searches, which is a popular procedure for looking for names that “sound alike”.

In Feb 1987 the procedure for performing name and place searches was considerably expanded to allow not only soundex searches, but “mismatch” and “exact match” requests as well. The purpose of this section is to describe these new search options.

The first character of a Surname, Given Name, Birth/Death Place string that has been entered into one of the search rules determines the type of search that will be performed as follows:

- If the first character of a Name/Place search request is not one of the special characters: “~”, “^”, “=” or “#” then a sub-string search is performed just as before
- A “tilde” character, or “~”, requests that a soundex search be performed; the string of characters following the “~” symbol will be called the “keyword” for the soundex search. During a soundex search, the “soundex code” for the keyword is computed and the corresponding Name or Place field is searched for words that have soundex codes that match it. The character strings that are examined are those that begin with the same "upper case" letter as the keyword soundex code and are terminated by a non-alpha character (such as spaces, commas, semi-colons, etc.). (**NOTE:** *The tilde character is used in mathematics to indicate "similarity" which is why it was chosen to represent a search for similar sounding character strings*)
- A “circumflex” or “^” character placed before a substring or soundex search extends that search to also look for substrings which begin with a lowercase letter but otherwise match the string or keyword soundex which follows the “^”. Using this, you can find “similar sounding” strings of characters which are at the end of a name. For example a search for “^~Mary” would locate “Rosemarie”
- A double "circumflex" or "^^" before a soundex search request will extend the search further to locate similar sounding strings at the beginning or in the middle of a name. (**NOTE:** *The circumflex was chosen to represent these extended search options because it is sometimes used to indicate the insertion of a character or string of characters in the middle of another string of characters*)
- An “equal sign” or “=” character indicates that the search must produce an “exact match” to the following characters. In this case, a search of Given Name “=Mary” would not yield a match for “Mary Jane” or “Ida Mary”, but only if the given name was simply “Mary”
- A “pound sign” or “#” character indicates that the search will be considered successful only if the search string that follows it does NOT result in a selection when the corresponding name or place field is searched. This might be called a “mismatch” search option. (**NOTE:** *The “#” sign was chosen because it looks like a mathematical symbol for “not equal”*)

The following examples are intended to indicate what you might expect from using the above search options. The results were obtained by performing the indicated search against my own family file of 1750+ name records.

Search String	#Found	Typical Names found

1. Mary 40 Mary, Hester Mary
2. mary 1 Rosemary
3. ^Mary 41 (all in #1, #2)
4. ~Mary 66 Marie, Maria, Myra, as well as those in #1
5. ^~Mary 77 Those in #4 as well as Rosemary and Tamara. I also picked up Elmer, Homer, Omar, Emera etc., but most of the "way out" variances were eliminated when I restricted the search to Females.
6. ^^~Mary 165 After restricting the search to females, the 88 additional names found over #5 above were reduced to 44, including: Marella, Meriam, Merris, Marabelle, Marlene, Marvia, Marjorie, Myrtle, ...
7. A search for "#^~Mary" applied to the selection set resulting from #6 above will select just those 88 names that were found in #6 but not in #5. This shows how a "Mismatch" search can be used to reduce the results of previous searches.

At one time I felt that the original substring searches provided by this program should be adequate for most purposes. But I do find the new options described above to be at least intriguing... perhaps even useful. I encourage you to experiment with them to find out just what search strategies provide the most meaningful information for you.

V.F.9 TINY TAFEL Reports (F2-E) - an Extended Option for Registered Users

In the April-June 1986 issue of "Genealogical Computing", Paul Andereck proposed a format for "concisely...expressing the contents of a family database". The representation, which he called a "TINY-TAFEL", consisted of a list of surnames, showing for each surname the range of dates covered by the surname (in a lineage linked chain) and the comparative interest level which the surname held in his family research. The range of dates was determined by the earliest and most recent birth dates in the family line and the interest level was shown by 0-3 stars (or asterisks), with 3 stars indicating a "main-interest line".

In April of 1987, I added the Surname Summary Report (an Indexed Summary Report with Surname as the primary sort field for the index) as an extended option of the Family History System. It was designed somewhat around the idea of the Tiny-Tafel, but extended to show more statistics about each surname group. The additional information included the Soundex for the surname, the numbers of males, females and total records with the surname, the number of records with birth, death or marriage dates recorded and the ranges of those dates.

In the April-June 1987 issue of Genealogical Computing, Paul Andereck reported that COMMSOFT, the publishers of ROOTS II (and now ROOTS V) software, had extended the Tiny-Tafel description as well. Their format added Soundex codes and the birth places of the earliest and most recent individuals in the family line. They also added some additional information describing the "owner" of the database. More importantly though, they set up a "Tafel Matching System" which connected many genealogy BBS's (electronic Bulletin Board Systems) together into a network in such a way that persons who placed a Tiny Tafel on one of the BBS's would be notified of anyone with similar interests on that or any of the other BBS's in the network.

The Tiny Tafel format became popular for placing family interests on other bulletin board systems outside that network. As a result, there was interest in having a "Tiny Tafel generator" which could extract the information from a family file. COMMSOFT's own ROOTS software was the first to offer such a utility, and others followed, including at least one that was written to produce a Tiny Tafel file from a PAF format GEDCOM file. Of course the latter utility could produce a Tiny Tafel from FHS data, after using the FHS to PAF GEDCOM export option, but there was also interest in a self-contained FHS utility. Main Menu selection F2-E, added in February 1991, now provides that function.

A sample Tiny Tafel Report is shown at right. Here, the lines beginning with "N", "A", "T", "S", "B", "R" and "F" are optional "Header" lines that give the Name, Address, Telephone, Communications Service, BBS, and Remarks. These identify the "owner" and source for the data and are entered in the viewing area in the lower right corner of the screen when executing the FHS Tiny Tafel option. The "F" line indicates the "File Format" of the database in which the family information is stored. The name of the FHS "Name" file from which the information was taken is shown in parenthesis at the end of this line. The required "Z" line shows the number of "data" lines that follow it. The required "W" line at the end gives the date on which the information was extracted.

The 2 lines following the "Z" line in the sample Tiny Tafel are the "data lines". They show: the Soundex of the family name, the earliest birth year and the most recent birth year of the family, the surname, and the birth places of the oldest and youngest members of the family. To distinguish the birth places (either or both of which may be absent from the data), the birth place of the oldest family member is preceded by a "\" and the birth place of the youngest is preceded by a "/".

The characters to the right of the two "year" fields represent the "interest level" for each end of the surname line. The character to the right of the first year indicates the level of interest in the ancestral end of the surname line and the character to the right of the second year indicates the level of interest in the descendant end of the surname line.

The symbols that are used to express the levels of interest are:

space	indicating very little interest	(level 0)
.	indicating low interest	(level 1)
:	indicating moderate interest	(level 2)
*	indicating highest interest	(level 3)

To provide you with the ability to save interest levels from one execution of the program to another, I have made use of an unused portion (1/2 character) of the name record to store this information, if you wish. The ancestor interest level will be saved in the name record of the individual with earliest birth date for the surname group. The descendant interest level will be saved in the name record of the first individual with the most recent birth date in the surname group. If you update your file in a way that affects the identity of the "extremes" for the surname group, then the interest level will have to be reestablished in this program. These saved values are not used by any other programs in the system at this time.

```
 N Phillip E. Brown
 A 834 Bahama Drive
 A Tallahassee, FL  32311
 T (123)456-7890
 S GENIE
 B Genealogy
 R This is a sample TinyTafel
 R produced with FHS.
 F Family History System  (C:RUSSELL .NAM)
 Z 2 M=25  T=234  F=1971
 R240 1787*1971:Russell\OrangeCo.,Virginia/Indiana
 W420 1832:1973.Willcox/Fort Wayne,Indiana
 W 25 Jan 1991
```

Report 2: Tiny Tafel

In addition to the interest levels, I have provided some other ways for you to restrict the information to the more "significant" family names in your file. For instance, you may restrict the records that will provide input to the Tiny Tafel to: the Full File; the records identified by an Ancestor, Descendant or Relative work file; or the records identified by a SELECT work file created by the "Search/ Select/ LIST" option or one of the family group report programs. You are also given the opportunity to assign a minimum size for a surname group to be reported in the "Tiny Tafel". A value of 1 will show all surnames among the records being summarized. A higher value will likely eliminate many surnames that are only minimally represented in the file.

The steps for generating a Tiny Tafel are:

1 Use Main Menu option F3-F to create an index file in which Surname is the primary (number 1) sequence field. If you have previously created a surname sequenced index file and have not added new records to your

file or changed any surnames since that time, you may use that index file. It is probably best not to use the option for substituting a married woman's surname with her husband's when building this index. If you do use this option, then a married woman will be counted in the surname group of the husband (unless her "Surname Use" value is "Y")

2 (Optional) If you wish to restrict the records which provide input to the Tiny Tafel to those in a particular relationship group, use main menu option F2-A-(1,2 or 3) to generate an appropriate WRK file (ANCESTOR, DESCNDNT, or RELATIVE). You may also consider using main menu selection F2-E to create a SELECT.WRK file of selected records

3 Select Main Menu option F2-E, the TINY TAFEL Report option

4 Use program option F3 to create a table of Surnames that are to be reported. You will be asked to identify the "BASE set" of name records to be used to build the table. This may be either "A", the full file, "B", the records in a SELECT.WRK file which you have created or, "C", the records in a relationship WRK file you have created.

You will also be asked to: Enter Min Interest Level: ___

This permits you to only gather information for those surnames for which you have previously entered an interest level (and saved it in the Name file).

Finally, if you include all interest levels (by entering "0" for the minimum interest level) you will be asked what should be the minimum size "surname group" that will be recorded in the table. While the table is being built, you can check on the progress by tapping the "space bar". You can terminate the process prematurely by pressing the ESCape key

5 (Optional) Use program option F4 to change report options

6 (Optional) Use program option F5 to browse the Surname table, enter "interest levels", and "remove" individual surnames from consideration for a Tiny Tafel. The viewing area in the lower right corner of the screen is used for this operation. You will be shown the number of records (in the BASE set) with the surname, the range of birth dates, and the Surname.

The numbers on the right side of the top line in the viewing area represent the table entry number for the first surname shown and the total number of entries in the table. You can browse the table using PGUP and PGDN, jump to the end with CTRL+PGDN, or jump to the beginning with CTRL+PGUP or CTRL+HOME. If you press the ALT key and an alphabetic character key at the same time, the surname group on the top line of the display will jump to the first surname whose SNDX begins with the character.

If you put any character in the first position of a line (under "DEL"), the entry will not be included in a TINY TAFEL generated from the table. When you press the ALT+"0" (zero) keys, the program will, alternately, either place an "X" in the DEL column, or remove all "X"'s from the DEL column of entries which have zero dates. This makes it easier to remove all zero date entries from a report while still permitting you to include selected ones by manually removing the DEL indicator for those you wish to include in the report.

The "Ancestor Interest Level" is entered in column "AIL" and the "Descendant Interest Level" is entered in column "DIL". The characters that represent the various interest levels are shown on the bottom line of the display.

Press F1 when you are through. If you have made any changes to the interest levels, you will be asked if you want to: Update Name File with Interest Level Changes? (Y/N)

If you reply "Y", then the changes you made will be saved in the appropriate name records.

7 Use program option F6 to generate the Tiny Tafel. You will have an opportunity to enter information in the "Header" identifying yourself as the source of the information in the file. You have the option of producing the Tiny Tafel in either Surname or Soundex sequence. If you select Soundex sequence, the program will take a few seconds to resequence the table of surnames. You will also be asked what should be the minimum interest level to be included in the TINY TAFEL. If you allow all levels (by entering "0" or simply pressing

the space bar), then you will be asked again what should be the minimum size group for surnames to be included. If you enter a value which is smaller than that used to build the table, then it will be ignored.

The "Z" line in the TINY TAFEL that is created will show some additional "statistics" besides the count of data lines. If you have set the minimum interest level to a value greater than 0, it will be shown as "I=n" on the "Z" line. If all interest levels are included but you have set the minimum group size to something greater than 1, it will be shown as "M=xxx" on the "Z" line. The Total number of individuals in all reported groups will be shown as "T=yyyy" and the total number of ID's in the entire file will be shown as "F=zzzz".

Some other characteristics of the Tiny Tafels generated by this new FHS option:

- The first date is the earliest birth date found for any record with the surname. It may not be that of a "terminal ancestor" of the family. If there is an "ancestral birthplace" shown, it is that of the first person in the surname group with that earliest birth date
- The second date is the most recent birth date found for any record with the surname. It may not be that of a "lowest level" descendant. If there is a "descendant birthplace" shown, it is that of the first person in the surname group with that most recent birth date
- There may be no direct relationship between the two individuals who represent the extreme dates. The likelihood that they are related is increased if the records which are searched for the information (that is, the BASE set) are carefully selected. For instance, if they are the ones identified in an ANCESTOR, DESCNDNT or RELATIVE work file, then they are more likely to be directly related.

I hope you find this option useful for sharing your interests with others. Please let me know if you have any comments, criticisms or suggestions concerning it.

V.F.10 REPORT INDEXES (F2-F) - a System Extension for Registered Users

If you have been patiently adding name records to your family files, you should have been gratified to find your set of ancestor charts growing to encompass several subcharts, all nicely "chained" together. You have probably also observed the descendant report for that very remote ancestor growing to several pages filled with all manner of vaguely familiar names of distant cousins. Although direct lines of ancestry or descendancy are easy enough to follow on each of these reports, you have probably had some problems locating particular individuals whose relationship to you is not well known. (I sometimes have problems finding myself on the descendant report of one ancestor, which now extends to more than 25 pages with spouses) The program described in this section is intended to make it easier to overcome this problem. It produces a Report Index, which is a sorted list of individual's names that have appeared in reports or charts that you have printed with an indication of where each occurrence of the name can be found in those reports or charts.

Main Menu option F2-F invokes the Report Index Program which makes use of an Index file and a Report Reference file to produce printed indexes for ancestor, descendant or relative reports, sets of Family Group reports, merged family group reports, Detail Lists, sets of ancestor charts and ancestor "maps", descendant charts, and the generalized "box" charts. For most reports, references to an individual are noted by the page and line number on which the reference occurs. References to entries on ancestor charts note the chart-ID and entry number where the name occurs. Entries in the "Box" charts are identified by the column number and line number where the indexed name appears.

A single Reference File can include entries from multiple reports or charts. In addition to the indexes, the program can print a "Table of Contents" listing the Titles and beginning page numbers of reports and charts whose references are in the Reference file.

NOTE: *The ability to print Report Indexes is an Extended option of the Family History System which is only provided to registered users of the software.*

Upon entry to the Report Index Program, you will see a display similar to the one below. It will show the Family File Setup being used, the current Printer Setup and Form size, the name of the Reference File being used, and statistics about the Reference file, including the number of Reports/Charts whose references are in the file, the number of unique ID numbers referenced, and the total number of references for all ID's.

The bottom half of the screen will show a list of the reports/charts whose references are recorded in the Reference file. For each report you will see:

- the identifying Report CODE (from the REPORTS System Table)
- the TITLE of the Report
- the Date and Time that the report was produced
- the Beginning and Ending page numbers for the report
- the number of unique ID's appearing in the report, and
- the total number of references recorded from the report.

The last report listed will be for the Report Index that you could print from the Reference work file.

The program options are shown on the last line of the upper half of the screen. They include the standard options for choosing a Family File Setup (F1) and Printer Setup (F2). Option F3 allows you to select a different Reference File. (All Reference files are in the WORK File Directory of the Family File Setup being used)

Program option F4 is used to view and change the options for report indexes printed by the program. If you press the F4 key a viewing area in the lower right portion of the screen will be formatted with a list of the options and it will become the "active viewing area". You can use the UP/Down cursor keys and press Enter to select an option to change. Press the ESCape key to remove the option display and re-display the report list in the bottom portion of the screen.

Option F5 is used to change the TITLEs that appear for the reports/charts listed in the lower half of the screen. These are the titles that will identify the reports in the Table of Contents printed by the program. If you press the F5 key, the lower half of the screen will become the "active viewing area" and an option line will be shown on the bottom line of the viewing area. The first report sequence number will be hilited in "reverse video". Use the Up/Down cursor control keys to move the hiliting to the report whose title you want to change and press the Enter key. The title field will then be updatable. If you attempt to enter a title longer than the area supplied on the screen, the text will scroll horizontally to allow you to continue typing. The title may be up to 100 characters long. If the title extends beyond the area allowed for the title on the screen, then a ">" symbol will appear to the right of the truncated title. Press the Enter key

```
                              Family History System
                           Report/Chart Index Program

  Family File Setup: RUSSELL   My Family                    # Names: 2108
      Printer Setup: DEFAULT   EPSON Standard
                Form: Width: 137  Length:  72

     Reference File: REPINDEX.REF  Reports: 2   #Ids: 217   #Refs: 226

F1Family File F2Printer F3REF File F4 Options F5 Titles F6 Print F9 Main Menu
 RPT CODE         Title                  Date     Time  Bgn  End   IDs    Refs
   1 DRPT Descendant Report for Fra> 03-26-1997 21:02    1   15   174     174
   2 ARPT Ancestor Report for Jane > 03-26-1997 21:10   17   18    52      52
   3 NDXR Report Index                                  19
```

View 17: Report Index Program

when you have finished typing the title and you will then be able to select another title to change. Press the F1 or ESCape key to return to the primary option menu for the program.

Program option F6 is used to print the Table of Contents and Report Index. You will be prompted to select the type report you want to print. If you choose to print a Report Index, then you will be prompted to

Select 1) Column Style 2) Free Form

The Free Form style of report will allow you to print more references on a report line, if there are multiple references for an individual, but the Column Style may be easier to browse for names and dates. Try each of them to find out which you prefer.

You will also be asked to enter the Name of the Index File Dataset that will be used to sequence the names appearing in the report index. The Index File must have been previously created using Main Menu option F3-F. (The ability to create Index Files is one of the extended options provided only to registered users)

If you have chosen the report option for showing Relationships in the index report, you will be asked:

For Relationships Use: 1) Reference File 2) Relationship WRK File

If you choose "1", then relationships will be determined from the information that is stored in the Reference File for the first reference of each individual listed. This may result in some inconsistent relationships if there are references from both Ancestor and Descendant type reports in the Reference File. Also, for spouse entries (identified by a "sp" after the reference entry), a relationship may be reported but the relationship should be understood to be an "in-law" relationship rather than a "blood" relationship. For instance, the *spouse* of a sister will show up as a "Brother" in the index, but the "(sp)" after the REFerence should make it clear that this is a "Brother-in-law".

If you choose "2) Relationship WRK File" as the source of relationships, then you will be asked to:

Enter Relationship File Dataset Name: RELATIVE.WRK

where the name entered here is that of a previously created Relationship Work file (an Ancestor, Descendant, or Relative WRK file). In this case, all relationships will be consistently expressed relative to a single individual (the BASE for the Relationship Work file used). For example, you could be indexing a descendant report for a distant ancestor but use a Relative WRK file that you've created having your own ID# as the Base. Then the relationships will be the Aunt, Uncle, Cousin, etc. relationships relative to yourself instead of the Child, GrandChild, etc. relationships that would have been recorded in the Reference Work File.

V.F.10.a) Report Index Options

As noted previously, program option F4 allows you to change some optional features of Report Indexes. In particular, you can optionally include ID numbers, Gender Codes, Birth and Death dates, and Ages. Further, when dates are included, you can request that only the year of the dates be shown. You can also request that a relationship literal, when applicable, be shown for each indexed name. (See the previous page for a description of other options available when relationships are shown.)

Another option allows including a symbol in report references showing the type report entry, which the reference represents. For most reports or charts the only types of entries are "standard" entries and entries for Spouses. However, the Family Group Report has several different types of entries in which an individual's name could appear. The symbols that are used to identify the different types of entries are shown in the table on page V-15.

Normally a Report Index will be printed using an Index File, which orders the names in Surname-Given Name sequence. (A more natural order for the ROYAL sample file would be in Given Name-Surname sequence) The information concerning an individual that is listed in the report index includes the formatted name. You can choose to print the name with the Surname first or last and with the Surname in CAPS, for emphasis. **NOTE:** *If you choose to substitute a husband's surname for a wife's when creating the index file that is being used, then this procedure will also be followed when producing the index report unless the wife's "Surname Use" field has a value of "Y". If a husband's surname is used for a woman, then her own surname will be appended to her given name.*

V.F.10.b) Creating a Reference File <u>after</u> Printing a Report

If you have already printed a report without creating the Reference work file and want to print a Report Index, you can still create the Reference work file without actually having to "print" the report again. Return to the option for printing the report, set up all printer parameters and report options as before but set the report option for the "Page to begin printing" to a very large number, for example "9999". When you "print" the report this time, request that references be placed in a Reference Work file and select "Printer" to receive the output. The program will go through all the work of formatting the report lines and creating the entries in the Reference Work file, but no report lines will be sent to the printer because you will never reach page 9999. (The process for creating a Reference work file for ancestor charts without actually printing the charts is a little different. In this case, when you are asked whether you wish to print each chart, you may now respond with "Y", "N", "A" or "R". The "R" indicates that you do NOT want to print the chart, but that you want to Record all References in the Reference work file. You will have to respond "R" for each chart that you want indexed but not printed.)

VI (F3-A) Family File Setups

The Family History System uses many datasets (disk files) for storing your family information and for storing the results of certain processes performed upon that information. For instance, each FHS Family File consists of three datasets which can be thought of as "card files" for storing certain types of information. They are the NAME dataset, the ADDRESS dataset and a third dataset for storing OTHER types of information (place names, marriages, medical records, military records, comments, etc.) You should also be familiar with the Relationship Work files for storing the results of searching for Ancestors, Descendants or Relatives of an individual. During the years that this software has been developing, other types of "work files" have been introduced, such as the SELECT file for storing lists of ID numbers that have been chosen for special processing, the INDEX file for storing lists of ID numbers that have been sorted in a particular sequence, TRANSFER files that are used to store family file information in a format suitable for moving to another program, and REPORT files, which are just text files containing the formatted output from one of the report printing programs. To give you some control over the naming of these datasets the software provides a user modifiable File Name Table. Main Menu selection F3-A is used to maintain this table.

When the Family History System was first introduced, back in 1985, the only datasets that it employed were the Family File datasets and the Relationship work files. At that time hard drives were still quite expensive and most home computers still used diskettes for storing programs and information. Therefore, in the original design of the software the File Name Table was relatively simple, consisting of a list of 6 dataset names with a provision for identifying the disk(ette) drive where the dataset could be found. The file name table was saved in the software's configuration file (along with printer setups and the screen color table).

Over the succeeding years there have been many changes, both in this software and the general computing environment, that have made the original File Name Table design become inadequate. This update finally attempts to address those inadequacies in several ways:

- You may have multiple Family File Setups, each identified by a short label and description. Most FHS programs permit you to easily switch between Family Files by selecting the desired file from a list of this descriptive information. Any of the family files can be identified as the DEFAULT family file; that is, the family file that will be used at the beginning of an FHS work session
- You can identify both the drive and directory in which the various datasets are stored
- You are able to provide a default dataset name for each of the "work" datasets
- The file name information is stored in a separate FDF (Family Definition File) dataset. You can have multiple FDF files and choose the FDF file that will be used during a work session either by setting the "FileDef" configuration parameter, using Main Menu selection F3-B, or by setting a DOS Environment variable (FHSFILES) prior to beginning an FHS work session. (e.g. SET FHSFILES=XXXFILES will use dataset XXXFILES.FDF in the FAMILY directory as the Family Definition File)

The next sections describe how you can maintain the information in the Family Definition File.

VI.A Maintaining the Family File Name Table

When you select Main Menu option F3-A, "Change File Name Table", the screen is reformatted as shown below.

```
                  FHS File Name Table Customization Program
File Name Definition File: FHSFILES.FDF        Setups: 17   File Size: 3606
Default File Setup: RUSSELL       My Family
Current File Setup: RUSSELL       My Family
  Family Group:    Drive = D   Directory = \FAMILY\DATA
    Name File:     Drive =     Name = RUSSELL.NAM
    Address File:  Drive =     Name = RUSSELL.ADR
    Misc File:     Drive =     Name = RUSSELL.OTH
  Work Group:      Drive = D   Directory = \FAMILY\DATA\WORK
  Transfer Group:  Drive = D   Directory = \FAMILY\TRANSFER
  Report Group:    Drive = D   Directory = \FAMILY\REPORT

                     SETUP         Description
                    RUSSELL      My Family
                    ROYAL        Royal Sample File
                    GENESIS      Genesis Sample File
                    TEST         Test Family File
                      :              :
  F1 File F2 Change F3 Setups F4 Datasets F5 Set Default F6 Print F9 Return
```

View 18: File Name Table Customization Program

The first two information lines identify the current Family Definition File and the DEFAULT family file setup. The Default setup is the one that will be used at the beginning of an FHS work session.

The middle portion of the screen shows information about the current entry in the Family File Setup table. In identifying the locations for the different types of files, they are placed into four file "groups". These file groups are:

- *Family Group* - which consists of the three datasets that compose a Family File and the Index Files associated with the family file
- *Work Group* - which consists of the Relationship Work files (Ancestor, Descendant, Relative), the Node Reference work files that store information used to print horizontal box charts, the Reference work files that contain information used to printer Report Indexes, and the SELECT work files that contain lists of ID's that have been chosen for special processing
- *Transfer Group* - which includes the GEDCOM and MailMerge datasets
- *Report Group* - which includes the Tiny Tafel and Report output files.

Each group of files can be assigned its own Drive and Directory where datasets in that group will be placed. The directories that are identified here must be created outside the Family History System before they can be used.

NOTE: *One reason for having a separate directory for the Family File datasets and the various work datasets might be to simplify the task of backing up your family information. There is really no reason for making backup copies of the work datasets as they are easily and frequently recreated. It is also reasonable to have a common directory among your family files for the Transfer Group to simplify the task of moving information from one family file to another*.

The only dataset names shown in the primary view of current file setup information are those for the three family file datasets. You will notice that each dataset also has a separate drive identifier field. This is to continue the support of earlier versions of FHS for placing the family file datasets on different diskette drives. If anything is entered in the drive ID field for a family file dataset and it is different than the drive ID for the Family Group, then the Family Group Drive & Directory fields will be ignored for that dataset.

The lower portion of the display shows a list of Names and Descriptions for Family File setups that currently exist in the file name tables. There may be more setups than can be shown on the primary view. If you choose program option "F3 Setups" then you will be able to scroll through the entire list.

The program options that are available from the main view of the File Name Table Customization Program are:

F1 File - Which allows you to Write to or Read from the Family Definition File

F2 Change - Which allows you to make changes to the currently displayed Family File Setup

F3 Setups - Which allows you to Select another setup for the "current" Family File, Add a new entry to the table or rearrange the sequence of entries in the Family File Setup Table

F4 Datasets - Which displays a list of default names for various types of work files

F5 Select DEFAULT - Which allows you to select a new Default Family File setup from the File Setup Table. The Default Family File Setup is the one that will be chosen as the Current Family File at the beginning of an FHS work session

F6 Print - Which allows you to print a report showing information about the Current Family File Setup or about ALL Setups in the Family Definition File

F9 Return - Which will Return to the Main Menu program of FHS. If you have made any changes, you will be prompted to confirm that it is okay to return to the Main Menu without having saved the changes. The unsaved changes will be lost after returning to the Main Menu.

VI.A.1 Changing Information for the Current Family Setup

If you select option F2, "Change", from the primary view of the Family File Customization program, the fields describing the Current File Setup will be made updatable. You can tab to the different fields to type information into them. The Drive ID fields are each single character fields. You do not have to enter the colon that normally follows the drive identifier. The directory fields should follow normal conventions for DOS directories. You can *not* use the long file names that are allowed by Windows 95.

The Drive ID's for the individual Family File datasets are for supporting the placement of these datasets on separate diskettes in different drives as in earlier versions of FHS. If a drive ID is entered for a Family File dataset and it differs from the drive ID for the Family Group of files, then the Drive ID and Directory fields for the Family Group will be ignored for that dataset.

There are no restrictions on the family file dataset names except that they follow the usual "8.3" format for DOS file names (that is, a 1 to 8-character prefix and an optional 1 to 3-character suffix separated by a period). This has been somewhat "standard" to use a common prefix for the three datasets and to use suffixes of .NAM, .ADR and .OTH to distinguish them. The prefix might be the generic "FAMILY" that was used for the default family file prefix for most versions of the Family History System, or you might use a dominant surname for the family file prefix. If you decide to change the names of the family file datasets at some time in the future, you can use the DOS RENAME command (or Windows "Rename" options) to change the names of the individual datasets and then modify the Family File setup to match the new names.

After you have completed your changes, press the F1 key to terminate the update process. The changes that you have made will only be temporary, for the duration of this session in the File Name Table Customization Program, unless you use the "F1 File" option to Save the changes in an FDF (Family File Definition File) dataset.

VI.A.2 Maintaining the List of Family File Setups

If you choose program option "F3 Setups" then the first Setup Name field in the list of Family File Setups in the lower portion of the screen will be hilited in "reverse video". You can use the UP/DN cursor control keys and the PGUP/PGDN keys to move the hiliting to the names of other entries in the list of Family File setups.

The option line at the bottom of the screen will also be changed to appear as follows:

UP/DN/Enter Select F1 Change F2 Add F3 Delete F4 Move Esc Return

The effects of these options are:

UP/DN/Enter - move the hiliting to a setup name by using the UP/Down cursor control keys and press Enter to select that setup as the Current Family File Setup. The screen will be reformatted to show the details concerning the selected Family File setup

F1 Change - Pressing the F1 key while a Setup Name is hilited will cause the "Setup" and "Description" fields for that entry to become modifiable. You can type over those fields to change them, then press Enter to terminate the update of the descriptive information for that entry

F2 Add - This causes a new, blank line to be inserted following the line for the entry that was hilited. You will be able to type information into the Setup and Description fields. Then press Enter and the new table entry will be created, selected as the "Current Family File" setup, and its information will be shown in the middle portion

of the screen. The drive and directory fields will be the same as for the Default family file setup. The family file dataset fields will be empty

F3 Delete - This will delete the hilited table entry. You will be prompted to verify that you wish to remove that entry from the table. You cannot delete the Default or the Current table entries

F4 Move - This option will allow you to change the order of the setups in the list. Move the hiliting to the name of the entry that you wish to move, press F4, and then use the UP/Down cursor control keys to move that table entry to another position in the list. Press the Enter key when you have reached the desired position

Esc Return - Returns you to the primary menu of program options.

VI.A.3 Maintaining the List of Dataset Names

If you choose program option "F4 Datasets" from the primary view of the File Name Table Customization program then the lower part of the screen will be reformatted to display the list of dataset names for all file types as shown below.

```
          CODE      GRP   Dataset Name        Description
          NAME       F    RUSSELL.NAM       Family File Name Dataset
          ADDRESS    F    RUSSELL.ADR       Family File Address Dataset
          MISCINFO   F    RUSSELL.OTH       Family File Misc Dataset
          INDEX      F    RUSSELL.NDX       Family File Index Dataset
          ANCESTOR   W    ANCESTOR.WRK      Ancestor Work File
          DESCNDNT   W    DESCNDNT.WRK      Descendant Work File

                    UP/Down/Enter Change      Esc Return
```

View 19: Dataset Name List

There is not room for the entire list at the bottom of the screen, but you can use the PGUP/PGDN keys to display other entries in the list.

The "CODE", "GRP" and "Description" information for each entry come from the DATASETS System Table. The CODE is a descriptive tag for the dataset and the "GRP" field identifies the file Group that it belongs to, where:

F=Family Group, W=Work Group, T=Transfer Group, and R=Report Group

The "Dataset Name" for each table entry must conform to standard DOS "8.3" file naming conventions (that is, a 1 to 8-character prefix and an optional 1 to 3-character suffix separated by a period). The first of the three dataset names are for the components of the Family File and will be the same as the ones that appear in the Current File Setup information. The Index file has as its default name the same prefix as the NAME dataset and a suffix of .NDX. If you make changes to the family file dataset names in this list, they will be transferred to the Current File Setup information when you terminate the processing of the dataset name list.

NOTE: *If you change the name of the NAME dataset in the "Current File Setup" then it will cause the name of the INDEX dataset to be changed so that the INDEX and NAME datasets will have the same prefix.*

When you first select the "Datasets" option, the CODE field for the NAME dataset will be shown with "reverse hiliting". You can use the UP/Down cursor control keys and the PGUP/PGDN keys to move the hiliting to other entries in the Dataset Name list. When the hilited name falls on an entry whose dataset name you wish to change, press the Enter key, make the desired changes, and then press the Enter key again.

After you have completed making changes to the Dataset Name List, press the ESCape key to return to the view of primary options for the File Name Table Customization program.

NOTE: *Among the files shown in the Dataset name list, only those in the Family Group of files are unique for each family file setup. A single set of the other dataset names is kept in the Family Definition File. Therefore all family file setups will have, for example, the same default Ancestor, Descendant and Relative work file dataset names*

VII (F3-B) Customizing the Family History System

Although the appearance of the Family History System hasn't changed much in this latest update, there have been major changes "under the covers". This has included converting the software to a newer version of Basic which allowed moving procedures that are common to many programs to a separate "library", and revising the software to use "tables" for holding information relating to program options, the "user interface", and report definitions. Further, these "tables" have been made user customizable and they are stored in files outside the programs. The purpose of this section is to describe the types of tables that are used in the Family History System and the ways that you can make changes to them.

VII.A An Overview of System Tables

First recall that a "Table" is just a list of related items of information, each of which represents a value for some variable that is used in the programs. In appearance they "look like" simple "spreadsheets" or pages from an accountant's books. Each line of the list that makes up a table is called an ENTRY in the table. Each entry consists of one or more ITEMS, which are VALUES for the program variable that is represented by the item. When printed out, the values for ITEMS of the table are in columns.

TABLE	Description
ALIGN	**Alignment Options for Horizontal Box Charts**
DATASETS	FHS Dataset Types
DATEFMT	Date Entry Formats
ERRMSGS	System Error Message Text
EVENTS	Life EVENT Codes, Tags and Descriptions
FILESTAT	Family File Status in File Update Program
GEDCOM	Tags for GEDCOM Transfer Dataset
GENDER	Sex Codes used in Family File
GROUPS	GROUP Names for Formats and Messages
MONTHS	Table of Month Codes and Names
PRINTERS	Selectable Printer Definitions
REFERENC	Report Reference Types and Importance
RELCODES	Relationship Codes and Labels
RELRULES	Relationship Rule Labels
REPORTS	FHS Report Codes and Descriptions
RPTFIELD	Report Field Descriptions
RPTOPTS	Report/Chart Option Codes & Labels
RPTTABLE	Report Table Types
SINGLKEY	Single Key Response Codes
SORTSEQ	Character Sort Sequence Table
SOUNDEX	Special SOUNDEX Group Table
TABLES	Names of FHS Tables
UCTRAN	Special Upper Case Translation Table
WORKTYPE	Relationship Work/Selection Types

Table 2: Table of System Table Descriptions

One such table is shown above. It is the System Table called "TABLES" which contains the names and descriptive labels for all of the "System Tables" that are stored in the Table Definition File. Each entry of the TABLES table has a Table Name and a Table Description as items of information.

Another table, shown at right, is the "GENDER" System Table, which contains the codes and descriptive labels for the sex codes that are used in a Family File. In the GENDER table, ("01","M","Male") is an entry in the table where "01" is a KEY value (used by the programs to distinguish table entries), "M" is a CODE value, and "Male" is a value for the descriptive label. A Separate GENDER table in the Report Definition File gives the codes that will appear in a report, which may differ, from the codes that are used in the file.

KEY	CODE	Description
01	M	Male
02	F	Female
03	U	Unknown

Table 3: File Gender Code Table

There are actually hundreds of these tables in the current version of the Family History System, nearly all of that are customizable in some way by the FHS user. While the full customization of these tables may seem to be an intimidating task, it isn't quite as bad as it first appears. For instance, there are 4 tables associated with each of the 40 or so report definitions, making 160 tables altogether, just for the basic report definitions. But taken in small bites, one feature of one report at a time, the task becomes more manageable, and for most users, there will be no need to modify most of these tables.

Before getting into a description of the customization process, I will list the various types of tables that are under user control (and the files that are used to store those tables outside the programs).

1. Configuration Table (FHSCONFG.CFG) - This is a table with a single entry whose items represent variables that control other tables or features of the software. These items include:

   the Date Format, the Language File prefixes, the File Setup File prefix, the Printer Setup File prefix, the user Name and Address, the screen colors, and characteristics of the standard error tone

2. File Setup Table (FHSFILE.FDF) - This table contains one entry for each family file that you work with. It is used to allow you to quickly switch from one family file to another. An entry in the File Setup Table contains items which describe the drive and directory of each of the family file datasets and the drive and directory in which each of the various types of work files are to be placed. The FDF (File Definition File) also contains a table which has a default name for each of the work datasets, and the identification of the particular setup (the "default" setup)

that will be used when an FHS session first begins. (Section VI of this manual describes how to maintain the File Setup Table)

3. Printer Setup Table (FHSPRINT.PDF) - This table contains an entry for each type of printer or output device to which you will be sending reports. Each entry identifies the DESTination of the output, the type Printer that will be used, the printer control codes for initializing the printer and causing it to advance a line or page, the printer symbols that will be used for printing chart lines, and the size of the "forms" that are in the printer (given in terms of the number of printable lines on each page, and printable positions on each line). Separate SETUPS may be used for each different "form size" that you use for each printer. (Section VIII of this manual describes how to maintain the Printer Setup Table)

4. Language Customization Tables: These tables control those aspects of the "user interface" and the system output that may be language dependent. The first three tables relate primarily to the language of the person who is using the programs. The last one relates primarily to the language of the person who will be receiving the reports. Of course there may be other reasons for modifying these tables than to adapt the software to a particular language...there are other "user preferences" that may be customized here as well. For instance, the default responses to messages may be established in the Message Table:

    a. System Tables (FHSTABLE.TDF) - These include tables that control system options relating to the User Interface. There are also System Tables that support the Report customization process (Report Lists, Master Report Option Table, Master Report Field List), the generation of SOUNDEX codes, the creation of GEDCOM files, etc.

    b. Screen Format Table (FHSSFMTS.SDF) - There are separate Screen Format tables for each program and an additional table of screen formats that are common to many programs. Each screen format is a table itself, in which each entry in the table describes a label or data field on the screen. The items describing a field include an identifying code, the color, attribute (updatable, numeric, upper case, etc.), location (line and column of first character in the field), length, and default text that appears on the screen

    c. Message Table (FHSMSGS.MDF) - There are separate Message tables for each program and an additional table of messages that are common to many programs. Besides the text of the message, an entry in a message table includes an identifying Message CODE and, for "response" type messages, the default response to the message...that is, the response that the program will assume if the user simply presses the Enter key or the Space Bar in response to the message

    d. Report Description Table (FHSRPTS.RDF) - Report descriptions are contained in several tables, some of which are "GLOBAL" (which means that they apply to all, or at least many, of the reports) and others which apply to individual reports. The tables of each type are:

        i GLOBAL Parameters: Tables (GENDER, MONTH, RELATION, REFERENC), Options, Fields, Variables

        ii REPORT Definitions: Parameters (such as the required report width), Options, HTF (Heading/Title/Footing) Lines, Fields, Variables.

You can maintain multiple copies of these customization files. Individual Configuration and Setup files are distinguished by the prefix portion of the file name, while separate copies of the "Language" files are differentiated by the first three characters of the file name prefix. You can save the "default" customization file identities in the Configuration file and you can establish the configuration file (as well as the other customization files) by setting DOS Environment variables before starting an FHS session.

The options for maintaining the File and Printer Setups are described in other chapters of this manual. The next section describes how to customize the Configuration and Language files using Main Menu option F3-B.

VII.B Customization Options

View 1 shows the appearance of the screen when you select Main Menu option F3-B. It shows many of the configuration settings and the program options for making changes to these settings. It also shows the options for making changes to the Language and Report Definition files.

```
              * * *  FHS Customization Program  * * *

 Configuration Parameters:          Language Files:
   Config File = FHSCONFG.CFG         TABLE Definitions  =FHSTABLE.TDF
   Filedef File= FHSFILES.FDF         SCREEN Formats     =FHSSFMTS.SDF
   Printer File= FHSPRINT.PDF         MESSAGE Definitions=FHSMSGS .MDF
   Edit Assist =  (Y/N)               REPORT Descriptions=FHSRPTS .RDF
   DATE Format = 1 MM/DD/YYYY
   View Command= EDIT
 User Name and Address:
   [.AL1] Phillip E. Brown                    Screen Colors
   [.AL2] 834 Bahama Drive                   Alpha  DU
   [.AL3] Tallahassee, FL  32311             CAPS   DU
   [.AL4]                                    Num    DU   F1
   [.AL5] pbrown@fhs.tallahassee.net

 PRESS Function Key for desired option
    F1 Configuration Parameters          F4 User Language Files
    F2 Name and Address                  F5 Report Definitions
    F3 Screen Colors and Error Tone
                                         F9 RETURN to MAIN MENU
```

View 20: FHS Configuration Customization

When you select F9 to Return to the Main Menu program from the customization program, you will be asked if you wish to Save the changes to the configuration file. If you reply "Y" the settings will be written to the file identified as the CONFIG File in the screen display. If you reply "N" then the settings will remain in effect for the remainder of the current session, but they will not be saved to disk.

The next section describes how to make changes to the configuration settings. The following sections will look at the modification of the Language and Report files.

VII.B.1 Configuration File Customization

The Configuration Settings are modified using program options F1, F2 and F3.

VII.B.1.a) (F1) Configuration Parameters

The "Configuration Parameters" are items that are stored in the Configuration File from which they are read at the beginning of an FHS work session by the software's initialization program, FHSINIT The Configuration Parameters that are modifiable using program option F1 are:

- Configuration File Name: the value of this parameter is not stored in the configuration file but identifies the name of the file in which the current settings may be saved at the end of the customization procedure
- File Definition File Name: this assigns the name of the file from which the Family File Setup table will be read at the beginning of an FHS work session
- Printer Definition File Name: this assigns the name of the file from which the Printer Setup table will be read at the beginning of an FHS work session
- Date Format: this selects the default date format for entering dates into screen displays. Allowed values are:

  1 - (MM-DD-YYYY), 2 - (DD.MM.YYYY), and 3 - (YYYY.MM.DD).

  The date format can also be established using option F4 from the Main Menu program

- View Command: this is the name of a utility that can be used to browse the text files that are produced when report output is sent to a file. Whenever report output is sent to a file, after the "printing" of the report is complete, you will be asked if you want to view the output file. If you reply "Y" then a command is built using the "View Command" and the report file name. The command is executed using the DOS SHELL facility that requires that you be using DOS 3.0 or later. The default View Command is DOS EDIT (from DOS v5.0 or later) although there are other List Browsers available, which could serve as well and that would work for versions of DOS prior to 5.0.

When you press F1 to modify any of these parameters, the cursor will be placed in the first position of the "Config File" name field. You can use the TAB/Enter keys to move between updatable parameters. When you are finished making changes, press the F1 key again (as instructed by a message at the bottom of the screen) to let the program know that you are through. The program will then display a "format style" for the "Date Format" and wait for you to select another option.

VII.B.1.b) (F2) User Name and Address

There are five lines in the Configuration Parameters for storing your Name and Address (or other information, such as email address). These lines become Report Variables, which can be referenced in report Heading or Footing lines to insert information about you in printed reports. This was a request by many users so recipients of their reports will know whom to contact with corrections, updates or new information. One way that these address variables are used can be seen in the Global Report Variable, COPYRITE. If you display the Global Report Variables (from Main Menu enter: F3-B-F5-F4-3) you will see one named COPYRITE which has the value:

<<Information Gathered By: [.AL1], [.AL2], [.AL3]>>

There is also a Global Report option, which is stated: "Print COPYRIGHT Line (Y/N)". If you set this option to "Y", then each report will have the bottom line formatted with the contents of the COPYRITE variable. As it appears above, the "<<" and ">>" symbols cause the text between the symbols to be centered on the report line. The symbols: [.AL1], [.AL2] and [.AL3] will be replaced with the contents of the first three address lines among the customization parameters. You can alter the text in the COPYRITE variable as you would like. For instance, if it were:

Contact: [.AL1], [.AL2]<<>>email: [.AL5]

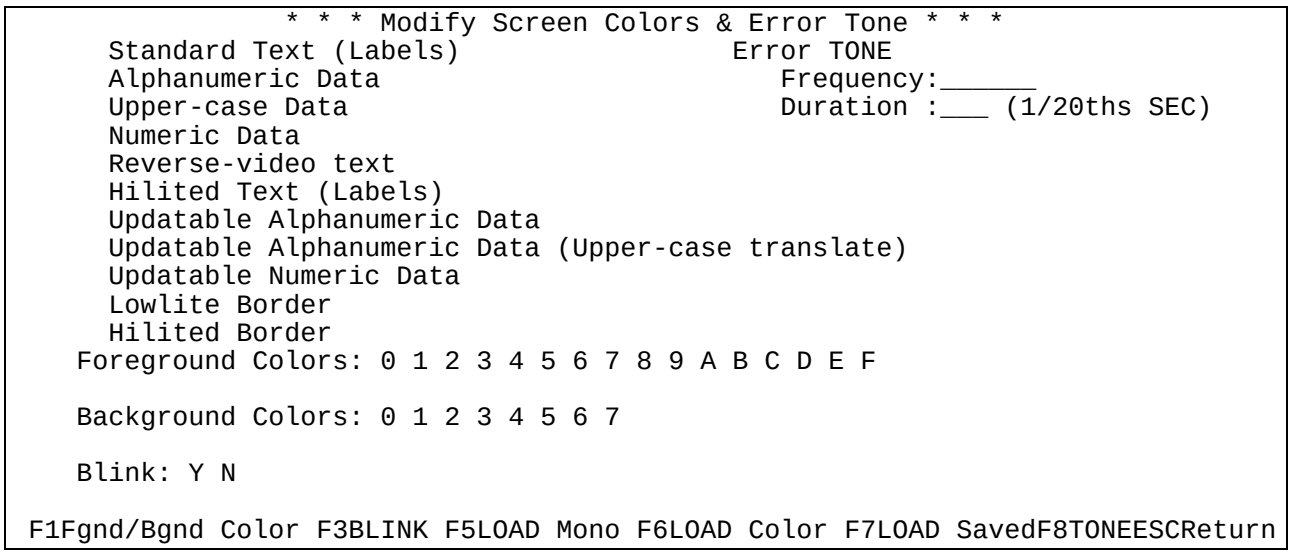
Then the text "Contact:" followed by the first two lines of address information would appear on the left side of the line, and the text "email: " followed by the fifth line of the address information would appear on the right side of the line.

Also see the HTFLINEs for report BGRP (Blank Family Group Forms) for another use of the Address Information.

To modify the address information on the Customization screen, press the F2 key. The cursor will appear in the first position of the first address line, [.AL1]. Enter the text that you wish for the line and press the TAB or Enter key to move to other address lines. You can enter longer lines than it may appear. The text will scroll horizontally if you go beyond the limits of the field on the screen. When you are finished, press the F1 key to let the program know that your changes are complete.

VII.B.1.c) (F3) Screen Colors and Error Tone

When you select program option F3, you will see the following view:



View 21: Modify Screen Colors & Error Tone

This view lists the eleven different uses of colors in the FHS screen displays. The first nine are used as colors for fields in the screen formats. The last two are used for drawing borders around the "viewing areas".

Different color attributes may be assigned to each of these types of information resulting in much more pleasant displays for those who have color monitors at their disposal. In previous versions of FHS it was necessary to use distinct colors for each of these. The programs actually used the colors on the screen to determine the attributes of the fields; that is, the color determined whether a field was updatable, numeric or upper case alphanumeric. Now the colors and field attributes are stored separately in the screen formats so that there is no longer a need for the different color types to have distinguishing colors, which gives you more freedom in choosing the colors.

A "screen color attribute" consists of a foreground/background color combination together with a "blink" option. To the left of each described type of information is a character displayed with the screen color attribute currently being used for that type of information.

A small "arrow" on the left side of the screen points to the information type whose screen attribute is currently being examined. The UP and DOWN cursor controls may be used to move this "selection" arrow to different information types.

The foreground/background/blink components of the "selected" information type are shown in the bottom portion of the screen. Small "arrows" point to the foreground and background component colors in "palettes" of 16 and 8 colors respectively. (These palettes are really not very interesting for PC's using IBM's monochrome board and monitor, the only really distinguishing combinations in this case being ones which produce reverse-video, underscore or hilite effects) The blink component is shown by a hilited "Y" or "N".

The screen attributes for a selected information type may be changed using the function keys and the horizontal cursor control keys. Function key F3 toggles the blink attribute on and off. The horizontal cursor control keys are used to move the indicator arrow for the foreground and background color palettes. Function key F1 is used to select which of the palettes is being controlled by the cursor keys.

Function keys F5 and F6 may be used to load the screen attribute table with previously prepared versions "suitable" for use on IBM's monochrome or color monitors respectively. If you have a color monitor and would like to try a color table which uses a light colored background, press ALT+F6 to load a table which I have found pleasing on an IBM Enhanced Color Monitor. Function key F7 may be used to restore the screen attribute table with the last saved values.

Option F8 allows you to change the frequency and duration of the tone that is used to inform you of error conditions. During this option, you can press the F1 and F2 keys to decrease or increase the tone frequency, or press F3 or F4 to

decrease or increase the duration of the tone. The tone may be sampled by pressing the space bar. Pressing the F9 key terminates the routine. The changes will be saved for later use if you request that all entered changes be made permanent when you return to the Main Menu.

NOTE: *Setting the frequency to a very large value reduces the error signal to a barely audible click.*

Pressing the ESCape key returns you to the standard Customization program screen display. When you return to the Main Menu program (by pressing the F9 key), you will be given an opportunity to save the screen color changes (along with the other configuration parameter changes) in the configuration file.

VII.B.2 User Language File Customization

The "User Language Files" are those customization files, which influence the appearance of text on the screen or the responses expected from the user of the software. These tables can be examined/modified using customization program option F4-(1,2,3).

Each table customization is handled by a separate program. All of the programs behave similarly in that each will display a list of entries from the table being processed and offer the options:

UP/Down/Enter - allows you to use the Up/Down cursor control keys to identify the table entry that you wish to modify; pressing Enter will cause the program to display the contents of that table entry

F1 - provides operations for Saving the current table values to a file, reading (Loading) the contents of a previously saved file; or Merging the contents of a previously saved file with the current table

F6 - provides for printing a report showing the contents of the current tables. There will be options for printing the full report or for printing individual sections of the full report

F9 - returns the user to the main Customization program. If you have made changes to the current table that have not been Saved, you will be prompted to confirm that you wish to terminate the program and possibly lose the changes that you have made.

VII.B.2.a) (F4-1) System Tables

When you select customization program option F4-1 you will be shown a Table whose entries represent individual System Tables.

Use the UP/DOWN Cursor control keys to select a table that you wish to modify, then press Enter to clear the screen and display the entries of the chosen table. Again use the UP/DOWN/Enter keys to select an entry of the table that you wish to modify. You will then be able to modify items in the table entry. When you have finished making changes, press the Enter key again and you will then be able to select another table entry for modification. After you have completed all changes that you want to make to table entries, press the ESCape key to return to the list of System Tables. **NOTE:** You will not be able to change items, which are used by the programs to identify entries in the table.

Option F1 allows you to Save your changes in a TDF (Table Definition File). Each table definition file has a name of the form: xxxTABLE.TDF. You can enter a different three-character prefix for the TDF that you create to preserve the default TDF which has a prefix of FHS. Option F1 also allows you to Read (Load) a previously created TDF file or merge a previously created TDF file with the current Tables. The third use of Option F1 is to Merge one TDF file into another. This is discussed more fully in the section concerning "Some Suggestions for Language Customization" which begins on page VII-24.

Option F6 allows you to print a report of the current system table contents. You may print only the contents of the System Table whose name is currently hilited, or you can print a report containing the entries of all system tables.

Option F9 is used to return to the main Customization program.

The following list of System Tables describes the purpose of each. The tables are:

TABLES - (see Table 2 on page VII-2) this table provides an alphabetic listing of the System Tables. This table provides the descriptive labels that are used in the List that is shown when you select option F4-1 of the customization program

MONTHS - this table provides labels for Month Names; the Month codes that are used in reports are stored in a separate table in Report Definition File. The MONTHS system table provides the labels for the Months Codes table in the Report Definition File

GENDER - (see Table 3 on page VII-2) this table identifies the Sex Code values that are used in each Family File. It also provides identifying labels for those codes. The sex codes that are used in reports are in a separate table in the Report Definition File. (The Family History System has never imposed a particular set of codes for identifying the gender associated with name record entries. It was unnecessary at the beginning because the programs did not enforce a particular gender for husband, wife, father or mother. The programs did assume a sex code of "M" for males when assigning relationship labels. Later when an option was provided for using a married woman's husband's surname in certain reports, the program again recognized "M" as the sex code for males and all others were assumed to be female. Still later, when it became necessary to identify each spouse in a marriage as husband or wife, a standard GEDCOM requirement, the programs again assumed a sex code value of "M" for males... though standard GEDCOM still presented problems when both spouses had the same gender. I later found that some users outside the USA had used other standards for sex codes which would cause problems for them when defining relationships or creating GEDCOM files. This GENDER table tries to provide support for those variances in sex code values)

DATEFMT - provides identifying labels for supported formats for entering dates; these labels are used in the Customization program to describe the current Date Format among the configuration parameters

EVENTS - is a Table of Life Events that can be recorded in Event records. This table is used in the File Update program to offer a list of defined Event types when creating a new event. You may add (option F2) new Event types to this table to support events that are meaningful for the recording of your family history. The only Event types that must retain the identifying event code value as it is distributed are the BIRT, BAPT, DEAT, and BURI events. These event codes are used in the programs to identify key events when the BIRTH or DEATH dates and places are absent from the Name record. Please note that the Event description is not stored in the Event record so other FHS users who use their own installation of the Family History System to process a copy of your family file may not have descriptions for events which you have added

FILESTAT - labels describing the Family File Status ("Open", "Not Open") in the File Update program

GROUPS - (see Table 4 on page VII-11) This table provides Codes and labels for screen format and message groups. This table is used to create the group lists that appear when you select customization options F4-2 or 3. There are separate groups for each of the FHS programs. The code for a program group is just the last four characters of the prefix for the program name. There is an additional group, XXXX, which contains screen formats or messages that are used by more than one program. The order of the entries in the group table is determined by the Main Menu (or Customization Menu) option that is used to invoke the program represented by the Group CODE. I have included the keystrokes used to invoke the program's option as the first part of the label describing the group

SINGLKEY - these are Codes for single character responses (Yes, No, All, etc.) for messages and program/report options. You should be aware that changing the value for a response here (for instance changing "Y"es to "O"ui for an affirmative response) has no effect on the prompts that appear in most messages and options. It is necessary for you to make subsequent changes to the text of those messages or option descriptions to conform to the changes in the SINGLKEY table

SORTSEQ - this table can optionally provide the sort sequence for characters of text fields when creating Index Files. It yields more natural sorting of international characters. Each table entry consists of a single text character and a number in the range of 1 to 255. Characters which are not in the table will be omitted from text sort key fields during the sort process..

SOUNDEX - this table is for user defined additions/modifications to soundex groupings. Recall that a "soundex code" is a code, which is assigned to a "word" in such a way that "similar sounding" words will be assigned the same code value. The "rule" which FHS uses for creating a soundex code for a "word" is: the first character of the word will appear as the first character in the soundex code in upper case (with system table UCTRAN contributing to the upper case translation... if a character's upper case translation is more than one character long, only the first character of the translation will be used); after the first character each character is represented by an assigned numeric digit (0-9) - characters that are assigned to the same digit are said to be in the same "soundex group"; succeeding characters in group 0 will be bypassed in building the soundex code; characters in other groups will be represented in the soundex code by the digit representing the soundex group; successive digits for the same

soundex group will be represented by a single digit; and the full soundex representation will be exactly 4 characters - the first character and 3 digits, with trailing zeroes added if needed to make the 3 digits.

The default groupings of alphabetic characters is:

ABCDEFGHIJKLMNOPQRSTUVWXYZ=01230120022455012623010202

where an alpha character on the left is assigned to the corresponding numeric digit on the right, with lower case and upper case characters being in the same group. All characters which are not assigned to a soundex grouping are "stop" characters, meaning they will terminate the grouping of characters in the "word" for which the soundex is being determined.

Each entry of the SOUNDEX system table consists of a character and a digit (number 0-9) with the number representing the soundex grouping of the character. By modifying the soundex table, you can make some "stop" characters into "codeable" characters... for instance you may want to place the hyphen, "-", in soundex group 0 to allow for hyphenated names. I have included soundex groupings for some international characters that have previously been "stop" characters for my soundex routines.

UCTRAN - Special Upper Case Translation Table. This table provides "upper case" translation for character symbols that are not part of the English alphabet. It allows substituting 1 or 2 characters for a single character during upper case translation of Surname. I have included translations for some international characters that have been "problems" for previous FHS upper case translations

RELCODES - Labels for Relationship Codes; the Codes that are used in reports are defined in a separate table in the Report Definition File... the RELCODES table here provides the descriptive Labels for the entries in the RELATION table in the Report Definition File

RELRULES - this table provides the labels for the types of Relationship Rules that appear in the Relationship Calculator of the File Update Program

PRINTERS - this table provides the list of supported printer types that is used in the Printer Setup Program. The entries in this table are for types of printers that I have encountered that are distinct in some way...in printer control codes or symbol sets supported by the printer. Many other popular printers will be able to use the same settings as one or more of these printer types.

Each entry in this table includes the following items:

PRINTER: an identifying code for this table entry

CODEBASE: an identifying code for the printer control codes used by this printer; the Printer Setup program has a unique set of Printer Control Codes for each of the CODEBASE names that appear in the PRINTERS table that is distributed with FHS

SYMBOLS: an identifying code for the Printer Symbol Set that is used for printing Charts. At this time there are just three codes recognized by the Printer Setup program: CP437, which uses the box drawing symbols that are part of the US screen symbol set, CP850 which also uses special box drawing symbols but does not have "double line" symbols, and TYPEWRIT, which uses the standard +, - and ! symbols for drawing charts

FORMBASE: which identifies the basic Form Size used by the printer in the format "WmmmLnn" where mmm=Form Width in number of printable characters and nn=form length in number of printable lines per page.

New Printer Definitions can be added, though they must use one of the supported Printer Control Table codes and Printer Symbol Set codes in the definition; actual printer control codes and symbols can be modified within the Printer Setup Program, Main Menu option F3-C.

DATASETS - this table identifies FHS dataset types; the labels in this table are used in the Family File Setup program for identifying entries in the Work Dataset Name table

REPORTS - this table provides Codes and Descriptive Labels for FHS Reports. The reports are listed in an order that is determined by the keystrokes used to print the report, starting from the Main Menu. The keystrokes are shown as the first part of the descriptive table

RPTFIELD - this table gives Codes and Descriptive Labels for Report Fields (or items of information that appear in reports); these are used in the Report Definition Program to create tables defining the abbreviations, headings and labels for those items of information when they appear in reports or charts

RPTOPTS - this is the Master List of all Report Options, including option type and default value. This table is used to create the option lists that appear in report definitions and in the report option lists used in the report/chart printing programs

RPTTABLE - this is the list of Names and descriptive labels of Report Definition File Global Tables

REFERENC - these are the types of references that can appear in a report/chart index; each entry in the table includes a descriptive label and the IMPortance level of the reference. (The importance level is used in the Family Group report program when you select the option for recording only the "Most Significant" reference for an individual in the reference work file) The actual symbols that are used to represent each type of reference in a printed report index are given in the Report Definition File REFERENC table

ALIGN - this table provides descriptive labels for the types of alignment for nodes in Horizontal Box charts

GEDCOM - this table provides 5 sets of data TAGs used by the GEDCOM Export/Import program (F3-D-1)

MAILMERG - this table provides labels for fields of information that can be exported to a MailMerge format file. One of the options for creating a MailMerge file (using Main Menu selection F3-D-2) provides for creating a "first record" whose field values are the descriptive labels from this table for the corresponding data field in the other records of the file

ERRMSGS - this table provides descriptions of standard system error conditions (e.g. DISK FULL, OUT OF MEMORY). These descriptions are used to replace variable field [ERRMSG] that occurs in error messages in the MDF (Message Definition File)

WORKTYPE - this table provides Labels for types of Work Files that appear in the Register Report program and for types of Selections for group reports in the Family Group Report program

VII.B.2.b) (F4-2) Screen Formats

Selecting Customization program Option F4-2 for customizing FHS Screen Formats provides the following display:

```
                FHS Screen Format Customization Program
Screen Definition File: FHSSFMTS.SDF  Formats:263  Fields:2233 EOF:46235
GROUP  CHG  CNT     Description
 XXXX    0   29  Common to Many Programs
 INIT    0    1  Family History System Initialization Program
 MENU    0    1  FHS Main Menu Program
 UPDT    0   47  F1      File Update Program
 RELR    0    4  F2-A    Ancestor/Descendant/Relative Report Program
 GRPR    0    7  F2-B    Family Group Report Program
  :      :    :         :
  :      :    :         :
 CUST    0    7  F3-B    Customization Program
            Up/Down/Enter Select   F1 File   F6 Print   F9 Return
```

View 22: Main View of Screen Format Customization Program

The top portion of this view shows the name of the current Screen Definition File, the number of screen formats that are currently defined, the number of fields in all formats combined, and the size (EOF) of the Screen Definition File. Below that is a list of the Format Groups. There is one group for each of the FHS programs and an extra group (XXXX) for formats that are common to many programs. The "CNT" field indicates the number (count) of formats in the group. The "CHG" field indicates the number of times that changes have been made to formats in the group. (If you make a change to a format in one of the groups, an "*" will be shown next to the Count field for the group. When you Save the changes into a Screen Definition File, the Count field for the group will be incremented by one. Therefore the Count field is not the number of changes that have been made but it indicates the number of times that you have saved changes to formats in the group)

Normally, while one of the FHS programs is running, the only formats that are kept in your computer's memory are those that are in that program's group and those that are in the "XXXX" group. When you select an option that causes the active FHS program to change, the former program's formats are removed from the computer's memory and the formats for the new program are read from the Screen Definition File. As a result, if you are running the programs from diskettes and the programs occupy more than one diskette, then it is necessary for the Screen Definition File to be on each of the program diskettes.

The complete list of Screen Format Groups is shown in the following table.

Table: GROUPS Table Definition File: FHSTABLES.TDF

CODE	Description
XXXX	Common to Many Programs
INIT	Family History System Initialization Program
MENU	FHS Main Menu Program
UPDT	F1 File Update Program
RELR	F2-A Ancestor/Descendant/Relative Report Program
GRPR	F2-B-(1,2) Family Group Report Program
REGR	F2-B-3 Register Report Program
ACHT	F2-C-1-1 Ancestor Chart/Map Program
VBOX	F2-C(1-2)or(2-1) Vertical BOX Chart Program
HBOX	F2-C(1-3)or(2-2)or(3) Horizontal BOX Chart Program
LIST	F2-D Search/Select/LIST/Summary Program
TTFL	F2-E Tiny Tafel Program
RPIX	F2-F Report/Chart Index Report Program
FILE	F3-A File Name Setup Program
CUST	F3-B Customization Program
TABL	F3-B-F4-1 Table Customization Program
SFMT	F3-B-F4-2 Screen Format Customization Program
MSGS	F3-B-F4-3 Message Text Customization Program
RPTS	F3-B-F5 Report Definition Customization Program
PRTC	F3-C Printer Setup Table Program
GDCM	F3-D-1 GEDCOM Export/Import Program
MLMG	F3-D-2 MailMerge Export Program
VLDT	F3-E File Validation Program
INDX	F3-F Index File Creation Program
4PRT	F3-4 Interface to 4PRINT Utility

Table 4: Program GROUPS Table

While you are displaying the list of screen format groups in the Screen Format Customization program, Option F1 allows you to Save all of the changes you have made into an SDF (Screen Definition File). Each screen definition file has a name of the form: xxxSFMTS.SDF. You can enter a different three-character prefix for the SDF that you create to preserve the default SDF which has a prefix of FHS. Option F1 also allows you to Read (Load) a previously created SDF file or merge a previously created SDF file with the current formats.

Option F6 allows you to print a report of the current screen format file contents (including any unsaved changes that you may have made). Report options allow you to print just the list of format groups, a list of the formats in each of the groups, a detail list of all formats, a report showing the formatted screen displays for all of the formats, or a report which includes all of these sections in it.

Option F9 is used to return to the main Customization program. If you have not saved changes that you have made before returning to the customization program, you will be warned that you will lose any unsaved changes when you return to the main customization program.

VII.B.2.b).1 Displaying Formats in a Group

From the list of format groups in the Screen Format Customization program, Use the UP/DOWN Cursor control keys to select a format group that you wish to modify, then press Enter to clear the screen and display a list of the formats that are in the chosen group.

```
              FHS Screen Format Customization Program
  Screen Definition File: FHSSFMTS.SDF        Processing GROUP: XXXX
  COLOR: 123456789  TYPE: 1=LABELS  2=DATA  4=OPTIONS  8=MSG  16=TABLE

  CODE   WIN   COLOR   TYPE   FLDS   UFLDS
  S009    13     1      8      4      2
  S010    13     1      8      2      1
    :      :     :      :      :      :
    :      :     :      :      :      :
  S021     9     1     16      2      0

              Up/Down/Enter Change  F6 Print  Esc Return
```

View 23: Screen Format List for Group XXXX

The information shown for each format in the group includes the format "CODE" (the last four characters of the format name... each format name begins with the 4 character Group Code), the Window number that is used to display the format, the background color (not used at this time), the format Type, the number of fields in the format, and the number of Updatable Fields in the format.

The "Format Type" indicates how the format is used. Standard formats will have types of 1, 2 or 3 depending upon whether the format consists of Only Labels, Only Data fields, or a mixture of labels and data fields. Special Format Types are:

4 - Option Format, used to format an option list on the last line of a view
8 - Message Format, used to place a formatted Message on the last line of the screen
16 - Table Format, used to define the placement of fields of information on a line of a table listing.

While the list of group formats is displayed, you can press the F6 key to print the list of formats as it appears on the screen, to print a report showing detailed information about each of the formats in the group, or to print a report showing the formatted screen displays for each of the formats in the list. (The last option may prove useful for you to decide which of the formats you want to modify as there are no descriptive labels for the formats in the list) Pressing the ESCape key from this list of formats will return you to the list of format groups.

VII.B.2.b).2 Displaying a Screen Format's Field Definitions

While the list of formats in the chosen group are on the screen you can again use the UP/DOWN/Enter keys to select from the list a format that you wish to modify. The screen will be cleared and reformatted with a list (table) showing information about each of the fields in the screen format.

```
               FHS Screen Format Customization Program
Screen Definition File: FHSSFMTS.SDF            Processing FORMAT: UPDTS006
COLOR: 123456789  ATR: 1=UPDT 2=NUM 4=UPCASE 8=ADJRT 16=MOD 32=EDMSK 64=DATE
 NAME  COLOR ATR LINE COL DLTH FLTH       TEXT
 ....    6     0   1    3   19   19   Name Record for ID:
 RID     4    16   1   22    6    6
 ....    6     0   1   29    9    9   (RGL=    )
   :     :     :   :    :    :    :
                    BDST    6     1   4   24    1    1
             Up/Down/Enter Change  F6 Print  F7 Test  Esc Return
```

View 24: Format Field List

The heading for this view identifies the current Screen Definition File name and the name of the format whose detail information is shown. The first four characters of the format name is the code for the Group to which the format

belongs. The COLOR field shows the colors that have been assigned to each of the digits 1-9. Field colors are identified by assigning a character 1-9 to the COLOR attribute for the field.

The third line of the formatted view shows the meanings of numeric codes that are used to identify special field attributes. These attributes are:

1 UPDT - indicating that the field can be updated by the user

2 NUMERIC - indicating that the (updatable) field represents a number and is to receive special treatment when it is being updated...in particular, only numeric digits (or numeric editing characters) will be accepted as input, and entered characters will be right justified in the field

4 UPCASE - indicating that the (updatable) field will have all entered alphabetic characters converted to upper case

8 ADJRT - indicating that the field contents are to be "right adjusted" within the field

16 MOD - indicating that it is a data field which may not be user modifiable

32 EDMSK - indicating that the default contents for the field contain an "Edit Mask". Non blank characters in the "Edit Mask" will be skipped over when the field is updated by the user. This is used to make the Date delimiter characters into "autoskip" characters so that the user only has to enter the numeric portion of date fields

64 DATE - indicating that the field is a Date field and should be formatted according to the currently selected format (among Configuration Parameters of the main Customization program) for entering dates.

A field attribute may indicate multiple ones of the special characteristics by assigning it the value, which is the sum of the numbers for the desired attributes.

The information that is shown for each field entry in the format includes:

LINE - the line of the viewing area on which the NAME - which is a four character identifying code for the field. Data fields are assigned names so that they can be identified within the programs independent from their location on the screen. You should not change the values that appear for the NAMEs of fields

COLOR - which gives the digit (1-9) representing the color setting that is to be used to display the field contents on the screen

ATR - a number which assigns special attributes to the field according to the values shown on the screen and explained in an earlier paragraph

LINE - the line number of the viewing area on which the field will be displayed. If it has a value greater than the number of lines in the viewing area the field contents will not be shown. The line value is ignored for Message formats, Option Formats and Table formats as the line on which those formats are shown is determined by their special function

COL - the column of the viewing area in which the first character of the field will be shown. If the first or subsequent positions of a field extend beyond the limits of the viewing area then the characters in those positions will not appear on the screen

DLTH - the length of the field on the screen (the "D"isplay Length of the field). If this is less than the "F"ull LTH of the field, then the contents of the field will be horizontally scrollable within the displayed length of the field. That is, when entering information within such a field and the next character would extend beyond the limits of the field on the screen, then the displayed text will be "scrolled" to the left to permit the next character to be viewable

FLTH - the Full Length of the field contents in the format, which can be greater than the length of the field contents that are shown on the screen

TEXT - which is the default contents of the field.

You can use the F6 key to print a detailed report of the field table for the Format that is currently being processed, or you can print a report showing the results of formatting a viewing area with the current field definitions.

Pressing the F7 key will cause the program to format a viewing area with the current field definitions for the format. If there are updatable fields in the format you will be able to type information into those fields to see the effect of the field's attributes on the data entry. Press the ESCape key to remove the TEST format and return to the view showing the format field list.

VII.B.2.b).3 Making Changes to Field Definitions in a Format

You can use the UP/Down cursor control keys to select a field whose contents you wish to modify. If you then press the Enter key, you will be able to make changes to the default TEXT for the field. Press the Enter key again when the changes are complete and you will be able to select another field.

If you press ALT+Enter (instead of just Enter) to begin updating a field then you will be able to make changes to the LINE and COL items in addition to the TEXT for the field. Again press the Enter key when you are through making changes to the field items. **NOTE:** *If you are using Windows 95 you will have to change a "Properties" setting for the icon that you use to start the FHS programs in order that the ALT+Enter key combination will be passed to the programs by Windows.*

If you press the CTRL+F1 keys while in the Screen Format Customization Program, you will be placed in "Master Edit" mode. The Option Line on the bottom of the screen will show additional update options. In particular, if you have used the UP/Down cursor control keys to hilite a field entry, then you can press:

F1 Change - to update any of the items of information for the hilited field

F2 ADD - to insert a new field entry after the hilited entry

F3 DELETE - to delete the hilited field entry from the format

F4 MOVE - to move the hilited field entry to another position in the list of fields (use the UP/Down cursor control keys to move the hilited field to the desired location and then press Enter).

Press CTRL+F1 keys again to turn the "Master Edit" mode off.

When you have completed working with the field detail viewing area, press the ESCape key to return to the list of formats in the chosen group where you can select another format for viewing or press the ESCape key again to return to the list of format Groups.

VII.B.2.c) (F4-3) Messages

Selecting Customization program Option F4-3 for customizing FHS Messages provides the screen display shown below. The top portion of this view shows the name of the current Message Definition File, the total number of

```
                    FHS Message Customization Program
Message Definition File: FHSMSGS.MDF   Messages: 317  File Size: 16065

   GROUP  CHG  CNT     Description
    XXXX    0   74  Common to Many Programs
    INIT    0    1  Family History System Initialization Program
    MENU    0   14  FHS Main Menu Program
    UPDT    0   47  F1      File Update Program
    RELR    0    4  F2-A    Ancestor/Descendant/Relative Report Program
    GRPR    0    7  F2-B-(1,2) Family Group Report Program
     :      :    :          :
     :      :    :          :
    CUST    0    7  F3-B    Customization Program
          Up/Down/Enter Select   F1 File   F6 Print   F9 Return
```

View 25: Main View for Message Customization Program

messages that are currently defined, and the File Size of the Screen Definition File when it was last saved. Below that is a list of the Message Groups. There is one group for each of the FHS programs and an extra group (XXXX) for

messages that are common to many programs. The "CNT" field indicates the number of messages in the group. The "CHG" field indicates the number of times that changes have been made to messages in the group. (If you make a change to a message in one of the groups, a "+" will be shown to the right of the Count field for the group. When you Save the changes into a Message Definition File, the Count field for the group will be incremented by one. Therefore the Count field is not the number of changes that have been made but it indicates the number of times that you have saved changes to messages in the group)

The complete list of Message groups is shown in Table 4 on page VII-11.

Normally, while one of the FHS programs is running, the only messages that are kept in your computer's memory are those that are in that program's group and those that are in the "XXXX" group. When you select an option that causes the active FHS program to change, the former program's messages are removed from the computer's memory and the messages for the new program are read from the Message Definition File. As a result, if you are running the programs from diskettes and the programs occupy more than one diskette, then it is necessary for the Message Definition File to be on each of the program diskettes.

While you are displaying the list of message groups in the Message Customization program, Option F1 allows you to Save all of the changes you have made into an MDF (Message Definition File). Each message definition file has a name of the form: xxxMSGS.MDF. You can enter a different three character prefix for the MDF that you create to preserve the default MDF which has a prefix of FHS. Option F1 also allows you to Read (Load) a previously created MDF file or merge a previously created MDF file with the messages.

Option F6 allows you to print a report of the current message file contents (including any unsaved changes that you may have made). Report options allow you to print just the list of message groups, a detail list of all messages, or a report, which includes both of these sections in it.

Option F9 is used to return to the main Customization program. If you have not saved changes that you have made before returning to the customization program, you will be warned that you will lose any unsaved changes when you return to the main customization program.

VII.B.2.c).1 Displaying Messages in a Group

From the list of message groups in the Message Customization program, Use the UP/DOWN Cursor control keys to select a message group that you wish to modify, then press Enter to clear the screen and display a list of the messages that are in the chosen group.

```
                FHS Message Customization Program
Message Definition File: FHSMSGS.MDF        Processing GROUP: UPDT

CODE  R  D  T      Description
M001  *         No Records Found...
M002            Searched [NVAR1] of [NVAR2] records; Found: [NVAR3]
M003  *     1   Invalid ID Entered...
  :   :  :  :          :      :
  :   :  :  :          :      :
M015  *  N      Do you want to RESET All Change Flags?...(Y/N)

             Up/Down/Enter Change  F6 Print  Esc Return
```

View 26: List of Messages in Group

The top portion of the viewing area shows the name of the current Message Definition File and the Message Group whose messages are shown. Items of information for each message include a four character Message CODE (the full message name is constructed by combining the Code for the Group with the Message Code... the Name for the first message in the preceding view is "UPDTM001"). The "R" column will contain an "*" if the message is a "Response" message... that is, the program expects the user to respond to the message by pressing a key on the keyboard. The "D" column indicates the Default Response that is interpreted by the program if the user responds by simply pressing the Enter Key or the Space Bar. Column "T" in the Message Display indicates that a Tone is to be sounded when the message is displayed. The value entered under "T" can be a space (no tone) or a digit between 1 and 9. Currently, any value other than space will result in the same tone being sounded.

The TEXT of a message may contain "System Variables" which allow the programs to dynamically change portions of the message. These variables appear as Code Words enclosed in square brackets. Some examples of System Variables are:

[DATE] and [TIME] - which represent the current date and time

[LINE] and [PAGE] - which represent the numbers of the last printed line and the current page of a report

[NVAR1], [NVAR2] - which represent numbers that will be inserted into a message by the program

[MVAR] - which represents a text fragment which will be inserted into the message by the program

[EMSG] - which represents an error description (from the ERRMSGS System Table) that will be inserted into the message.

These system variables (including the enclosing square brackets) should not be modified when making changes to the text of a message although you may rearrange text around those variables as necessary to satisfy the syntax of the message for the language being used.

While a group's messages are being displayed, you can press the F6 key to print a report showing all of the messages in the group. Pressing the ESCape key returns you to the list of Message Groups.

VII.B.2.c).2 Modifying Messages

While you are viewing a list of messages in a message group, one of the messages in the group will have its message code hilited. You can use the UP/Down cursor control keys to move the hiliting from one message to another. The list will scroll forward and backward if there are messages that appear before or after those that are shown on the screen. When the hilited code falls on the line of a message that you want to change, press the Enter key. You will then be able to make changes to the Default response character, the Tone indicator and the message TEXT. When your changes are complete, press the Enter key again to terminate the update. If you press the ESCape key to terminate an update then all of the changed information for that message will be restored to their previous values.

The TEXT field for messages is actually wider than the screen will allow. If you enter a character in the last displayable position for the message text, then the text of the message will be scrolled horizontally to permit you to continue entering text. The Cursor Control keys, and the Home and End keys, can also affect the horizontal scrolling of the message text.

After you have completed making changes to the displayed messages, press the ESCape key to return to the list of message groups where you can select another group of messages for display/update. If you have made changes to any message in a group, a "+" character will appear to the right of the CNT field on the line for the group. After you have finished making changes to messages, you may SAVE the changes to a Message Definition File by pressing the F1 key and following the prompts on the bottom line of the screen.

VII.B.3 (F5) REPORT Definition Customization

To provide a procedure for allowing users to customize report definitions, it was first necessary to identify a set of components that would be sufficient for describing the reports in a manner that would be flexible, comprehensive, and not overly complex. The components that I've used consist of many "Tables", some of which are "Global" in nature (that is, they apply to all, or at least many, of the separate reports), and others that apply to individual report definitions. The types of tables include:

Option Tables: which identify user preferences regarding report features

Field Tables: which provide information about individual items of data that may appear in reports, including the maximum field length and descriptive abbreviations, headings, and labels

HTF Line Tables: which provide the formats for "H"eading, "T"itle, and "F"ooting lines that appear in reports

Variable Tables: which identify CODE Words that are used to represent fragments of text that may appear in report Heading, Title or Footing Lines, or in detail report lines

Special Report Tables: for MONTHS, GENDER, RELATIONs, and REFERENCe codes.

In addition there are several System Tables (described on page VII-7) which provide support for some of the components of report definition. These include the System Tables of REPORTS, RPTOPTS, RPTFIELD, RPTTABLE, MONTHS, GENDER, RELCODES, and REFERENC.

The program that allows you to maintain all of these tables is called by selecting option F5 from the menu of the main Customization program. When you select this option, the screen is formatted as shown below.

```
                    FHS Report Customization Program
Report Definition File: FHSRPTS.MDF                    File Size: 26786
Reports: 41  HTFLines: 217  Variables: 247  Fields: 213  Options:  535
GLOBAL      Tables: 4    Variables: 14   Fields: 58   Options:  11
    F1 File  F2 Reports  F3 Global Parameters  F6 Print  F9 Return
:
                                        :
                                        :
```

View 27: Main Menu of Report Customization Program

The top portion of the screen shows some summary information about the current Report Definition File, including the file name, the total file size (in bytes) the last time the file was saved, the number of entries in the Report List, the number of HTF (Heading/Title/Footing) lines in all report definitions, and the total numbers of variables, field definitions, and options that appear as entries in the corresponding Global Parameter or Report Definition tables. In addition, it shows the numbers of Special Report Tables, Variables, Field Definitions and Options that are in the Global portion of the report definition file.

From this Main View of the Report Customization Program, Option F1 allows you to Save all of the changes you have made into an RDF (Report Definition File). Each report definition file has a name of the form: xxxRPTS.RDF. You can enter a different three-character prefix for the RDF that you create to preserve the default RDF, which has a prefix of FHS. Option F1 also allows you to Read (Load) a previously created RDF file or merge a previously created RDF file with the current report definitions.

Option F6 allows you to print a report of the current report definition file contents (including any unsaved changes that you may have made). Report options allow you to print just the Global Parameters, a list of the Report Definitions, a detail list of all report definitions, or a report, which includes all of these sections in it.

Option F9 is used to return to the main Customization program. If you have not saved changes that you have made before returning to the customization program, you will be warned that you will lose any unsaved changes when you return to the main customization program.

VII.B.3.a) Rules for providing Dynamic Control over Report Definitions

The procedure for creating Report Definitions includes several special rules or controls, which allow the programs to make dynamic changes to certain elements of the report definition. All of the controls are identified by special commands that are enclosed within "square brackets". These include:

[.RS nn xxxxxx] - which tells the program to insert "nn" repetitions of the character string "xxxxxx" into the text that is being defined; e.g. [.RS 10 *] would insert the character string "* * * * * * * * * * "; if the "nn" portion is omitted, then the character string "xxxxxx" will be repeated enough times to fill the report line; this notation is used to define the global variables LINESEP1, LINESEP2, LINESEP3 that establish the format for the lines that separate portions of the family group reports produced by the Family History System

[.PP nn] - which tells the program to insert the next characters at print position "nn" on the report line; for example: [.PP 10]ABC will insert the characters "ABC" beginning at print position 10 of the report line

[.RFA ffffff], [.RFL ffffff] and [.RFH ffffff] - which tell the program to insert the "A"bbreviation, "L"abel or "H"eading for report field "ffffff" into the report line. The value of "ffffff" must be the name of one of the report fields as given in the RPTFIELD System Table

[.RV ABCD] - which tells the program to insert the value that has been assigned to report variable "ABCD" into the report line. Report variables are discussed on page VII-18)

[.AL1], [.AL2],...,[.AL5] - which tells the program to insert the value for configuration parameter Address line 1, 2,...,5 into the report line. (See "*(F2) User Name and Address"* on page VII-1)

[ABCD] - which tells the program to insert the current value for System Variable "ABCD" into the report line; System variables include PAGE, LINE, DATE, and TIME (see also the discussion of System Variables on page VII-16). Report variables can also be referenced in this way although it is less efficient than using the ".RV" notation described above.

These controls can also be used in the definition of report variables as well as in the definition of the HTF Lines (Heading/Title/Footing lines) of individual report definitions.

VII.B.3.b) Displaying and Modifying Global Components of Report Definitions

Option F3 of the Report Customization Program is used to display and modify the Global components of the Report Definition File. When you select this option, you will be asked to:

Select: 1) Tables 2) Variables 3) Fields 4) Options

The next several sections will describe what happens when you choose the different options provided here.

VII.B.3.b).1 Global Report Tables

When you choose Global option 1, the view at right will appear in the lower left corner of the screen.. The MONTHS table name will appear in "reverse video" hiliting. You can use the UP/DOWN cursor control keys to move the name hiliting to the table that you wish to display/modify. Then press Enter to cause the Active View to switch to the lower right portion of the screen where the current entries of the chosen table will be shown.

```
            Report Tables
 NAME            Description
MONTHS        Nonth Names for Report
GENDER        Sex Codes in Reports
RELATION      Relationship Literals
REFERENC      Report Reference Codes
EVENTS        Event Labels

 UP/DN/Enter  Select   Esc END
```

View 28: Report Table Names

```
     Report Relationship Labels
 Seq  Abr   Label          Relation
   1  NR   NO Relation   No Relation
   2  *    Same Person   Same Person
   3  F    Father        Male Parent
   4  M    Mother        Female Parent
   5  P    Parent        Parent
   6       Son           Male Child
  UP/DN/Enter  Change   Esc END
```

View 29: RELATION Report Table

The view at left shows how the RELATION report table would appear if you had selected it from the list of Report Tables. You can use the UP/DOWN/Enter keys to select a table entry whose value you wish to change. Use the TAB key to move between updatable fields on the line describing the entry that you are modifying. When you complete your change to the table entry, press the Enter key again. You can then select another table entry for modification. When you have finished making changes to table entries, press the ESCape key to return to the view showing the names of report tables. You may then select another Report Table for display/update.

When you have finished making changes to the report tables, press the ESCape key to return to the primary view of the Report Customization program.

VII.B.3.b).2 Global Report Variables

If you choose to work with Global Variable definitions, the lower left portion of the Report Customization Main screen will be formatted to appear as at right.

```
            Report Variables
  CODE            Substitution
 STDHDLN    DATE: [DATE]<<Family Histor
 STDFTLN    <<Page: [PAGE]>>
 COPYRITE   <<Information Gathered by:
 BLANKPG    <<This Page Contains No Inf
 SPOUSE     SP
F1 Change F2 ADD F3 Delete F4 Move Esc
```

View 30: Report Variables

Each report variable entry consists of an identifying CODE and the Text that is to be substituted for the CODE wherever it occurs in the definition of a report's HTF Line or Detail line. Actually, the implementation of Named "Variables", both the Report Variables described here and the System Variables that have been mentioned previously on page VII-15, was to allow the user to have control over the "static" portion of the software's literal fields which are part of "dynamic" components of the system (e.g. messages and report headings and footings). In fact, report variables are just one feature of a set of rules for inserting dynamic formatting into report definitions. For more information about this set of rules, see *Rules for providing Dynamic Control over Report Definitions* on page VII-17.

Some of the Global Report Variables that you will encounter include:

STDHDLN which is used in each of the report definitions to define the Heading Line that appears at the top of the first page of the report. The default value for this places the Date on the extreme left part of the line, the Time on the extreme right part of the line, and the text "Family History System" in the center of the line. You might consider replacing the "Family History System" with something like: "Family Book for *your name*". Making that one change here would place the text in the heading of each of the reports that you print

STDFTLN which is used in each of the reports to define the Footing line that appears at the bottom of each page of the report. The default value for this places the page number, preceded by the text "Page:" in the middle of the last line on the page

COPYRITE which provides the format for a line that can optionally be printed on the last line of each page of a report. Its purpose would be to allow you to identify yourself as the source or copyright holder of the information that appears in the report. A Global Variable provides control over the creation of the COPYRITE line in all reports

BLANKPG which provides the format for a line that can be placed on the last page of a report when the content of the report ends on an odd numbered page but you have chosen the option for having all reports end on an even numbered page

LINESEP1, LINESEP2, LINESEP3 provide the formats for the lines that separate sections of the family group reports; LINESEP1 would separate group reports in a Merged Group Report, LINESEP2 would separate the sections of a group report, and LINESEP3 would separate multiple occurrences of information in a section of a report. As an example, the format of LINESEP1 is given by: [.RS *] which indicates that the line is to be formatted by "R"epeated "S"trings of the form "* ". This would have the effect of generating a line consisting of asterisks with spaces between them.

Other Global Variables identify text fragments that appear in reports.

You can also ADD Global Variables of your own (press F2 to insert a new Variable after the entry that is currently hilited). For instance I might create a variable "MYFAMILY" to represent the text "The Family of Phillip E. Brown" which could be used to insert the expanded text into report headings by just placing the control: [.RV MYFAMILY] into the definition of the Heading line for a report

Pressing the F3 key will DELETE the currently hilited variable definition. You can MOVE the hilited variable definition by pressing the F4 key and then using the UP/DOWN cursor control keys to move the entry to another position in the list of variable definitions. Press the Enter key to terminate the move operation.

VII.B.3.b).3 GLOBAL Field Definitions

If you choose to work with Global Field definitions, the bottom portion of the Report Customization Main screen will be formatted as shown on the next page. The items of information that are shown for entries in a Field Definition Table include:

NAME - the name of the report field, taken from System Table RPTFIELD

LTH - the (maximum) length of the data field on the report line

ABR - a 1-4 character abbreviation for the field; abbreviations are only used for printing charts so not all fields need to have the abbreviation item filled in

LABEL - a 1-25 character descriptive label that would qualify the field's data value in a free format report

HEADING - a 1-25 character descriptive heading that would appear at the top of a column for the field's data values in a columnar report

DESCRIPTION - a description of the field, taken from System Table RPTFIELD

```
                              Report Field Labels
   Name      Lth  Abr     Label       Heading              Description
BIRTDATE      12  b      Born        Birth Date         Date of Birth
BIRTPLAC      22  bw     in          Birth Place        Place of Birth
   :           :           :           :                    :
NUMCHILD       3         children    #CH                Number of Children
   Up/Down Select  F1 Change  F2 ADD  F3 Delete  F4 Move  PGUP/PGDN More
```

View 31: Report Field Labels

One of the Field Names will be hilited. You can use the UP/DOWN cursor control keys to move the hiliting to other fields in the table. When a field is hilited whose Lth, Abr, Label or Heading entries you wish to change, press the Enter key and you will be allowed to update the items on the screen. Use the TAB key to move between updatable items. The area on the screen is not wide enough to show the full contents of the Label and Heading items, but the text may be scrolled horizontally within the area on the screen if the fields contents exceed the size of the area allowed for the item on the screen. Press the Enter key when you are through making changes to the field entries (or press the ESCape key to undo any changes that you have made to the entry) and you will then be able to select another field entry to change.

You can ADD another entry to the table by positioning the hilited field name before the position where you wish to insert the new entry, then press the F2 (ADD) key. the lower right portion of the screen will be reformatted with a list of field group types. Use the UP/DOWN/Enter keys to select a field group. The viewing area will then be reformatted with a list of names and descriptions for fields in the group. Use the UP/DOWN/Enter keys to select the field that you want to add to the Field Definition Table. After selecting the desired field, the field selection viewing area will be erased, and the Field Definition Table will be redisplayed with the new field selected for update.

```
          Report Field Groups
   NAME         Description
PERSON      Fields of Personal Info
MARRIAGE    Marriage Information
ADDRESS     Address Information
EVENTS      Event Fields
PERIODS     Periods of Time
COMMENTS    Remarks
 UP/DN/Enter  Select   Esc END
```

View 32: Report Field Groups

You can DELETE an entry in the Field Definition table by positioning the hilited name on the field entry that you want to delete and pressing the F3 key. You will be prompted to confirm that you want to delete the field before it will be removed from the list.

You can MOVE a field entry to another location in the list by positioning the hilited name on the field entry that you want to move and pressing the F4 key. You will be prompted to use the UP/DOWN cursor control keys to move the field entry to another location in the list. When it is in the desired location, press the ENTER key to terminate the operation.

After you have completed your work with the Global Report Definitions, press the ESCape key to return to the primary menu of the Report Customization program.

VII.B.3.b).4 Global Report Option Settings

If you select the option for displaying/modifying Global Report Options, the lower left portion of the screen will be formatted with the view that appears at right. This is a scrolling list of report option settings that will apply to all reports/charts for which the options have meaning, and which do not have individual report option settings that will override these.

```
      ------- Global Options ------
   20 Minimum Name Length
    N Print Copyright Line        (Y/N)
    N Always End on Even Page     (Y/N)
    Y Allow REFERENCE File        (Y/N)
    Y Prompt for Next Strip       (Y/N)
    Y Print Spouses 1st-->Last    (Y/N)
    1 Rel Rules: 1=Common, 2=Civil
 UP/DN/Enter Change  F4 Move  ESC End
```

View 33 : Global Options

Use the UP/Down cursor control keys to move the hilited option setting to one that you want to change, then press Enter. Type the option value that you want and press Enter. You will then be able to select another option for modification.

If you want to change the order in which the options are listed, move the hiliting to the line of an option that you want to move and press F4. Use the UP/Down cursor control keys to move the option to another location and press Enter.

You can ADD or DELETE entries in the Global Option table by pressing CTRL+F1 to enter "Master Edit" mode and then using F2 (ADD) or F3 (Delete). If you choose to ADD a new option to the table, the lower right portion of the screen will be formatted with the Master List of report options (created from System Table RPTOPTS). You can use the UP/DOWN/Enter keys to select an option that you want to add to the Global Option Table. The option will be inserted following the entry that was hilited when you selected the ADD option.

After you have completed making changes to the Global Option Table, press the ESCape key to return to the primary menu of the Report Customization Program.

VII.B.3.c) Displaying and Modifying Individual Report Definitions

If you select option F2 from the Main Display of the Report Customization program the bottom portion of the screen will be formatted with a list of the different types of reports that are produced by the Family History System as shown below.
The information shown for each report includes:

```
                    Family History System Reports
  CODE  CHG   OPT  HTF  VAR  FLD          Description
  SRCH    0     2    4    0    0   F1      Search Results
  FSUM    1     1    5   21    0   F1-F6   File Summary Report
  ARPT    0    23    5    0    0   F2-A-1  Ancestor Detail Report
    :     :     :    :    :    :      :            :
  DRPT    0    24    5    0    0   F2-A-2  Descendant Detail Report
                  Up/Dn/Enter  Select   Esc  END
```

View 34: FHS Report List

CODE - a 4 character item taken from the System Table REPORTS
CHG - the number of times that changes to the report definition have been saved in the RDF file
OPT - the number of entries in the reports Option table
HTF - the number of entries in the reports Heading/Title/Footing table
VAR - the number of entries in the Report Variable table for the report
FLD - the number of entries in the Report Field Definition table for the report
Description - a descriptive label for the report, taken from the REPORTS system table. As distributed, the descriptions include an indication of the keystrokes that are entered from the FHS Main Menu to select the option for printing the report.

One of the report codes will be hilited. You can use the UP/DOWN cursor control keys to move the hiliting to other report codes. To display the details of a report definition, move the hiliting to the reports code and press the Enter key. The screen will be cleared and the top portion of it will be reformatted with the screen display below.

The name of the current Report Definition File, the CODE and Name of the chosen report and the numbers of Options,

```
                    FHS Report Customization Program

  Report Definition File: FHSRPTS.MDF     Report: ARPT Ancestor Report
           Options:23    HTFLines:5    Variables:0    Fields:0
  Heading Name:Ancestor Report                      Type=1  1=Report,2=Chart
  Page Width=   0 (if 0, use Form Width)
  Blank Lines:  After Heading= 1   After Title= 1   Before Footing= 1
                After Dataline= 0  (0=Single Space, 1=Double Space)
   Messages"  Print=M015  Wait=M016  Page=M017  Interrupt=M018   End=M019
 F1 Change F2 Options F3 HTFLines F4 Variables F5 Fields F6 Print  Esc END
                                      :
                                      :
```

View 35: Report Definition Parameters

HTFLines, Variables and Fields in the reports definition appear on the first two information lines. Below these are the Report Parameter fields. These include:

- Heading Name - a descriptive report title that is represented by the system variable TITLE
- Type - a code indicating whether the output is a Report (1) or a Chart (2)
- Page Width - the number of print positions required for a report line (if this is zero, then will use the Form Width from the current Printer Setup)
- Blank Lines - numbers indicating the number of blank lines that will be inserted: After the report's Heading Line(s), After the Title Line(s) of a report section, before printing the report's Footing Line(s) at the bottom of a page, and between data lines in the body of a report
- Messages - the suffixes for messages in the XXXX message group that will be used at various times during the printing of a report or chart. The times are identified as:

  PRINT: at the beginning of the printing of a report or chart

  WAIT: when the printing has been paused by user request

  PAGE: when the printing pauses at the bottom of a page

  INTERRUPT: when the printing has been terminated prematurely, and

  END: when the printing is completed normally.

If you press the F1 key, then you will be able to make changes to the Report Parameter settings. Use the TAB key to move between updatable fields. When changes are complete, press the F1 key again.

You can view/modify other tables defining characteristics of the chosen report by pressing function keys F2-F6. Most of these are processed just as previously described for the corresponding Global table. The components of the report's that may be selected by the program function keys are:

F2 Report Option Table (see *Global Report Option Settings* on page VII-21)
F3 HTF Lines (the Heading, Title and Footing lines) - see the next section
F4 Report Variables (see *Global Report Variables* on page VII-18)
F5 Report Field Definitions (see *GLOBAL Field Definitions* on page VII-19)

Option F6 will allow you to print a report showing all of the components of the chosen report's definition.

After you have completed examining/modifying the report's definition, press the ESCape key to return to the screen showing the list of report definitions. You can then select another report for examination or press the ESCape key to return to the primary menu of the Report Customization program.

VII.B.3.c).1 Viewing/Modifying a Report's Heading/Title/Footing Lines

When you press function key F3 in the primary view of Report Definition parameters, the bottom portion of the screen will be formatted as shown below. Each line of information in the table that appears there will represent a line of the report or chart that appears as a "Heading" at the top of a page, a "Title" before a section of a report, or a "Footing" at the bottom of a page.

```
                    Heading/Title/Footing Lines
 H/T/F  SEC  USE          Text
   H     0    1     [.RV STDHDLN]
   H     0    1     <<Ancestor Report for>>
   H     0    1     <<[SUBJECT]>>
   T     4    9     Ancestor Report for [SUBJECT]
   F     0    0     [.RV STDFTLN]
  UP/DOWN  Select  F1 Change  F2 ADD  F3 Delete  F4 Move  Esc END
```

View 36: HTF (Heading/Title/Footing) Lines

The items of information that are shown for each entry in an HTF table are:

H/T/F - an indication of the type of line: H=Heading, T=Title, F=Footing

SEC - a character representing a section of the report (0=non specific section, 4=a title line that will be used to print a report with the 4PRINT utility. If you use the option for placing report references into a REFERENC work file, then this title will also be placed in that work file, from which a Table of Contents and a Report Index can be printed using one of the Extended options). Section characters other than these have special meaning in the programs (which should be apparent from the content of the heading line) and should not be changed.

USE - identifies the type of page on which the HTF line can appear according to the following:

0 - on every page

1 - on the first page only

2 - on all pages except the first

3 - on odd numbered pages only (not the first if there is a line of the same type with USE code=1)

4 - on even numbered pages only

9 - do not print on any page (lines with prefix "T 4 9" provide TITLE lines for a Table of Contents and for the 4PRINT utility option (Main Menu selection F3-4))

TEXT - literals and formatting control codes that define the report line.

One of the lines will be distinguished as the "current line" by pointer characters in the first and last positions of the line. You can use the UP/DOWN cursor control keys to move the pointers to other lines in the list. Press F1 to make changes to the current line. Use the TAB key to move between updatable fields on the line. The TEXT field is longer than the area that has been provided for it on the screen. The text will "scroll horizontally" if you attempt to move beyond the field limits on the screen. After changes to the line are complete, press the Enter key.

You can ADD a new line by placing the "current line" before the place where the new line is to be inserted and press the F2 key. Enter information on the line as described in the previous paragraph and press the Enter key when you are through.

You can DELETE the current line by pressing the F3 key. You will be prompted to confirm that you want to delete the line.

The "current line" can be moved to another location in the list by pressing the F4 key, using the UP/DOWN cursor control keys to move the line, and pressing the Enter key when the line is in the desired position.

When all changes to the HTF Lines are complete, press the ESCape key to return to the primary view of the individual report definition.

From the primary view of the individual report definition you can print a detail report of all components of the report's definition by pressing the F6 key.

When you are finished examining/modifying the individual report definition, press the ESCape key to return to the list of FHS report types.

VII.C Some Suggestions for Language Customization

Although I have not attempted to perform a full customization of the Family History System for another language, I would like to offer some suggestions for others who may undertake the task. In doing this I will try to point out some features of the software that are intended to help you complete the task. I will also mention some possible "pitfalls" that you may encounter.

VII.C.1 General Remarks concerning Language Customization

- Each of the customization programs for the Language Elements (System Tables, Screen Formats, Messages, and Report Definitions) has a Print option for producing reports showing the current contents of the corresponding file. Before beginning customization, print a full set of reports for the language element that you will be working with
- When saving your changes to one of the language customization files, use a file prefix other than the default value of "FHS". This will not only preserve the files that are distributed with the software, providing you with a "fallback" to a secure foundation set if some change should render the customized file unusable, but it also will preserve your changes from being lost (or overlain) during the installation of an update to the software
- After installing an update, print a new set of language file reports from the new default files and compare it to your most recent set of reports made from your customized language files. Noting any new Tables/ Formats/ Messages/Reports. A set of reports printed from the merged language files may also help to identify areas where additional customization is necessary
- Each of the "language customization" programs has an option for "merging" a previously created language file with the file that is currently in use. This should allow you to retain most of your previous customization efforts after installing an update to the FHS software, which has made changes to one of the "master" language files. After installing an update to the FHS software, you should begin a working session using the default language files (prefix "FHS") and then "merge" your customized language file into the default file. For tables, messages and report definitions, the merge only affects the file contents in memory and must be subsequently SAVEd to a file to preserve the results of the merge operation. When merging two Screen Format files, because the full set of screen formats cannot be held in memory at one time, the files are merged into a temporary file: "$$$SFMT$.SDF". To allow you to save the contents of this temporary file, you will be prompted to provide a 3-character prefix for an output file. At the end of the merge operation, the temporary file will be renamed to "???SFMTS.SDF", where ??? is the prefix that you provided for the output file
- Each Language Customization file has a "Version number" stored in the header record for the file. If an update to FHS should make significant changes to the structure of a language file, the version number for the file would likely change and, in that case, the previous language files would not be useable, nor would they be "mergeable" into the updated version of the software. Because of that, changes to the formats of the language files will be given very careful consideration. I do not anticipate any changes to those file formats for the life of the current update
- When updating language files, you will find that some fields can not be modified. For instance, the "key" fields for system tables cannot be changed and the message codes for program messages can not be changed. Each of the language customization programs has a "master edit" mode, which allows making additional changes to the language elements. You can go into and out of "master edit" mode by pressing the CTRL+F1 keys at the same time. This will usually be accompanied by a change in the Option Menu line at the bottom of the viewing area. *You should take care when using "master edit" mode that you do not make a change to a Key value or Code value because those values are used for identification within the programs.*

VII.C.2 System Table Customization

- When making changes to the System Table "SINGLKEY", the changes do not become a part of the active single key response table until you Save the changes to a Table Definition File and press F9 to return to the main

customization program. You should also be aware that a change to this table does not make changes to the "allowed responses" that appear in the text of most messages, in screen formats, or in Report Option descriptions. For example, if you change the "Affirmative Response" key to "O"ui from "Y"es, many messages will still list expected responses as "Y/N" until you make corresponding changes to the message text. The default message responses that are stored in the Message Table must also be changed to match the SINGLKEY codes. On the other hand, the values shown for report option settings are taken from the active SINGLKEY table. (Report option settings which are selected by SINGLKEY codes are stored in the Report Definition File as the number of the SINGLKEY table entry rather than being stored as the entered code value)

VII.C.3 Screen Format Customization

- The only portion of the screen formats that you are normally permitted to change is the field "contents" that will be shown on the screen. That is if you select a field of a screen format to change and press the Enter key, you will only be allowed to make changes to the text that makes up the displayable contents of the field. If you press the ALT key+Enter key at the same time (instead of just the Enter key) to select the field, then you will be able to change the color code and location of the field on the screen (the "Line" and "Col" values) as well. Of course "Master Edit" mode, described in the "General" remarks above, can also be used to change these values as well as all other characteristics of the field.

  NOTE: *If you are using Windows 95 you will have to identify the ALT+Enter key combination as one which should be passed to the program instead of being interpreted by Windows. This is done by changing a "Misc" Properties setting for the FHSINIT.EXE program file. Right click on the FHSINIT.EXE program, select Properties, then click the Misc tab and turn off the check for the ALT+Enter key combination.*

- Most programs rely upon the Names of fields in a format, instead of their locations on the screen, to identify entries that are to contain program supplied values. This will make it possible for you to alter the location of named fields on the screen if that is required to allow for differences in the length of descriptive labels in different languages. When rearranging fields on the screen, it is best to keep unnamed text fields at the same location on the screen and move the named fields that they describe to make up for longer or shorter labels. (See the next item)

- The merging of a customized set of screen formats with the default set of formats is likely to be less "successful" than the merging of the System Tables or Messages. That is because of the more complex structure of the Screen Format definitions. In order for the text of a field in a customized screen format to merge successfully (that is, for it to replace the corresponding text field in the distributed screen format), it must have the same name, or occupy the same location on the screen. If your customization of screen formats has changed the location of text fields on the screen (those without an identifying code), it will not merge well into the default set of screen formats distributed with FHS.

VII.C.4 Message Customization

- When making changes to messages, you should not change the values of codes that are inside "square brackets" (the symbols: [and]). Those "code names" are the names of System Variables that will be replaced by program supplied values when the message is prepared for display on the screen. You may rearrange the order in which these System Variables appear in the message if the language syntax requires that.

- You should not change the value of the "Response" setting to a message. (The "R"esponse setting simply tells the program whether the "message routine" is to wait for a response to the message.) Incorrectly changing the response setting could make it necessary to respond two times to the message. (Most messages of the Main Menu program do not allow the standard message writer to wait for a response. The reason is that the Main Menu program has to keep the Date and Time fields updated while it is waiting for a response to its prompting messages.)

VII.C.5 Report Definition Customization

- Although the Field Definition Table identifies the three types of text fields in each entry as being: Abbreviation, Label and Heading, where Abbreviations are normally used in Charts, Labels in Free Form reports and Headings in Columnar reports, there are some exceptions to the ways that these are used. For instance, the field entry for "# Children" uses the first of these text fields, the 3 character abbreviation "#CH", as the Heading for the field in Columnar reports and the second and third entries ("child" and "children") are used as trailing labels in free style

reports when the number of children is =1 or >1 respectively. In some other cases the Label and Heading fields are treated as “pre” and “post” text fragments in free form reports (e.g. for the “number of years married” these text fields are: “for” and “years”). Pay close attention to the apparent meanings of these field entries when you are making changes.

- Make note of the Report Variable tables for the reports. In some cases these contain important series of text fields. For instance, the error messages that appear in validation reports are defined using Report Variables with names of the form “EMxx”. These report variables frequently make use of “system variables” for portions of the message that will be replaced by values at the time the report is being printed. These system variables appear as words enclosed by square brackets (e.g. [MVAR], [NVAR1], [NVAR2]). The “names” of these system variables (the word inside the square brackets) should not be changed.

VIII (F3-C) Printer Setups

The types of controls, which the Family History System programs exercise over printers, are really quite primitive. Basically, the report printing programs require that:

- The printer must use **"fixed width" characters**; that is, all characters must be the same width on the printline, unlike the "proportional" fonts that are popular today. The FHS program determines the print position on a line by the *number* of characters that precede that position, *not* the *total width* of the characters that precede the position. The programs assume that all printed lines have the same number of printable characters per line. The number of characters that can be printed using proportional fonts depends upon the total width of the individual characters on the line
- The printer must recognize a **"line feed" command** for advancing to the first print position of the next line
- The printer must recognize a **"form feed" control code** for establishing the next print line at the top of a new page (*or* there must be a fixed number of printable lines from the top of one page to the top of the next page)
- The programs must know what **symbols** to use **for forming boxes and lines** when printing charts (and, possibly, how to tell the printer to recognize those symbols).

In addition, there are some printing options that do not involve any special printer commands but control how the programs will process report output.

To accomplish this limited amount of control over the printing process, the Family History System programs do not use "printer drivers" but rather a "Printer Setup" table. Each printer setup is identified by a short (8-character) Name and a brief description. You can have an unlimited number of Printer Setups, all stored in a Printer Definition File (xxxxx.PDF). Within each report program, you can switch between printer setups using program option F2, which displays a "printer setup selection list" in a viewing area in the lower right corner. Each entry in the selection list consists of the Name and Description for the corresponding Printer Setup. Use the Up/Down cursor control keys to select the desired Printer Setup and press Enter to end the selection process.

```
 SETUP        Description
DEFAULT    EPSON Standard
CANONBJC   Canon BJC Printer
PROPRINT   IBM ProPrinter
HPLASER    HP Laserjet
4PRNT80    File Output - 80 Chars
4PRNT110   File Output - 110 Chars
  UP/Down/Enter Select ESC Cancel
```

View 37: Printer Setup Selection List

The Printer Definition File is maintained using Main Menu option F3-C.

VIII.A FHS Printer Setups

A printer setup in the Family History System consists of several parts, including:

- Parameters describing the "size" of the forms being used on the printer. The parameters are:
  - *Form Width* - the number of printable positions across the page
  - *Form Length* - the number of printable lines down each page
- Parameters describing the amount of "white space" to be placed around the printed portion of each page. The parameters are:

- *Top Margin* - the number of blank lines to place at the top of each page (before the heading)
- *Bottom Margin* - the number of blank lines to allow at the bottom of each page (after the footing)
- *Inside Margin* - the number of blank characters to allow for binding (on the left side of each page when printing single sided; on the left side of odd numbered pages and the right side of even numbered pages when printing double sided)
- *Outside Margin* - the number of blank characters to allow on the side opposite the binding (on the right side of each page when printing single sided; on the right side of odd numbered pages and the left side of even numbered pages when printing double sided.

- Options for processing report output:
  - *Single Side (Y/N)* - Determines whether to allow for duplex printing of pages. When Single Side="N", the program will alternate the Inside and Outside margins between left and right margins and will allow you to request printing Only Odd or Only Even numbered pages of each report
  - *Form Feed (Y/N)* - Determines whether the Form Feed printer control code is to be used to advance to the top of each page. When Form Feed="N", the program will count the number of lines printed per page and use the "Line Feed" printer control code to advance the appropriate number of lines to the top of a page.
  - *Page Wait (Y/N)* - Determines whether the report printing program will pause at the top of each new page to allow you to make manual adjustments between the printing of each page. **NOTE:** *You can manually force the program to pause at the top of each page without setting this option. Simply pause the printing by pressing a key on the keyboard, then continue the printing by pressing the PGDN key. The program will pause at the top of the next page. Using PGDN each time to continue the printing will cause the program to pause at the top of each new page.*
- A Printer Control Table, containing printer control codes for accomplishing several tasks, including:
  - *Initialize the Printer* - this sequence of control codes might include commands to "reset" the printer to a default setting, select a particular set of print symbols and establish the page size
  - *Select the Font* - this sequence might be used to select the character pitch (width), character spacing, and character height
  - *Line Feed* - this sequence will typically cause a "carriage return" to the first print position and a "line feed" to the next print line
  - *Form Feed* - this sequence of printer control codes is used to force the printer to advance to the top of a new page when the "Form Feed (Y/N)" printer option is set to "Y"
- A set of ASCII codes for symbols that can be used to print the boxes and lines in graphical charts. There are actually three sets of symbols...one for printing standard boxes, one for printing connecting lines, and one for printing "hilited" boxes in a Family Path Chart.

VIII.B Modifying the Printer Setup Table

When you select Main Menu option F3-C, you are presented with a screen display (see next page) showing information about the current printer setup. The program options that are available in the main view for the Printer Setup Program are:

F1 *File* - Which allows you to Write to or Read from the Printer Definition File

F2 *Change* - Which allows you to make changes to the currently displayed Printer Setup

F3 *Setups* - Which will show a list of the current Printer Setup Table entries, allowing you to Select another setup as the "current" setup, Add a new entry to the table or rearrange the sequence of entries in the Printer Setup Table

F4 *Select DEFAULT* - Which allows you to select a new Default printer setup from the current Printer Setup Table. The Default Printer Setup is the one that will be chosen as the Current setup at the beginning of an FHS work session

F6 Print - Which allows you to print a report showing information about the Current Printer Setup or about ALL Setups in the Printer Setup Table

F9 Return - Which will return to the Main Menu program of FHS. If you have made any changes, you will be prompted to confirm that it is okay to return to the Main Menu without having saved the changes. Changes to the current printer setup will remain in effect until another setup is selected.

```
                  FHS Printer Table Customization Program
 Printer Definition File: ________.PDF     Setups: __       File Size: ____
 Default Setup:________ _____________________________ Base:________  Dest:______

 Current Setup:________ _____________________________ Base:________  Dest:______
 Form Size:  Width= ___ characters  Length=___ lines
        Margins:  Top= _ lines           Bottom= _ lines
                  Inside= __ spaces      Outside= __ spaces
        Options:  SingleSide:_ (Y/N)     FormFeed:_ (Y/N)   PageWait:_ (Y/N)

       F1 File F2 Change F3 Setups F4 Select DEFAULT F6 Print F9 Return
```

TYPE CODES ( )	Line Drawing Symbols
Initial	
Font 1	* 218 * 193 * 191 * 179
Font 2	
Font 3	* 180 * 195 * 196
Line Feed	
Form Feed	* 192 * 194 * 212 * 197
Reset at End	
F1 End F2 Change Mode	F1 End F2 Standard PgUP/PgDN More

View 38: Printer Setup Program

The next two sections will look at the procedures for Changing the Current Printer Setup and Adding a New Printer Setup to the Printer Setup Table.

VIII.C Changing the Current Printer Setup

When you select program option F2 to Change the Current Printer Setup, the menu line in the top half of the screen will be reformatted with the following options:

F1 PRINTER F2 Dest & FORMS Parms F3 CODES F4 SYMBOLS Esc Return

The purpose of the options are:

F1 Printer - Allows you to select a Printer from a list in the viewing area located in the lower right portion of the screen. This list is constructed from the PRINTERS System Table

F2 Dest & FORMS Parms - Allows you to make changes to the parameters in the upper portion of the screen. The DEST parameter is the "Destination" for the printer output. Normally it will be "LPT1:" for the standard Parallel Printer port, although it could be:

PRN:... generic code for attached printer

LPT2, LPT3... if you have additional printer ports defined, as in a networked environment

COM1, COM2,... if you are using a Serial Printer

FILE - if the output is to be sent to a file; during the printing of a report with destination FILE, you will not be prompted for the report's destination (Screen, Printer or File) but will be immediately asked to supply a file name for the report output

SCRN: - if the output is to be sent to the screen. If the current printer setup has SCRN: for the report destination, you will not be prompted for a report's destination (Screen, Printer or File) during the printing process. The report output will be automatically sent to the screen

F3 CODES - Allows you to change the Printer Codes table shown in the lower left portion of the screen. (See the next section)

F4 SYMBOLS - Allows you to modify the Line and Box drawing symbol tables shown in the lower right portion of the screen (see section VIII.C.2 below)

ESC - Resets the option line to the primary option menu for the program.

The next two sections describe more about the procedures for modifying the Printer Codes and the Symbol sets.

VIII.C.1 Changing Printer Codes

If you select the "F3 CODES" option when Changing the Current Printer Setup, the current viewing area shifts to the lower left portion of the screen where the printer code table is shown. There are seven entries in this table, although only five are used at this time. Those are the entries labeled: INITIAL, FONT1, Line Feed, Form Feed, and Reset at END

The control codes in the first two entries of the Printer Code Table are actually sent to the "printer" one after another at the beginning of the printing of a report. Together they should cause the printer to be set up so that the other parameters in the Printer Setup (Form Size, Symbol Set) will be valid.

The "Line Feed" printer control sequence would normally consist of the two standard commands for Carriage Return (x"13") and "Line Feed" (x"10"), but for output to a printer the Basic language inserts an automatic Line Feed character following each Carriage Return. Therefore, if the DESTination for the Printer Setup is a printer, no Line Feed character is necessary.

Most printers recognize the standard "Form Feed" (x"12") printer code for causing an advance to the top of a new page. When the printer controls the advance to the top of a page, it is important that it be properly initialized so that it knows where the top of the page is and the size of the forms that are being used. (This is particularly important with printers that use continuous forms) If your printer does not recognize the "Form Feed" control code or if you are using a different Form Size than your printer has been set up to handle, you can set the Printer Parameter "FormFeed (Y/N)" to "N" and the program will use Line Feeds (and the Form Length among the Printer Parameters) to advance to the top of a new page.

The "RESET at END" printer codes are sent to the printer after a report is completed to reestablish settings which you may prefer for your printer.

The printer control codes can be entered in two modes, either as sequences of decimal numbers or as sequences of two character "hexadecimal" codes, each representing the ASCII values for the characters in the control codes. The method of representation is shown, within parentheses, in the upper right corner of the viewing area for Printer Control Codes. It will appear as "(DEC)" or "(HEX)". The F2 function key ("Change Mode") can be used to toggle between the two styles of character representation.

NOTE: *Some control codes use "characters" which do not correspond to displayable characters on the screen. That is the reason for using decimal or hexadecimal representations for the control codes.*

When you are entering codes in DECimal mode, each character in the control code is represented by a 1 to 3 digit decimal number between 0 and 255, inclusive (0 <= number <= 255). The numbers are separated by commas. If the number is typed with alpha characters or falls outside the range 0-255, then it will be shown as a 0 after you press F1 to complete the update process.

When you are entering codes in HEX mode, then each control code character is normally represented by a two-character Hexadecimal representation of the ASCII value for the character. Each character in the Hex code is a numeric digit (0-9) or an alpha character in the range (A-F). The individual representations of control code characters are separated by spaces.

NOTE: *In the HEX mode of data entry, you can also use the following representations for control code characters.*

- If a control code character *does* correspond to a displayable character, then you can represent it in the control sequence by that single character with a space before and after it. The character will be converted to HEX format after you have completed the update process by pressing the F1 key

- A control code character can be represented by a *3 digit* decimal number for the ASCII value of the character. For instance, the decimal number "123" would identify the same character as HEX "6B", and the decimal number "012" would represent the same character as x"0C". (If the last example were entered as decimal number "12" it

would be interpreted as the HEX number "12" because the representation only has two digits) The Decimal representations will be converted to HEX mode when you press F1 to complete the update of control codes.

These modes of entry should accommodate the control code descriptions in any printer manual.

NOTE: *The maximum length of the field for each entry in the printer control table is 99 characters. If you type beyond the limits of the field on the screen, the entered text will scroll horizontally to allow you to continue.*

VIII.C.2 Modifying Printer Chart Drawing Symbol Tables

If you select the "F4 SYMBOLS" option while Changing the Current Printer Setup, the current viewing area moves to the lower right corner of the screen where the Line Drawing Symbols are shown. There are actually three sets of symbols that are used for drawing the lines and boxes in charts printed by the Family History System. One set is used for drawing the standard ancestor charts and maps and for drawing lines between the information boxes of the "box" style charts. A second set is used for drawing the standard information boxes in the "box style" charts, and a third set is used to draw the information boxes for individuals who fall on the "path of relationships" joining two individuals in the "Family Path" style of chart. Pressing the PGUP and PGDN keys while in the Symbols viewing area switches among the three sets of symbols.

Each chart symbol is represented on the screen by a graphic symbol from the set of characters, which are displayable on the computer screen. Next to each symbol is a decimal number representing the ASCII value for a character among the printable symbols for the printer. Not all printers are capable of printing the graphic symbols that are shown on the screen, so it is sometimes necessary to use alternate symbols. The Printer Setup program recognizes three sets of symbols that are commonly supported by various printers. One set, supported by the symbols associated with "Code Page 437" are identical to the graphic symbols that appear on the screen. A second set, supported by the symbols associated with "Code Page 850", a common international standard, contains most of the graphic chart drawing symbols except the "double line" symbols that are used to draw the "Family Path" boxes. The third set of symbols consist of the standard "typewriter" character: +, -, and ! Function key F2 can be used to select one of these "standard" symbol sets while you are working in the Symbols viewing area. You can also modify the numeric representation of each printer symbol by TABing to the appropriate field and typing the decimal number representing the character in the printer's symbol set.

When you are finished modifying the set(s) of chart drawing symbols, press the F1 key to end the symbol update session.

VIII.D Adding, Deleting and Modifying Printer Setup Table Entries

If you have more than one type of printer available for printing FHS reports, you will want to have a Printer Setup for each of them. But even if you have only one printer, you may have need for no more than a single printer setup. For instance, you may want to have a separate setup for printing to files, one that would have "empty" control sequences for Initializing the printer and selecting the font. You may also want to have separate setups for different size forms or for selecting different sizes of characters for printing. If you use the 4PRINT utility for printing reports in Landscape, duplex mode on HP Laserjet/Deskjet compatible printers then you could also have separate setups for the different "form widths" supported by the 4PRINT program (80, 110, 165, and 230 characters).

To create a new printer setup, start from the main display of the printer setup program and select option "F3 Setups". The viewing area in the lower half of the screen will be cleared and reformatted with a list of the current printer setups as shown on the next page. One of the Printer Setup Table entries will have the Setup Name accented by "reverse video" hiliting.

```
 Setup       Description              Printer   Dest

LASER      Panasonic KXP4450          HPLASER   LPT1:
PROPRINT   IBM ProPrinter             PROPRINT  LPT1:
FILE       File Output                FILE      FILE
SCREEN     Screen Output              FILE      SCRN:
4PRNT80    4PRINT - 80 Chars          FILE      FILE
4PRNT110   4PRINT - 110 Chars         FILE      FILE
4PRNT165   4PRINT - 165 Chars         FILE      FILE

  UP/DN/Enter Select F1 Change F2 Add F3 Delete F4 Move Esc Return
```

View 39: List of Printer Setups

The options available to you while working in this view are:

UP/DN/Enter - move the hiliting to a setup name by using the UP/Down cursor control keys and press Enter to select that setup as the Current Printer Setup. The screen will be reformatted to show the details concerning the selected printer setup

F1 Change - Pressing the F1 key while a Setup Name is hilited will cause the "Setup" and "Description" fields for that entry to become modifiable. You can type over those fields to change them, then press Enter to terminate the update of the descriptive information for that entry

F2 Add - This causes a new, blank line to be inserted following the line for the entry that was hilited. You will be able to type information into the Setup and Description fields. Then press Enter and the new table entry will be initialized with the same parameters, codes and symbols as the Default printer setup. The new setup will become the Current printer setup and you will be placed in the mode of Changing the current setup

F3 Delete - This will delete the hilited table entry. You will be prompted to verify that you wish to remove that entry from the table. You cannot delete the Default or the Current table entries

F4 Move - This option allows you to change the order of the setups in the list. Move the hiliting to the name of the entry that you wish to move, press F4, and then use the UP/Down cursor control keys to move that table entry to another position in the list. Press the Enter key when you have reached the desired position

Esc Return - Returns you to the primary menu of program options.

IX (F3-D) Export/Import Options

Whenever you spend a great deal of time entering information into a file on your personal computer, there are invariably instances when you would like to be able to get to that information for processing by another program. When the file is in a format that was designed especially for the program used to originally create it, it may be very difficult or impossible to use it with any other software. At such times you may get the feeling that your own information is being held "captive" within the "non-standard" format file.

To alleviate the anxiety of users, most software that employs special formats for storing information will supply utility programs for "converting" information into a more generally usable form. The process for converting information from a "special" format file to a "standard" format file is called "EXPORT" while the term "IMPORT" refers to a process of converting information from a "standard" format file to a "special" (non-standard) format file.

One type of "export" procedure that you may already be familiar with is that of printing a report to a file. The report file can be used as input to utility programs such as 4PRINT (for printing reports in landscape, duplex mode on HP compatible laser printers) and SIDEWAYS (for printing very wide reports in banner mode on continuous forms).

This section describes two FHS programs that allow you to EXPORT family file information into "text" files of a special but standardized format that can be used by other programs. One of these utilities also supplies an IMPORT procedure for moving (possibly large quantities of) information from a "text" file into an FHS family file. The first of these programs uses the GEDCOM (GEnealogical Data COMmunication) format for sharing information with other genealogy software. The other creates files in MailMerge format (also called "quote and comma delimited ASCII" format) which can be processed by most word processing and general purpose database programs.

The GEDCOM program also provides an option (F7) for converting "Short Format" Address datasets to use "Long Format" addresses. (See section IV.B.5 for a description of the "short" and "long" address records.) While it may seem a bit incongruous to have this special purpose option imbedded in the GEDCOM export/import program, it is appropriate because it can eliminate the need for an export/ import operation to perform the conversion.

IX.A (F3-D-1) GEDCOM Export/Import Program- a Little History

Main Menu option F3-D-1 calls upon the FHS GEDCOM Export/Import program which allows you to transfer information between Family History System files and family files maintained by other software packages that support the GEDCOM format. The "Export" option converts information from a FHS family file into an expanded ASCII (or standard character) format and places it in a text file, TRANSFER.GED. Information in the text file can then be "Imported" into a new, empty family file, or may be appended to an existing family file. In the latter case, the system's file maintenance program may then be used to establish relationships between old and new individual records. All family relationships between transferred records are preserved across the export/import procedure.

The format of the transfer dataset is based upon the descriptions of the format provided by the LDS Family History Department in Salt Lake City, Utah, USA. Actually, the GEDCOM format for family information has evolved through several stages since it was first proposed during the mid 1980's. But basically it prescribes that each data item (Name, Birth

Date, etc.) appear on a separate line in the transfer dataset, with related items grouped by associated "level numbers" and each individual data item labeled by an identifying label called a "Tag". The lowest level numbers (zero level groups) correspond to "records" of information, the two most fundamental types of records, for the purpose of genealogical record keeping, being the "Individual Information" record and the "Family Information" record. Records are assigned unique "cross reference identifiers" which are used to define logical connections between separate but related records. Changes to the details of what data items were to be supported and how they would be represented, identified and related resulted in a progression of proposals for the GEDCOM specifications. In some cases, earlier versions of GEDCOM have not been upwardly compatible with later versions. While this has led to some confusion over just what the "GEDCOM Standard" is, the original intent for GEDCOM, that of permitting the sharing of information between the family files of different genealogy software, has been largely met. Today it is possible to transfer most of the basic information about individuals and families, including dates, places and relationships, among the popular genealogy software packages without having to reenter it from the keyboard.

The Family History System has included a GEDCOM export/import utility among its options since the early discussions about GEDCOM in the pages of *Genealogical Computing*. The first FHS GEDCOM program was based upon a very early GEDCOM specification that employed two character data "tags". It was introduced in 1987, about the same time as the first appearance of a GEDCOM utility in the LDS Personal Ancestor File software (PAF 2.0). The PAF implementation was based upon a later GEDCOM specification, which used 4 character data tags. Consequently, the two utility programs were not compatible at that time.

NOTE: *The two programs differed by more than the data tag "dictionary" that each used. Most significantly, the FHS program linked parents to children by means of cross reference identifiers in the name record, as it is done in the FHS family file, while the PAF implementation, and all subsequent formal GEDCOM specifications, linked children through the marriage/family record of the parents.*

The FHS GEDCOM program gradually added support for exporting and importing information using the PAF 2.0 format of GEDCOM and the somewhat incompatible PAF 2.1 implementation of GEDCOM. The GECOM utility in this update of the Family History System includes support for each of these prior implementations of GEDCOM in FHS as well as new support for GEDCOM extensions that were in the November 1995, v5.5 proposal for GEDCOM.

IX.A.1 The GEDCOM Tag System Table

To support the variety of GEDCOM specifications that the current utility will do, the software uses a System Table for establishing the Data Tags that will be used/recognized during an export/import operation. The table includes a set of user modifiable CUSTOM data tags which allows you to create TRANSFER.GED datasets which may be more "readable" by those whose native language is not English.

The complete GEDCOM system table is showing in the following figure. Each data item, represented by a line in the table, has an associated CODE. This is a label for identifying the tag within the program and has nothing to do with the GEDCOM definition. The second through sixth columns are the tags for the data items in 5 different GEDCOM styles supported by the program as follows: "FHS"=original FHS implementation, "2.0 and 2.1" refer to the first two PAF implementations of GEDCOM, "5.0"=most recent GEDCOM proposal, and "CUST" is a set of tags for a CUSTOM GEDCOM file that you may modify. Missing tags correspond to data items that are not supported by the style of GEDCOM represented by the column heading. Non-standard 4 character tags follow the convention of having an underscore character in the first position.

NOTE: *Some data items (e.g. Birth Date) are represented by multiple lines. That is because there may be more than one way to represent the item, depending upon the style of GEDCOM. The Custom set of tags has a value for each representation of these data items because it is intended to support export operations using the "rules" for each of the other styles.*

Table 5: GEDCOM System Table

CODE	FHS	2.0	2.1	5.0	CUST	Description
H000	HH	HEAD	HEAD	HEAD	HEAD	GEDCOM Dataset Header Record
H020		SUBM	SUBM	SUBM	SUBM	Submitter's Section
H021	HN	NAME	NAME	NAME	NAME	Submitter's Name
H030	HA	ADDR	ADDR	ADDR	ADDR	Submitter's Address (line 1)

CODE	FHS	2.0	2.1	5.0	CUST	Description
H031	CT	CONT	CONT	CONT	CONT	Submitter's Address (lines 2,3)
H032	HP	PHON	PHON	PHON	PHON	Submitter's Phone Number
H040		SYST			SYST	System Section
H041	HS	SOUR	SOUR	SOUR	SOUR	Source System Identifier (FHS)
H042				VERS	VERS	Source/DEST Version
H043				NAME	NAME	Source/DEST Full Name
H045	HD	DEST	DEST	DEST	DEST	Destination System Identifier
H050		DATE	DATE	DATE	DATE	Date GEDCOM File Was Created
H060		FILE	FILE	FILE	FILE	Family File Namewq
H061	HI	_IIC	_IIC	_IIC	_IIC	Individual Record count
H062	HF	_FIC	_FIC	_FIC	_FIC	Family Record count
H063	HR	_RUL	_RUL	_RUL	_RUL	GEDCOM Rules Used
H090	HC	COMM	COMM	NOTE	NOTE	Submitter's Comments
H091	CT	CONT	CONT	CONT	CONT	Submitter's Comments continued
I000	II	INDI	INDI	INDI	INDI	Individual Information Record
I001	AF	RFN	REFN	REFN	REFN	ID# of Source Record in FHS
I010	NM	NAME	NAME	NAME	NAME	Full Name ("Given/Surname/")
I011	US				_SNU	"Surname Use" field
I015	SX	SEX	SEX	SEX	SEX	Sex Code
I020		BIRT	BIRT	BIRT	BIRT	Birth Information
I021	BD				BDTE	Birth Date
I023	TB				BTIM	Time of Birth
I025	BP				BPLC	Birth Place
I030		DEAT	DEAT	DEAT	DEAT	Death Information
I031	DD				DDTE	Death Date
I033	TD				DTIM	Time of Death
I035	DP				DPLC	Death Place
I040		FAMI	FAMS	FAMS	FAMS	Marriage Information
I041	OF				LFAM	"Pointer" to Most Recent Marriage
I044		PARE	FAMC	FAMC	FAMC	Parent's Family Record
I045				ADOP	ADOP	Adoption (HUSB,WIFE,BOTH)
I046		ADMO			_ADM	Adoption by Mother
I047		ADFA			_ADF	Adoption by Father
I048		SIBL			SIBL	Sibling Section
I049		OLD			OLD	Next Oldest Sibling
I050	OC				OCHD	Oldest Child Identifier
I051	FA				FATH	Father Identifier
I052	FY				FYSB	Younger Sibling, Same Father
I053	MO				MOTH	Mother Identifier
I054	MY				MYSB	Younger Sibling, Same Mother
E000	EV			EVEN	EVEN	Event Record
E001	TY			TYPE	TYPE	Event Type
E002	IM			_IMP	_IMP	Event Importance Level
E003	DT	DATE	DATE	DATE	DATE	Event Date
E004	QU		QUAY	_QUA	_QUA	Date Qualifier Character
E005	TM	TIME	TIME	TIME	TIME	Event Time

CODE	FHS	2.0	2.1	5.0	CUST	Description
E006	PL	PLAC	PLAC	PLAC	PLAC	Event Place
N000	CM	NOTE	NOTE	NOTE	NOTE	First Comment Line (NAME)
N001	CT	CONT	CONT	CONT	CONT	Continuation of Comments (NAME)
X100						Fields for Extra Records
X101	DB				_BDT	Beginning Effective Date
X103	DE				_EDT	Ending Effective Date
X104	ES				_STA	Ending Status
X105	CM				NOTE	First Comment Line (MISC)
X106	CT				CONT	Continuation of Comments (MISC)
X120	ER				_EDU	Education Record
X121	SU				_SUB	Subject (may be two)
X122	EL				_LVL	Education Level
X123	DG				_DEG	Degree or Certificate Earned
X130	WR				_OCC	Work Record (Occupation)
X131	WT				_TYP	Work Type
X140	MI				_MIL	Military Record
X141	MR				_RNK	Military Rank
X150	ME				_MED	Medical Record
X151	DI				_DIA	Medical Diagnosis
A010	AR			ADDR	ADDR	Address Record
A011	AD			ADR1	ADR1	Address Line 1
A012	CT			ADR2	ADR2	Address Line 2
A013	CY			CITY	CITY	City
A014	ST			STAE	STAE	State/Province
A015	ZC			POST	POST	Zip/Postal Code
A016	CN			CTRY	CTRY	Country
A017	PH			PHON	PHON	Phone Number
A018	CM			NOTE	NOTE	First Comment Line (ADDRESS)
A019	CT			CONT	CONT	Comment Continuation (ADDRESS)
F000	FI	FAMI	FAM	FAM	FAM	Family/Marriage Record
F001		PFAM	PFAM	_NMR	_NMR	Parents with no marriage record
F010	HU	HUSB	HUSB	HUSB	HUSB	Husband Identifier
F011		RFN			RFN	Husband II Number
F012		OTHE			OTHE	Husband's Other Marriage
F015	WF	WIFE	WIFE	WIFE	WIFE	Wife Identifier
F020		MARR	MARR	MARR	MARR	Marriage Beginning Event
F021	MS				BSTA	Beginning Marriage Status
F022	MD				BDTE	Marriage Date
F024	PM				BPLC	Place of Marriage
F025				DIV	DIV	Divorce Event
F026		DIVO	DIV		DIVO	Divorce Flag
F027	ES				ESTA	Cause of Marriage Termination
F028	DE				EDTE	Date of Marriage Termination
F029	PD				EPLC	Place of Marriage Termination
F030	HO				HELM	Husband's next earlier marriage
F031	WO				WELM	Wife's next earlier marriage

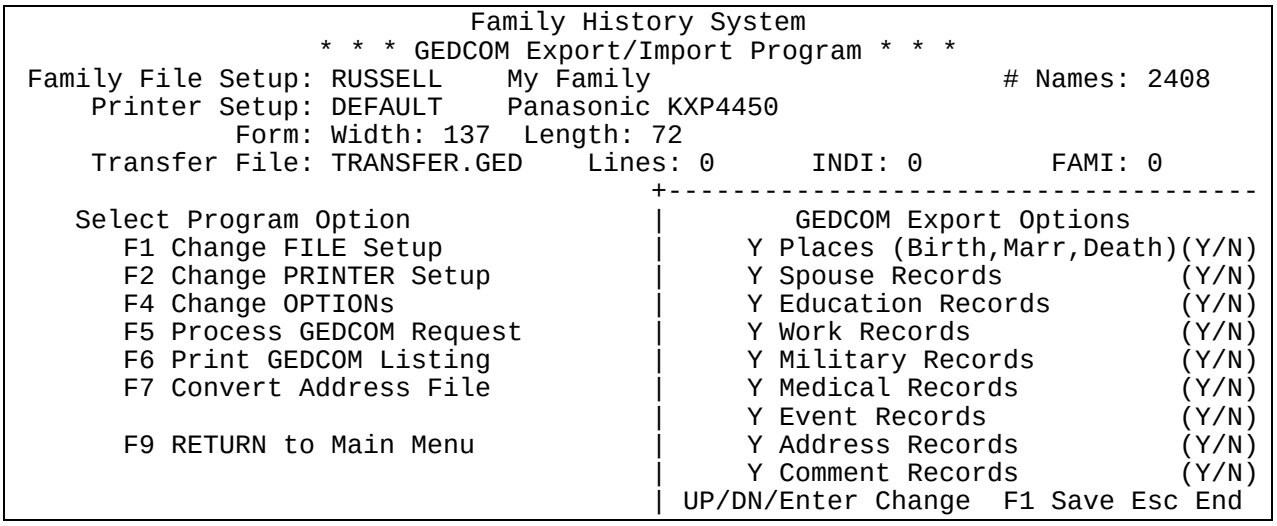
CODE	FHS	2.0	2.1	5.0	CUST	Description
F040		CHIL	CHIL	CHIL	CHIL	Child Identifier
F041		YOUN			YOUN	Youngest Child's II Number (2.0)
F042			ADOP		ADOP	Adoption Status (HUSB,WIFE,BOTH)
F090	CM			NOTE	NOTE	First Comment Line (Marriage)
F091	CT			CONT	CONT	Comment Continuation (Marriage)
T000	ND	EOF	TRLR	TRLR	TRLR	Trailer (End) Record

For a data item to be exported, two things must happen. First, the data item must have a "tag" defined in this GEDCOM table under the heading for the style of GEDCOM file being produced by the export operation. Second, it must be included in one of the types of information that have been selected for export in the Options for the Export operation. Therefore, if you are producing a GEDCOM file of type PAFv2.0 and have requested the export of Comments in the Export Options, Name record comments will be exported but marriage record comments will not, because there is no tag

NOTE: *Even in the "standard" styles of GEDCOM I have included a few "non-standard" data items to allow for information that seemed too significant to omit. In particular, the Header Record items with CODEs of H061 and H062 show numbers of Individual Records and Family Records in the file. Also, for the 2.0 style of GEDCOM the items with CODEs of I046 and I047 are used to show adoptive parent relationships. In the "standard" styles of GEDCOM, the item with CODE value F001 is used to identify family records that do not correspond to a marriage record but were created for the purpose of recording children born to "unmarried" parents.*

IX.A.2 GEDCOM Program Operation

When you select Main Menu option F3-D-1, the screen is cleared and reformatted with the display shown below.
This screen display is similar to others in the Family History System. Near the top are lines describing the current



View 40: GEDCOM Program Display

Family File and Printer Setups. The viewing area in the lower right corner of the screen shows the current option settings for an Export operation and the program options are shown on the lower left.

Near the middle of the screen is a line describing the Transfer File, which is the file to which exported information is written or from which imported or listed information is read. During an Import, Export or List operation, the "Lines", "INDI" and "FAMI" fields are filled in with the number of Lines processed in the TRANSFER dataset, the number of "Individual Information" records processed and the number of "Family Information" records processed.
Program Options F1 and F2 are used to select other Family or Printer Setups as in the other FHS programs. Program option F4 is used to change option settings for Exporting to, Importing from or Listing the TRANSFER.GED file. For the Export and Import operations, these option settings can be used to limit the types of information that will be processed during the operation.

Program Option F7 provides an easy procedure for converting an Address dataset using older "short" address records into one which uses the "long" address records more appropriate for recording international addresses. (See section IV.B.5 for a description of the two types of address records.) See p. IX-9 below for a description of this option.

If you press F5, *Process GEDCOM Request*, you will be asked to:

Select 1) Import from GEDCOM File 2) Export to GEDCOM File

The next sections will describe in more detail the procedures for performing these Import and Export operations.

IX.A.3 EXPORTing Data from your Family File to a GEDCOM File

NOTE: *Prior to using the Export option, I would recommend that you use the Pointer Validation option (Main Menu selection F3-E-F6-1) to verify that there are no inconsistent relationships between the family file records that could cause problems during the export procedure. If you are using one of the Standard GEDCOM formats (versions 2.0, 2.1 or 5.0), the export procedure will assume that husbands are "Male" and that one and only one of two participants in a marriage is a "Male". This is to accommodate the standard GEDCOM requirement that the participants in a marriage be identified as Husband and Wife. The Data Validation option (Main Menu selection F3-E-F6-2) will identify marriages for which this condition is not met.*

Selecting program option F5-2 initiates an export process in which information is copied from your family files into the TRANSFER dataset. You will first be asked whether you want to:

Export 1) ALL Records 2) SELECTed Records

If you choose to export selected records, you must have previously used another program, such as the system's Search/Select/LIST program (Main Menu option F2-D), to create a "selection table" of ID numbers and save it in a SELECT work file. You will be prompted to supply the name of the SELECT work file.

To identify the order in which the records will be exported, you will next be asked to:

Select: 1) ID Sequence 2) Relationship Sequence 3) Indexed Sequence

The option for "Relationship Sequence" uses a previously created Ancestor, Descendant or Relative work file to determine the order in which the records will be exported. The records corresponding to ID's in the relationship work file will be exported in the order that they would appear in the corresponding relationship report. Exporting records in Indexed or sorted sequence requires the use of a previously created Index File. The ability to create Index Files is an extended option (Main Menu selection F3-E) provided only to registered users.

You will next be asked to:

Select Tags 1) LDS 5.5 2) PAF 2.1 3) PAF 2.0 4) Old FHS 5) Custom

This determines which set of TAGS from the GEDCOM System Table will be used during the Export operation. If you choose one of the first four, then the choice will also determine the set of rules that will be used. If you choose to use the CUSTOM tags, then you will also be asked to:

Select Style 1) v5.5 2) v2.1 3) v2.0 4) FHS

This determines the rules that will be used for representing certain items of information and the method for linking records together in the GEDCOM file. If you choose one of the first three choices, then parent-child relationships will be defined using the marriage or family record for the parents. If you choose the FHS style, then parent-child relationships will be defined using parent-ID and sibling-ID fields in the Individual Information record of the child as it is done in the FHS family file.

You will next be asked if you want to:

Convert ALL CAPS to Mixed Case?...(Y/N)

This gives you the option of having the export program convert information (e.g. Names, Place Names, Addresses, Comments) that was originally entered in ALL CAPITAL letters to Mixed Case text. In doing so, there are two different conventions for handling Proper Names and Comments. When converting proper names, the first character of each "word" will be left as a capital letter. Comments will only have the first letter of each sentence left as a capital letter. When performing the conversion, if a lower case alpha character is encountered in the text of a field, then the conversion will be terminated for that instance of the field.

NOTE: *A proper name that is part of the text of comments will have the first character(s) converted to lower case if it is not at the beginning of a sentence. As a result, there will be some manual effort involved in correcting those situations. This can be done most easily by making changes to the TRANSFER file using an ASCII text editor, such as the DOS EDIT command, or a word processing program operating in TEXT mode.*

Next, the viewing area in the lower right corner of the screen is cleared and formatted to permit entry of descriptive information that will be stored in the transfer dataset's header record as shown at right. This information includes the Name, Address and Phone number of the "submitter", the source and destination system identifiers, and up to 3 lines of comments. The Name and Address is preformatted with information taken from the Address fields in the FHS Configuration File (entered using Main Menu selection F3-B). You may choose not to enter anything in the header record for datasets only used for local transfer of information. Press the F1 key when you are ready to continue with the export procedure.

```
    GEDCOM File Header Record
Submitted by: Phillip E. Brown
Address:834 Bahama Drive
        Tallahassee, FL  32311

Phone:
System: Source: FHS 96
   Destination: FHS
Comments:
```

View 41: GEDCOM Header Record

You will next be prompted to:

Enter GEDCOM Dataset Name: _____

The default dataset name is probably TRANSFER.GED and it will be located on the Drive and in the Directory of the TRANSFER file group (see Chapter VIII). You may, however, override the use of the TRANSFER Drive and Directory and have the output go directly to diskette by placing a drive ID of "A:" or "B:" before the GEDCOM Dataset Name that you enter here.

NOTE: *If you have routed the GEDCOM dataset to a diskette drive by placing "A:" or "B:" at the beginning of the dataset name and the diskette becomes full then the program will allow you to change diskettes and continue the export operation on a new (blank, formatted) diskette. The suffix for dataset names for successive diskettes (after the first) will be .G00, .G01, .G02, etc. (The suffix for the first dataset should be .GED.) This may continue for up to 100 diskettes.*

After you have entered the name of the TRANSFER dataset, the program begins a preliminary process of creating a "pointer work file". This work file is a temporary dataset needed only for the duration of the export operation to place information concerning the relationships between records in the TRANSFER dataset. It is needed because of the differences in the ways that records may be connected in the FHS family file and in the GEDCOM file.

The process of building the POINTER work file may be accompanied by the sequential display of the messages:

Building POINTER Work file

Reversing Direction of Sibling Pointers (only PAF 2.0 format)

Finding Family Record of Parents (except for FHS style GEDCOM).

This may be a long running procedure for a very large family file. You may request a "progress report" on the procedure by tapping the space bar.

If there are children in the file whose parents are not married and you are using one of the standard styles of GEDCOM, a dummy marriage record will be created for the parents because within those GEDCOM files parent-child relationships are established through the marriage record of the parents. In this case, at the termination of the building of the pointer work file, the message:

xxx Family Records Created for Unmarried Parents...

will be displayed. You must press a key to acknowledge the message before the export process will continue.

When the export process begins, the viewing area in the lower right corner of the screen will again be cleared and the list of Information to Transfer will be redisplayed. As the export process continues, the number of records exported of each type will be shown next to the line describing the record type. You will see that family records are created only after all the name records have been processed.

At the same time, another "progress report" is shown in the "statistics" fields for the TRANSFER dataset near the middle of the screen. These include the number of "lines" and the numbers of individual and family records that have been written to the TRANSFER dataset.

The export procedure may be terminated at any time by pressing the ESCape key, though a partially created transfer dataset should not be used in a subsequent import procedure.

When the process is finished, the message:

Export finished at hh:mm:ss...

will be displayed at the bottom of the screen. Pressing any key will "clean up" the display and allow you to select another program option

IX.A.4 Importing Information into an FHS Family File from a GEDCOM File

The process of moving information from a TRANSFER dataset into an existing set of family datasets is begun by selecting program option "F5-1". You will be asked to

Enter GEDCOM Dataset Name: _____

The name that you enter (the default value is probably TRANSFER.GED) should be the name of a previously created GEDCOM file on the Drive and in the Directory associated with the TRANSFER Group of files (see Chapter VI). If the file is on a diskette, you can override the use of the Drive and Directory for the TRANSFER group by entering an "A:" or "B:" drive identifier, as appropriate, at the beginning of the GEDCOM Dataset Name.

NOTE: *If you have placed the drive ID "A:" or "B:" at the beginning of the GEDCOM dataset name to import information from a diskette drive, then the imported file can span multiple diskettes. The dataset name on the first diskette must end in .GED and on successive diskettes must end in .G00, .G01, ...,.G99. You will be prompted to enter the next diskette after the import of a diskette is complete if no TRLR (end of file) record was encountered.*

The family file that is to receive the imported information must have been previously INITialized using the system's file maintenance program (Main Menu selection F1) but may otherwise be empty. At the beginning of the import procedure, the program opens the family file datasets and checks to see that all "header" information is valid (indicating that the file has been initialized) and consistent (the .NAM, .ADR and .OTH datasets have the same initialization date and time).

If name records have been previously placed in the family file, the program displays the message:

"Imported Name Records will begin with ID=nnn..."

All imported information will be placed after existing information in the family file. You may later use the file maintenance program to establish relationships between old and new name records. If you had intended to import the information into an "empty" file but forgot to change Family Setup before beginning the import procedure, you may terminate the process now by pressing the ESCape key. Pressing any other key will permit the process to continue.

You will next be asked to:

Select Tags 1) LDS 5.5 2) PAF 2.1 3) PAF 2.0 4) old FHS 5) Custom

to identify the type of tags that were used in the GEDCOM file. If you mis-identify the type of tags that were used, you may see the message: "No Header Record Found...Continue? (Y/N)". At this point you should reply "N" and examine (list) the GEDCOM file to try to determine the correct type.

If the Header Record is found, the viewing area will be cleared and reformatted as shown in View 41 on page IX-5 and the message: "Continue with Import?...(Y/N)" will be shown on the bottom line of the screen. If you reply "Y", and the family file does *not* support *long* place names, then you will be asked if you want to:

Import Long PLACE Names into Notes? (Y/N)

If you respond with a "Y" then birth, death or marriage place names which exceed the FHS limit of 22 characters will be placed in the COMMENTs under the name or marriage record, and the literal "see Notes" will be stored in the PLACE field in the file. If you reply "N" then long place names will be truncated to 22 characters, but the incoming line will also be listed among the "unprocessed" data lines to call attention to the fact that some information has been lost.

Although you will be shown a "running total" of the number of incoming data lines in the TRANSFER dataset that have not been processed. And these unprocessed lines will also be displayed on the bottom line of the screen, you may request that the program produce a report of the bypassed lines. Therefore, you will next be asked if you want to:

"Print Unprocessed Data Lines?... (Y/N)"

If you respond "Y" or "y" to this question you will be able to route the report to an attached printer or to a report file. The better choice would probably be to send the report to a file where you could later examine it and decide whether to actually print any of it.

During an import operation, the GEDCOM file will be read two times. The first time is for reading the Header record and for creating two "Pointer Work Files". The second time is for importing the other information. The program's

progress through these readings of the GEDCOM file are recorded on the "statistics" line for the TRANSFER dataset near the middle of the screen display.

NOTE: *If you are importing a multi-diskette GEDCOM file, then following the first pass through the diskettes, you will be prompted to put the first diskette of the set back into the drive to begin the second reading of the file.*

If an error is found in a GEDCOM line, a message describing the error will be shown on the bottom line of the screen and the program will wait for you to acknowledge the message by pressing the space bar. If you continue the import operation by pressing the PGDN key, the program will *not* pause when subsequent messages are displayed.

Near the end of the Import procedure you may see messages such as:

"Reversing Sequence of Marriage Records"
"Reversing Direction of Sibling Records"
"Updating Name Record Pointers"

At the end of the import procedure you will see the message:

"Import Finished at hh:mm:ss..."

Pressing any key will result in the display's being "cleaned up" and the program will be ready to process another option.

NOTE: *I would recommend that, following the completion of each import procedure, you run the system's pointer validation option (Main Menu option F3-E-F6-1) against the updated file to verify that all relationships between records in the TRANSFER dataset are consistent.*

IX.A.5 Producing Listings of GEDCOM Files

Program option F6 may be used to produce listings of the contents of the TRANSFER dataset. You may want to use this for verification of an export procedure or for examination of a TRANSFER dataset prior to import. These listings will be in "outline" format with each data item offset according to its "level number", making it easier to identify the beginning of record level items in the file.

IX.A.6 Performing File Conversion Operations

Program option F7 is provided for performing two types of file conversions: Allowing existing family files to support Long Place Names and converting old, short style addresses to a longer, international style of address. Neither of these operations require the use of GEDCOM, but without these options, a full GEDCOM export and import of a family file would be required to accomplish these tasks. When you select program option F7 you will be asked to:

Select: 1) Convert from Short to Long Style Addresses 2) Allow Support for Long Place Names

The following sections describe each of the options.

IX.A.6.a) Converting Address Datasets from "Short" to "Long" Format

Program option F7-1 provides a simple means for converting "short" format address records to the "long" format, which is more appropriate for international addresses. The long format record provides a "free form" phone number, longer city, state and postal code fields and a field for recording the name of the country.

Prior to converting the address dataset, the previous "short format" dataset is renamed with the same prefix but with a suffix of "OAF" for "Old Address File". If you decide to return to the previous format for addresses, you can delete the new address dataset and rename the older one to its former name. In that case, the return to the former dataset should be done prior to adding records to or deleting records from the new address dataset.

IX.A.6.b) Converting a Family File for Long Place Name Support

Prior to August 1998, all place names in an FHS family file were a maximum of 22 characters long. With the introduction of a new Long Place Name record, the maximum size was increased to 41 characters. However the new place name record required changes to many other programs in the system, making a family file which included such records incompatible with earlier versions of the software. As a result, family files that are to include support for Long Place Names are identified with a higher "version" number in the Name dataset header record. This "conversion"

process simply resets the version number for the name dataset. Again, please note that family files that include "long place names" will produce unpredictable results when used with versions of FHS prior to August 1998.

IX.B (F3-D-2) MAILMERGE Export Program

While GEDCOM datasets provide a means for exporting family file information into an ASCII (standard text) file for processing by other programs, it is not a suitable format for transferring information into "conventional" database programs (those which were not designed primarily for genealogical information). A more common type of ASCII file that *is* acceptable for processing by most database and word processing programs is one in which each record of the file consists of the same fixed number of data fields. Each (non-numeric) data field is enclosed in quotes and is separated from the next field by a comma. That is, the records are in the form:

"aaaaa",1234,"bbbbb","cccccc",...,432,"dddddd"

This is called a "quote and comma delimited ASCII file" by some and a MailMerge format file by others. (The term "MailMerge" comes from the use of this type file to supply address information for printing form letters... the addresses are "merged" into the letters for mass "Mail"ing) Of course you cannot export *all* of your information into a file of this type because the "flat file" structure of the MailMerge file (a single type record with a fixed number of data fields) is not suitable for exporting the complex, variable size, "logical" records in an FHS family file.

Main Menu selection F3-D-2 allows you to create MailMerge format files containing selected types of information from your family file. When you choose this option the screen is cleared and reformatted with the display at the top of the next page.

```
                        Family History System
                   * * * MailMerge Export Program * * *
Family File Setup: RUSSELL    My Family                      # Names: 2408
    Printer Setup: DEFAULT    Panasonic KXP4450
             Form: Width: 137  Length: 72
    Transfer File: MAILMERG.DAT
                                        +--------------------------------------
   Select Program Option                |       MailMerge Export Options
      F1 Change FILE Setup              |     Y Include Labels Record    (Y/N)
      F2 Change PRINTER Setup           |     Y Parent (and Spouse) ID's (Y/N)
      F4 Change OPTIONs                 |     Y Title (Mr.,Mrs.,etc)     (Y/N)
      F5 Process EXPORT Request         |     N Relationship             (Y/N)
      F6 Print MAILMERGE Listing        |     Y Gender Code              (Y/N)
                                        |     Y Dates  (Birth/Marr/Death)(Y/N)
      F9 RETURN to Main Menu            |     Y Places (Birth/Marr/Death)(Y/N)
                                        |     Y Marriage         (Most Recent)
                                        |     Y Address          (Most Recent)
                                        | UP/DN/Enter Change  F1 Save Esc End
```

View 42: MailMerge Export Program

The format of this display is similar to that of other report and utility programs in the Family History System. The lines below the screen's title show information about the current Family File and Printer setups. Below those is a line showing the current "default" name for the TRANSFER dataset that would receive the exported information. The dataset will be placed on the Drive and in the sub-Directory of the TRANSFER File Group (see Chapter VI).

The viewing area in the lower right corner of the screen shows some of the options controlling the export procedure. The types of information that may be included in the MailMerge file include the personal items of Name, Birth/Marriage/Death dates and places and most recent address. These are the items that you might want to use in a database program for maintaining birthday, anniversary or address information. This is also the type information that would be suitable for printing form letters or address labels.

You are also given the option of combining the entries for a husband and wife if both of them have been selected for export. In this case the "Title" for the husband's entry in the MailMerge file will be "Mr. & Mrs." and there will be separate fields in the record for the given names of the husband and wife (and for the birth/death dates and places of each if that information is chosen for export). The wife's entry in the MailMerge file will be eliminated (unless her "Surname USE" field has a value of "Y"... i.e. she is marked as always using her own surname).

Program option F4 allows you to make changes to the export option settings. The portion of the RPTOPTS System Table showing the section for MailMerge Export Options appears below.

-MM-	-	-- MailMerge Export Options --

MM00	N	Include Labels Record (Y/N)
MM01	Y	Parent (and Spouse) ID's (Y/N)
MM02	Y	Marriage (Most Recent)
MM03	Y	Dates (Birth/Marr/Death)(Y/N)
MM04	Y	Places (Birth/Marr/Death)(Y/N)
MM05	Y	Address (Most Recent)
MM06	Y	Use Husband's Surname (Y/N)
MM07	Y	Combine Husband & Wife (Y/N)
MM08	Y	Gender Code (Y/N)
MM09	N	Relationship (Y/N)
MM10	N	Quotes for Blank Fields (Y/N)
MM11	Y	Title (Mr.,Mrs.,etc) (Y/N)

The next few paragraphs provide descriptions for some of these options.

- *Include Labels Record (Y/N)* - This option controls the creation of a record (the first record in the MailMerge file) containing a descriptive label for each of the data items. The labels that are used for the data items are taken from the MAILMERG System Table (use Main Menu option F3-B-F4-1 to view the System Tables). Some database and word processing programs will use the entries in the first record of the file as labels or "column headings" for the information in the records (rows) that follow it

- *Parent (and Spouse) ID's (Y/N)* - The ID number for the (main) subject of the record will always be included as one of the exported items. If this option is set to "Y" then data items will be included for the mother and father ID numbers as well. If, in addition, Marriage information is to be exported, or husband and wife records are being combined, then the (Most Recent) spouse ID will be included as a data item

- *Marriage (Most Recent) (Y/N)* - If you request that Marriage information (Date, Place, Spouse ID) be included in the MailMerge file, it will be taken from the "most recent" marriage, based upon the marriage date in the record

- *Address (Most Recent) (Y/N)* - If you request that address information be included in the MailMerge file, it will be taken from the "most recent" address record found either under the individual's name record or under the most recent marriage record

- *Combine Husband & Wife (Y/N)* - This option can do two things... reduce the number of records in the MailMerge file and bring together information about a husband and wife as a "family unit", which may be more appropriate for things like printing mailing labels. A husband and wife will be placed in a "combined" record only if they are currently married, both husband and wife have been selected for export, and the wife has *not* been identified as always using her own surname (that is, the "Surname Use" field in her name record does not have the value "Y"). In the combined record, the husband will be the "main subject" of the record and the wife will be the "spouse". Only the husband's surname will appear in the record but both Given Names will be there. If you have chosen to include Titles in the record, the title will be "Mr. & Mrs."

- *Relationship (Y/N)* - To use this option you must have previously created a relationship work file (Ancestor/ Descendant/Relative .WRK file). You will be prompted to enter the name of the work file

- *Quotes for Blank Fields (Y/N)* - This option determines whether a blank field will be represented by two successive double quotes or whether it will be omitted altogether (except for the required comma indicating the position of the field in the record). Some programs do not require the quotes "around" blank fields, others do. The MailMerge file will be smaller if the quotes are omitted

- *Title (Y/N)* - This controls the creation of a field representing the social title for the person (Mr., Miss, Mrs., Ms., Mr. & Mrs.). The title "Ms." would be used for a married woman who is using her own surname ("Surname USE" field in Name record = "Y"). The titles are taken from the values for Report Variables for the MMEX "report" of the Report Definition File. You can use Main Menu option F3-B-F5 to examine and modify the RDF File.

IX.B.1 Creating a MAILMERGE File

Program option F5 is used to begin an Export operation to a MailMerge file. You will first be asked whether you want to:

"Export 1) ALL Records 2) SELECTed Records 3) Relatives"

If you choose to export selected records, you must have previously used another program, such as the system's Search/Select/LIST program (Main Menu option F2-D), to create a "selection table" of ID numbers and save it in a SELECT work file. You will be prompted to supply the name of the SELECT work file. If you choose to export "Relatives", then you must have previously created an Ancestor/Descendant/Relative work file. You will be prompted to supply the name of the relationship work file.

If you are not exporting ALL Records, then you will be asked if you want to:

"Include Current Spouses of Selected Individuals?...(Y/N)"

and if you choose to include the current spouse among the exported records, you will also be asked if the program should:

"Only Add Spouse if Spouse is Still Living?...(Y/N)"

which may be the appropriate thing to do if you are exporting records for a mailing list.

To identify the order in which the records will be exported, you will next be asked to:

"Enter: 1) ID Sequence 2) Indexed Sequence"

Exporting records in Indexed or sorted sequence requires the use of a previously created Index File. The ability to create Index Files is an extended option (Main Menu selection F3-E) provided only to registered users. If you choose Indexed Sequence, you will be prompted for the name of the Index File to use.

The viewing area in the lower right corner of the screen will be cleared and reformatted as shown at right. This will be the area in which export statistics will be shown while the operation is in progress. The "Combined Record" count is the number of records that have both the names of husband and wife in them.

```
Count   Exported Information
        MailMerge File Records
        Combined Records
        Name Records
        Marriage
        Dates  (Birth/Marriage/Death)
        Places (Birth/Marriage/Death)
        Residence Address
```

View 43: MailMerge File Statistics

You will next be prompted to enter the name of the MailMerge dataset that is to receive the information. After that the export begins, as indicated by the increasing counters in the viewing area in the lower right corner of the screen. You can terminate the process prematurely by pressing the ESCape key.

IX.B.2 Producing Listings of MAILMERGE Files

Program option F6 may be used to produce listings of the contents of the MAILMERGE dataset. You may route the output to the screen, for verification of an export procedure, or to the printer. If a record exceeds the length of the report line, it will be it will be continued, indented, on the next line.

X (F3-E) File Validation

When creating any file of information, errors can be introduced into the file in a variety of ways; sometimes as the result of incorrect information from the source, sometimes because of errors in data entry, and sometimes as a result of program or hardware malfunctions. It is therefore important to periodically examine the information to maintain its accuracy. The purpose of the program that is discussed in this section is to assist you in performing certain types of checks or validations of your family file information. The first option, *Pointer Validation*, is primarily concerned with examining the consistency of various "hidden" data fields that tie the pieces of your family file together. The second option, *Data Validation*, is concerned with checking various fields of your family data for "correctness". This includes checking the consistency of relationships between separate data items (such as birth, death and marriage dates). A third option, *Search for Duplicates*, looks for records, which have the same values in key fields.

All three options are serviced by Main Menu selection F3-E, File Validation. When you choose that option, the screen will be cleared and reformatted as follows:

```
                        Family History System
                    * * *  File Validation Program  * * *

Family File Setup: RUSSELL  My Family File                # Names: 2108
    Printer Setup: KXP4450  Laser Printer
             Form: Width: 137  Length: 72



                                        +-------------------------------------
   Select Program Option                |       Family File Information
      F1 Change FILE Setup              |
      F2 Change PRINTER Setup           | Setup:Russell            # 3 of 17
      F4 Change OPTIONs                 | Description:My Family File
      F6 Perform VALIDATION             |
      F7 Save ID's in SELECT File       | Dataset  Ver   LastUpdate  Recs Free
                                        | NAME      0     4-20-1997  2108
      F9 RETURN to Main Menu            | ADDRESS   0    12-10-1996    91    1
                                        | MISCINFO  0     4-20-1997  1565    4
                                        |
                                        |
```

View 44: File Validation Program

The viewing area in the lower right corner of the screen shows some statistics about the current Family File setup including the numbers of records and "free" records in each of the family file datasets. ("Free" records are records, which have been "deleted" and so are available for reuse when new information is entered.)

As with other programs in the system, option F1 is used to select another Family File Setup and program option F2 is used to select another Printer Setup. Program Option F4 is used to make changes to option settings for each of the validation operations.

When you select program option F6, you will be asked to:

Select 1) Pointer Validation 2) Data Validation 3) Find Duplicates

The operation of each of these options is described in sections X.A, X.B and X.C respectively.

Program option F7 allows you to save, in a SELECT Work file, a list of ID numbers of records for which errors have been found during the most recent validation procedure. This file can then be used by other programs to perform other operations on those records. For instance, you could use it in the Search/Select/LIST program to produce a simple list of information about the error ID's, in the Family Group report program to print a set of Family Group reports for the error ID's, or in the file update program (Main Menu option F1-F4-F3) to review each record and make corrections.

X.A (F6-1) POINTER VALIDATION

To permit you to place variable amounts of "miscellaneous" information and comments about an individual in your family files without requiring excessive amounts of space on your diskette or hard disk, an individual's information is stored in many "records" distributed among 3 datasets (name, address and miscellaneous information). These might be thought of as 3 "card files" storing different types of information. All of these records are "drawn together" by a collection of system maintained *pointer* fields. You are no doubt familiar with some of these fields. The mother and father ID numbers in the name record are two of them, and the spouse ID in a marriage record is another. There are many others that you are not (and need not be) aware of. In addition, each record in the family file datasets has an identifying code for the type of information stored in the record and, for "subordinate" records, the "source" of the information (whether an address record is an individual or family residence, for example). It is important that the complete set of "pointers" and record identifiers for those records relating to an individual be valid and consistent.

The first record of each family file dataset also has information (the DATE and TIME that the file was originally CREATEd) that helps the programs determine whether the datasets that you are using "belong together". This is to protect you from inadvertently attempting to enter information into, or produce reports using datasets that are from two or more family files that you may be working with at different times. In the ".ADR" and ".OTH" datasets, these "header records" also have some additional "hidden pointers" that help the file update program keep track of deleted records.

There are several ways in which inconsistencies may be introduced into this "hidden" collection of information. Because updated file records may remain in memory and not be written to disk until the files are closed (or until you return to the Main Menu program from the file update program) any interruption of an update session by prematurely turning off your computer or by a power failure may result in incomplete updates to the system information. Errors in some versions of the file update program are another (unfortunate) source of inconsistencies in system pointers (for instance, at one time you could enter the same ID number for mother and father, which would introduce errors in the files). The purpose of the procedure invoked by Program Option "F6-1" is to detect and eliminate any errors in the system maintained "hidden" information.

NOTE: *If a family file has been corrupted as a result of an interrupted update session and a recent backup is available, it is always preferable to restore the file from the backup, since correction using the validation program may result in some loss of information. If there have been many updates to the file since the last backup, or the file errors are also in the backup copy, then the validation program can provide a "clean" file for you to continue your work with minimal loss of data.*

When you select the "Pointer Validation" option, the viewing area in the lower right corner of the screen will be cleared and reformatted as shown at right. This area will be used to show the numbers of errors of each type that are found while the validation operation is in progress.

```
Pointer Validation Error Summary
     0  Name Record Errors
     0  Spouse Record Errors
     0  Address Record Errors
     0  Comment Record Errors
     0  Event Record Errors
     0  Miscellaneous Record Errors
     0  Duplicate References
     0  Unreferenced Records
     0  Other Errors
     0  TOTAL Errors
```

View 45: Pointer Validation Error Summary

At this time you will be asked whether to check all records in the file or just SELECTed records. If you choose to check selected records then you will be prompted to enter the name of a previously created SELECT Work file. **NOTE:** *If you do not choose to process the full file, then some error conditions will not be checked... in particular there will be no attempt to*

determine whether there are "unreferenced" records in the .ADR and .OTH datasets.

You will also be asked if you want to:

Make Corrections? (Y/N)

The error conditions that will be checked and reported are the same whether corrections are made or not. The types of corrections that are made by the program are intended to eliminate the error condition, usually by setting an incorrect pointer to zero. This does not recover any information or reestablish any relationships that may have been affected by the bad pointer. You will want to examine, using the file update program (Main Menu selection F1) any records reported as having errors to determine whether any information should be reentered or relationships reestablished.
Finally, you will be asked to:

Select 1) Screen 2) Printer 3) File

to identify the destination for the error report. If you choose "Screen" then the errors will only be printed as single line messages at the bottom of the screen. The program will pause after each error message is encountered. You can continue the program by pressing the space bar (or any other character key on the keyboard). If you continue the processing by pressing the PGDN key, then the program will not pause for other error messages. If you choose "Printer" or "File" as the report destination, then a formatted report will be sent there and the error messages will be simply "echoed" on the bottom line of the screen, without pausing. In either case, the count of errors of different types will be shown in the viewing area in the lower right corner of the screen.

After determining the destination for the error messages, the validation process begins. Actually this validation procedure is divided into several phases. More will be said about what is done in each phase later but they may be described briefly as follows:

- Validate information in Name records (this is by far the most time consuming of the phases, taking perhaps 90% of the total execution time); this is the only phase of checking performed if you do not perform the validation for the full file
- Check for broken "sibling" chains (determine children who are not "listed" as a child of a recorded parent)
- Check Address dataset free record chain
- Check for isolated or unreferenced address records
- Check Miscellaneous dataset free record chain
- Check for isolated or unreferenced miscellaneous records
- Synchronize date time stamps in "header" records if files are "unmatched" and updates are being performed.

There is one type of "error" detection and correction that is controlled by a procedure option which is set using program option F4-1. That is the reporting of individuals (name records) who are unusually aged, based upon their birth date and the fact that their date of death is zeroes. These are likely to be persons whose date of death is unknown or unrecorded. The Family History System provides a method of dealing with such conditions, so that they are not reported as living to an unrealistically advanced age. If an individual's year of death is "9999" then the report programs will interpret that as a "don't know" value... that is they will assume that the person has died but the date of death is unknown. The age of these individuals will not be calculated. Among the option settings for the Pointer Validation procedure are two which control whether or not the check is performed and what is the maximum age that would be accepted without assuming an individual had died. (The default setting for these options in the distributed report definition file is "N"o Checking and 125 years.) Even if the error checking is turned on, the dates of death will not be modified unless you have allowed the program to "Make Corrections".

For those who are interested in customizing the pointer validation report or who would like a list of the different error messages that the report may contain, use Main Menu option F3-B-F5-F2 and select report PVLD. Then use F6 to print a report of the parameters that are used to produce the pointer validation report. The error messages are defined as Report Variables with variable names: EMxx. The report variables with names of the form: RTxx are words describing the various types of records in the FHS family file. These words are inserted into some of the error messages that may apply to more than one type of record.

The suggested procedure for using this program is:

- Backup your family file datasets. If none of the datasets exceed the capacity of the diskettes you use, the DOS COPY command (or Windows File Manager) can be used to back them up, otherwise you will have to use the DOS (Windows) BACKUP command (or some equivalent utility) to back them up
- Run option "F6-1" of this program with output going to the printer or a file and allowing the program to make file changes
- Use program option F7 to create a SELECT work file of ID numbers that have had an error reported for them
- Run option "F6-1" again with output going to the printer (or a different report file)... all *program correctable* errors should now be gone
- Use the file update program (Main Menu option F1-F4-F3) and the validation reports to review information for individuals whose ID# appeared in any of the error messages.

The next section gives more detailed descriptions of the various phases of the validation process. This information is primarily for the few users who may be interested in this level of detail concerning the pointer validation process. You do *not* have to read or understand any part of that discussion to make use of this option.

X.A.1 Pointer Validation Details

Before discussing the phases of the pointer validation process in detail, let's first look at the type of "identity" information stored in the "prefix" of each family file record. Each record begins with a 1 character record type as shown in the "RTYPE" table on the next page. The record types were changed in the December 1985 update of the system. Prior to that the record types were numeric or alphabetic characters. At that time they were changed to decimal codes which do not correspond to standard characters. This program recognizes both the old and new record types, but changes all old record types to the new type when updating the datasets. In addition, the "header" record of each family file dataset has a leading 1 character file type which is used to check that the dataset has been properly initialized. This "file type" is also shown in the table below.

	Old RTYPE		New RTYPE
	CHAR	ASCII	ASCII
Name record	1	049	001
Address record	2	050	002
Spouse Record	3	051	003
Place Record	4	052	004
Comments	F	070	005
Education record	7	055	007
Work record	8	056	008
Military record	9	057	009
Medical record	A	065	010
NAME dataset	N	078	078 (unchanged)
ADDRESS dataset	A	065	065 (unchanged)
MISC dataset	M	077	077 (unchanged)

Table 6: FHS Record & File Identification Codes

In addition, each address and misc info record contains the record type and record number of the "source" record to which it is appended. In the error messages produced by this program, the "source record type" is labeled "SRTYPE" and the "source record number" is labeled "SRNO". (For example a "family" residence will have SRTYPE=3, the record type of a spouse record. A comment record attached to an Education record will have SRTYPE=7.)

Next we will look at the detailed processing that takes place during each phase of Pointer Validation.

I. During "Phase I" of the validation process, each name record is read successively and the following checks are performed:

   1. Mother and Father ID
      a. must be between 0 and the highest ID# on record (invalid parent ID's are set = 0)
   2. Sibling chain

a. the name record for the oldest child is retrieved and parent ID's checked to make sure that ID# of name record being validated is either the father ID (FID) or mother ID (MID)

b. younger children's records are retrieved and parent ID's are similarly verified (if the ID# of the name record being validated is not found as a parent in a child's record, the sibling chain is terminated)

c. if a child's ID is encountered a second time while following the sibling chain, the "loop" is noted and the sibling chain is terminated

d. a note is made of each child correctly located on sibling chain; this information will be used later for identifying "broken" sibling chains.

3. Birth/Death Place Record
   a. record number must be between 0 and max Misc Rec #
   b. if record number>0 then record is retrieved and record type and source record information is checked (see previous table of record types and discussion of source record information)

4. Comment Records for individual
   a. first comment record ID must be between 0 and max Misc rec#
   b. if comment records are present, first comment record is retrieved and record type and source record information checked; total comment record count from first record is saved; backward pointer should be 0
   c. successive comment records are retrieved and record prefix verified as for first record; backward pointer should point to previous record
   d. after last comment record is retrieved, total record count is compared to what had been stored in first comment record (if record type or source record information is incorrect, the comment chain is terminated; all other discrepancies are corrected by the program)

5. Address Records for individual
   a. first address record # must be between 0 and max addrs rec#
   b. if address records are present, first address record is retrieved and record type and source record information checked
   c. successive address records are retrieved and record prefix verified as for first record; (if record type is incorrect it is corrected; if source record information is incorrect, the address chain is terminated)
   d. address comment records are checked (as in 3.)

6. Spouse information
   a. first spouse record # must be between 0 and max misc rec#
   b. if spouse records are present; each spouse record is retrieved and checked for valid record type and source record information
   c. spouse ID's in the record are checked to see if one corresponds to the name record being validated; (if record type or source record information is incorrect, or ID# is not in spouse record, the spouse record chain is terminated)
   d. if marriage place record is present for any of them, that record is retrieved and record type and source record information is checked
   e. spouse comment records are checked (as in 3.)
   f. spouse residence records are checked (as in 4.)

7. Miscellaneous information
   a. first misc record # of each type must be between 0 and max misc rec#
   b. if misc information is present, first record is retrieved and record type and source record information is checked; (if record type or source record information is incorrect the chain is terminated for that type of misc info);
   c. misc info comment records are validated (as in 3.)

d. misc info address information is validated (as in 4.)

II. After all name records have been individually checked, the record of all validated parent pointers is checked to see if any name record was not located on a parent-child chain. (Unverified parent ID's are set =0 in the name record)

III. Records on free chain of Address dataset are checked to see if they have been referenced during Phase "I". Address records which were unreferenced in Phase "I" and not on FREE record chain are noted and added to FREE record chain. Count of FREE records in the address dataset header record is compared to the number of records on the FREE chain. A discrepancy is noted and corrected

IV. Records on free chain of Miscellaneous Info dataset are checked to see if they have been referenced during Phase "I". Records in Misc Info dataset which were unreferenced in Phase "I" and not on FREE record chain are noted and added to FREE record chain. Count of FREE records in the misc info dataset header record is compared to the number of records on the FREE chain. A discrepancy is noted and corrected.

While checking for unreferenced misc records, the number of references (during Phase "I") to each spouse record is checked. A message is displayed if a spouse record has both spouse ID's nonzero but was not referenced exactly 2 times. You must then use the file update program (main menu option F1) to retrieve the marriage record from the spouse ID from which it IS accessible, delete the marriage record, and then re-add it.

X.B (F6-2) DATA VALIDATION

Program option F6-2, the *Data Validation* option, is used to look for incorrect or unreasonable information in a family file. Actually, this option might be more aptly described as a "DATE Validation" option, because most of the error checking involves the many dates that can be entered into an FHS family file. But the checking extends beyond merely determining whether a date represents a valid calendar date. In addition, the program attempts to determine whether two separate dates have a proper "logical" relationship to one another. For instance, a birth and death date in a NAME record should represent a reasonable "age span" for the individual represented by the record, and the birth dates of a child's parents should bear a "reasonable" relationship to the birth date of the child.

X.B.1 DATA VALIDATION OPTIONS

Program option F4-2 allows you to change settings that control many of the types of error checking that will take place during the Data Validation process. When you select this option, the lower right portion of the screen is cleared and reformatted with a list of parameters for the Data Validation Error Report and procedure. The table at the top of the next page lists the options and their default settings. To change the setting for an option, use the UP/DOWN cursor control keys to move the "reverse video" hiliting to the setting that you wish to change, press the Enter key, type the desired setting value and press Enter again. You may save the option settings in the Report Definition File by pressing the F1 key to end the option update process. If you end the process by pressing the ESCape key, then any changes to the option settings will only be temporary.

Default	----- Validation Options -----
Y	Check Name Record Dates (Y/N)
Y	Check Marriage Dates (Y/N)
Y	Check Address Dates (Y/N)
Y	Check Other Record Dates (Y/N)
Y	Check for Invalid Age (Y/N)
Y	Check Spouse Age (Y/N)
60	Max Spouse Age Difference
Y	Check Age at Marriage (Y/N)
15	Min Age at Marriage
90	Max Age at Marriage
Y	Check Age at Child Birth (Y/N)
14	Min Age at Birth of Child
60	Max Age at Birth of Child
Y	Check SEX Codes (Y/N)
Y	Check SEX Code of Parent (Y/N)

Y	Check SEX Code of Spouse (Y/N)
Y	Check for Blank Marriage (Y/N)
Y	Check for Unmarried Parents
Y	Check Father-Child Surnames
Y	Use Soundex for Surname Check

Table 7: Data Validation Options

The types of error checking that can take place are:

- *Check for Invalid Dates* - determine that the mm, dd and yyyy parts of a date represent a true calendar date and that the date is not greater than the "current date". All types of dates may be checked, including birth and death dates, beginning and ending marriage dates, event dates, beginning and ending address dates, and beginning and ending dates in each of the "miscellaneous" record types: Medical, Educational, Military and Occupational. Invalid dates also include death dates which precede birth dates, and ending dates which precede beginning dates in marriage, address, or miscellaneous record types

- *Check for Unreasonable Ages* - the program computes a person's age at certain key events (death, marriage, etc.) and compares this to values that you have identified as representing a reasonable age at which the event could occur. There are four types of age checking:

  ⇒ *Age of each Individual* - determine that the birth and death dates (or birth and current date) yield a "reasonable" value for the person's age. **NOTE:** The Pointer Validation option can eliminate many of the very large ages that appear in reports by setting a missing death date to "00-00-9999"

  ⇒ *Age at Marriage* - determine whether a person's age at marriage was either "unreasonably" young or old

  ⇒ *Ages of Spouses* - determine whether there is an "unreasonable difference" between the ages of two married persons

  ⇒ *Ages of Parents* - determine whether a parent was unreasonably young or old at the birth of a child.

- *Check for Unmarried Parents* - determine whether each parent is married to the other parent of each child; this is not an "error" condition, but may be useful information when planning to export information using a GEDCOM file because parent-child relationships are defined under the marriage or family record of the parents

- *Check for Blank Marriage Records* - look for marriage records which have only a single spouse recorded, no dates or places, and no addresses or comments...these are records which were probably created accidentally by starting to add or create a marriage record, deciding against it, and then terminating the process by pressing the F1 key (thus SAVEing the empty record) rather than using the ESCape key

- *Father-Child Surnames* - determine whether a child has either the same surname as the father, or one which "sounds similar" to the father's; this is a common custom in the U.S. so variances may indicate that a parent-child relationship has been improperly defined.

- *Gender Codes* - valid gender codes are taken from the GENDER System Table. Gender code checks include:

  ⇒ *Gender Code of Individual* - determine whether each Name record contains a valid gender code, as indicated in the GENDER System Table

  ⇒ *Gender of Parent* - determine whether each father is a Male and each mother is a Female; The program will not "correct" an "error condition" of this type because it cannot determine which is incorrect: the Gender code of the parent or the Parent ID in the child's record. (Also, this may not be an "error" condition at all, according to your records, if one of the parents were an adoptive parent)

  ⇒ *Gender of Spouse* - report marriages in which both spouses are of the same sex. This is not an "error" condition in an FHS family file, but could cause problems during export to a GEDCOM file because the GEDCOM specification requires identifying participants using gender specific labels of Husband and Wife.

In the descriptions of the types of error checking that will take place, there were repeated references to "reasonable" or "unreasonable" values for various ages. Of course you may have been concerned about just what determined an

"unreasonable" value. To avoid making "unreasonable" assumptions about "reasonable" values, you are permitted to enter your own definitions of "reasonableness" as values for several of the validation options.

You may choose to include any combination of these types of error checking during a validation process. The reason for not performing a type of error checking may be to simply concentrate on one or a few types of errors, or to avoid the overhead of checking certain types of errors when you know that no errors of those types exist.

X.B.2 Performing the DATA VALIDATION Procedure

The Data Validation process is begun by selecting program option F6-2. You will first be asked to:

Select Validation for 1) Full File 2) SELECTed records

If you press "2" then you will be prompted to:

Enter SELECT File Dataset Name: SELECT.WRK

This SELECT file must have been previously created; for example, by the Search/Select/LIST program or perhaps by the F7 option of the Validation program. A line will be shown indicating the number of records that will be checked and the total number of records in the family file.

You will next be asked if you want to:

Select: 1) Screen 2) Printer 3) FILE

as the destination for the error report. If you select "1" then the errors will only be shown as one line messages on the bottom line of the screen, otherwise they will be sent as part of a "Data Validation Report" to the chosen destination. If you select "3", then you will also be asked to:

Enter REPORT File Name: REPORT .FIL

to identify the dataset that will receive the report. The dataset will be placed on the drive and in the directory of the Report Group in the File Name Table (see Section VI)

Even when the error report destination is a printer or file, the error messages will be echoed on the bottom line of the screen. However the program will not pause after each error message as it would if the report destination were the screen.

The first stage in a data validation process (unless you are only checking surnames) is to build tables of birth years and sex codes for all name records in the family file. This stage is noted by the message:

Building Birth Year Table at hh:mm:ss

at the bottom of the screen. The progress of the table creation, is shown by a counter in the lower right corner of the screen. The purpose of the tables is to reduce the number of times that a name record may have to be retrieved when checking the relationships between various data items.

NOTE: *The ages at time of marriage, the ages of parents at time of birth of a child, and the age differences of spouses are actually determined from the birth years of the individuals involved. The month and day of birth are not used because we are only interested in "reasonable" values, not the exact values of ages.*

During the validation process, the ID number of the record being checked is shown in reverse video in the lower right corner of the screen. As "errors" are found, running totals of the numbers of each type of error are shown in the table of error types in the lower right portion of the screen. A message describing each error is shown on the bottom line of the screen, preceded by a reverse video display of the Name Record ID number to which the message applies. If the report destination is the Screen, then the program will pause until a key is pressed. If the ESCape key is pressed, the validation process will be terminated. If the PGDN key is pressed, the validation process will be placed in NOPause mode during which processing is continued *without pausing* after each subsequent message. If the program is in NOPause mode, you can cause it to pause by pressing any key on the keyboard. If you continue the program again by pressing a key other than ESCape or PGDN, then the program will again pause after each error message is displayed.

X.B.3 DATA VALIDATION REPORT

The Data Validation Report is produced when the destination for "errors" is a printer or a file. The report is described by the DVLD Report entry in the Report Definition File. You can use Main Menu option F3-B-F5-F2 to list the reports and select the DVLD report definition. The report consists of several parts:

- *Report Preface* - which lists each type of data validation that will be performed, based upon the option settings. This portion of the report is defined by HTF (Heading/Title/Footing) lines in the report definition. There is a separate "Title" line for each type of data validation
- *Error Messages* - which describe the individual errors found by the program. The ID number of the Name Record for which the error message was produced is placed at the beginning of the line (and will *not* be repeated on successive error messages for the same ID). The error messages are constructed from report variables with names of the form "EMxx". These "Error Message" variables include references to other report variables that will be replaced by specific values when the message is printed in the report
- *Report Summary* - which gives the total number of errors of each type that were found during the data validation process. The Total Lines are constructed from report variables with names of the form "ETxx".

Although this is called an "Error Report", it is really only intended to call attention to conditions which may indicate that a date or relationship is incorrect. You should use the file update program, Main Menu option F1, to examine each ID number that appears in the report to determine whether there is an error and to make corrections if necessary. You can save the list of ID numbers for which errors were encountered using program option F7. This list can be retrieved by the File Update program by using Main Menu option F1-F4-F3-Enter. Individual Name records can then be selected for display/update from the list of ID numbers.

X.C (F6-3) FINDING DUPLICATE RECORDS (an Extended Option for Registered Users)

The procedure described in this section was requested by a user who was faced with the task of trying to identify possible duplicate records resulting from importing a GEDCOM file into an existing family file. What he wanted to do was compare each new record to each old record to determine whether they were the same (or nearly the same) in certain key fields such as name, gender, birth/death dates and places. After examining the problem, it was apparent that the task would be greatly simplified if the records were already grouped together according to the values of those key fields...that is, if they were placed in sorted sequence according to the values of those fields.

One of the extended options of the Family History System allows processing family records in a sorted sequence by using "Index Files". (See Chapter XI) An Index File is just a list of ID's that have been placed in a sorted sequence. However, the "sort fields" for which index files could be created were rather limited. The sort fields did not include birth & death places, and the options for sorting dates were not very flexible. To support the procedure for identifying possible duplicate records, the procedure for creating Index Files (Main Menu selection F3-F of the extended system) was enhanced to allow:

- additional sort fields of Birth & Death Place
- sorting of text fields by actual value or by soundex code (the use of "soundex codes" could result in "similar sounding" names being grouped together)
- options for choosing only portions of a date for a sort field (for example. YYYY or YYYYMM) to allow dates which are "almost the same" to be placed together

The steps for performing a search for duplicate records will then include the following:

- Identify the two groups of records that are to be compared (for example, compare records 1-2345 to records 2346-2579).

  NOTE: *Either or both of the groups could be the full file*

- Create an Index File which uses the fields for which duplicate values are to be found as sequence fields for the Index File
- Use Validation Option F3-E-F6-3 to look for duplicate records.

You may want to follow this with program option F7 to Save the list of "duplicate" ID's to a SELECT work file and then use the Search/Select/LIST option to produce an indexed detail list of the "matching" records.

During the process of looking for "matching" name records, a message will appear on the bottom line of the screen describing each group of matching records. You may also request that a report be created summarizing the results of the search procedure. That report can be sent to a printer or to a report file. If you have used the Soundex value for text fields for determining matches, then this Duplicate Entries Report will show both the Soundex code and a "representative value" for those text fields. The "representative values" are taken from the first of the records in the group and should not be assumed to be the actual value for all records in the group.

X.C.1 Performing the DUPLICATE DATA Search

The procedure for finding records which have the same or "similar" values for certain key data items is begun by selecting program option F6-3 of the File Validation Program. Before choosing this option you should have created an Index File (using Main Menu selection F3-F of the extended system) for which you have selected the fields that will be searched for "matching" values as sort fields. You will also have identified at that time whether the text fields will be sorted on all or part of the actual text field or on the soundex value of the text field, and whether date fields will be sorted on all or part of the date field (month/day/year or combinations). Your decisions there will have been recorded in the header record for the Index File and will be used during the "Duplicate Date Search" in this program.

When you choose program option F6-3 the lower right corner of the screen will be cleared and reformatted as shown at right. The "Compare Fields" section will be used to show the data items for which "matching values" will be searched. The "Comparison Group Size" will show the number of records in the two groups of records that will be compared and the "Minimum Matched Group Size" will show the minimum number of "matching records" that must be in a group for it to be reported. The "Total" line will show a summary of results while the search is being performed.

```
        Duplicate Data Summary

Compare Fields:
 * Surname   * Given Name  _ Sex Code
Date:  * Birth  _ Marriage  _ Death
Place: _ Birth  _ Death
Comparison Group Size:
   Group #1: _1234  Group #2: __345
Minimum Matched Group Size: _2

Total Matches: __________Groups: ____
```

View 46: Duplicate Data Summary

You will also be prompted to:

Enter Matched Field INDEX File Name: _____

where the name of the index file will default to that of the Index File that you have just created. After pressing the Enter key, the index file will be opened, the header record will be read and the "Compare Fields" portion of the Duplicate Data Summary will be filled out with an * for each data item that was used as a sort field.

You will next be asked to identify the two groups of records that will be compared when looking for "matching data". First you will be prompted to choose:

Group #1: 1) Full File 2) Relation File 3) Select File 4) ID Range

If you choose "Full File" then the "Comparison Group Size" for Group #1 will be filled in with the total number of name records in the family file. If you choose "Relation File" or "Select File" then you will be prompted to enter the dataset name for a previously created relationship work file (ANCESTOR/ DESCNDNT/ RELATIVE.WRK) or SELECT work file and the number of ID's in those work files will be shown as the size of Group #1. If you choose "ID Range" for Group #1, you will be prompted to:

Enter Range of ID's: First = ____1 Last = _2108

where the default range will encompass the full family file. If you are comparing original family records to newly imported family records, then the "Last" number should be changed to the highest ID number that existed in the file prior to the import operation. When you press the enter key, the size of Group #1 in the "Duplicate Data Summary" will be filled in with the number of ID's in the chosen range of ID's.

You will next be prompted in a similar way for the records that will be in comparison group #2. If you choose "ID Range" again for the comparison group, the First/Last ID's will default to a range of ID's that complements the one chosen for Group #1.

Finally, you will be asked to identify the destination for the Duplicate Data summary report. If you choose "Screen" as the destination, then the report will only consist of lines that will be printed at the bottom of the screen for each group of matching records and the "Total" information that is shown in the "Duplicate Data Summary" in the lower right portion of the screen. The program will pause after each group of "marching" records is found. You may then terminate the search process by pressing the ESCape key, allow the search process to continue without further pause by pressing the PGDN key, or continue the search process with a pause after the next matching group of records is found by pressing any other key.

If you choose "Printer" or "File" for the report destination, then the information for groups of "matching" records will be shown on the screen as described above except that the program will not pause after a group of matching records is reported.

X.D (F7) SAVING THE ERROR IDs IN A SELECT FILE

Program option F7 allows you to create a SELECT work file containing a list of the ID's for which "errors" were found during a validation procedure. This can be used in the Search/Select/LIST option or in the Family Group Report options to print a report of information about the individuals for whom errors were found. Or you can use it in the file update program (Main Menu selection F1-F4-F3) to assist you in examining the records for which "errors" were reported. You may also use the SELECT file to perform a data validation again, perhaps after you have made some corrections, and avoid having to reprocess all the records that were found to be error free during the first validation process.

NOTE: *If the validation procedure that preceded the creation of the Select File was the procedure for finding duplicate records, then the records in the two groups are identified as primary and secondary selections respectively, which would allow you to list them separately in reports produced by the Search/Select/LIST option.*

XI (F3-F) CREATING INDEX FILES - (an Extended Option for Registered Users)

For all files of information, there is a natural order for processing records in the file. The "natural" order is usually the order in which the information was originally entered. For your family files this is the order of the ID numbers assigned to each name record. In addition, the family files have been designed to permit following lines of ancestry and descendancy and listing information in these orders as well. However you have no doubt found yourself wanting to list your family information in other orders; for instance in alphabetical sequence of last name (surname) and given name, or in birth date sequence.

There are two approaches to writing a program to list information in an "unnatural" order. One is to reorder or "sort" the information each time the listing is produced. For small sets of information, such as one's ancestors on file, this is a reasonable approach. However for larger groups of information, such as for all descendants of a 6th or 7th generation ancestor, or for all relatives of a given individual, this becomes unsatisfactory because of the time required for the "sorting" of the information. The second approach is to sort all records in the file into the desired order, and then build a second file, called an index file, containing nothing but the original ID number of each record stored in the sorted order. This "index" file may then be used to process all or part of the records in the sorted order, and may be re-used many times for different reports. The Family History System has been designed to use the latter approach.

NOTE: *What might be thought of as a "third" approach to the problem of processing records in sorted sequence would be to provide an index file as a part of the family file and maintain it in the proper sequence as the file is being updated. In that case there would be no need to perform a full sort operation to create a usable index file. In FHS, index files are <u>not</u> automatically updated when you make changes to your family file that would affect the order or number of records in the index file. Whenever such changes are made it is necessary to return to this program to Recreate the Index file to reflect the changes before performing any operations that would use the index file.*

The program for creating index files is invoked by selecting Main Menu option F3-F. When you select that option the screen is reformatted as shown at the top of the next page. It follows the same format as most of the report programs with an identification of the current Family File and Printer Setup being used. In addition, it shows the name of the "current" index. The "default" name for the index file uses the same prefix as the .NAM dataset of the family file and a suffix of .NDX. If the index file has been previously created, the number of ID's in the index file will also be shown. If you have added records to your family file since you created the index, the number of ID's in the index file may be different than the number of Names in the Family File.

The lower right portion of the screen shows a list of names for data items that may be used as sequence fields for the index file. They include: Surname, Given name, date and place of Birth, (most recent) Marriage date, date and place of Death, Gender Code and ID number. Next to each field name are three pieces of information describing how the sequence data is to be used. First is a number indicating the order of precedence when more than one sequence field is used. (You will find that you cannot change this for the ID-number field. The ID-number is always the last sequence field for each index.) The second piece of information is an "A" or "D", depending on whether the sorting is to be in "ascending" or "descending" order on that field. (Normal alphabetical or chronological sequence is "ascending".) Finally, the length of the sequence data is given. This "length" is fixed for all sequence fields except surname, given name and place names. Because the use of disk work areas slows the sort procedure when it is not possible to hold all sequence data in the program work area, you are permitted to adjust the length of the name fields to reduce the size of the sequence data and therefore permit sorting more records at a time in memory. (I find that the first 8 characters of the name fields are sufficient to uniquely sort the information in my own family files, which now contain almost 2200 name records.)

```
                        Family History System
                   * * * Family File INDEX Program * * *

Family File Setup: ________ ________________________     # Names:______
       Index File: ____________     Created: __________   # Names:______
    Printer Setup: ________ ________________________
             Form: Width:____  Length:___

                       SORT Names: 1)Unchanged 2)CAPS 3)SNDX 4)SNDX+Text
                            Dates: 1)YMD 2)MDY 3)DMY 4)YM 5)MD 6)Y 7)M 8)D
   Select Program Option              +-----------------------------------
      F1  Change FILE Setup           | Index Fields        Seq   A/D   Lth
      F2  Change PRINTER Setup        | Surname              1     A     10
      F3  Change Index FIELDs         | Given Name           2     A     15
      F4  Change Report Options       | Birth Date           3     A      4
      F5  CREATE Index File           | Marriage Date        0     A      4
      F6  PRINT Indexed List          | Death Date           0     A      4
                                      | Birth Place          0     A     12
      F9  Return to Main Menu         | Death Place          0     A     12
                                      | Sex Code             0     A      1
                                      | ID Number            4     A      2
```

View 47: Screen Display for Family File Index Program

Above the area for the Index Fields are two lines that indicate different rules that may be applied for sorting text fields and date fields. For *text fields* you may choose to have each text field be sorted just as it was entered into the file or you may request that it be converted to ALL CAPS. The use of capitalization may avoid some inconsistencies in sorting resulting from variations in spelling of some names. You may also alternatively request that text fields will be sorted by Soundex code (SNDX) or using both Soundex code and actual text field. The use of the Soundex code may result in differently spelled, but similar sounding, names being grouped together. *Date fields* can be sorted in Chronological sequence (YMD) or Calendar Sequence (MDY). You may also use partial dates to produce alphabetic listings of individuals grouped by Year, Month, Day, etc. The selection of these options is given in response to a prompting message when the index file is created.

As with other programs in the Family History System, program options F1 and F2 are used to select different Family File and Printer Setups respectively. Program option F4 is used to change option settings for an indexed report that may be produced by the program. Other options will be described in the following sections.

XI.A (F3) Change Index Fields

Program option F3 allows you to make changes to the "Index Fields" information prior to creating an index file. Use the TAB key to move to the field that you want to change, make the change and, after all changes are complete, press the F1 key to terminate the operation.

The sequence numbers for the fields that you have entered may be adjusted to use standard counting numbers. (For instance if you have sequenced the fields using the numbers "7 2 4" they would be adjusted to "3 1 2".) If you have entered duplicate sequence numbers, the duplicates (after the first occurrence of the number) will be ignored. The "Seq" value for the ID number will be adjusted to reflect its being the last sort field.

XI.B (F5) Create an Index File

Program option F5 is used to create an index file using the settings for Index Fields that you have established. If Surname is one of the index fields, you will be asked if you want to:

Substitute Husband's Surname for Wife's (Y/N)

This may be appropriate for producing birthday or anniversary lists using the more familiar last name for female relatives. When you reply "Y" to this option, a married woman's surname will be replaced with the surname of her most recent spouse when gathering information for the sort fields. The substitution will *not* be made for women who have the "Surname..Use" field value of "Y" in their name record. (A value of "Y" in the Surname…Use field of a married woman indicates that her

own surname is to be used in all reports.) If you choose to make this substitution during the creation of the Index File then other programs that use the index for producing reports will also make the substitution of surnames in the report.

You will next be asked your preference for sorting text fields by the message:

Sort Text: 1) Unchanged 2) in CAPS 3) Soundex 4) Soundex + Text

Your response will be indicated by a hilited value for the "Sort Text" line near the middle of the screen. If you simply press the enter key in response to the prompt, then the previously hilited value for the "Sort Text" option will be used as the default.

You will also be asked if you want to:

Use SORTSEQ Table for Text Character Sequence? (Y/N)

The SORTSEQ system table will provide a more natural ordering of international characters and will eliminate the influence of special characters (for example, "(" and ")") on the sort order. But it will add to the time it takes to prepare an the key fields for sorting.

You will next be asked to identify your preference for sorting dates in response to the message:

Sort Date as: 1) YMD 2) MDY 3) DMY 4) YM 5) MD 6) Y 7) M 8) D

Your response will be indicated by a hilited value for the "Sort Date" line near the middle of the screen. If you simply press the enter key in response to the prompt then the previously hilited vale for the "Sort Date" option will be used as the default.

The sort process then begins. It will consist of several phases. First the information for the sort fields will be read from the family file. If there is insufficient space to hold all of the information in memory, then some information will be written to a temporary disk file. In that case, the sort procedure will involve sorting two or more groups of records (each group is called a "sort segment"). After all groups have been sorted, they will be merged together into a fully sorted sequence. Finally, the Index File will be created by writing out the ID numbers of all records in the final sorted order.

NOTE: *The amount of memory available for holding information for sorting is not based upon the amount of memory that you have in your personal computer. Instead, it is limited to the size of a work area that is provided by Basic. That area holds about 50,000 characters of information.*

```
          Sort Progress Report
#ID's =______ Data (Bytes) =__________
in Memory =_______ on Disk =__________
 #SS=___   SSCT=_____  XSCT=_____

I/O:        IN        Work        OUT
SS=___  _______   __________   _______
Time:  IN    Sort   Work  Merge  OUT
     _____  _____  _____  _____  ____

Begin: _________      Last: _________
```

View 48: Sort Progress Report

When the sort process begins, the viewing area in the lower right portion of the screen will be cleared and reformatted as shown at right. This area will be used to record the progress of the sort procedure. The information shown here includes the number of ID #'s from the family file, the total size of all index fields that are to be sorted, the number of characters of sort information that can be held in memory and the number of characters that will be placed into a disk work area. If a disk work area is being used, the #SS field indicates the number of "sort segments" or groups of records that will be written to disk, SSCT indicates the number of ID's in each sort segment and XSCT indicates the number of additional records that will be sorted (a "short" segment of records).

The two lines that begin with the label "I/O" show how many "Input/Output" file operations have taken place. Under "IN" is recorded the number of records that have been read from the family file while gathering the information to be sorted. Under "Work" is recorded the number of records that have been written to the work file during the Input phase, read from the work file and rewritten to the work file during the sort phase, and read from the work file during the Merge phase. Under "Out" is recorded the number of records that have been written to the Index File. The "SS=" field on the second line shows the number of the sort segment that is being processed (during the sort phase).

The two lines that begin with "Time" record the amount of time that it has taken in each of the phases of the process for creating the Index File.

After the Sort/Merge process is complete you will be asked to:

Enter INDEX File Dataset Name: _____

The default name for the index file will probably be the prefix for the .NAM dataset in your family file, followed by a suffix of .NDX. You may change this as appropriate. You may want to use the default name for an index file which processes records in Surname, Given Name, Birth Date sequence, and perhaps have a BIRTHDAY.NDX file which processes records in Birth Date (MDY), Surname, Given Name sequence.

If a file already exists of the name that you have entered, you will be prompted to confirm that it is okay to Delete the file.

After the creation of the index file is completed, the message:

Index File Successfully Created…

will be written on the bottom line of the screen. The “Begin” and “Last” fields in the “Sort Progress Report” will show the times that the process began and was completed. When you press a key on the keyboard, the message will be cleared and the viewing area in the lower right portion of the screen will be reformatted with information about the sort sequence fields for the index file that was just created.

XI.C (F6) Printing a List of Names in INDEXed Order

Program Option F6 permits you to produce a simple full file listing using the index. You will be prompted to enter the name of the Index File that will be used to produce the report and the destination of the report (Screen, Printer or File). The report is in columnar format and the only information that will be included in the report is that which can be used as an Index Field in an index file. To show where breaks in the primary sort field occur, repeated values for that field are not shown.

Although this report should prove convenient for verifying the results of the index building procedure, more useful indexed listings are produced by other system options. In particular, Main Menu option F2-E (Search/Select/LIST) is the option that I've provided for printing most listings that you are likely to want, such as alphabetic sequenced lists of all or selected records or Birthday or Anniversary lists. That option allows you to include such information as relationship, number of children, places of birth/marriage/death, comments and most recent residence address.

XII (F3-4) Interface to 4PRINT Utility

[**NOTE:** The 4PRINT utility described in this document is NOT a part of the Family History System. It is distributed on a SHAREWARE basis by Korenthal Associates, Inc., 230 West 13th Street, New York, 10011. If you decide to use the 4PRINT program, it will be necessary for you to register with that company. The registration fee is $49.95 + postage for which you will receive the latest update to the 4PRINT utility, some additional formatting utilities, and printed documentation.]

Late in 1991 I ran across a utility, called 4PRINT, which allowed printing ASCII documents on HP Laserjet, Deskjet or compatible printers in a way that conserved paper and provided convenient viewing of the document. With this utility, standard reports, using non-proportional fonts, with 80 character lines and 66 lines per page, could be printed in landscape mode on 8 ½ by 11" paper with two formatted pages on each side of the paper. Printing on both sides of the paper can be accommodated, even on non-duplex printers, by first printing the fronts and then the backs of each page. The printing is also done so that, when placed in a binder, adjacent pages can be viewed "upright" without having to turn the binder to view each page.

In addition to formatting documents, which were 80 characters by 66 lines, the utility could similarly handle documents that were 110x66, 165x66 and 230x66 in size. The 110x66 and 230x66 sizes were printed using a tiny but readable downloadable font that came with the utility. The other sizes were printed using the compressed line printer font that is built into the Laserjet. The 165x66 and 230x66 sizes were printed with a single column on each page, rather than the "parallel column" format of the other two sizes.

[In version 4.1 of the 4PRINT utility, it is possible to change the number of lines per page. I've found a 1x230x80 format to be suitable for printing descendant charts, and a 2x80x72 format to be appropriate for other reports.]

The utility also provides for "framing" the pages of the document and printing titles outside the framed area. The total effect is a very pleasing one, which I felt would enhance the appearance of the Family History System reports. It could permit printing large reports more economically while increasing the amount of data that could be viewed on each page. The parallel page format of printing would be suitable for the "free format" styles of ancestor/ descendant/ relative and family group reports, as well as the report indexes. The wider, single column formats, would be more suited for printing large Ancestor MAPs, Descendant CHARTs, or the Generalized BOX Charts.

NOTE: *Recent updates to the Family History System have provided more support for "duplex" (front and back) printing of reports by allowing you to print "Only Odd" and "Only Even" numbered pages separately, and by providing Inside/Outside margin settings. As a result, there may not be as much need for this program as in the past, especially for producing family booklets. I believe it still has some usefulness for producing convenient and economical printing of working documents.*

To make it easier to use the 4PRINT utility, which is normally executed from the DOS prompt with options specified by command line parameters, I have provided a new Main Menu option, F3-4, to serve as an interface to the program. However the option does *not* appear on the Main Menu panel. When you choose that option, the screen is cleared and reformatted as shown below.

```
                    * * * Interface to 4PRINT Utility * * *
   Report File: ____________          4PRINT Destination: LPT1:
   Title Location: __ (T/B/A/N)
   Title: ____________________________________________________________


F1 Report File/DEST F2 Title F4 4PRINT Options F5 4PRINT Command F9 Main Menu
--------------------------------------------------------------------------------
                           4PRINT Utility Options
 Print Options:
   _ Front Only       _ Back Only    _ Single Side    _ HP Duplex
   * No Scan (____)   _ Word Wrap    _ NO Prompt
     Print Pages:____  to ____   (These are 4PRINT page counts)
     Lines/Page: 72     Use Download Font #:___
 Format:   _ 1x165   _ 1x230   * 2x80    _ 2x110   _ 3x76    _ 4x55
 Frame Style: * Full  _ None  _ T   _ I   _ =   _ O   _ M   _ U   _ !   _ -
```

View 49: Screen Display for Interface to 4PRINT Utility

The screen format allows you to identify the file, which contains the formatted report that is to be processed and the (optional) title that is to be printed "in the margins". You can also easily select the 4PRINT options that you want to use. The 4PRINT utility is executed using the BASIC SHELL command, which requires at least the 3.0 version of DOS. It is not necessary to exit from your Family History System session to use the 4PRINT utility. You must have the 4PRINT.EXE program file in the \FAMILY sub-directory of your hard drive, on your default program diskette, or in the DOS command search PATH.

The fields of this display, identified by their descriptive labels, will be described in the following paragraphs:

"Report File:" - This field gives the name of the file containing the report that is to be printed. The default value is "REPORT.FIL" or the file name that was last used to receive a report

"DEST:" - This field identifies the destination for the 4PRINT utility output. It will probably be set to "LPT1:"

"Title Location:" - This field identifies where the 4PRINT generated title is to appear (outside the area occupied by the report page). Recognized values are:

N - Don't print titles

T - Print the title at the Top of each page

B - Print the title at the Bottom of each page

A - Alternate printing the Title between the Top and the Bottom so that it always appears in the "outside" margin when the report is placed in a binder

"Title" - This field contains the TITLE or Heading that is to be printed in the "margins" of the 4PRINT formatted page as specified by the "Title Location". The title can either be centered between the left and right margins of the full page, or it may be divided into two parts, each of which is centered on the left or right half of the page (centered between the margins of the two parallel columns when that type format is chosen).

A 60-character line is provided for the Title. The limitation of 127 characters for a command line may limit the size of the title line depending upon the other parameters used. If the command line generated for 4PRINT (which will be shown when you execute the 4PRINT utility using the F4 key) shows that the title area has been truncated, you will have to reduce the size of the title or eliminate some options.

There are some special symbols that are recognized within the text of the Title. These symbols are:

// separates the text for "split" titles

$fn the file name being printed will be substituted for this symbol

$fd the creation date for the file being printed will be substituted for this symbol

$ft the creation time of the file being printed will be substituted for this symbol

$td the current date will be substituted for this symbol

$tt the current time will be substituted for this symbol

$pn the current page number will be substituted for this symbol. This is the page number of the 4PRINT output, not of the document in the file

$pp the total number of pages in the 4PRINT output will be substituted for this symbol

$cn the current column number will be substituted for this symbol. This value increments from the value of 1 by 1 for each column that is printed. It is not just the number of the column on the page

$cc the total number of columns that will be printed will be substituted for this symbol. If a single column format is being used, this will be the same as $pp. If a double column format is being used, this will have the value 2*$pp.

The lines below the "Title(S)" field on the screen serve as reminders of these special symbols.

The default title is: $fn $fd $ft//Page $pn of $pt

"*Print Options*:" - This area of the display groups together several parameters. For each one, the equivalent 4PRINT command line parameter is given [in brackets] as well as a description of its effect. The options include:

Front Only [-f] this causes the 4PRINT utility to only print the front sides of the pages. If "Single Side" printing is not in effect, only the ODD pages will be printed

Back Only [-b or -r] this causes the 4PRINT utility to only print the EVEN numbered pages

Single Side [-s] this causes the 4PRINT utility to print all pages on the same side of the page instead of alternating pages between the front and the back

Duplex - HP IID [-d] this is used for printers, such as the HP Laserjet IID, which allow two sided, single pass, printing

No Scan (xxx) [-qxxx] this causes 4PRINT to skip the initial scan of the input file which is used to determine the number of pages of output that will be generated. This might be used if you do not intend to use the $pp or $cc symbols in the Title or if you already know the number of pages, from a prior attempt to print the file. In the latter case, you can enter the known number of pages in the parentheses following the "No Scan" option and this value will be passed to the 4PRINT utility

Word Wrap [-ww] this causes long lines in the file, that exceed the column size for the chosen format, to be wrapped around, rather than being truncated. If you have not chosen the "No Scan" option, the 4PRINT utility will tell you if there are any lines that exceed the width of the columns

NO Prompt [-u] this is the "unattended" mode of operation of 4PRINT

LN/PG [-lpp#] this sets the number of lines per page (for 4PRINT v4.1 or later)

Print Pages: ___ to ___ [-pm-n] this allows you to request only printing a range of pages rather than the entire file. The page numbers are the 4PRINT page numbers, not the page number within the file that is being printed

"*Format*:" - These parameters are used to select the style that 4PRINT is to use for the output. They are described by the number of columns on each page and the width of each column in characters. The 4PRINT parameters that are generated for each format are:

2x80 standard format, no additional parameters

2x110 -tiny

1x165 -wide

1x230 -tiny -wide

Of course, you may only select one style of format. The first one that has a non-blank selection box will be the one that is used

"*DNLD Font #= "* - This is used to direct 4PRINT to use a previously down loaded font that has been identified in the Laserjet printer by the entered number. The 4PRINT parameter that is generated is -#xx or -t#xx (the second form will be used when you have chosen to use the "tiny" font) where "xx" is the number entered following "DNLD Font #="

"*Frame Style*:" - This is used to request the style of "Frame" that 4PRINT is to generate surrounding each page. A "Full Frame" has lines across top and bottom, each side and down the middle, between the columns (when 2 columns are printed). A variety of "partial" frames may also be requested, or you may ask that no frame be generated at all. The partial frames are represented by letters or symbols that depict the style of the frame. For instance, "T" represents a frame which has a line at the top of the page and the line that separates columns; "M" represents a frame which has all the lines except the bottom; and "=" represents a "frame" with lines only at the top and bottom of each page. There are 10 different styles (including "None"). You may only select one style frame, of course. The first one that has a non-blank selection box will be the one that is used.

XII.A Steps for Printing an FHS Report or Chart with 4PRINT

There are several steps involved for printing an FHS report or chart using the 4PRINT utility. Of course the first is to acquire and install the 4PRINT program. I will assume that that has already been done. The next section describes some printer setups for use with the 4PRINT program and I will also assume that you have become familiar with those and have selected the appropriate setup for your purposes. (Section XII.XII.C on page XII-5 also provides some suggestions for option settings that you may wish to consider when printing different reports or charts.) Basically the steps include:

- Print the Report/Chart to a file using an appropriate Printer Setup
- Select Main Menu option F3-4 to invoke this program
- Use Program Option F1 to identify the Report File that will be printed. (*If you have just printed the report or chart, this value should already be properly set*)
- Use Program Option F2 to change the Title options. When you select this option, the bottom portion of the screen display will be cleared and reformatted with descriptions of some special 4PRINT controls that can be used within the text of the title. (*The title field will probably contain a default title, generated from the "T 4 9" Title Line in the RDF (Report Definition File) entry for the report or chart being printed*)
- Use Program Option F4 to make changes to 4PRINT Option settings. (*Many of the option settings will have been already set based upon the form size parameters that were used in the Printer Setup*)
- Use Program Option F5 to examine the 4PRINT command and submit it for execution. The bottom portion of the screen display will be cleared and reformatted with a line(s) describing the command that will be used to invoke the 4PRINT program. Notice that the name of the report file dataset will have a prefix identifying the Report Group Directory from the Family File setup that you are using. You may also find that the Title supplied on the 4PRINT command line has been truncated if the other option settings are very long. A DOS command line can not be more than 127 characters.

  You can make any changes that you feel are appropriate and then use option F6 to submit the commands. The program will create a FH$4PRNT.BAT file in the FHS program directory and then use the Basic SHELL command to "Call" the .BAT file. The screen will be cleared and you will be able to view the messages from 4PRINT as it processes your request. At the end of the printing, you must press a key on the keyboard to complete the process and return to this program.

XII.B Printer SETUPs For Printing FHS Reports for 4PRINT

I have provided a separate Printer Definition File (4PRINT.PDF) containing suggestions for setups to use when "printing" a chart or report to a file in preparation for using the 4PRINT utility to print the file. To view the contents of that file, select Main Menu option F3-C, then press F1 (File), 2 (Load) and type "4PRINT" for the prefix of the PDF file name. After the

printer setups are read from the file, press F3 to see a list of them. You will find that there are actually 9 setups there. They are:

HPLASER	A printer setup for HP Laserjet III (and compatible) printers
SCREEN	A printer setup for viewing reports on the screen (80 character page width)
FILE	A printer setup for printing to a report to a file with maximum (255 character) page widths
4PRINT1	A setup for printing to a file with 230 character lines (4PRINT 1x230)
4PRINT2	A setup for printing to a file with 165 character lines (4PRINT 1x165)
4PRINT3	A setup for printing to a file with 110 character lines (4PRINT 2x110)
4PRINT4	A setup for printing to a file with 80 character lines (4PRINT 2x80)
4PRINT5	A setup for printing to a file with 76 character lines (4PRINT 3x76)
4PRINT6	A setup for printing to a file with 55 character lines (4PRINT 4x55)

The 4PRINT1 setup has proven satisfactory to me for printing box charts and other wide reports or charts.

The 4PRINT2 setup is convenient for printing Ancestor Charts (4/5 Gen forms) with inside/outside margins of 15 characters.

The 4PRINT3 and 4PRINT4 have been satisfactory for printing free format style reports. The 80 character print line is a bit more readable, but the 110 character print line may be necessary for printing some descendant reports with a large number of generations of descendants.

The last two styles may be useful for printing report indexes in "multiple column" format.

XII.C SUGGESTIONS FOR USING 4PRINT TO PRINT FHS REPORTS

I have found the 4PRINT utility quite useful for creating pleasant looking booklets of FHS reports. The following section of this document contains a few suggestions that you may find helpful in printing your own reports.

Perhaps I should first mention again that reports that are to be processed by the 4PRINT utility must first be "printed" to a File. The option for sending a report to a file is provided by a "bottom line prompt" when you request printing a chart or report in each of the FHS report programs.

XII.C.1 Use Free Form Styles of Reports

The "free form" styles of ancestor/descendant/relative and family group reports can usually be printed with forms width as narrow as 80 characters. The only exception might be Descendant or Relative reports that include large numbers of generations of descendants, resulting in very long "bloodlines" or offsets for lower level descendants. Even these may be printed with a Forms Width of 110 characters using the "2x110" format, or they can be printed in single columns of 165 or 230 characters. If you intend to print Indexes for the reports, then you will probably want to request "line reference" indicators in the left margins of the reports. The 4PRINT utility provides appropriate "binding margins" so the Margin for FHS reports and charts can usually be set to 4, just enough for the line reference indicators.

When using the 4PRINT driver (Main Menu selection F3-4), you may want to use a title such as "Relative Report for Enoch Russell". If you do, then you could also request "No Scan" since neither $pp nor $cc is used in the title. You may also consider including in the 4PRINT generated title your name and address as original source of the report.

XII.C.2 Printing Vertical Box Charts (F2-C-2-1)

The graphical descendant charts introduced in the July 90 update of FHS have until now been most appropriate for displaying "on the wall" because charts of more than 3 or 4 generations, when printed on standard 8 ½by 11 inch sheets or even 8 ½ fan-fold paper, required that multiple printouts be joined together to produce the entire chart. However with 4PRINT, using the "1x230" format, it is possible to print charts showing 6 generations of descendants so that they may be easily viewed when placed in a binder. (**NOTE:** This 1997 update also provides for printing Ancestor charts in this same format… using Main Menu option F2-C-1-2.)

In printing descendant charts I have found a "Data Width" of 27 characters, using 2 lines for names, to be the most efficient. This allows 6 generations of descendants within a 230 character print line. You should request "line

reference" indicators, especially if you intend printing an index for the chart. You should indicate that you are using "Continuous Forms", even though you will eventually be printing the report on cut sheets in your laser printer, because the 4PRINT utility will handle the page breaks.

For the Title of the 4PRINT output, I have used something like:

Descendant Chart for Frank Robbins (p.$pn of $pp)

In this case, you can *not* use the NO SCAN option because 4PRINT must scan the file to find out what to substitute for $pp. One thing you will note when printing these charts with the 4PRINT utility is that the symbols used for the charts is the less pleasing "+", "!", and "-" rather than the nice "box drawing characters" that are part of the extended IBM character set. That is because the TINY font supplied with 4PRINT does not print those graphic characters.

[If you are using the shareware "tiny" font distributed with v4.1 of 4PRINT, you may change the box drawing symbols to be the ones used on the screen. (This symbol set is identified as CP437 among the "standard" symbol sets that can be chosen in the printer setup program). I've also found that 80 lines per page is best for printing descendant charts as the vertical line symbols will not be "connected" otherwise.]

XII.C.3 Printing Generalized BOX Charts (F2-C-3)

The horizontal format of the Generalized BOX Charts produced by Main Menu selection F2-C-3 makes it necessary to follow a different procedure for printing them than that described for the Descendant Charts in the previous section.

It is still necessary to limit the number of generations charted so that the number of lines in the chart will not extend beyond the bottom of an 80-line page. Also, the Forms Width should be set to 230 characters. A Data width of 27, with names on Two Lines, is still appropriate, and I usually choose to "Print Line Reference numbers" on Both the left and right sides of the page.

I prefer an alignment that places the "base record" on the left side of the chart (align with First child in a descendant chart or with Father in an ancestor chart). You should also request that boxes not be allowed to "span strips" and when printing the chart to a file, request that it be printed in strips rather than "full width". Each strip will provide one page of the chart in a bound book.

Since the chart extends to the right for multiple pages rather than extending down (as with the descendant chart), the pages of the chart should be bound on the left (8 ½) side rather than at the top, and the back sides of the pages should be printed with the "top" of the chart along the same edge of the paper as the front side of the page. Consequently, when you print the back sides of the pages with 4PRINT you should simply flip the pages over and keep the same edge of the paper on the left side of the printer (instead of turning the pages as you did when printing the reports or descendant charts). Since the pages of the chart are not numbered, you may want to include the "page numbers" in the title that is printed by 4PRINT.

XII.C.4 Printing Ancestor Charts

Unfortunately the 4-generation ancestor charts require at least 132 characters to print, so neither of the 2 column formats can be used for printing these charts with the 4PRINT utility. However the "1x165x68" format produces a nice looking chart in landscape format with some advantages over printing the chart in the usual "upright" format.

When printing the 4 or 5 generation charts to a file for processing by 4PRINT, you should of course select the Printer SETUP for 2x165 4PRINT printing and set the Inside margin to 15. This will center the 132-character chart on the 165-character line. An advantage of using this procedure for printing charts is that there is room for the much longer chart references that occur when charting very extended ancestries.

When printing the "1x165x68" format, 4PRINT uses your printer's internal compressed line printer font. If your printer supports the IBM box drawing characters, or if you are using one of the shareware fonts distributed with v4.1 of 4PRINT, you may change the chart drawing symbols in your printer setup accordingly to one of the Standard symbol sets, CP437 or CP850.

XII.C.5 Printing Ancestor MAPs

Although the All Generation Ancestor MAPs produced by FHS tend not to be as wide as the descendant charts, very extended printouts can exceed 132 characters in width and run to several pages of fan-fold paper. The 4PRINT utility can "tame" these printouts as well, making them suitable for placing in binders. The ROYAL family file provides an interesting example. The 39 generation Ancestor MAP of Prince Charles (ID #1) fits nicely within 229 characters, even when printing dates and places on a single line. You may find that your own Map will fit one of the other formats, but whichever proves appropriate, the output will fit nicely in a standard binder.

If you use a smaller column width for the 4PRINT utility (and you have *not* selected the NO SCAN option), it will let you know if there are any lines that will be truncated during its initial scan of the report file.

XII.C.6 Printing Report INDEXes

Registered users of the Family History System have an additional Main Menu selection, F2-F, for printing report indexes. To print an index, you must choose the option for creating a REFERENCE work file when printing the FHS report or chart. The report index program will determine the report type and the locations of all references from that work file.

When printing a report index with the 4PRINT utility I have found it useful to set the Margins to 0. I also choose not to number the pages of the report index because the index is sequenced by the sorted order of the Index file that is used to print it. This allows several additional lines of data for each page of the index.

You may again use the Title generated by 4PRINT to identify more completely the report being indexed as well as the source of the information.

I suppose you have gathered by now that I find the 4PRINT utility to be a valuable addition to my own "tool box". If you are using a HP compatible printer, I hope you will give it a try. There are additional parameters for 4PRINT that you may find useful. Be sure to thoroughly read the documentation that comes with the 4PRINT utility itself. Please remember too that the 4PRINT program is NOT part of the Family History System but is distributed as SHAREWARE by Korenthal Assoc. whose address is given below.

- -

For more information about the 4PRINT Utility, write to:

Korenthal Associates, Inc.
230 West 13th Street
New York, New York 10011
Tel: (212) 242-1790
Fax: (212) 242-2599

XIII (F7) The DATECALC Utility

The program DATECALC.COM that has been provided as part of the Family History System is a utility program to assist you in performing some standard operations involving dates, including:

- Determining the day of the week on which a given date falls
- Computing the number of years, months and/or days between two given dates
- Determining the date that is a given number of years, months and/or days before or after another date
- Displaying a calendar for the month containing a given date
- Converting between "old style" and "new style" dates.

In providing these functions, the DATECALC utility also permits you to select the format for dates entered or displayed from among:

DD MON YYYY (e.g. 10 APR 1943)
MON DD, YYYY (e.g. APR 10, 1943)
MM-DD-YYYY (e.g. 04-10-1943)
DD.MM.YYYY (e.g. 10.04.1943)
YYYY MM DD (e.g. 1943 04 10)
or YYYY DDD (e.g. 1943 100).

The "difference" or length of interval between dates can be displayed in several formats also, including:

```
+/- Yr,Mon,Day  (+ 0044 Y  004 M  02 D)
      +/- Yrs,Days      (+ 0044 Y  124 D)
or    +/- Days          (+ 016195 Days).
```

(A "-" before the date difference indicates that the second date occurs before the first one.)

The DATECALC utility can be invoked in several ways. If you are using DOS 3.0 or later and have sufficient RAM available, you should be able to invoke it from the MainMenu of the Family History System by pressing the F7 key. It can also be executed as a command from the DOS prompt, for example by entering: C>datecalc assuming the DATECALC.COM program in the current directory or is in the DOS Command Path.

Finally it can be made memory resident by entering: C>datecalc r (again assuming the DATECALC.COM program is in the current directory of drive C or is in the DOS command path.) After entering the command, the DATECALC program can be called up at just about any time by simultaneously pressing the ALT and CTRL keys. The utility will not "pop up" when the screen is being used to display graphics and it may be incompatible with some other resident utilities or with some programs that take control of keyboard input.

NOTE: *If you are running the programs under Windows 95, you can also cause the DATECALC program to be made memory resident during the FHS working session. To do this, right click on the desktop icon that you have created to run the FHSINIT program to start an FHS session. Then click on "Properties" and the "Program" tab of the properties display. On the "Batch File" line, enter: DATECALC R then click Okay. When you then start an FHS session, the DATECALC program will first be invoked with the parameter that causes it to be memory resident. It will remain in memory until you end your FHS work session and return to Windows 95.*

If you installed your programs on diskettes, the AUTOEXEC.BAT file created on the STARTUP diskette during the standard INSTALL procedure has a command line in it which will make this utility memory resident when you boot from those diskettes. If you are running from a hard disk or do not boot from your Family History System program diskette, you

may consider modifying the AUTOEXEC.BAT file used during your normal boot procedure to automatically make the DATECALC utility RAM resident. Be aware that making the program resident in memory will "permanently" reduce the available memory for other programs by about 7k.

When you invoke DATECALC in one of the above ways, it "pops" into view, overlaying the previous contents of the screen. The utility's options are listed together with the function keys that are used to select them. (Note that the ESCape key is used to exit from the program. The previous contents of the screen are restored when you do.) Below the list of options you will find the descriptions for the current formats for DATEs and Date DIFference. If "old style" dates are being processed, then the characters "OS" will appear to the right of the literal describing the date format. Near the bottom of the viewing area, on separate lines, appear two dates (DATE1, DATE2) and the computed DIF (calendar interval) between the dates. The day of the week for each date is also shown for each date. The first time the utility is used the dates will have the value of the current date (or 01 JAN 1980 if you don't have a clock calendar board and haven't previously corrected the date using the DOS DATE command or some other utility) and the computed DIF will be 0 years, 0 months and 0 days.

You can use the cursor control keys (as well as the HOME, END, PGUP, PGDN keys) to move the viewing area for the utility to different locations on the screen. This allows you to reveal any area on the screen in which a date appears that you may want to examine. If you are running DATECALC as a memory resident utility, then the location of the viewing area will remain unchanged between separate invocations of the program.

The list of program options appears as follows:

F1 Enter DATE1 (find DAY)

F2 Enter DATE2 (find DIF)

F3 Enter DIF (find DATE2)

F4 Show Calendar for DATE1/2

F5 Change DATE Format/Style

F6 Change DIF Format

ESC Exit.

XIII.A USING THE DATE CALCULATOR

If you press function key F1 or F2 then a reverse video cursor will appear in the first position of the value field for the corresponding date at the bottom of the viewing area. You can then type in the value you wish and press the Enter or RETURN key when you are through (or press the ESCape key to restore the previous value for the date). Month literals should be among:

JAN, FEB,MAR,APR,MAY,JUN,JUL,AUG,SEP,OCT,NOV,DEC

Any other values entered will be changed to "JAN". Lower case characters are automatically changed to upper case when entering these values. If a value is entered for the day of the month which is greater than the "legal" number of days in the month, then the month and day (and year if necessary) will be automatically adjusted accordingly. For example an entered date of "MAR 35, 1987" will be changed to "APR 04, 1987". Similarly, if a value greater than 12 is entered for the number of the month, then the month and year (and day value if necessary) will be adjusted accordingly. For example an entered date of "14-30-1987" will be changed to "03-01-1988".

If you press function key F3 then a reverse video cursor will appear in the first position of the value for the DIF field at the bottom of the viewing area. The first character must be a + or - (indicating whether the computed value for DATE2 is to be after or before DATE1). Press the Enter or RETURN key when you are finished (or press the ESCape key to restore the previous value for DIF).

When entering any of these values you can use the left and right cursor control keys to move the cursor and you can use the TAB key to move quickly to different parts of the field. The cursor automatically skips over the "filler" characters (such as "-" or ",") so you don't have to enter these.

If you have changed either DATE1 or DATE2, then the program will compute and display the day of the week and compute and redisplay the value of DIF, the difference between the two dates. If you change the value of DIF, then the program will compute the value of DATE2 that is the specified interval before or after the current value of DATE1 and will compute and redisplay the DIF between the dates. Note that in computing date differences the following procedure is used:

The larger of the two dates is determined and the sign of the difference is set to - if DATE1>DATE2 and + otherwise

The smaller date is subtracted from the larger, first days, then months and then years.

On the other hand, when DATE2 is computed from DATE1 the adjustment of the components of the date are made in the reverse order, first years, then months and then days. (This is an important distinction and one that was not followed by an early version of the DATECALC utility. If the components of DATE2 are computed in days, months, years order then the computed DIF between DATE1 and the computed DATE2 will sometimes not match the original DIF value entered.)

XIII.A.1 DISPLAYING A MONTHLY CALENDAR

If you press the F4 key then the middle portion of the viewing area for the DATECALC utility will be cleared and a calendar will be displayed for the month of the year containing DATE1. (If instead you press the SHIFT and F4 keys simultaneously, then the calendar for DATE2 will be displayed.) Once the calendar is displayed, you can scroll the calendar backward or forward by months by pressing the left or right cursor keys respectively. The calendar may also be scrolled forward or backward by years by pressing the up or down cursor keys respectively. The calendar display will be terminated by pressing the ESCape key. (**NOTE:** *If you are currently using "old style" dates then the calendar will be computed using "old style" rules*.)

XIII.A.2 CHANGING DATE AND DIF FORMATS

Pressing the F5 key causes the DATEs to cycle through the various formats described previously. Both the literal describing the format and the values for DATE1 and DATE2 will automatically change. All dates will be entered and displayed in the currently selected format.

Similarly, if you press the F6 key then the value for DIF will cycle through the various formats described above. All DIFs will be entered and displayed in the currently selected format.

If you are running DATECALC as a memory resident utility, then the format for DATEs and DIF will be retained between invocations of the utility.

XIII.A.3 CONVERTING BETWEEN "OLD" AND "NEW" STYLE DATES

It is generally well known that the "standard" calendar year of 365 days differs from the "solar" year by an amount that makes it necessary to insert extra days occasionally (as a 29th day in the month of February) to get back in synch with the sun. The years in which such days are added are called "leap years". The rule for determining leap years that has been used in English speaking countries since 1752 (and from earlier dates in other enlightened areas of the world... in fact the new calendar is called a "Gregorian" calendar after Pope Gregory XIII who requested that Catholic countries begin using it in 1582) may be stated as follows:

A given year will be a leap year if it is evenly divisible by 4
UNLESS the year ends in "00" in which case it is NOT a leap year
UNLESS it is divisible by 400 in which case it IS a leap year.

Prior to the establishment of this leap rule, most of the Western world employed a rule, which was just the first line in the above statement, that is every fourth year was a leap year. The effect of using this simplified rule over a long period of time was that the planting season, which is determined by the sun, would creep a calendar day earlier every 133 years or so. By the Spring of 1752 people were having to plant their potatoes the day after Groundhog Day instead of Valentine Day. Therefore to correct the situation all English subjects were asked to go to bed the evening of 02 SEP 1752, get up the next morning on 14 SEP 1752, and from that day forward use the new leap year rule for constructing calendars.

Today this calendar change is just a curiosity for most of us. But to people of that day and genealogists today who have to deal with dates both before and after this adjustment it is a problem which has been recognized by labeling dates based upon the old leap rule as "old style" dates and designating those following the new rule as "new style" dates.

The calendar adjustment to "new style" dates occurred at different times in different countries so rather than just treating all dates prior to 14 SEP 1752 as "old style" dates, the DATECALC utility provides an option for converting between the two "styles". Pressing the SHIFT and F5 keys simultaneously causes the program to shift between old and new style treatment of dates with a corresponding adjustment of displayed DATEs and DIF values. When dates are being treated as "old style" dates the characters "OS" will appear to the right of the literal describing the current Date format. When the new leap rule is in effect there is no special indicator to the right of the Date format descriptor (though genealogists will sometimes use an "NS" suffix for such dates).

As an example, call up the DATECALC utility, press F1 and enter the new style date: 22 FEB 1732 (or equivalent for the date format you are using). You will find that George Washington was born on a Friday. But if you press F4, the "new style" calendar displayed will not be the one that George's parents used to mark his birth. Instead, press ESCape (to erase the calendar display) and then SHIFT+F5 to switch to "old style" dates. You will find that George's birth date was actually 11 FEB 1732 (still a Friday though) and if you then press F4 you will see the "old style" calendar that was in effect at the time.

Before ending this discussion, perhaps I should note another distinction between some old and new style dates. Prior to the implementation of the new leap rule, the first day of the new year was considered variously as Jan 1, Mar 1 and Mar 25 (e.g. according to some, 25 MAR 1645 was the day after 24 MAR 1644). This left some ambiguity concerning the year for such dates as: 11 FEB 1732 OS. Therefore the custom was developed of using "double dating" to take note of the fact that this discrepancy had been considered. The above date might then be written: 11 FEB 1731/2 OS. You should be aware that the DATECALC utility will always assume JAN 1 to be the first day of the year. You may even use this to determine the correct double dating for an event. For example, suppose it is known that a person was born on Saturday, 30 JAN 1691 OS, but it is not known which new year rule was in effect. The DATECALC program will show that 30 JAN 1691 OS is a Friday but that 30 JAN 1692 OS is a Saturday. Therefore the correct double-dating would be: 30 JAN 1691/2 OS and the person who originally recorded the date was apparently using something other than JAN 1 as the date for the beginning of the new year.

For those wanting to find out more about various calendar systems I would recommend your reading the discussions in the books:

- "Tracing Your ROOTS" by the editors of Consumer Guide and distributed by Bell Publishing Company, New York (page 47)
- "Ancestry's Guide to Research" by Johni Cerny & Arlene Eakle, published by Ancestry, Inc., Salt Lake City

XIV Support for Long Place Names

Recent changes to the Family History System now make it possible to begin using "Long Place Names" for Birth/Marriage/Divorce/Death and Event place names. Previously these data items have been limited to 22 characters. Now, when "Long Place Name Support" has been established for a family file, these items can be up to 41 characters long. This has been accomplished by a simple extension to the existing FHS Family File definition so you don't have to perform a major conversion to begin using the new feature. However, family files which include Long Place Names may produce undesirable results when used with versions of FHS prior to August 1998.

XIV.A Place Names "Before"

Before describing how the new feature has been implemented, recall how place names were represented in an FHS family file before these changes were made. For Birth/Death (or Marriage/Divorce) place names, a single 50 character record was used to store *both* place names if *either* of the names in the pair of names was not blank. If both names were blank, no space was required in the file for storing the blank names. For Event records, the 22 character place name was part of the Event record itself (actually, there was room in the Event record for a 23 character name, but it was kept to 22 characters to conform to the previous limit).

XIV.B Place Names "Now"

Now a new "Long Place Name" record has been added to the FHS family file definition. These records are stored in the .OTH dataset (the same dataset in which the older place name record was stored, as well as marriage records, comments, etc.) Each "Long Place Name" record contains a single place name field. System maintained information takes up 9 characters in the record leaving 41 characters for the place name. If *either* place name in a pair of names (Birth/Death or Marriage/Divorce) is more than 22 characters long, then a Long Place Name record will be used to store *each* of the (non blank) place names in the pair. If both place names are less than 23 characters (and at least one is non-blank) then the place name(s) will be stored in the older format place name record as before.

For Event records, if the place name exceeds 22 characters, the truncated name will be stored in the Event record, but a new Long Place Name record will also be created for the full (up to 41 character) name.

XIV.C Incompatibilities with Earlier versions of FHS

Unfortunately, there was not room in the name and marriage records to allow separate "pointers" for the old and new format place name records, so the former place name pointer field can now point to *either* an *old* or a *new* format place name record. That is what causes problems for versions of FHS prior to August 1998, when support for the Long Place Names was introduced. As a result, if you intend to use a family file with earlier versions of FHS, then you should not introduce "Long Place Names" into the file.

XIV.D New Family File Version Number

To allow for the selective introduction of Long Place Name support into family files, those which are to permit the use of Long Place Names are given a "Version Number" of "1" in the header record for the Name Dataset. Previously, this version number was "0" and family files which have a version number of "0" will continue to be treated just as before. You can now request to have Long Place Name support included at the time you INITialize a new family file. To include Long Place Name support in an existing family file, I've added a new "conversion" option to the GEDCOM program, Main Menu selection F3-D-1. Previously the F7 option of that program was used to perform a conversion of the Address file from Short to Long format address records. Now when you select the F7 option in the GEDCOM program, you are given a choice of

either converting the Address file, or of "converting" the Name file for Long Place Names. In the latter case, this just amounts to changing the version number in the header record of the .NAM dataset.

The file update program shows the "version number" for each of the family file datasets so you can determine whether a family file that you are working with supports Long Place Names (or if it supports Long format address records) just by viewing the family file description in that program.

XIV.E Changes to Reports and Charts

As you might expect, the longer place names will affect the appearance of some reports and charts. There is no problem with the "free format" styles of reports because they will just "wrap" the long names to a new line. However the "fixed format" reports present a problem. For the columnar style of report, I've added a new report option: "Place Name Column Width", which allows you to choose the size column that is appropriate for your information. Wider columns will of course require a wider "forms width"…..The "Fixed Format" Group report had room for longer Birth/Marriage/Death place names than the previous 22 character limit, but not enough for the 41 character names that are now possible. I've changed the program to use the maximum amount of space that is available within the existing report format. For Children, the limit on place name fields remains 22 characters. The lines for Events allow the full 41 character place name field….Among the charts, the Ancestor Map can handle the full long place name, the standard 4/5 generation charts are limited to the space that is available within the chart lines; the box charts are limited by the box width which you establish by a chart option.

I hope that you find the new Long Place Name support a welcome addition to the Family History System. Please let me know if you have any problems or suggestions concerning the implementation of this new feature.