

VII (F3-B) Customizing the Family History System

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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.

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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.

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.

TABLE	Description
ALIGN	Alignment Options for Horizontal Box Charts
DATASETS	FHS Dataset Types
DATEFMT	Date Entry Formats
ERRMSG	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 1: Table of System Table Descriptions

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 2: 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 (FHSCONFIG.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

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2. File Setup Table (FHFILE.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 (FHSMMSG.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.

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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 = FHSCONFIG.CFG       TABLE Definitions =FHSTABLE.TDF
Filedef File= FHSFILES.FDF        SCREEN Formats      =FHSSFMTS.SDF
Printer File= FHSPRINT.PDF        MESSAGE Definitions=FHSMMSG .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 1: 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

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- **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.

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VII.B.1.c (F3) Screen Colors and Error Tone

When you select program option F3, you will see the following view:

```
          * * * Modify Screen Colors & Error Tone * * *
Standard Text (Labels)          Error TONE
Alphanumeric Data              Frequency:_____
Upper-case Data                Duration :___ (1/20ths SEC)
Numeric Data
Reverse-video text
Hilited Text (Labels)
Updatable Alphanumeric Data
Updatable Alphanumeric Data (Upper-case translate)
Updatable Numeric Data
Lowlite Border
Hilited Border
Foreground Colors: 0 1 2 3 4 5 6 7 8 9 A B C D E F

Background Colors: 0 1 2 3 4 5 6 7

Blink: Y N

F1Fgnd/Bgnd Color F3BLINK F5LOAD Mono F6LOAD Color F7LOAD SavedF8TONEESCReturn
```

View 2: 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.

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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:

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TABLES - (see Table 1 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 2 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 3 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

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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.

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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				
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 3: 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

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(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
TFFL	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 3: 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.

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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 4: 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 5: 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

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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: FHSMSG.S.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 6: 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 3 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: xxxMSG.S.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.

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FHS Message Customization Program				
Message Definition File: FHSMSG.S.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 7: 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 ERRMSG 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.

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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 8: 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.

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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-19)
- [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" hilighting. You can use the UP/DOWN cursor control keys to move the name hilighting 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	Month 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 9: Report Table Names

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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 10: RELATION Report 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.

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-18.

CODE	Report Variables 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 11: Report Variables

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

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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" repeated "S" strings 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
BIRTHDATE	12	b	Born	Birth Date	Date of Birth
BIRTHPLAC	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 12: 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.

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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 13: 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 14 : 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.

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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 15: 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.

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 16: Report Definition Parameters

The name of the current Report Definition File, the CODE and Name of the chosen report and the numbers of Options, 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-19)
- F5 Report Field Definitions (see *GLOBAL Field Definitions* on page VII-20)

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 17: 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

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- 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.*

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- 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.