DESCEND ò
Version 2.49.1

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An Expanded Descendancy Chart
For
Personal Ancestral File ®
Version 2.3x

User's Manual

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Abstract

This program reads Personal Ancestral File (PAF) 2.3x datafiles and produces an expanded descendant chart. The chart can include up to 16 generations, any person can have up to 5 marriages, and any couple can have up to 20 children. An individual entry consists of a descendant with birth, death, and (optional) notes followed by a spouse with birth, marriage, death, (optional) parent data, and notes. This pattern is then repeated for an optional number of descendant generations. An index is generated after the chart. The index entries can be sorted in a disk file if there is not enough memory space for it. The chart can be routed to three output sources: printer, screen, or disk file. Printer drivers for many printers can be selected and drivers can also be constructed for a printers not included with the program. This requires a knowledge the ability to extract the printer set up codes from the printer manual and install them in the program.. DESCEND charts need a non-proportional font, such as Courier 16.7 or Line Printer, to print correctly.

Introduction

The Personal Ancestral File((PAF) genealogy program produced and sold by the Church of the Jesus Christ of Latter-day Saints (LDS) is an excellent program for organizing and storing genealogy research data. There are several reports available from the PAF report menu. One of the most useful is the Descendancy Chart. The Descendancy Chart in the PAF program only prints names and is not very useful. It is limited in nature and outputs just the generation number, name, date of birth, and RIN of the descendants. You can route the output to the screen, a disk file, or the printer but you have no control over the report content.

DESCEND was written to dump the entire contents of the PAF database with some user formatting options available. This document explains the program usage and options.

Development History

The program was begun in March, 1988, and is written with Borland International's Turbo Pascal compiler. In late 1997, DESCEND was purchased by Gtwo Corporation. The latest version of the program can now be found on the Internet at http://www.gtwo.com. DESCEND was originally written to run on the DOS operating system. Even though DESCEND was written as a DOS program, it will run on all of the new operating systems, Windows 3.1x, Windows 95, and Windows NT version 3.x and 4.0. It has been recompiled to eliminate a bug that stopped it from running on Pentium II processors running at 233 MHZ and higher.

Usage

When using a Windows operating system, a DOS Box must be opened. This is done from the various operating systems as follows:

- **DOS** - nothing needs to be done
- **Windows 3.1x and WIN NT 3.xx** - select the MAIN program group and double click the MSDOS Icon.
- **Windows 95** - From the Start Bar, select Programs and click on the MSDOS Icon.
- **Windows NT and 4.0** - From the Start Bar, select Programs and click the MSDOS Icon.

Once the DOS Box is available, DESCEND can be started in two ways from the prompt:

1. by entering the name DESCEND - **C:\>descend** followed by **ENTER**.

2. by entering the name and a path to the directory where the PAF files are located - **C:\>DESCEND C:\PAF\DATA** followed by **ENTER**

For case 1, DESCEND starts and if no path is given and if no PAF.CFG file is present, an introductory screen describing the program is shown followed by another screen requesting the path to the PAF database. If the PAF data files are in the current directory, DESCEND begins running. If you are confused about directories and paths to them, you should read your manual or obtain instruction from someone that does.

If no path to PAF files is given on startup or the PAF files are not in the current directory, DESCEND prompts the user for this information with the path screen. At this point, and at almost any other input option, the user can halt the program. If the user chooses, however, a path can be given and the program will continue to cycle in this screen until a valid path is input or until the user decides to quit.

For case 2 if the path is valid or a valid PAF.CFG file is present, DESCEND goes directly into operation.

Once a valid path to PAF files is given, DESCEND prompts the user for some additional information. At this point you can still {Q}uit, or you can {C}hange the path once more, or you can {S}ave the path in the PAF.CFG file for later usage, or you can {U}se the path. If you save it, it automatically uses it too. The file PAF.CFG is written on the current directory when you save it and is also used the next time DESCEND is started in this directory. It is simply an ASCII file containing the path to PAF files. If you run DESCEND from different directories, you may have several of these PAF.CFG files created. You can delete them as needed.

USAGE TIP

When a DOS Box is opened in WIN 95 or NT. It inherits all of the features that are inherent in DOS programs. To make it easy to use DESCEND, make a batch file that will automatically create the environment and start DESCEND. Use the following steps:

1. Press **START, SETTINGS, CONTROL PANEL, SYSTEM, ENVIRONMENT**.
2. Two text boxes are shown titled "System Variables" and "User Variables for User" were the last user is your login user name. In the "System Variables" select **Path**. This will cause the two entry fields at the bottom to fill with the values from the text box.
3. Put the cursor in the Value field and press the **END** key on the keyboard. This will cause the cursor to go to the end of the Value field. If there is no ; at the end of the file, enter one. Then enter C:\U. This will cause NT to search the U subdirectory on the C Drive for executable files.
4. Now press **SET** and then Press **OK**.
5. Now press **START, PROGRAMS, COMMAND PROMPT**. The DOS Box will appear. Now enter **CD /** then **MD U**. This will create a U subdirectory on the C Drive. We use this for our Utility Subdirectory. Press **CD U**.
6. Now we will create a batch file that will automatically start DESCEND. Type the following:
   COPY CON DESCEND.BAT
   D: (enter the drive where DESCEND is located)
   CD DESCEND (subdirectory where you have installed DESCEND)
   DESCEND
   press **F6 ENTER**
7. Now whenever you want to start DESCEND, start a DOS Box and type DESCEND. The batch file will start and change to the drive and subdirectory where DESCEND is located and start the program.
8. If you are a Windows 3.1x or WIN NT 3.x user, you will have to add the **C:\U** to the AUTOEXEC.BAT file in the root of C:. Use EDIT to do this.

Using the path gets you started with the rest of the program. The next step displays a window which gives the user a number of options which can be selected by the user to customize the DESCENDANCY Chart as desired. If you perform the steps listed in the USAGE TIP above, the CFG file will always be in the default subdirectory and the program will start as you last configured it. The options menu looks something like the following:

```
                                D E S C E N D
          An Enhanced Descendant Chart for PAF, Version. 2.49.1, 25 Dec 1997
Copyright (1907), GTwo, Inc., 7026 97th Ave. SW, Lakewood, WA 98498-3404
                              http://www.gtwo.com
+---------------- Descendant Chart Options------------------+
A. How many descendant generations do you want? (maximum=16)      16
B. How many spaces do you want on the left margin? (max=20)       0
C. What output mode do you want? (Screen/Print/File               P
D. How many spaces do you want to indent generations? (max=4)     0
E. Do you want to change the default chart title? (Y/N)           N
                        DESCENDANT CHART - Version 2.49.1
F. Do you want to include RINs & MRINs in the chart? (Y/N)        Y
G. What notes do you want to include? (All/Tagged/None)           N
H. What tag do you use in your notes?                             !
I. Do you want to make surnames upper case? (Y/N)                 Y
J. Do you want "son/dau of" in spouse data? (Y/N)                 Y
K. Sort index on disk? [Slower, but allows more entries](Y/N)     N


S. Do you want to save these settings for future charts? (Y/N)    Y

                Enter the letter of the default value to change (0 to quit)
```

Option A - Prompts the user to enter the number of generations to use in the chart. The maximum and default number of generations that DESCEND can process is 16. Entering 2 generations would produce a chart similar to a family group sheet with just a couple and their children. If the number of generations desired is exceeded during the process of producing a chart, DESCEND ignores them and prints a message indicating that more information is available.

Option B - Allows the user to set the number of spaces on the left hand margin of the chart. This has no consequence for charts sent to the screen however. The default margin is 0 (none) and this is recommended for charts which are to be sent to a disk file and printed with a word processor, such as Microsoft WORD, since you can adjust the margins much better with the power of the word processor. The current versions of WORD have an Autoformat option that can be used selectively to automatically format portions of the chart.

Option C - Sets the output mode or destination for the chart. Three modes are available: screen, print, or file.

1) Screen output shows the chart to the user on the terminal and does not produce any output. This mode is highly recommended for checking a chart before printing a lot of pages.
2) The default mode is to send the output to the printer, but this should NEVER be done with a large chart unless you know ahead of time that the font, margin, and generation indentation options are set properly for you printer.

3) The third mode option is to send the output to a disk file. All large charts should be processed with this option. The default name of this file is DESCEND.TXT, but this can be changed by the user before processing. The user can edit and print this file with a word processor, but care should be made to adjust margins and lines per page so that the proper page breaks occur for the index to be correct.

Option D - This option allows the user to change the number of spaces that each generation is indented. The maximum is 4 spaces and this options produces the best looking chart from an alignment standpoint. However, due to the limited number of print characters available on a line, an indentation of more than 1 or 2 can produce printer problems in charts having notes for persons in more than about 7 generations. For a chart with 16 generations, no more than 1 space per generation can be used without printer wrap around problems.

Option E - A chart can be personalized with this option by entering a specific title. If you select the option and answer yes to changing the title, an input window is opened which allows you to enter a 55-character chart title which will be printed at the top of each page. The usual input line edit keys such as backspace and delete have no affect in this window, however. If you make a typing error while entering the title, you have to hit enter and re-type the title. If no special title is requested, then the name and version of DESCEND is used in its place. It is recommended that you use a chart title listing the first person in the chart.

Option F - The next option for the chart concerns the listing of RINs and MRINs in the output. The user is asked if these reference numbers are desired. If the chart is to be sent to others, these numbers make no sense to them and should be left off. This is the chart default. On the other hand if the chart is for your own use as a reference for additional work, you can nearly always find good use for the RIN and MRIN numbers. The MRINs are shown in parentheses after the RIN of a spouse entry.

Option G - This option asks the user about including notes from the PAF files in the chart. Three options are available: all notes, tagged notes, or no notes. If “all” notes (the default) is selected then the PAF notes are included along with the birth, marriage, and death entries. Only regular notes created by PAF are included; those created by a word processor and linked to a PAF entry are not included. If the “tagged” notes option is selected then only those note entries starting with your personal tag are included. Obviously, the “none” selection will include no notes in the output.

Option H - This option allows you to enter your own personal one-character tag. The default is ! which is what is recommended by PAF. Although, PAF charts do not include the tag in the note output, DESCEND includes the tag character. The tag can be removed from charts saved to a file by using the search and replace option of a word processor.

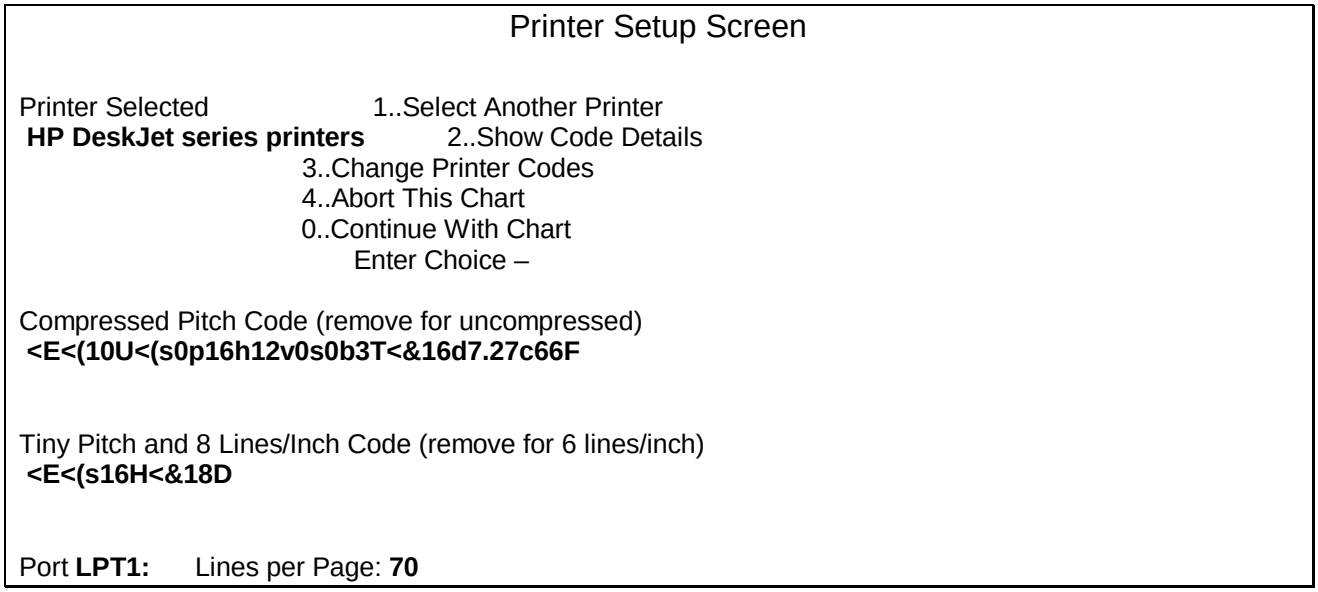
Option I - With this option the user can instruct DESCEND to make all surnames uppercase regardless of how they were recorded in the PAF database files. The default is to make them upper case.

Option J - This option allows the user to include the names of all spouse's parents in a chart entry, provided, of course, they are in the PAF file. If the default value (yes) is selected, then male spouses will have "son of" [his parents names] included before his notes section while for a female spouse "dau of" will appear. These parent names are also included in the index. Additionally, its use also shows the user where "holes" exist in a PAF database.

Option K - This option allows the user to change the method for the intermediate storing and sorting of the index. Only about 5,200 names can be included in a chart index sorted in memory. This may not be enough room to complete the index of a large chart, therefore, if this happens, the user can rerun the chart and select to send the index to a temporary disk file for sorting. This will be much slower, but will allow for charts of much greater size.

Option S - This option allows the user to save most of the above selected options in a disk file named DESCEND.CFG which is saved in the default directory. This provides a way to customize and optimize your chart settings for future use without resetting the options every time. You can use this to your advantage by setting the no saving switch when you make a special chart having options for a specific reason. The default is to save the selected option settings.

If Option C is selected to send program output to a printer, then additional options can be set. These printer options are displayed by an additional menu which looks something like the following: (the entries shown are for the HP Deskjet Series)



The options addressed in the printer menu work as follows:

1) select your specific printer from a list of some 40 provided in the program,
2) show the details of the escape codes of your selected printer,
3) change or customize your printer codes to what better suits your needs,
4) abort or abandon the chart, and finally,
0) continue with creating your chart.

1..AT&T (DM)	17..HP Deskjet	33..Qume Sprint
2..AT&T 457/458	18..HP LaserJet	34..Silver Reed
3..AT&T 473/474	19..IBM ProPrint. (New)	35..Star
4..Brothers (DM)	20..IBM ProPrint. (Old)	36..Star NX-1000
5..Brothers (DW)	21..IBM Quietwriter III	37..Tandy DMP
6..C-Itoh F10-40/55	22..Juki 6100/6300	38..TI 855
7..C-Itoh Prowriter	23..Microline IDS	39..TI 865
8..Citizen	24..MPI 50 G	40..Toshiba P351/P1340
9..DEC LA 50/100	25..NEC 8000	41..Transtar
10..Diablo 1620/30	26..NEC Spinwriter	42..Default Printer
11..Diablo 620/30	27..Okidata	43..Other
12..DOS Text Printer	28..Okidata (Epson)	
13..Epson EX/LQ	29..Okidata (IBM Comp.)	
14..Epson FX/LX/RX	30..Oliveti Ink Jet	
15..Epson MX	31..Olympia Compact	
16..Gemini	32..Panasonic	

The above printers are currently supported. For the most part, these are the printers supported by version 2.3 of PAF. If you have a dot matrix printer that is not listed, try using the 1st menu option and selecting either the default printer (#42) or the Epson FX/LX/RX (#14). If you have a laser printer that is not listed, try selection #18, the HP LaserJet.

If your printer still doesn't work properly, then you have to build your own printer driver. To do this select printer menu option 2 (Show Code Details). You will see a screen that shows the presently selected codes for printer initialization, pitch, and lines per inch. The table looks as follows:

Detail Printer Code Screen

Printer Name: **HP Deskjet series pr** Port: **LPT1:** Lines per Page: **70**
Pitch: **<E<(10U<(s0p16h12v0s0b3T<&16d7.27c66F**

27 69 27 40 49 48 85 27 40 115 48 112 49 54 104 49 50 118 48 115 48 98 51 84 27 38 107 48 87 27 38 108 54 100 55 46 50 55 99 54 54 70

Lines per Inch: **<E<(s16H<&18D**

27 69 27 40 115 49 54 72 27 38 108 56 68

This screen shows the ASCII decimal codes for the printer controls.

After viewing the selections, return to the printer menu and select option 3 (Change Printer Codes). The numbers shown are the decimal equivalents of the escape sequences of the selected printer. For instance to initialize an HP Deskjet printer, you send an escape E sequence while escape @ initializes Epson compatibles. Check your printer manual for your particular initialization code.

The pitch code is special for DESCEND. Your printer must be set to a non-proportional, compressed pitch of 17 characters per inch or more. Since each generation of a chart is indented 4 spaces, without a compressed pitch or font you will quickly have lines longer than can be properly printed. This will usually result in a margin overflow situation and some of the line will be printed along the left margin jumbling the indentation.

The next thing that can be addressed in the print change menu is the 8 lines per inch (lpi) vertical option. The standard printer setting is to print 6 lines per inch and DESCEND comes equipped to do this. However, more information can be presented by using 8 lpi and most printers can do this. If your selected printer does not show a code in this slot, check your manual and change the settings.

The default output port is set to LPT1:, but with the printer change menu this too can be changed to whatever parallel or serial port you use.

If your printer still does not work properly with the printer selected, then you should set the file output mode to send the output to a disk file. The resulting file is named DESCEND.TXT and is written to the current directory. The names of the individuals in the

chart are listed and scroll by to merely show the user that something is taking place. Birth and death dates, notes, etc., do not appear on the screen, but are actually in the file.

You should rename the disk file if you wish to keep it permanently; otherwise, it will be overwritten the next time you choose this selection. You can edit this file with a word processor and make whatever changes are desired. Care should be taken, however, not to make changes that affect the page numbers or else the index will no longer be correct. You should be able to print the file either with your word processor or with the PRINT command from the DOS prompt. This is done as follows: c:\>PRINT DESCEND.TXT

At this point, you are ready to tell the program which persons to include in the descendant chart. You can enter up to 30 individuals for a run, all of whom will be included in the order given and separated by a message indicating the beginning of each new line. Only a very small amount of information will be duplicated in a chart with common lines. At the prompt, you can either enter a RIN if you know it, search for a particular person, or, as usual, quit.

If you have a Windows computer, you can open PAF at the same time as DESCEND is running. This allows you to use PAF to determine the RIN of individuals to select.

If you enter a RIN number, DESCEND accesses the PAF files and displays the person, along with parents and spouse. The user is then asked to verify the selection and a message asks if this is the correct person. The user can answer (Y)es, (N)o continue search, or (Q)uit search. Quitting returns to the enter RIN prompt as does selecting no. Choosing yes selects the displayed individual as part of the descendant chart run. The name of this selected person replaces the enter RIN prompt line and the process is repeated.

Most of the time RINs are not remembered and you will need to choose the search selection at the enter RIN prompt. You can search for as many as three names of a person's names. If fewer than three names are input, you must still press the enter key for each of the name fields on the screen. If the search finds no such combination of names, it will inform you and return to the current enter RIN prompt. If the search finds an individual with the entered combination of names, it will display the person along with parents and spouse. Once more it will ask if this is the correct person. If you select no, the program will continue to search for additional persons of the entered name combination. Quitting, of course, returns you to the current enter RIN prompt and choosing yes selects the displayed person for the descendant chart.

You can continue the selection of RINs for inclusion in the chart until reaching the limit of 30 or stop at any amount fewer. This limit is imposed at this time as a safety feature to try to prevent the overflow of index entries which are presently kept in memory as a linked list. If a memory overflow occurs, the index cannot be completed and the program will halt

and ask the user whether to continue. At the end of the run the memory used by the index is reported.

Report Printing

When finished entering RINs, the report is sent to the selected device.