

Sharing your Family History Data via CD-ROM

Records kept in only one place are at risk. My wife has a passion for taking photos - but when you ask about pictures of her as a child, you run into an event that happened June 5, 1976 – when the Teton Dam burst above Rexburg, Idaho. Many of my in-laws' photos and keepsakes were stored in the basement and lost in the flood. Could this happen to you? The only certain way to preserve records is to have multiple copies made and share them, so that the loss of a single copy will not be a disaster.

In the past, copying genealogy, photos, and records was laborious -- endless expensive hours at the copy machine; copies of copies became harder and harder to read, and lots of time the recipient of the copies was left with a formidable stack of unorganized paper. This changed tremendously with the wide use of personal computers. Duplicating GEDCOM data became a snap, and cousins began exchanging floppy disks of genealogical data. (This sometimes caused its own problem, the proliferation of multiple versions of data, and the well-known merge hassle.)

Since then, our genealogical records have often outgrown what can fit on a floppy disk, and people are exploring other storage media -- with the CDROM being one of the most popular. Whereas a floppy disk holds a little more than a megabyte, a CDROM can hold 650-700 Mb. This means that one CD is equivalent to about 500 floppies or a stack about five feet tall! With increased capacity, the possibilities of what you can store are much greater. In particular, people are scanning in photographs and source documents and entering histories.

Nowadays, the problem is not too little space to store information, but rather too little organization of the information stored. The following is an examination of some of the techniques you can use to make that CDROM copy of your genealogy more useful.

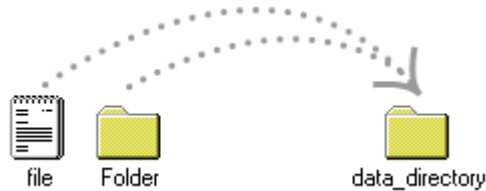
Hardware

First, it is assumed that you have a CD writer. Costs for a new drive are about \$50, with speeds going up and prices coming down all the time. Most equipment is capable of creating both CD-R, or write once, and CD-RW or re-writeable CDs. The "write-once" kind are cheaper, the re-writeable let you make a mistake and correct it. When you are experimenting with new equipment or with a new organization of data, you can generate a CD-RW and erase it if you decide that you don't like the way it turned out. When you make a mistake in the creation of a CD-R, you throw it away and make a new one. On the other hand, the cost of a blank CD-R nowadays is about 25 cents, so ruining one is not a very expensive mistake. The disadvantage of using a CD-RW is that they are typically slower to write, they are a little more expensive, and there is a limit to the number of times they can be re-used. In the following discussion we will not distinguish between CD-R and CD-RW; you should probably experiment a little with both and use whichever is more to your liking.

Software

There are a number of programs you can use to create a CD, some come free with the drive and some you can buy at an office-supply store. One of the common ones is Adaptec's EZ CD Creator. The directions here are for EZ CD Creator, but other software packages will be similar. Here again, the key is to experiment with your software until you become comfortable with it. One thing you should know is that this type of program does not like to share your computer. If you buy a new one, be sure to uninstall the old one first, or they will often fight over who gets to control your machine!

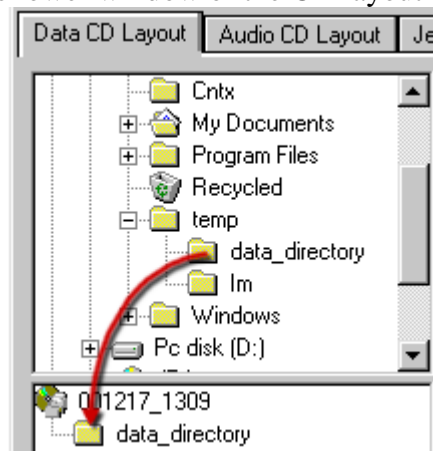
The first step in creating a CD is to gather the files you want to include into a working directory. Keep in mind the size limits of the CD and don't try to squeeze too much on one disk. Although some CDs will hold more – up to 800 Meg – you are safer to err on the conservative side and limit your files to 700 or even 650 Meg. Failure to observe this precaution can result in a CD that won't read on some drives.



For now we assume that you simply copy all the files into one large directory. Later, we will talk about ways to organize them so that it is easier to find what you have saved.

Starting the CD-creation program is not hard; in many cases, it will automatically run when you insert a blank disk in the drive. If the program doesn't start when you insert a blank CD, you may need to click on a desktop icon or choose the program from the START menu. The dialog you see varies from one program to another, but generally you will be asked if you want to create a music CD or a data CD. Music disks are outside of this discussion – choose the “data CD” option.

Next, you need to tell the CD-Writer what files you want to include on the CD. Drag your working folder into the lower window of the CD layout window.



The last step is to push the 'Create CD' button and wait for the CD to burn. Depending on the amount of information you put on the disk and the speed of the drive, this can take from five minutes to a half-hour.

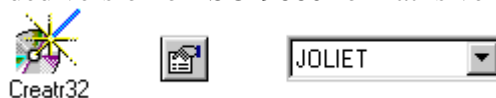


As a final check you should always take the CD to a different computer and see if your files can be read. You should especially check for compatibility if you want to share files between computers that have different operating systems; DOS and Win95 can't read some of the CDs that Windows 2000 and XP can read, while Macintosh and Linux computers have their own limitations. If you want to share your CDs with others, you should watch out for what format the CD writer uses.

CD-Formats

CDs can be created in many formats. If you are only making CDs for your own use, the format you use is not so critical; but if you want to share your data with family members you need to check with them to see what format their machines require. You should experiment a little with different formats to see which ones work best. The most common formats on the PC are ISO-9660, Joliet and UDF, while Macintosh computers generally use HFS and Hybrid formats. Linux computers also use ISO-9660, sometimes with the Rock Ridge extensions.

The most widely-accepted CD format is called ISO-9660. This format can be read by Windows, DOS, Macintosh, and Unix computers without difficulty. However, file names are limited to 8 characters with a 3 character extension (8.3), letters A to Z, digits 0 to 9 and the underscore symbol (_). Spaces are not allowed. It can be frustrating when a file named "Henry Hendricks Genealogy.doc" gets converted to "HENRYHEN.DOC" on the CD. This can be especially annoying when you have created web pages with links from one file to another – the links are broken if the filename is changed. To overcome this "8.3" limitation, an extended version of ISO-9660 format is very popular, called "Joliet".



Joliet format allows spaces, punctuation, and upper and lower case letters in file names, as well as letters with foreign characters. It can be read on PCs with Windows 95 or later, and on Macintosh computers running the Joliet Volume Access extension. The Joliet format allows filenames up to 64 characters long, but Macs will not read Joliet file names longer than 31 characters. Macintosh computers may also fail to read filenames that have spaces in them, as well as names with more than one period or other punctuation. Experiment, and name your files accordingly.

I haven't had much experience with HFS, Hybrid, or RockRidge formats. If your CD burner provides these options, and you think that using them will help you share your CDs with a wider audience, you may wish to experiment with them. One format that many new PCs have is UDF or Universal Data Format. This is the format used by DVDs and by some special CD drivers that let you treat the disk like a large floppy disk.

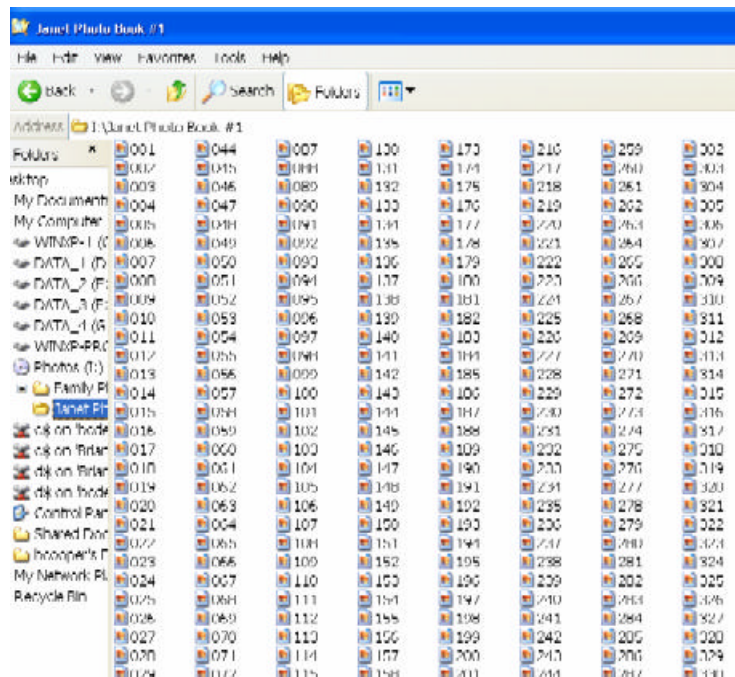
However, older systems and most Macintosh computers will not be able to read UDF format. You may find that your CDs work fine on your home computer, but are useless when you visit the Family History Library, for instance. UDF will probably be widespread in the future, but you should be careful in using it right now.

Finally, the CD writer may offer you the choice between Mode 1 and Mode 2. Mode 1 is the ideal format for all PC data CDs. This format has built in error-correction and higher requirements for verification during duplication. Mode 2 is normally reserved for Audio & Video Files. You should check your Options/Preferences to see how the CD-writer is configured, and set it to Mode 1.

More information on CD formats can be found on the Internet at sites like the following: <http://www.iath.virginia.edu/~cj8n/doc/burnit/>

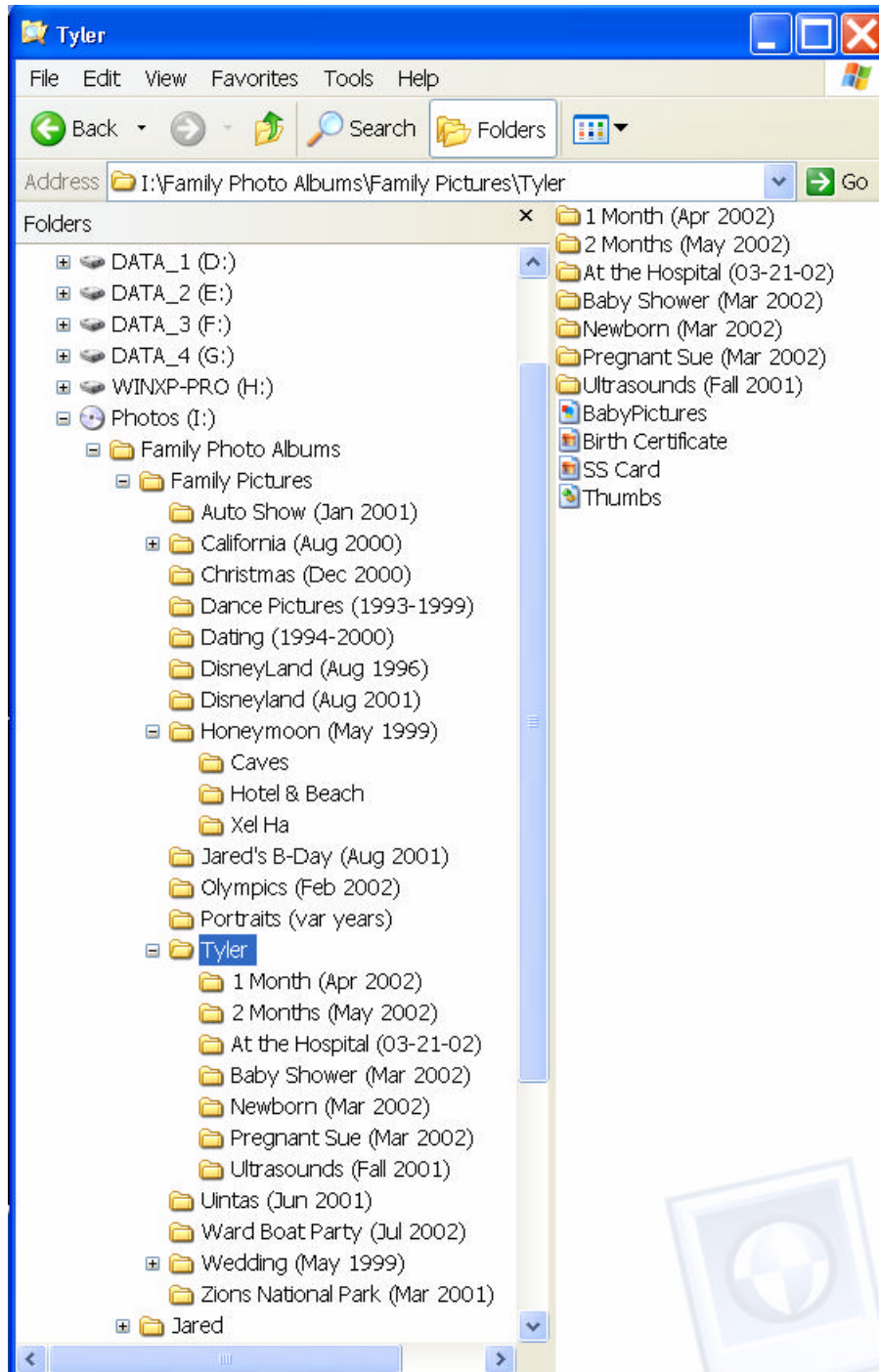
Organizing the Data

There are many ways to organize the files that you put on the CD. Perhaps the simplest is to simply copy everything into one directory and burn that disk. This does meet the initial goal of sharing your files; giving others access to your records and protecting yourself against catastrophic loss. However, it isn't the easiest way for your cousins to use your information. I have received several CDs made this way. You open the directory and see a display like the following:



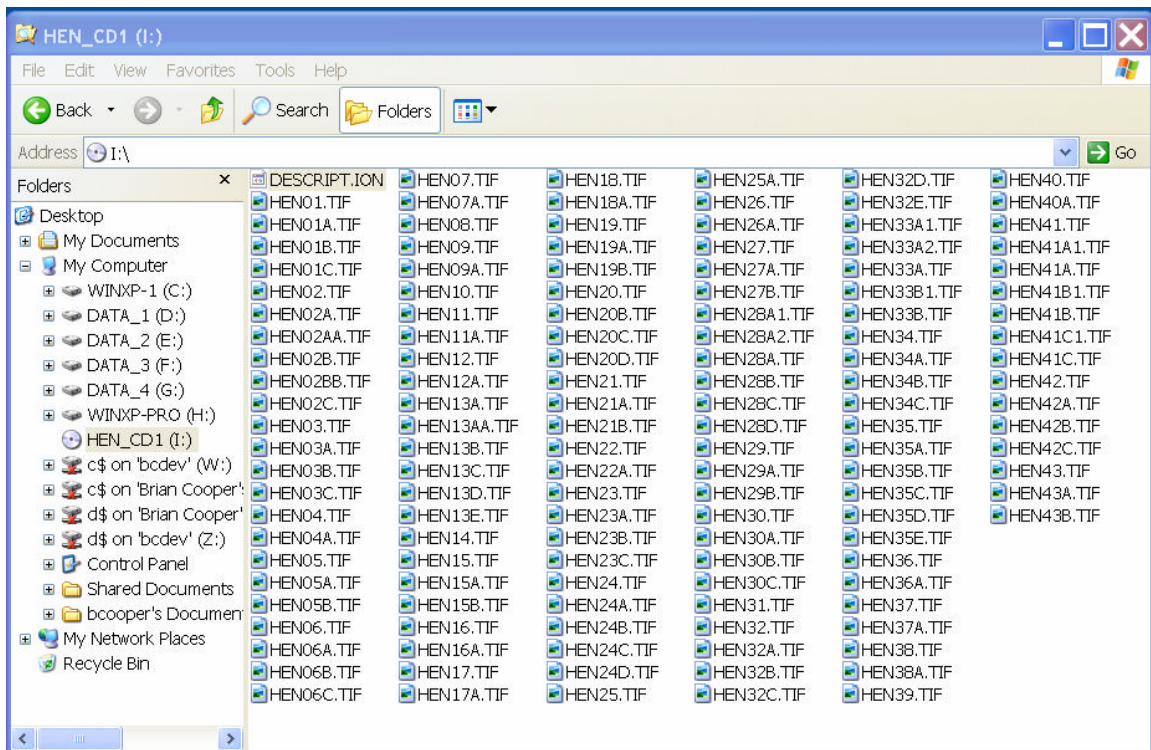
One such CD had about 2000 pictures, 500 of them with names like "1.jpg", "2.jpg", etc. It's great to get copies of the information, but it does take a long time to sift through it so you can get what you need out of it.

There are two very simple things you can do to make the CD easier to use. The first is to create different folders with names to describe the files. The 2000 picture CD I mentioned earlier also had more than 80 different sub-folders for most of the pictures, with descriptive names for the groupings and for the images.



Notice the names of the directories and the files are fairly self-explanatory, giving both a description and a general time-frame for the pictures. The down-side to all this is that the

CD may not be useable on some computers. DOS, Macintosh, and Linux computers may all have difficulty reading some of the files because of the spaces and the parentheses in the names. A different cousin gave me the following CD:



This disk consists of 135 graphics files with rather cryptic names. However, there is one more file on the disk that consists of an index. This is a text file with lines such as the following:

hen24c.tif - John and Lucinda H. Cooper and Family, Josiah, Lucille and Lindell

hen42.tif - Hyrum S. Hendricks 5 Dec 1883 - 15 Jan 1929 and Clara Felk born 29 Oct 1892 - Their son, Donald Ray Hendricks 2/c K. Div. U. S. S. Wake Island - Hyrum abt. 1905

hen32c.tif - John H. Hendricks in Marysville Band

Every file on the disk is thus identified with a full description, including the individuals in the picture, as well as dates and places where known. By means of this index, I was able to reconstruct the original format of the information, which turned out to be a Book of Remembrance containing old photos of many of my ancestors, going back five generations.

So, the two simple things you can do to organize a large collection of files are (1) put the files in a directory structure with names that identify the contents and (2) include an index file that describes the contents in detail.

Making the Data Accessible to Novices

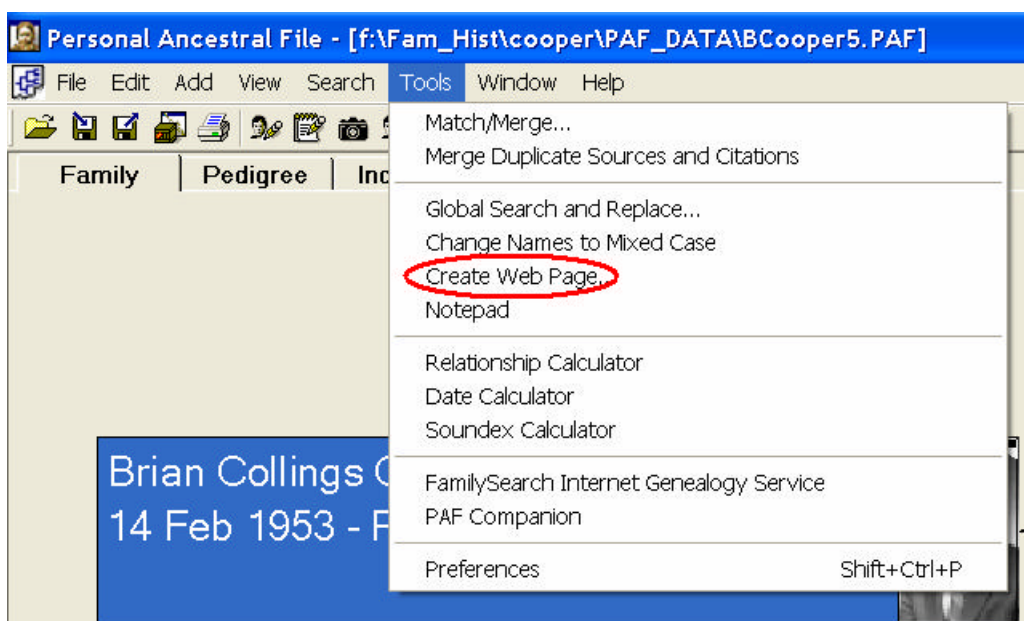
While most in this group will have no trouble using a CD full of GIFs, TIFs, JPGs, PAFs, GEDs, and DOCs, there are many computer users who would be a little intimidated by it. How do we make it easier for Aunt Mary to use the information we have acquired? She is the one who gave us most of the information in the first place!

We can take a clue from the World Wide Web, and generate some simple web pages that provide point-and-click access to the information. This is actually not very hard to do!

First, you should take advantage of tools that already can generate web pages for you.

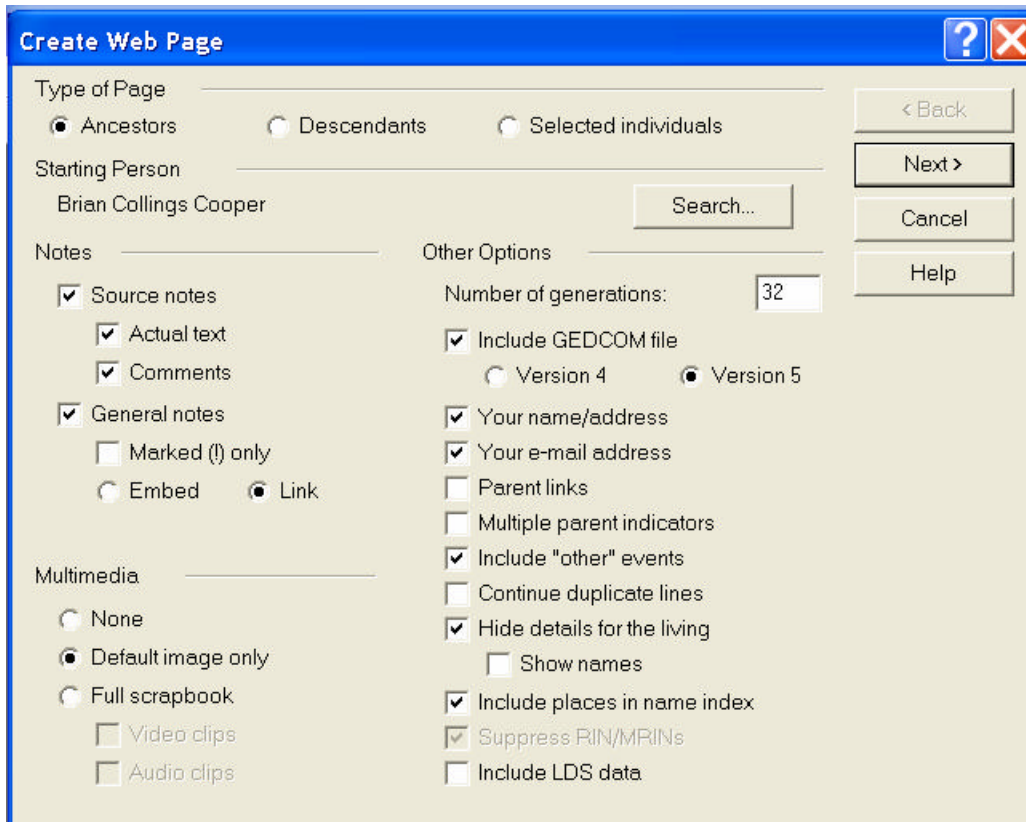
GEDCOM Data to Web pages

Your genealogy program is probably able to take your genealogy and create a host of different web pages. The following shows the option in PAF 5 that does this.



The CD should include the GEDCOM files so that other genealogists can profit from your work, but converting the data to web format makes it accessible to others, as well.

The following shows some of the options that PAF 5 gives you in generating web pages. If you have histories saved in your notes, and have included photographs, the result can be very interesting. You might want to experiment with different options.



Once you have a sub-directory full of web pages depicting your genealogy, copy it into your CD image.

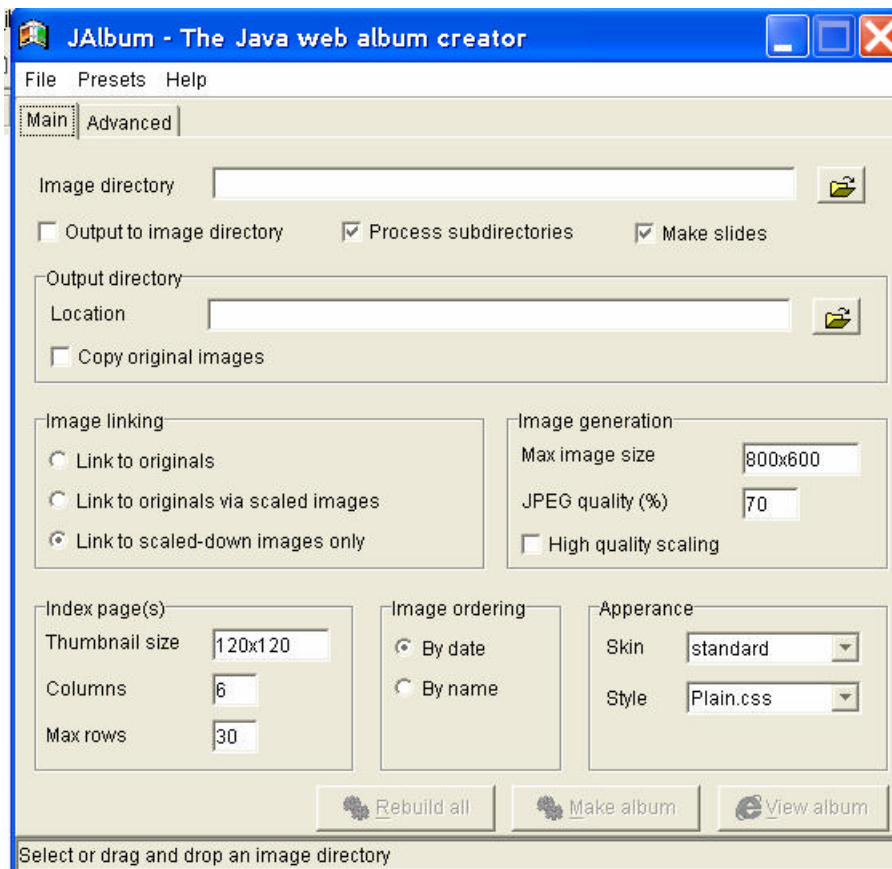
Family Histories to PDF Files

Family Histories can be found in a variety of formats, written in simple text files, or nicely formatted in WordPerfect or Microsoft Word, or what have you. Unfortunately, although you may have the text looking just perfect in your word processor, when you give it to me it may be meaningless because I don't have the same system. One way to make your family histories more accessible to everyone is to convert them to PDF format.

PDF format is a standard file format that tells exactly how text and images are to appear on the printed page. Some word processors can create PDF files directly, with others you can generate it through a program called PDF995. With this program, you "print" your document to a pseudo-printer that saves the image and converts it into a PDF file. This file can then be included on your CD, and read with the Adobe Acrobat Reader. Acrobat Reader is available for a wide variety of operating system, so even though you originally wrote Grandma's history on a Windows computer, using WordPerfect, your cousin can read it on her Macintosh computer using Acrobat Reader.

Pictures to Albums

More and more genealogy programs let you mix photos into your data, with pleasing results. But what if you just want to share a collection of pictures, without linking them into the genealogy? You can just put them into their own directory and let the recipient try to figure out what to do with them, but a program named JALBUM lets you create a web page photo album that is much nicer.



JALBUM runs on a wide variety of operating systems, and it generates web pages for the internet, or for the local hard drive. It has a very simple user interface, and it works very quickly. The main thing you tell it is the name of the directory where the pictures are, and the directory where you want the web pages placed. In addition, you can choose to customize a few details about the image sizes and placement, but initially you will probably want to use the default settings. The result is a very quick photo album.

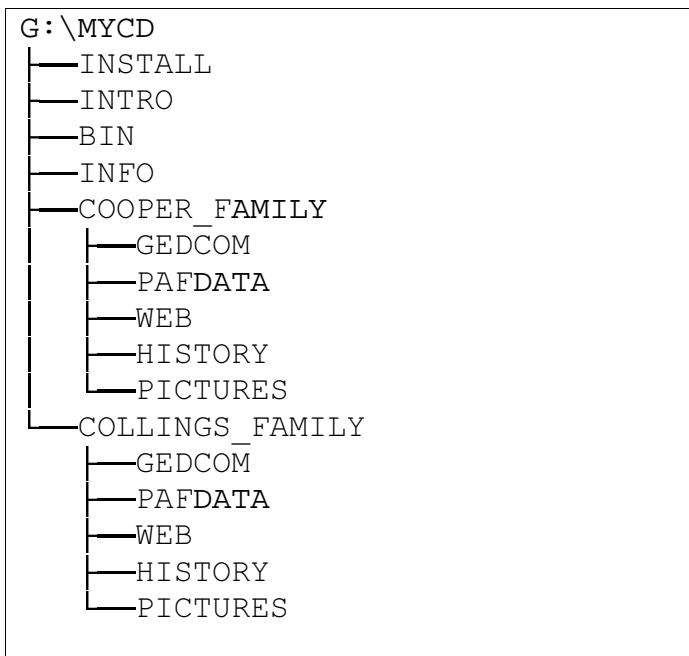
JALBUM lets you create a specific “look” with a customized skin, or you can simply edit the HTML code that it creates to get the look that you want.

Provide Programs – save the download

You might consider putting some programs on the CD along with all the data you have gathered. For instance, that Acrobat Reader that is so easy to get – requires a few minutes to find on the Internet and download. Wouldn't it be nice if you just included a copy of the download on the CD and let Uncle Fred install it from there? And what about PAF itself? The Church allows you to copy it for incidental, non-commercial, church or home use. As long as your CD is only intended to be passed around among family members, there should be no problem in saving Cousin Edna the hassle of a two-hour download on her modem when you can just give her the file directly. Be very careful in what programs you include on your CD, giving credit to the creators and don't violate anybody's trademark or license agreement.

Organizing the CD into Sections

Earlier, we discussed the problem of organizing a large number of photographs by putting them into different directories based on dates, events, or individuals. We have a similar potential problem when a CD contains a mixture of programs, photos, histories, and genealogy data. I have found it helpful to organize my genealogy CDs in a structure like the following:



This structure should be customized according to your needs. You may include some sound files or even video files on the disk – should they go into their own directory? The WEB directory will have sub-directories under it, and the PICTURES directory may need to be divided into GROUP photos, INDIVIDUALS, and perhaps OTHERS – if you have

a lot of pictures of the family homestead, or the first car that Grandpa owned. You should decide whether to provide PAF files in PAF 4 format, PAF 5 format, or all of the above. If you use LEGACY or another genealogy program, you may wish to create a directory for those data files, as well.

I like to put program files like the Acrobat Reader into the INSTALL directory, and information that isn't specific to individual families into the INFO directory. By separating out the different family lines into their own directories I can quickly make one CD that is interesting to my brothers and sisters, and another CD that my cousins on my mother's side will enjoy.

And what goes in the INTRO section?

Tying It All Together

We have talked about how to create the different sections of the CD, but you need to have some way to explain to the recipient what the overall scheme is – and how to make use of it. I like having a single web page at the beginning that introduces the CD and explains what the different sections are. Creating a web page doesn't have to be all that difficult. You can create web pages with Netscape (free), or Microsoft FrontPage (\$150) or Macromedia Dreamweaver (\$275), to mention a few. You can format your information with WordPerfect or Microsoft Word and use them to generate web pages. Or you can do what I do, and just create the HTML code directly. The following shows a very simple web page, with one hyperlink to a text file:

```
<HTML>
<BODY>
<A HREF="test.txt">TEST.TXT</A><BR>
</BODY>
</HTML>
```

You create this file with an editor like Notepad or Wordpad, or even a word processor, but you must be careful to save the file as ASCII text. Give the file an HTM or HTML extension and Windows will recognize it as a web page. Clicking on the file should display something like the following:

[TEST.TXT](#)

If you have a file called "test.txt" in the same directory, you can click on the link and display that file in your browser. You can link to pictures, PDF files, program files, and other HTML files. I like to have at least one HTML file in every directory on my disk,

explaining what is in that directory, and then an HTML file in the root of the disk that explains what all the directories are for, linking to the indexes in each one.

For instance, we could expand our example to the following:

```
<HTML>
<BODY>
Welcome to our Family History CD!<BR>
<A HREF="INFO/INDEX.HTML">General Information</A><BR>
<A HREF="INSTALL/INDEX.HTML">Useful Programs</A><BR>
<A HREF="COOPER_FAMILY/INDEX.HTML">Cooper Family</A><BR>
<A HREF="COLLINGS_FAMILY/INDEX.HTML">Collings Family</A><BR>
</BODY>
</HTML>
```

which would make our browser display the following:

```
Welcome to our Family History CD!
General Information
Useful Programs
Cooper Family
Collings Family
```

You can get much more elegant if you want. There are special codes (HTML calls them ‘tags’) to create a heading, to set text in bold, italics, or underline and more. A GOOGLE search for “HTML TUTORIAL” returns over a million hits, and the first ones include “Introduction to HTML,” “WRITING HTML,” “HTML: An Interactive Tutorial for Beginners [Dave's HTML Guide],” “NCSA -- A Beginner's Guide to HTML,” and so on. Most of these introductions give you a quick overview of writing HTML that is easy to follow. Again, experimentation is the key to understanding.

You can also put pictures in your HTML code, and even make it so that clicking on different parts of the picture will cause different links to activate. I used a tool called GEOHTML to do this part of the HTML code; another program that does a similar thing is called MAP THIS!.

AutoRun

For me, the last step of creating the CD was to get my introductory page to automatically appear when the CD is inserted into the drive. I didn’t want to have to write a note telling the recipient to open the CD in Windows and click on the first file. This is where AutoRun comes in.

AutoRun is a feature of Windows operating systems, starting with Windows 95 and on, that allows a CD to automatically run an application when it is inserted in the drive. This

feature is enabled by creating a text file named AUTORUN.INF in the root directory of your CD that looks something like the following:

```
[autorun]
open=bin\shelexec.exe index.htm
icon=FamCD.ico
```

On the line that starts with “OPEN” you put the name of a program that you want to run when the disk is inserted. Web pages are not programs, so you can’t put the name of the starting web page (like INDEX.HTM) there, and you can’t be guaranteed that whoever gets your disk will have either Internet Explorer or Netscape, or whatever browser you generally use. The Windows program SHELEXEC.EXE, however, can find out which browser you use, and will start up your web page with that program. I generally put SHELEXEC in the BIN directory, together with other programs that need to run from the disk, like GENVIEWER.

Making CDs in Volume:

Once the CD is organized and ‘burned,’ you will probably want to duplicate it so you can share it with relatives. If you are making a small quantity (10 or less) this is not too hard to do, one-at-a-time. If you want to make copies to hand out at a large family reunion and need fifty or a hundred or more, you may want to check out the services of a CD duplication service. Some copy centers can do this for you, or they can recommend places that can. You may be fortunate enough to know someone who has access to a CD duplication machine at work. These are expensive gadgets that take a hopper-full of blank CDs and make copies of your disk two, four, or eight at a time. They can greatly cut down the time needed to create a large number of disks. If you have to do them one at a time, at least get a fast machine!

The costs can vary widely, depending on whether you can hit a sale on the blank CDs. Other items you should price out are labels, jewel cases, mailers, and postage. A duplication service might be able to print labels on the disks for you, but there will be a minimum charge. Instead of adhesive labels, you might be able to make do with a simple rubber stamp.

Sources of Useful Files

So, where do you get all these files that have been mentioned? On the Internet, of course!

The first key is to recognize that if you need something to put your CD together, likely someone else has needed it as well, and may have put it out on the web. All you have to do is describe it in general terms in a search engine like GOOGLE, and like magic, it appears! The following sources are ones that I have checked out.

Software that may be helpful in producing your CD:

1. PDF995: <http://www.pdf995.com/>. This program lets you create PDF format files by simply 'printing' them from your word processor or other program to a pseudo-printer. PDF995 then asks you for the name of a file, and generates a PDF file with your output. The software is free to use, but every time you create a new PDF file it displays an advertisement. If you pay \$9.95 and register the software, it no longer displays the ads.
2. JALBUM: <http://www.datadosen.se/jalbum/> JAlbum takes a collection of photographs and generates the HTML code to display them in a photo album. It is capable of generating a variety of formats; you might take its web pages and modify it with your own customizations, or use it as-is.
3. GeoHTML: <http://www.fegi.ru/geohtml/> This program helps you create clickable images in your web pages (called 'maps'). Somewhat advanced to use, but not too far out of reach.
4. MapThis: <http://www.zoniez.com/Newbie/mapthis/mapthis.html>. This is another program to create clickable maps. I haven't used it, but it is very popular.
5. SHELEXEC: <http://www.codeproject.com/system/shelexec.asp> This is the program that you name in the AUTORUN.INF file to make your starting HTML page appear on CD insertion.

Software you may want to include on your family CD:

1. PAF 5.2: <http://www.ldscatalog.com/>. I downloaded PAF and included a copy of it in my family CD so that my cousins would not have to. The software license states: "*You may only copy and use the Software for incidental, noncommercial church or home use. Other uses require the written permission of the Licensor. You may not sell, rent or sublicense the Software, or repackage the Software for resale.*" I found that it was effective to give my family CD away – to family members who paid their dues. The cost of the CD, including shipping, was only a few dollars, and the family organization charges \$10 for dues.
2. GENVIEWER: <http://www.mudcreek.ca/>. GENVIEWER is a program that lets you browse PAF or GEDCOM files. There is a free CD-only version that lets you view your genealogy data (.GED or .PAF files on the CD) without having to install PAF or another program. There is also a shareware version that requires a small charge to register.
3. Adobe Acrobat Reader: <http://www.adobe.com/>. The standard PDF viewer.
4. Legacy Family Tree: <http://www.legacyfamilytree.com/> Legacy is a worthy replacement for PAF. It has a number of areas where it has more or better functionality than PAF; in addition, they offer the older version (3.0) as a free download. The latest version, 4.0, is very reasonably priced.