



Preserving Family Computer Documents and Digital Images

Since the advent of personal computers in the 1980s, more and more people have been creating and storing correspondence, financial records, genealogies, memoirs, holiday newsletters, web sites, and photographs in electronic form. Material created and stored on computer media—on diskettes, on internal hard drives, on backup tapes, or on high-density auxiliary drives (such as Iomega Zip© drives)—is both similar to and different from traditional paper formats of the same material. For most families, computer records are just a different form of the same information found in paper (a very rough analogy would be between an LP and CD version of the same music). And like most paper documents, most computer files have only **short-term** value.

However, computer records are much more fragile than paper records, and greater care must be taken to ensure that they can be used for however long they may be needed. Three things threaten the usability of computer records: obsolete software, obsolete hardware, and deteriorated media. In less than seven years, software can change so much as to make the material recorded on a diskette, backup tape, or auxiliary drive useless. In roughly the same period of time the hardware necessary to access a particular media may become obsolete—it has just about happened to 5.25” diskettes. In as little as three to four years the physical media itself may become too deteriorated for even compatible hardware and software to read—this is particularly true for diskettes, but even backup tapes and auxiliary drives are nowhere near as durable as paper.

To maximize the useful life of computer records, several basic steps are necessary.



- 1. The first and most critically important is TO BACK UP ALL IMPORTANT FILES AT LEAST WEEKLY, and to store the backup material someplace other than your home.* All other preservation considerations are meaningless if a hard-drive crashes or a fire or flood destroys the computer(s). Always label your backups, indicating the contents and the date of creation. Also remember that storage media have finite life spans – for floppies that’s five to ten years under ideal conditions. Consistent renewal of media will help ensure that your data is accessible when you need it.
- 2. Migrate your files as you upgrade your equipment or buy new software.* Even if you are able to safely store your data long-term, items will be inaccessible if you no longer have the hardware to read the media, or the software to open the files. Copy files from your old media format to your new before you eliminate the outdated drive from your system. Before you delete old software from your computer, save important files in a universal output format like ASCII text, or import them into your new software program and re-save them in the new format.
- 3. Records in computer form (in whatever media) should be stored ONLY in spaces that are cooled in summer and heated in winter (your office at work, a bank safe deposit box, the home of a relative), NEVER in basements, attics, or garages, or near electric motors or other sources of magnetic fields.*

*Because of the difficulties of preserving the usability of computer records over long periods of time (more than five or ten years), many families should probably consider creating paper copies for **permanent** or **historical** purposes.* Please note, however: printouts from “inkjet” and “bubblejet” printers are NOT stable over several decades. Laser printers do create permanent copies, and so do all modern photocopiers, but only for text documents, **not for photographs!**

***Digital images** are probably the most fragile photographic material that humans have ever devised.* They are subject to all the threats to which electronic text documents are prone, and the files are often compressed, so that actual visual information has been subtracted and therefore lost. At this time, if you use a digital camera to take pictures or a scanner to convert traditional photos to image files, the files should be saved to disk (or CD) as *.tif files—the rawest and therefore least compressed form of image file (they are not the easiest to share—to share make *.jpg or *.gif copies—but they should be your preservation copy). The “photographic” prints you make on your home printer—even if it is a laser printer and even if you use “photo quality” paper—are NOT PERMANENT; neither are some that you get from a photo lab. If you order prints from a lab, make sure that they are printed on a **silver-based medium**. The best camera for a permanent record is the old-fashioned film-based camera that creates negatives to produce prints. For really long-term preservation, shoot a roll of black and white film. (There is a separate handout for preserving family photos.)

Because it is time consuming, and may be expensive and difficult, to continually back up and migrate (or print out) computer files, the first step is to decide what should be saved. Not everything on your computer is worth backing up. **Some things you might wish to back up or print out:**

- letters with family and friends
- noteworthy letters, reports, minutes, newsletters and the like relating to an individual’s professional work
- diaries
- personal web pages (save a “snapshot” every year)
- photos and photo albums, if identified
- annual tax returns
- holiday newsletters
- genealogical information



You **probably don’t need to back up** such things as software (you should have diskettes or CDs already), banking or daily financial accounts after 3 years, rough drafts of documents, duplicate copies.

It is also important to organize computer files, to make finding what you want and need easier. This is not as complicated as it might seem at first. The reason both Windows and MacIntosh operating systems use folders as icons (📁) is to suggest that computer files be organized in the same way as paper documents. Consider creating a folder for your correspondence, with sub-folders named for your most frequent correspondents. Consider creating a folder for snapshots, with sub-folders by event, by individual, and/or by date. Genealogical material should be kept together as a set.

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