



*Protecting, preserving and promoting world motoring heritage
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Charter of Turin Handbook

Archiving supplement

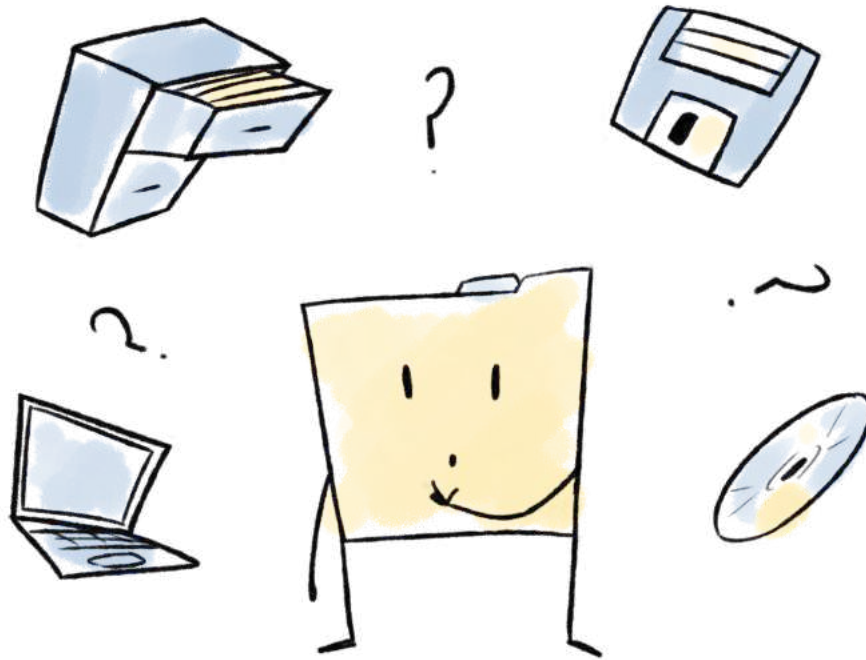


CoT Handbook

Archiving Supplement



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Archiving

In order to keep a restoration process alive and make it accessible in the long-term, it is crucial to document and archive it. Moreover, it adds to the history of the restored object. Archiving all documentation allows access to every single step of a restoration after the process has been completed, for example in order to corroborate a complaint or to illustrate specific or unusual conditions.

In principle, two types of archiving are possible: hardcopies and electronic archiving, or a combination thereof (i.e. scans of paper documents).

Hardcopy Archiving

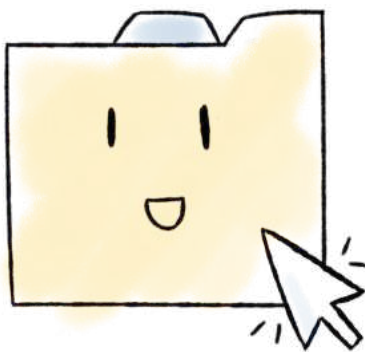


Archiving hardcopies of documents does not involve the use of electronic data carriers. This means the documents are solely available on paper, such as original manuscripts (e.g. cost estimates, invoices, correspondence with restorers, etc.), using suitable archiving media (binders, plastic sleeves, etc.). In order to protect these documents, (e.g. from fire, water, fading), it is recommended to produce a laser copy on acid-free paper (DIN-ISO 9706), preferably in size DIN A4. Laser copies are made by scanning the original and printing them out on a laser printer,

or directly copying the original with a multipurpose laser printer. Laser copies have the advantage that the ink will not fade in time, or only to a negligible extent, thus preserving information for an indefinite period. However, laser printers and copiers must be serviced

regularly to ensure that the fusers operate at optimum temperature when applying the ink to the paper.

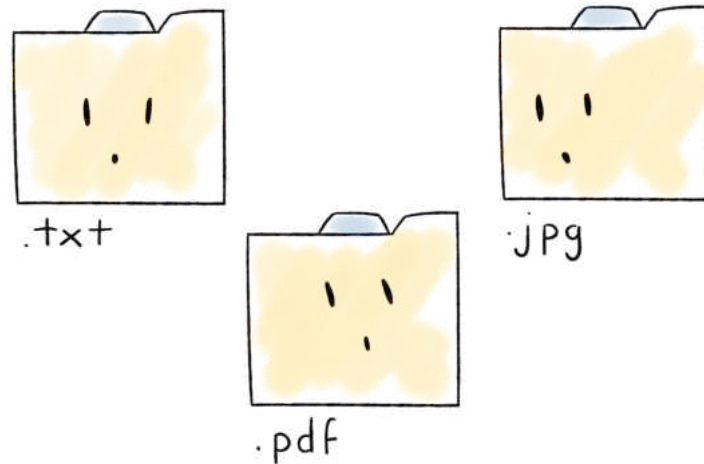
Inkjet printers are fine to use, too, although they will need light-fast inks for the copies to last. Older copies printed on thermal paper (e.g. fax prints or receipts) should also be scanned and turned into laser prints as thermal paper tends to fade in time and thus information will be lost or at least become difficult to read. Any analogue photographs are also at risk, as they tend to fade and discolour in time. Again, scanning and printing on colour copies will preserve them for the long-term. If a restoration journal is to be kept, entries should be made in pencil, as the lead will never fade. Writing in ink will expose the ink to corrosion, and most felt and ball pens are not contract-proof. It is advisable to keep all copies in a location separate from that of the originals.



Electronic Archiving

In electronic archiving, all information concerning the restoration is stored on an electronic data carrier. Although compiling all the data can be a cumbersome and labour-intensive process, it will offer the best protection from loss. All documents can be scanned and saved on an electronic data carrier. The higher the resolution of the scans, the better, as this will enable to print highly legible copies and good quality images at any later point in time. If scanning an

image from a magazine or book produces a moiré pattern due to the overlaying geometrical raster structure used for the original print, the settings in the scanner should be adjusted in order to specify the scanning process of the original in more detail, such as continuous tone or colour image, lines or rasterised image (newspaper or magazine print). As a result, the scanner will scan at a minor blur that connects the raster dots and makes the overlaying structures invisible. Moreover, all scanners offer a choice of output files, such as PDF, JPG or TIFF.



File types

Any newly generated text files should always be saved as .txt files. This pure text format does not include any formatting and is thus the best way to avoid incompatibility with future word processing applications. There is no certainty as to how long the current .doc, .docx, .dot, .odt and .odf formats will be compatible with newer software. The same applies to tables which are complicated to build in .txt files but are likely to outlast any .xls, .xlsx, .ods oder .ots files. To date, it is also not certain how long the PDF format introduced by Adobe will prevail on the market. However, due to the fact that it is widely used and very popular, the likelihood of it becoming obsolete any time soon is very small. On the contrary, many software manufacturers are developing their own PDF engines in order to be independent from Adobe. Mozilla, for example, has integrated its own PDF generator in its browser, Firefox. This is evident in the fact that the browser will access its own viewing application when opening a PDF file, rather than Adobe's Acrobat Reader. PDF files offer the huge advantage that they are read-only. This means that due to the in-built write-protection, no changes can be made, contrary to a pure text document. Should PDF files no longer be available or become obsolete at some point, it is highly likely that there will be file converters that will transform the old format into the new. Any such conversion may compromise the quality of the file, but this is inevitable.



Naming conventions

A very important aspect is the naming of the files to be saved. Symbols and umlauts are best avoided as they will pertain to a specific nationality and cannot be read or reproduced everywhere. Hence, a file named „Léon Bollée Größenunterschied Speichenräder.txt“ will most likely not open on any computers outside Germany, Switzerland or Austria, or only after they have been renamed. The best way to name this particular file would therefore be: „leon_bollee_groessenunterschied_speichenraeder.txt“.

Photographs

If photographs are used to document the restoration project, it is best to use a digital camera. Not only is it easy to take as many pictures as needed without having to think about developing costs, but the image quality can be constantly adjusted. In principle, regardless of file size, it is advisable to photograph in the highest-possible resolution. This offers the necessary amount of detail and the possibility to print images nearly loss-free on paper. Depending on the resolution, prints up to a size of DIN-A3 will show practically no loss of detail. It goes without saying that the printer used will need to have the necessary capacity to print at such resolutions, otherwise the quality will suffer regardless.

JPG has become the standard format for electronic images, and to date, a trend towards another format is not discernible. Any freshly produced pictures should be transferred to an adequate data carrier as soon as possible, so that if the camera is lost or damaged, the data is still available.

For storing such wealth of information, it is best to use hard drives. CDs and DVDs have a limited life and should only be used as a short-term and interim storage medium or for transferring data between two parties. Over the years, many CDs and DVDs will become flawed due to material or manufacturing defects; their metal layer will detach from the synthetic layer, or – a surprising fact for many – a fungus will literally eat its way through all the data on the disc. This fungus, which has its origins in regions around the equator and was detected at the turn of the millennium, has subsequently managed to spread around the globe. The capacity of digital memory cards (e.g. SD cards) as used in cameras or certain mobile radio units (micro SD) is still too limited to consider them a valid alternative. If the capacity of a memory card is sufficient for a certain project, it should nevertheless be protected from unauthorised access in order to prevent accidental deletion or formatting. This can be done by pushing the little sliding switch to “Lock”.



Hard disks and cloud systems

Notwithstanding the above range of data carriers, hard disks are still the storage means of choice. Hard disks have a nearly unlimited storage capacity (at least for the purposes of archiving restoration documents) and can be adequately protected from data loss. It is important to have at least a second or (depending on the relevance of the documentation) even a third hard disk for

backups. This means there is an identical security copy on at least one other hard disk should one of the hard disks be damaged. Likewise, immediate correction on all data carriers is crucial if any of the data should change. It does not matter whether external or internal hard disks are used. It is advisable to use a combination of both. Original data is

thus stored on the computer and can be accessed easily for viewing or processing. The backup copies are stored on the external hard drive. Additionally, there is now a new way of storing data online, in so-called cloud systems. These are virtual hard disks on the internet and are offered at various rental prices by a number of providers (price depending on storage capacity). In principle, the providers offer storage space for hire. For this, the files are uploaded to an assigned storage space on a server at the provider's. This new method has its pros and cons. One of the major issues with it is confidentiality of data and the possibility of unauthorised access. Additionally, if parties other than the client or the provider can access the data, this may lead to undesirable data leaks. Hence, the sensitivity of the data to be stored will have an influence on the decision to Cloud-store or not. On the other hand, the Cloud offers the advantage of saving on storage space on at least one of your hard disks (however, it is recommended to keep all data on at least one of your physical hard drives), as well as immediate access to the data via the internet from anywhere in the world. This way, your data will always be within reach, even if it is not saved on your computer, smart phone or tablet. Concerns about data loss in the Cloud are understandable but unfounded and should not influence the decision as to whether or not to use the Cloud. Providers have adequate security systems in place to prevent this and distribute all data on several servers. Ideally, those servers are also separated physically so that any damage from acts of nature will not destroy the entire data. However, it is wise to enquire about this prior to renting Cloud storage space from an individual provider.

Passwords

To be safe, all data should be password-protected to prevent unauthorised access. The password should consist of at least 8 characters (the longer the better) and never relate to any personal facts. Therefore, dates of birth, a wife's first name or the name of a pet, the mother's maiden name, etc. are highly unsafe passwords that can easily be hacked. The most effective passwords are randomly generated ones. For example, take a random sentence and use the first letters of every word, such as: "Karl Benz is considered to have invented the automobile with the aid of his wife Berta". The resulting password would be: KBichitawtaohwB. Any symbols (e.g. @, \$, \$ etc.) and numbers thrown in will further increase the security of the password. If you just can't think of a password, there are so-called password generators on the internet. These will generate random passwords you can choose from. Never use a universal password, i.e. the same password for a number of services. If you do and one service has a security issue, all other services are usually immediately at risk, too. Changing your password should also be done regularly. If you enter your password on someone else's computer, there is a risk of malware or spyware recording your password and thus accessing it. Lastly, it is a good idea to store passwords physically in a sealed envelope and at a location that is inaccessible to third parties. They should also be a part of your bequest.

