

Preservation of Digital Resources

Whatever the source of the digital objects used in the product, whether they be resources in other media or original digital creations, they must be preserved to ensure that future generations can view and use them to the greatest degree possible with whatever technology is available. As technology is changing so rapidly, and since viewing and working with digital objects usually requires particular hardware and/or software, it is suggested that open, non-proprietary standards and file formats be used when creating archival copies of digital objects. This will help ensure that the digital objects will be viewable and workable as long as possible into the future, since open standards and formats tend to be more broadly supported and longer lasting than proprietary ones.

This is especially important in a heritage context where institutions are going to great lengths to digitize their collections and create novel digital resources. It would be unfortunate to lose these resources forever as a result of their degradation or use of a file format for which there no longer exists workable software.

Note: The institution may already have a preservation policy and digital archive in place, in which case the following recommendations are for informational purposes only.

Preservation Strategy

Recommended

It is recommended that a strategy for creating archival copies of the digital objects that comprise the product's main content be established. For information on setting up a preservation strategy and the various issues involved, see the document, [Digital Preservation: Best Practice for Museums](#), on the [CHIN Web site](#).

Note: Only digital objects, such as image, video or audio files, that form the product's main content need have archival copies created. Other digital objects, such as graphical buttons or sounds used for navigation, do not require archival copies.

Preservation File Formats

There exist several file formats that can be used for creating archival copies of digital objects. For help understanding and choosing the appropriate archival file format for a particular type of digital object, see the [Formats section](#) in Part 2 of [Digital Preservation for Museums: Recommendations](#), on the [CHIN Web site](#).

Recommended

When creating archival copies of digital objects, the following file formats are recommended for the indicated object types:

Text: For a text whose visual layout is important, or that uses special or non-Latin character sets, save it as an Adobe PDF (.pdf). While proprietary, the [PDF format](#) is an open specification that will preserve the text's visual layout, and allow the embedding of special fonts in the document. Please note that PDF-Archive (or PDF-A) is a new archival version of the PDF format currently in development and likely to become a new standard for archiving text documents.

If the text does not have a visual layout that must be preserved, or does not use special character sets or fonts, save the text in RTF (.rtf) or ASCII ("plain") text (.txt) formats.

Still Image: Save digital images as 24-bit TIFF files at a minimum of 300dpi. Images should ideally be captured at 600dpi, but this can lead to very large file sizes. If the TIFF file uses compression to reduce the file size, ensure that it uses a **“lossless” compression** that does not lose any image data in the process. Please note that other formats are being developed, and that some, such as JPEG2000, are slowly becoming standard archival formats for digital images, and should be kept in mind for potential future use.

Moving Images/Video: Save video files using the MPEG-2 (.mpg) format at the highest quality setting available.

Audio: Save audio files as uncompressed WAV (.wav) files. Please note that another format, **FLAC**, has become a preferred lossless compression format for audio files, and should be kept in mind for potential future use.