



Scientific Working Group on Digital Evidence

SWGDE Data Archiving

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1.0 Purpose

It is essential that agencies using digital data store that data in such a way and under conditions that will permit access when it is needed. Archiving is the process of storing data in a manner suitable for long term availability and retrieval. In cases where archiving is desired, there should be an archiving plan from the moment the digital evidence is processed.

This document is intended to familiarize the reader with issues surrounding digital data archiving. It further suggests that industry accepted best practices for establishing and/or maintaining the available digital data archiving media should be used.

2.0 Why Archiving is Needed

Archiving is needed to ensure stored data is available for future use. The techniques employed should be chosen to ensure data can be located and accessed. Archiving may also involve the long term storage of data as required per statutory requirement and or departmental policies/regulations.

3.0 What Should be Archived

Any data that may be required for future access should be archived. Keep in mind that it may be necessary to retain original software and/or hardware in order to access the archived data at a later time.

4.0 Archive Maintenance

At the time an archive is created it should be verified against its original (i.e. hash verification). As new versions of hardware and software are released, backwards compatibility is not always ensured. Newer versions of software/hardware will not always be able to access the older data. It might be necessary over time to ensure that the newer versions of software/hardware will be able to access the older data. Archivists should be aware that software providers occasionally cease support for their proprietary file formats.

Be aware that hardware/media generally has a specific lifespan as defined by the manufacturer. Utilize media recommended for long term storage when archiving data; if you archive to a server, it may be necessary to have a backup solution. Media should be handled and stored in a manner consistent with the manufacturers' recommendations.¹

Under optimum conditions, facilities where archives are maintained should be climate controlled according to recommended specifications.¹ It is recommended that fire hazards, etc. be removed from the area surrounding the archives when possible. If facilities are so-equipped, non-aqueous fire suppression systems are preferable in areas where archives are located.

¹ Information Technology: *Care and Handling of CDs and DVDs – A Guide for Librarians and Archivists*. ISBN 1-932326-04-9

5.0 Archive Management

The following issues should be considered when dealing with archive management:

- Archives should be securely stored.
- Storage facilities should be adequate in size for the data to be maintained as well as allow for growth.
- Media in which archived data is to be stored should be of adequate capacity.
- Archived data should be readily accessible via cataloging and/or indexing.
- Chain of custody documentation may be needed as dictated by agency policy and/or legal statutes.
- Data should be disposed of in accordance with statutory requirements and/or departmental policies/regulations.

6.0 Standard Operating Procedures

Agencies should develop, maintain and adhere to standard operating procedures (SOPs) governing the archiving of data, maintenance and management of those archives.