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## Digital Preservation Inventory Template for Museums

See also: [Digital Preservation Toolkit](#)

This digital preservation inventory template can be used by museums to take stock of the digital resources currently held. Such resources could be data from ancillary functions (such as gift store point of sale data), administrative documents, or collections management records. Taking stock of this material is generally done during the scoping stage of a digital preservation project, where the activity helps project managers identify the degree of need for a digital preservation plan, and to determine how much work is involved. See [Framework for a Digital Preservation Plan](#) for further details on how this and other documents are used as part of your museum's digital preservation activities.

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### How To Use This Template

[Section A of the inventory template: Summary of Digital Asset Groups](#) helps identify specific groups of digital assets held by your organization. This section needs to be completed once only.

A **digital asset** is a single computer file, or group of computer files, the content of which is valuable to your organization. Examples include:

1. any artefact originally created and acquired in digital form (born digital) such as a digital photograph, digital video or computer game;
2. any digital copy of an artefact for which your organization does not hold the original (such as a digitized copy of an analog photograph);
3. a digital copy of an artefact, where your organization holds both the original physical artefact (such as a sculpture or a diary) and the copy (whether created by scanning or photographing an object with a digital camera);
4. a copy of the computer file(s) containing your organization's collections management system; or
5. digital material created by your organization which must be maintained for long periods of time, such as audio guides, acquisition files, intellectual property agreements, contracts or correspondence with donors.

A **digital asset group** consists of all digital assets used for a specific purpose, having the same (or similar) file format(s), being used by the same (or similar) software, and being used in the same way, etc... for instance, a single day of sales data from a Point of Sale system in the museum gift store represents a *digital asset*, whereas all sales data recorded by that point of sales system since its installation constitutes a *digital asset group*. Likewise, a single record within a Collections Management System represents a *digital asset*, and the entire inventory within that system could be considered a *digital asset group*.

[Section B of the Inventory Template: Detailed Information For Each Asset Group](#) provides more information for each digital asset group, and it should be completed for each group identified. In general, while filling out section B, answers to all questions for a given group should (for the most part) be the same.

If several questions require multiple answers for the same group, you should consider dividing the group and filling out section B for each newly divided group.

For example: If you have intangible heritage multimedia (video and audio recordings) that is originally classified as one Asset Group, and it becomes apparent that the way in which the audio and video files are treated, used or stored is different, you should divide the group into two new groups: *Intangible Heritage-Audio* and *Intangible Heritage-Video*.

To use the template, either print it to be completed by hand, or cut-and-paste it into a word processor of your choice.

### Inventory Template Section A: Summary of Digital Asset Groups

Identify all groups of digital assets held by your museum. Include a brief description for each, as well as the approximate number of assets in each group, and the approximate amount of file space required to store the entire group.

Summary of Digital Asset Groups in your museum – to be completed by museum staff.

Name of Digital Asset Group	Brief Description of Group (i.e. what is the group used for, how does it differ from similar identified groups).	Approximate Number of Digital Assets in the Group	Approximate Amount of File Space Required to Store Group	Minimum Number of Copies of Assets in this Group (if multiple copies are kept)
(add rows as required)				

### Inventory Template Section B: Detailed Information for Each Digital Asset Group

For each of the digital assets identified in Section A, complete the lists and tables below. Remember to divide assets into multiple groups if a group is not sufficiently homogeneous to answer questions easily.

#### Ease of Replacement

How easily can digital assets in this group be replaced in case of loss? Check all that apply.

- Can be replaced easily in case of loss.
- Cannot be replaced.
- Replacement involves re-digitization, which would be difficult, expensive and/or harmful to the original.
- Replacement involves re-digitization, which would be fairly easily done from the same source material.
- Do not know the degree of difficulty for replacement

If more than one is checked above, explain why:

#### Consequence / Impact of Loss

Indicate the likely impact on the museum should a lost digital asset within this group not be recoverable. Check all that apply.

- Suspected impact to the museum would be great (legal ramifications, reputation, etc..).
- Suspected impact to the museum would be moderate (some negative outcome).
- It is suspected that there would be no impact to the museum.
- Cannot estimate the impact to the museum.

If more than one is checked above, explain why:

#### Estimated Years Required to Preserve

How many years are assets within this group expected to be preserved? Check all that apply.

- Assets are expected to be preserved indefinitely.
- More than 20 years.
- More than 10 years.

- More than 5 years
- 1 to 5 years
- Less than one year.
- There is no need to preserve digital assets in this group.

If more than one is checked above, explain why:

### Frequency of Access

How often are digital assets within this group accessed? Check all that apply.

- Daily
- Weekly
- Monthly
- Annually
- There is no regular access to assets in this group.

If more than one is checked above, explain why:

### Access Permission

Who should have accesses these digital assets? Check all that apply.

- Everyone
- External stakeholders identified by the Museum
- Everyone within the Museum
- Specific individuals within the Museum

If more than one is checked above, explain why:

### Physical Carriers / Physical Format

Identify the types and approximate number of physical carriers (that is, physical storage formats) on which this group of digital assets is stored. When known, also include the approximate age of physical carriers themselves based on when they were purchased.

For example:

- your organization has 200 CD-Rs (recordable CDs) that were produced in-house between 1999 and 2001
- each CD is filled very close to capacity (700 MB), so the amount of data stored would be 140,000 MB (200 CDs x 700 MB per CD)
- all the CDs would be between 10 and 12 years old.

The chart below would be filled in as follows:

Physical carrier (year introduced)	No. of physical items	Approx. size in MB	Approx. age (in years) of carriers
(Example) CD-R	200	140 000	12
<b>Magnetic storage formats</b>			
7 or 9 track magnetic tape (1952)			
8" floppy diskette (1972)			
5.25" floppy diskette (1976)			
3.5" diskette (1982)			

8 mm Digital Audio Tape (DAT) cartridge (1987)			
4 mm Digital Audio Tape (DAT) cartridge (1987)			
Iomega Zip disk - 100 MB (1995)			
Iomega Zip disk - 250 MB (1998)			
Iomega Zip disk - 750 MB (2002)			
LTO (Linear Tape Open) 1 - 100 GB (2000)			
LTO (Linear Tape Open) 2 - 200 GB (2003)			
LTO (Linear Tape Open) 3 - 400 GB (2004)			
LTO (Linear Tape Open) 4 - 800 GB (2007)			
LTO (Linear Tape Open) 5 - 1.5 TB (2010)			
<b>Optical storage formats</b>			
10 or 12" optical discs (1979)			
5.25" magneto-optical discs (1985)			
3.5" magneto-optical discs (1985)			
Kodak Photo-CD system (1992)			
CD-ROM (containing Read-Only content) (1988)			
CD-R (write-once, produced in-house) (1995)			
CD-RW (multiple write, produced in-house) (1997)			
DVD-ROM (containing Read-Only content) (1997)			
DVD-R (write-once, produced in-house) (1997)			
DVD-RW (multiple write, produced in-house) (1999)			
Blu-Ray BD-ROM (containing Read-Only content) (2006)			
Blu-Ray BD-R (write-once, produced in-house) (2006)			
Blu-Ray BD-RE (multiple write, produced in-house) (2006)			
<b>Hard disk drives (HDD)</b>			
internal hard drive (1973)			
external hard drive (1998)			
network space – shared			
network space - personal			
Web server			
<b>Flash-based memory</b>			
USB flash drives (such as ThumbDrive (1998), DiskOnKey (2000), jump drive, pen drive, data key)			
Memory cards (such as PC Cards (1991), CompactFlash (1994), SmartMedia (1995), MultiMediaCard (1997), SDCard (2001), miniSD (2003), Memory Stick (2003), microSD (2005))			
Other (please specify)			

### Location and Environmental Conditions

Identify the location(s) and environmental conditions at which assets in this group are stored. Please check all that apply.

	Regular office environment	Specialized environment <i>(temperature generally in the vicinity of 17°C to 23°C (+/- 2°C) and a relative humidity of 20% to 30% (+/- 5 %))</i>	Warehouse / Other  Indicate any extreme conditions to which physical carriers may be subjected.	Don't know location / conditions
1. Network server room (for shared drive, personal drive or Web server space controlled by your organization)				
2. Dedicated vault or storage space				
3. Regular office space (stored on computer hard drives, or as items stored on shelves)				
4. Off-site storage (such as a record centre, cloud storage, trusted digital repository, or other type of institutional repository)				
5. Other (please specify)				

### File Format / File Type

Identify the types of digital file formats that are found in this group of digital assets. Also, for each type of digital file format used in this group of assets, please indicate the approximate date of creation and current readability if known.

If the file type is unknown, select "Other" and indicate the software that accesses this asset. Select all that apply.

Table to identify file formats for digital assets – to be completed by staff for each digital asset group in your museum

Digital file format types	Name and Version of Software Used to Create or Last Modify the File	Date range files created	Still readable?
1. Word Processing (such as .txt, .doc, .docx, .rtf, .wpd, .odf, .lwp, .pdf, .pdf/a)			All Most Some None Don't know
2. Email (such as mime, msg, .pst)			All Most Some None Don't know
3. Presentation (such as .ppt, .pptx, .shw, .prz)			All Most Some

			None Don't know
<b>4. Spreadsheet (such as .xls, .xlsx, .123, .wk1, .wk2, .qpw)</b>			All Most Some None Don't know
<b>5. Still image (such as .jpg, .jp2, .png, .tiff, .gif, RAW formats, .dng)</b>			All Most Some None Don't know
<b>6. Audio (such as .wav, .mp3, .sma, mpeg-1, mpeg-2, mpeg-4 AAC, aiff, .wma bwf, MIDI)</b>			All Most Some None Don't know
<b>7. Video (such as jpeg2000 MXF, Motion JPEG 2000, .avi, mpeg-2, mpeg-4, .mov, .wmv)</b>			All Most Some None Don't know
<b>8. Markup language (such as sgml, html, xhtml, xml)</b>			All Most Some None Don't know
<b>9. Database (such as dbf, fp7, acc, csv, siard)</b>			All Most Some None Don't know
<b>10. Statistical data (such as sas, spss, ddi, DEXt, sdmx)</b>			All Most Some None Don't know
<b>11. Geospatial data (such as CCOGIF, dem, dig-3, E00, SHP, IHO)</b>			All Most Some None Don't know

12. Computer Aided Design (CAD) (such as .dxf, .cgm, .xmi)			All Most Some None Don't know
13. Source code and/or executable files (such as .exe)			All Most Some None Don't know
14. Retail - Sales data (such as data collect or electronic journals)			All Most Some None Don't know
15. Retail - Store Inventory			All Most Some None Don't know
16. Other (please specify)			All Most Some None Don't know

### File Naming

How are file names constructed for digital assets in this group? Check all that apply.

Table to identify how file names are constructed for digital assets – to be completed by staff for each digital asset group in your museum

	Yes	No	Don't know
1. File names selected by the file creator on a case-by-case basis			
2. Many naming systems, developed on a project-by-project basis			
3. Consistent and standardized naming system, developed in-house			
4. Filenames are designated by an application, not people (point of sales data for instance).			
5. Persistent, formal identifier systems (such as ARK, DOI, PURL and XRI)			
6. Other (please specify)			

### Directory Structures

Computer files are generally organized in directory and sub-directory structures. Sometimes, the organization of this storage system is left to the file creator; in other cases, the hierarchy of directory and sub-directory names is established by the organization. How are files in this asset group organized?

Structured data

	Yes	No	Don't know
<b>1. Database records with digital objects attached or linked</b>			
<b>2. Data tagged in a mark-up language (such as XML) with digital objects linked</b>			
<b>3. Other (please specify)</b>			

Unstructured data

	Yes	No	Don't know
<b>1. Chronological directory structure, based on date of creation of the digital asset</b>			
<b>2. Directory structure by file format (for example, word processing, images, audio, etc.)</b>			
<b>3. Directory structure, developed on a project-by-project basis</b>			
<b>4. Directory structure based on the organization's file classification system</b>			
<b>5. Other (please specify)</b>			

**Security**

What security measures are in place to protect this group of digital assets? Check all that apply.

Physical security

	Yes	No	Don't know
<b>1. area locked, but accessible to all staff</b>			
<b>2. area locked and access restricted to approved staff only</b>			
<b>3. intruder alarm</b>			
<b>4. other (please specify)</b>			

System security

	Yes	No	Don't know
<b>1. password protection</b>			
<b>2. firewall</b>			
<b>3. virus protection</b>			
<b>4. user access restrictions (profiles)</b>			
<b>5. other (please specify)</b>			

Digital asset security

	Yes	No	Don't know
<b>1. calculation of checksum</b> A checksum is the result of a mathematical calculation based on the content of a computer file. Any subsequent change in the value of the checksum indicates that the content of the file has been altered.			
<b>2. encryption</b>			
<b>3. other (please specify)</b>			

Circulation



	Yes	No	Don't know
<p><b>1. you control circulation of preservation copies outside the storage area</b></p> <p>A preservation copy is a computer file(s) in a digital format stored on a physical carrier, which together provide the highest quality, most complete and most reliable version of the digital asset.</p>			
<p><b>2. you allow consultation only through access copies</b></p> <p>An access copy is a computer file in a digital format and on a physical carrier which was selected to facilitate access by a researcher.</p>			
<p><b>3. other (please specify)</b></p>			

### Copyright Clearance

Do you have the right to copy and/or convert assets in this group for preservation purposes? Circle one of the following:

- All Files
- Most Files
- Some Files
- No Files
- Don't know

### Preservation Measures

Does your organization take any of the following measures to protect this group of digital assets? Check all that apply.

Table to identify measures taken to preserve digital assets – to be completed by staff for each digital asset group in your museum]

Preservation measures	Yes	No	Don't know
1. Make backup copies on a regular basis (files made using some type of backup utility, and paired with a restore function).			
2. Make preservation copies, in addition to or instead of, backup copies.			
3. Use more than one type and/or brand of physical storage format to protect against format failure			
4. Maintain stable storage conditions, allowing only minor variations in temperature and relative humidity (see also Question 3).			
5. Store preservation copies in two geographically separate storage locations, in case of fire, flood, earthquake, etc.			
6. Maintain the computer hardware required to read each type of physical carrier storing your digital assets.			
7. Maintain operating software (O/S) and programs (such as MS Word, or Corel WordPerfect) necessary to read all the file formats represented in your digital assets.			
8. Inspect preservation copies at regular intervals to verify physical condition.			
9. Read preservation copies at regular intervals to confirm their continued readability.			
10. Update the physical carrier to maintain access on current equipment.			
11. Convert the file format to maintain access using current operating systems and/or software (such as a WordPerfect format (.wpd) to a Portable Document format (.pdf)).			
12. Other (please specify).			

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