**Basic Digitization Best Practices**

Sacramental Register Edition

**Basic Technical Specifications – Master Images**

Masters are your archival copies; the ones guarded carefully and from which all your access copies are created. These should be of the highest quality possible, which will result in large file sizes. If you need a smaller file for day-to-day use, you can create an access copy from the master with a lower resolution, leaving the master unaltered.

* Minimum resolution of 600 dpi.  
  600 dpi will reliably capture 6pt roman scripts. If your books feature very small or very thin, spidery writing, you will likely want to scan at a higher resolution.
* TIFF image format.  
  TIFF is considered the go-to format for archival-quality digital images, and is used internationally for digital master images. PDF, while a great option for textual documents and access copies, is not recommended for master images.
* 8-bit grayscale or 24-bit color in the RGB color space.  
  Did your parish staff use pink ink for female baptisms and blue for male baptisms? Were episcopal ordinations noted in purple? If your books feature significant and important use of color, you may want to consider scanning them in color. Otherwise, 8-bit grayscale is sufficient for most of your register-scanning needs.

**Storing Your Digitized Registers**

Congratulations, you have made it to the end of your scanning project! Now you have to find a long-term storage solution so that your efforts were not in vain. See the back of this sheet for a comparison of the major options for digital storage media. The Federal Agencies Digitization Initiative’s guidelines recommend a combination of storage mediums. Their preferred system is to store master images on a hard drive system, with sets on magnetic tape as backup. They also recommend multiple backups, with at least one backup copy separated by significant geographical distance. For example, if you are in a hurricane-prone area on the Gulf Coast, it is recommended that one of your backups be kept in a part of the state (or nation) that does not have the same risk.

However, even the best storage medium is not as reliable as good-quality paper and ink. The nature of digital records will require you to: check your storage media for errors, “refresh” your media by trying to access an item, migrate your files to a new medium when the old one is failing or becoming obsolete, and possibly convert your files to new formats to ensure their long-term accessibility.

**For More Information:**

Federal Agencies Digitization Initiative Still Image Working Group. *Technical Guidelines for Digitizing Heritage Materials: Creation of Raster Image Master Files.* Available at: <http://www.digitizationguidelines.gov/guidelines/FADGI_Still_Image-Tech_Guidelines_2010-08-24.pdf>

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| Medium | Description\* | Pros | Cons |
| Hard Disk Drives | Internal (in your PC) hard drives, external hard drives, or dedicated servers.  Estimated Longevity: 2-5 years. | * Easy to access data. | * The moving parts in a hard drive make them vulnerable to damage. Solid State Drives (SSDs) are purported to fix the “moving parts” problem; testing is inconclusive. |
| Optical Media | CDs, DVDs, Blu-Ray discs, etc. If optical media is chosen, high quality or “archival quality” CDs are recommended. These CDs use a gold layer and phthalocyanine dye to minimize chances of pollutants affecting the data.  Estimated Longevity: 5-100 years, depending on material type. | * Discs are small; low storage cost. * Inexpensive, in comparison to other options. * Good record of backwards compatibility. | * Vulnerable to damage from handling. * Vulnerable to recording problems during creation. * Slow data transfer rate. * Longevity of medium depends on the quality of the CD-R purchased. * “Real life” performance of CDs make the estimated longevity suspect. NARA’s estimate, based on staff experience, is 2-5 years. |
| Magnetic Tape | Linear Tape-Open (LTO) and Digital Data Storage (DDS) are both open-source and widely-used options for magnetic tape backup.  Estimated Longevity: 5-10 years. | * Cartridges are small; low storage cost. * High storage capacity. | * May be difficult to retrieve data. * Initial purchase price of drive may be prohibitive. |
| Vendor-Based Options (“Cloud,” TDRs, etc.) | Storage options managed by outside vendors. Features will vary, ranging from “storage only” to maintenance and upkeep of digital records. The ideal vendor is one who can be called a Trusted Digital Repository (ISO 16363). | * Can be low-maintenance. * Archives is not responsible for tech upkeep. | * Private data in registers may be vulnerable to inappropriate access by vendors, etc. * Archives not in full control over decisions on storage methods, backup methods, etc. * May be difficult to retrieve data. |

\* Longevity estimates taken from *Electronic Media Collections Care for Small Museums and Archives*. http://www.cci-icc.gc.ca/crc/articles/elecmediacare/index-eng.aspx