# Preservation File Formats at the Smithsonian Institution Archives

In accordance with best practices, the Smithsonian Institution Archives prefers to preserve transferred electronic records in the preserved formats described in the table below. This table lists the native format/s, the corresponding primary preservation format (preferred), and the secondary format. The secondary format will be used only when a record of sufficient quality cannot be created in the primary preservation format. If you are unable to provide records in the listed preservation formats, please contact the Archives Digital Services Division at sia-digitalservices@si.edu.

| Original/Creating Application or Format | Primary Preservation Format | Secondary Preservation Format |
|---|---|---|
| *Word processing/text applications* | | |
| *(various)* <br> .txt | ASCII (keep original extension using Unicode character set) | |
| *Corel WordPerfect* <br> .wpd, .wpx, .doc, .rtf, other | PDF/A or PDF | RTF (text) |
| *Microsoft Word* <br> .doc, .docx,.dot, .rtf | PDF/A or PDF | RTF (text) |
| *Spreadsheet applications* | | |
| *Lotus 1-2-3* <br> .wk | PDF/A (must capture entire workbook – macros disabled) or PDF | CSV |
| *Microsoft Excel* <br> .xls, .xlsx | PDF/A (must capture entire workbook – macros disabled) or PDF | CSV |
| *Presentation application* | | |
| *Microsoft Powerpoint* <br> .ppt, .pptx | PDF/A (macros disabled) or PDF (must capture notes if present) | TIFF |
| *Prezi* <br> .pez or online | Contact Smithsonian Institution Archives for options | |
| *Graphics/image applications* | | |
| .bmp, .tif, .gif, .psd, .png, .eps, .fh, other | TIFF (uncompressed) | JPEG |
| .jpg | JPEG (format is stable enough to retain .jpg as is) | TIFF (if there is a problem with the .jpg and migration is possible) |
| .dng | DNG | TIFF (uncompressed) |
| *Desktop Publishing Applications* | | |
| *Adobe InDesign/Pagemaker* <br> .indd, .pm | TIFF (uncompressed) | PDF |
| *Microsoft Publisher* <br> .pub | TIFF (uncompressed) | PDF |
| *QuarkXpress* <br> .qxd | TIFF (uncompressed) | PDF |
| *Video* | | |
| .avi, .vob, .m4v, .mov, .mp1,.mp2, .mp4, .qt, .wmv, other | Contact Smithsonian Institution Archives for options | |

| Original/Creating Application or Format | Primary Preservation Format | Secondary Preservation Format |
|---|---|---|
| ***Audio*** | | |
| *.mp3, .mp4, .aif, .ra, .ram, .wma, .wav, other* | Broadcast Wave (WAV) with embedded metadata | WAV/AIFF |
| ***Database Management Systems (DBMS)*** | | |
| *Dbase III+*<br>*.dbf, .dbt* | *Same as original* | CSV |
| *Lotus Notes (database)* | *Same as original* | CSV |
| *Microsoft Access (database)*<br>*.mdb* | *Same as original* | CSV |
| *Microsoft SQL Server*<br>*.bak* | *Export as .mdb. Current preservation tool uses XML* | CSV |
| *FileMaker*<br>*.fp* | *Same as original* | CSV |
| ***Web*** | | |
| *Social Media accounts*<br>*Twitter, Facebook, YouTube, others* | WARC or screenshots (contact SI Archives for capture) | |
| *Websites* | WARC (contact SI Archives for capture) | |
| .htm, .html, .shtml | XHTML 1.0 | PDF (Isolated, single webpage only) |
| *Active Server Page (various)*<br>*.asp* | XHTML 1.0 | ASP (depending on parameter complexity) |
| *Adobe Cold Fusion*<br>*.cfm* | XHTML 1.0 | |
| *Adobe Flash/Flash MX*<br>*.swf* | SWF (No change at this time) | *Analyze carefully for embedded URLs or other file dependencies.* |
| ***Architectural Design/Engineering Graphics*** | | |
| *AutoCAD*<br>*.dwg, other* | PDF (with layer retention)<br>PDF/A<br>PDF/E | |
| *Microsoft Visio*<br>*.vsd* | PDF (with layer retention)<br>PDF/A<br>PDF/E | |
| ***Email accounts*** | | |
| *Outlook, Groupwise, Gmail, other* | Contact SI Archives for options | *MBOX* |

If a format does not appear on this chart, please contact the Smithsonian Institution Archives Digital Services Division for guidance at [sia-digitalservices@si.edu](mailto:sia-digitalservices@si.edu).

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