# Digitisation standards

Digitisation can be a frustrating and complex issue to approach, especially for those who are not technically minded. The terminology is often unfamiliar and difficult to relate to. This article is intended to provide some basic information in terms which are not confusing. We intend to look only at the image capture aspect of digitisation in this article, that is, those factors that determine the quality of the digital file created.

The key-determining factor is the intended use of the file/s: web, print and archive all have specific and inherently different requirements. Whilst it is imperative that image capture meets the minimum requirements for a specific project there may be advantages in capture at a level that will meet all potential uses. This is commonly referred to as creating a master archive file. The reasons we choose to embark on specific digitisation projects will assist us in determining the standards we should apply.

### Current digitisation standards

Whilst no absolute standards exist there are generally accepted minimum standards which are documented for digitisation projects where a specific end use is defined, be it web, print or archiving. These standards must however be regarded in conjunction with the nature of the source material and the specific goals and resources of the institutions that developed them.

Variations in film format, types of original (text or image) and in the quality sought are all crucial to determining the requirements for digitisation.

It is important to determine whether the use is immediate and specific or if the created files are intended to serve a number of purposes. If the later is true then a 'master' file should be created. The standards employed for one intended use may be insufficient for subsequent purposes.

### Archive/master files

Some key advantages of creating 'master' files are:

1 Original material is not subjected to multiple capture processes and associated repeated handling, reducing the risk of damage.

2 The master may be re-purposed for many uses, enabling control and a degree of consistency in the characteristics of subsequent derivative files. A master file should be regarded as the 'definitive' digital capture from which all derivatives are sourced.

3 Re-purposing of master files is more cost-effective than repeated subsequent image capture processes where multiple uses are required.

Archive or master files may perform the task of 'digital surrogate'. Capture at this level may mean that there is very little requirement for the original material to be made available, even in the case of detailed research requirements.

### Initial capture resolutions

The following table outlines suggested capture resolutions for these media. These files would then be rescaled to meet final output requirements. It is recommended that files be created as 24 bit RGB tiff's, which is an accepted standard for image capture.

| Use | Low — medium | High quality |
|---|---|---|
| | Web/database | Print/Archive |
| **Film** | | |
| 35mm film | 1000 ppi | 4000 ppi |
| 120 format | 800 ppi | 3200 ppi |
| 4x5' format | 600 ppi | 3200 ppi |
| **Photographic prints** | | |
| 4x6 | 300 ppi | 3200 ppi |
| 8x10 | 300 ppi | 1600 ppi |
| 12x16 | 300 ppi | 1600 ppi |
| **General documents** | (Typewritten text/printed material) | |
| up to A4 | 150 ppi | 600 ppi |
| up to A3 | 150 ppi | 600 ppi |

### Debunking the myth

A common fallacy exists, even in some very reputable institutions, that scanning for digitisation is best executed by disallowing adjustments during this process. The 'myth' being that the integrity of the original material is preserved in this manner. This is an incorrect and potentially disastrous assumption. The only possible explanation for it is the belief that the staff who perform this function are unskilled and cannot be relied upon to make adjustments that will create a superior result to the default settings of the device being utilised. This is a sad 'reality' and a poor justification for a preference to this approach to 'standardising' image capture.

Scanners (and other digital capture devices) are not capable of capturing all materials accurately without operator intervention. Digital capture devices are generally managed via software that allows the operator to optimise the results obtained. Sophisticated software enables the operator to use a vast array of tools in order to maximise the image capture results. A skilled operator can and should adjust the scan parameters to compensate for the inherent characteristics of the source material.

Digitisation in its most commonly applied form may accurately be deemed a 'copy' process. However like all 'copy' processes previously employed to create an accurate or exacting replica of the original (for example, photographic capture) it benefits from being executed with the appropriate skills and intelligent use of the available tools.

For further information on digitisation and standards that have been developed and research in this field you may wish to visit the following sites: http://www.sun.com/products-n-solutions/edu/whitepapers/digitaltoolkit.html; http://www.rlg.org/preserv/joint/chapman.html; http://www.nla.gov.au/initiatives/diglibs.html.

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