

Ohio Memory

Digital Camera Guidelines

Institutions may submit digital images taken with their own digital camera equipment, provided certain technical specifications, outlined below, are met. **Note:** Only the final images submitted for the Online Scrapbook should adhere to these guidelines; sample images included in an institution's initial submission need not.

Scanning/Editing Philosophy

The general philosophy of this project is that we are scanning *historical* images. The digital version should not appear significantly different than the actual item.

- Frequently historical images have imperfections, which should not be altered or fixed.
- Do not crop the image to cut out parts of the image. You might not include the frame or edge of the image, but you should not substantially alter the image.
- Dirt or specks can be removed from the image if they do not substantially alter it.

Technical Specifications

Digital camera images submitted for the Ohio Memory Online Scrapbook must meet these minimum requirements, although exceptions may be made in specific cases. Please contact Ohio Memory staff if you have any questions.

Recommended Resolutions

Megapixel resolutions allow for the highest picture quality and the most choices for output. A megapixel is a million pixels and is arrived at by multiplying a camera's maximum pixel width by its pixel height. Some common resolutions include 1600 x 1200, 1280 x 960, and 1024 x 768. Cameras used to take pictures taken for the Online Scrapbook should be set to resolutions greater than two megapixels. Often on 2+ megapixel cameras, you must change the default setting to the highest quality or maximum resolution. It is also important to know that on many cameras, the zoom feature does not really zoom optically, but resamples and resizes the original ("digital zoom"). It should be noted that high resolutions do not guarantee high quality images: for example, CCD sensors vary widely in quality and can have dramatic effects on final picture quality.

Another factor affecting resolution is bit depth. The greater the bit depth, the more color and grayscale gradations that can be detected and stored. 24-bit color allows for 16.8 million values to be registered; 36 bits yields 68 billion; etc. Most digital cameras capture at least 24-bit color depth, but it is important not to go any lower.

File Format and Compression

TIFF (Tagged Image File Format) is the file format of choice for storing archival-quality digital images. Not all digital cameras, however, offer TIFF as a file storage option: although TIFF can be found as a selection on 1 megapixel cameras, it is generally more common with 2 megapixel+ cameras. The JPEG (Joint Photographic Experts Group) file format is usually the default format setting for digital cameras; however, this format discards visual information in order to make file sizes smaller. Contributors to the Scrapbook should save their digital photographs in the TIFF format.

Photographic guidelines

Just as important as the technical specifications of digital photography are the techniques involved in the act of picture-taking itself. Some of these factors are listed below:

Composition

There are many aspects of good composition that will help produce the most effective pictures of a photographic subject: finding the best angles and distances from a subject; removing objects that may obscure or clutter the subject; and making sure the camera is steady. Many good books and web sites on photographic techniques exist to help out with compositional matters.

Exposure and lighting

The source, direction and quality of lighting can dramatically affect the outcome of a photograph. Although the automatic settings on digital cameras can compensate for many environmental situations, it is often important to manually adjust a camera's settings (light metering, shutter speed, color balance, etc.) to capture a scene in the most visually effective way.

Focus

Most digital cameras come with autofocus as the main means of adjusting focus; however, each camera may implement its autofocus capability differently, and it is important to know how it achieves this, so that the photographic subject can be framed correctly. Also, higher end cameras offer manual or macro-mode focus, which overrides the autofocus; when and how to use these manual modes is important for certain shots.

Review Sources

Reviews are also an important source of information if you are in the market for buying a digital camera. Many cameras look good on paper, but produce less than acceptable results. Consulting sources of product testing and evaluation is critical. A few good sources of reviews are listed below:

C|net Electronics - <http://computers.cnet.com/electronics/0-1429209.html>

Digital Camera Resource Page - <http://www.dcresource.com/>

digitalcameras.com - <http://www.digitalcameras.com>

Digital Photography Review - <http://www.dpreview.com/>

Epinions.com - <http://www.epinions.com/elec-Photo-Cameras-All-Digital>

How Digital Cameras Work - <http://www.howstuffworks.com/digital-camera.htm>

Imaging Resource - <http://www.imaging-resource.com/>

Megapixel.net - <http://www.megapixel.net/>

Nikon Photo World - http://www.nikon.co.jp/main/eng/photo_world/index.htm

ShortCourses - <http://www.shortcourses.com/>

ZDNet Reviews - <http://www.zdnet.com/special/filters/sc/camera/>