Imaging Policies for HBLL Digital Imaging
Brigham Young University

This document describes the imaging policies for the Digital Imaging department of the Harold B. Lee Library. Although certain common and minimum standards are suggested in this guide, items to be digitized should be individually assessed. The imaging policies described below are intended as a guide for assessment.

File Format

Files must be cross platform, uniquely identifiable within a collection, sort correctly by default, and unambiguously reproduce the physical object they represent.

Our file format standard for raw scans and archival files is the TIFF 6.0 specification. We use it because it is a lossless, open, and widely accepted file format.

Formats for display/delivery vary according a multiplicity of factors. We most commonly use JPEG, PDF and MrSid.

Storage Media

We use archival quality DVDs or CDs from Mitsui and we burn 2 copies of each disc. Since no long term storage media currently exist, we examine and refresh our collection on a 2 year basis. The Discs are inkjet printable and we use a Primera disc printer for labeling.

Image Resolution

The goal of imaging and archiving an item is to capture all of its significant details. For example in a publication or diary, significant details would include things like commas, periods, and perhaps even woodcut illustrations. In extreme cases the texture of the paper might be meaningful. We have found 400 dpi to be appropriate for most items and use this as a general standard.

There are a number of reasons for varying from the standard. One example is film (Slides, negatives or other transparencies.) Film has a much higher image density due to its physical properties. (We normally view film with a magnifying glass or as an enlarged print for this reason.) A starting point of 2700 dpi is our standard for film. The limiting factor for film is its grain. When higher resolution results in larger film grain rather than greater detail, there is no reason to increase resolution. Between 2700 and 4000 dpi is the most common range. Above 4000 dpi requires special mounting equipment to compensate for film grain and extraneous particulate matter. Some other exceptions to the standard are steel plate engravings, illuminated manuscripts and ancient

papyrus writings. These items generally have detail above that of common materials due their physical makeup. Greater resolution in each case is rewarded with greater detail. Even so, the highest resolution we've found useful for non film objects is 1200 dpi. It should always be kept in mind that higher resolutions result in bigger files, and can incur difficulties and extra expenses dues to longer scan times, cumbersome processing and increased storage requirements.

Color Management

For color management we use ICC profiles to calibrate equipment to a known color target such as the IT-8 from Kodak. Monitors, scanners and print output devices must be calibrated regularly to maintain proper color control. In cases where high accuracy color is necessary, a color target should be included with each scan.

Equipment Standards

The two common measures of equipment capability for imaging are optical resolution and dynamic range. Optical resolution is a measure of how much detail a scanner can capture without software interpolation. According to the standards listed above, 400 dpi for reflective materials and 2700 dpi for transparent materials is a minimum. Dynamic range is a measure of the breadth of color a scanner is capable of capturing. (How black is black, how white is white, how green is green.) The minimum dynamic range for reflective material is 2.0. For transparent materials the minimum is 3.2. High capability scanners will have a dynamic range higher than 4.0. This reflects their ability to work with especially dark (due to age) film.