



# Resolution Chart for Image Digitization

## RESOLUTION IN IMAGE DIGITIZATION

Resolution in an image is the number of pixels displayed in each dimension. In other words, resolution is the density of pixels in the image. The measurement for resolution in images is DPI (Dots per Inch) or PPI (Pixels per Inch). There is an inverse relationship between the size of the image and the resolution needed to meet a “high resolution” standard. The smaller an image is, the higher the resolution is needed to achieve “high resolution.”

Depending on the type of material being digitized, common recommendations range from 4,000 pixels on the long edge for text and manuscript material to 6,000 pixels on the long edge for transmissive materials such as negatives or slides. The appropriate PPI for an image can be calculated using an equation, or using the chart on page 3. A variety of standards and resources exist to guide your institution in creating best practices for image digitization. A few selected websites are below:

- Federal Agencies Digitization Guidelines Initiative (FADGI)  
<http://www.digitizationguidelines.gov/guidelines/>
- The Sustainable Heritage Network Photographs and Images  
<http://sustainableheritagenetwork.org/digital-heritage/category/photographs-and-images>
- Library of Congress Sustainable Formats  
<http://www.digitalpreservation.gov/formats/intro>

Remember, resolution is just one measure of quality for your digital images. You should also consider other factors such as bit depth, color profile, tonal range, and file format.

## HOW TO USE THIS CHART

This resolution chart can be used as a quick reference guide to decide the best resolution for a given format and size. The first row indicates what type of material to be scanned (**Verso of Archival Material, Legacy Digitization, Negatives and Slides, Photographic Prints, and Manuscript and Textual Material**). Each pair of columns underneath shows the number of inches on the long edge (Length of Long Edge), then the appropriate resolution for digitization (Digitization Resolution).

**Step 1:** Determine which format your material is using the five choices in the first row of the chart.

**Step 2:** Measure the long edge of your material using a ruler.

**Step 3:** Find the appropriate measurement in inches that is closest to your measurement.

**Step 4:** Find the Digitization Resolution to the right of that measurement.

For example, if you had a photographic print (reflective) which measured 7 inches on the long edge, you would want a scan of at least 725 PPI to achieve the best resolution possible. Scanning at a lower resolution would risk loss of detail, but scanning at much higher resolution would result in a larger file size without capturing more detail.

Verso of Archival Material (Content Information Only)		Legacy Digitization (former standard of 300 ppi)		Negatives and Slides (Transmissive)		Photographic Prints (Reflective)		Manuscript and Textual Material	
Length of long edge (inches)	Digitization Resolution	Length of long edge (inches)	Digitization Resolution	Length of long edge (inches)	Digitization Resolution	Length of long edge (inches)	Digitization Resolution	Length of long edge (inches)	Digitization Resolution
1.0	2000	1.0	3000	1.0	6000	1.0	5000	1.0	4000
1.5	1350	1.5	2000	1.5	4000	1.5	3500	1.5	3000
2.0	1000	2.0	1500	2.0	3000	2.0	2500	2.0	2000
2.5	800	2.5	1200	2.5	2400	2.5	2000	2.5	1600
3.0	675	3.0	1000	3.0	2000	3.0	1675	3.0	1350
3.5	575	3.5	875	3.5	1750	3.5	1450	3.5	1150
4.0	500	4.0	750	4.0	1500	4.0	1250	4.0	1000
4.5	450	4.5	675	4.5	1350	4.5	1125	4.5	900
5.0	400	5.0	600	5.0	1200	5.0	1000	5.0	800
5.5	365	5.5	550	5.5	1100	5.5	925	5.5	750
6.0	335	6.0	500	6.0	1000	6.0	850	6.0	675
6.5	310	6.5	475	6.5	925	6.5	775	6.5	625
7.0	290	7.0	450	7.0	900	7.0	725	7.0	575
7.5	270	7.5	400	7.5	800	7.5	675	7.5	550
8.0	250	8.0	375	8.0	750	8.0	625	8.0	500
8.5	240	8.5	375	8.5	725	8.5	600	8.5	475
9.0	225	9.0	350	9.0	675	9.0	575	9.0	450
9.5	215	9.5	325	9.5	650	9.5	550	9.5	425
10	200	10	300	10	600	10	500	10	400