

## Quality Control Metrics and Methods for Inspecting Digital Images: A Short Annotated Bibliography

Chapman, Stephen . [Report of Imaging Practitioners Meeting on 30 March 2001 to Consider How the Quality of Digital Imaging Systems and Digital Images May be Fairly Evaluated](#). Washington, DC: Digital Library Federation, May, 2001.

Building in part on work on imaging practices conducted Research Libraries Group (RLG), the DLF hosted a meeting to evaluate methods for evaluating the quality of images and image systems in order to determine whether common evaluation criteria might be developed to guide assessment in any domain.

Frey, Franziska. “[Measuring Quality of Digital Masters](#).” Washington, DC: Council on Library and Information Resources, 2000.

Presentation of objective and subjective techniques “to define and measure the technical qualities of a digital master in relation to the original from which it is reproduced and that it is intended to represent.”

Harold, Richard W. “[An Introduction to Appearance Analysis](#),” *Second Sight*, No. 84, reprint from *GATFWorld*, 2001.

McDowell, David and Larry Warter, “[Viewing Conditions What's New? Should We Care?](#)” *The Prepress Bulletin*, November/December 1997, 17-20.

Michel, Phil and Carl Fleischhauer, “High Spatial Resolution and Bit Depth in Reformatting Projects: Supporting Varied Outputs and High Volume Throughput,” [Archiving 2005: Final Program and Proceedings](#). Springfield, VA: IS&T: The Society for Imaging Science and Technology, 2005.

Paper includes salient comments regarding the role of *performance measures* to inform decisions regarding the amount of spatial resolution and bit depth that should be applied in digital reformatting to achieve reproduction quality that will support future uses of surrogates.

Reilly, James and Dr. Franziska Frey. [Digital Imaging for Photographic Collections: Foundations for Technical Standards](#). Second Edition Rochester, NY: Image Permanence Institute, Rochester Institute of Technology, 2006.

Essential reading to understand the components needed to build “an image quality framework” to assess digital image reproductions. Final report from NEH-sponsored research study investigating the use of digital imaging in libraries and archives.

[Recommendations for the Evaluation of Digital Images Produced from Photographic, Microphotographic, and Various Paper Formats](#). Washington, DC: Library of Congress American Memory Technical Document, June 1996.

Recommended quality assurance procedures that combine subjective and objective measures designed to ensure the long-term usefulness of digital files. Cogent technical explanations of tone reproduction, detail, and edge reproduction, noise, and the metrics used for their measurement.

Sharpe, Louis H., II, D. Michael Ott and Carl Fleischhauer. [Final Report: Library of Congress Manuscript Digitization Demonstration Project](#). Washington, DC, October 1998.

Investigation of relationship among resolution (dpi), bit depth, and compression as contributors to image quality. Report recommends use of grayscale and color scanning, and underscores need for tools and techniques to measure image quality objectively.

Williams, Don. "[What is an MTF ... and Why Should You Care?](#)" RLG DigiNews, Volume 2, Number 1, February 15, 1998.

Technical overview of Modulation Transfer Function, and explanation of why MTF is more reliable than dpi as a measurement of image quality, particularly for detail reproduction. Includes illustrations.