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Gestion des documents — Conservation numérique — Enregistrement analogique au microforme sur gélatine-argent

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The committee responsible for this document is ISO/TC 171, *Document management applications*, Subcommittee SC 1, *Quality*.

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Introduction

The perceived value of condensing information by optically filming documents, engineering drawings, and cartographic materials to microfilm has been well established along with a large collection of ISO standards that have provided standards and guidance for many years. As more and more information is generated in digital format, only concerns have arisen regarding preservation of digital data and images. History has shown that as long as preservation information is kept in analog format, the digital format becomes more usable, upgradable, and most importantly, safer. The National Micrographics Association (NMA) in 1943 started standardization of practices for the manufacture and use of microfilm, supplies, and equipment in conjunction with organizations such as, the National Bureau of Standards (later to become National Institute of Standards (NIST), National Archives of the US (NARA), Library of Congress (LOC), American National Standards Institute (ANSI), manufacturers such as, Eastman Kodak Company, 3M, Dupont, IBM, and many others.

These documents were introduced into the ISO environment and published as

— ISO 6199:2005, *Micrographics — Microfilming of documents on 16 mm and 35 mm silver-gelatin type microfilm — Operating procedures,* and

— ISO 9923:1994, *Micrographics — Transparent A6 microfiche — Image arrangements.*

In about 1960, Enterprise Report Management (ERM) recognized the value of directly recording computer data onto microfilm using Computer Output Microfilm (COM). These practices and documents all share the common practice of using optical techniques for information capture onto microfilm. The critical test element used in measuring quality in all these systems is based on the ISO test chart 3334 (see Figure 1).

These were introduced into ISO as

— ISO 8514-1:2000, *Micrographics — Alphanumeric computer output microforms — Quality control — Part 1: Characteristics of the test slide and test data,* and

— ISO 8514-2:2000, *Micrographics — Alphanumeric computer output microforms — Quality control — Part 2: Method.*

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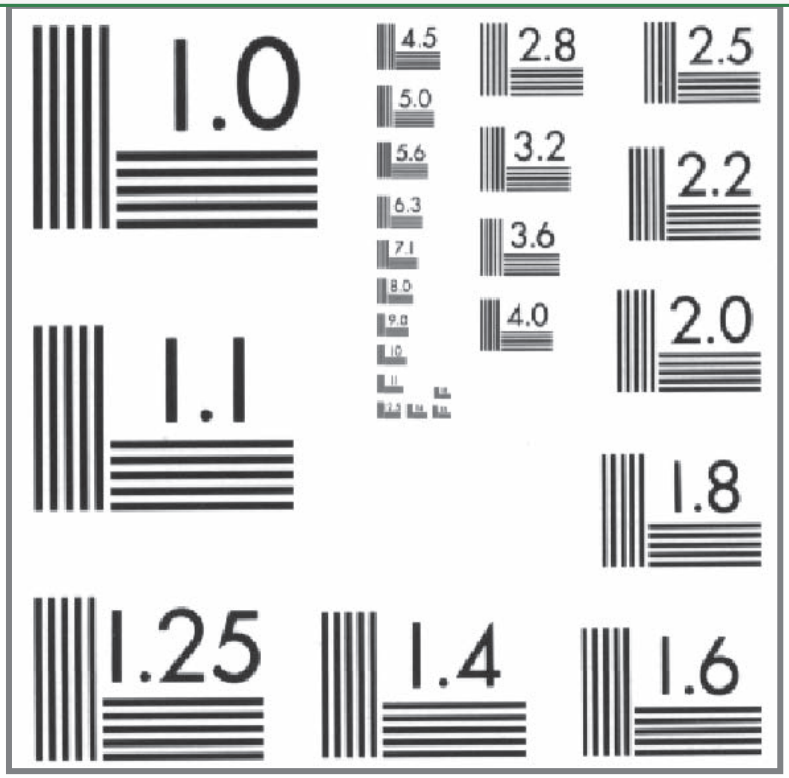

Figure 1 — Reproduction of ISO test chart 3334

The key features of this target are sets of five equally spaced lines and spaces that can be filmed at any optical reduction ratio; and by simply examining the resultant image, one can determine camera/film system resolution. The resolution is determined by multiplying the smallest readable element by the reduction ratio to determine line pairs per mm resolution.

In summary, there is a good body of standardized reference materials for measuring quality and ensuring good quality control for traditional optical microfilming or for recording digital data onto microfilm. ISO 11506 further demonstrated the value and gave some guidelines for formatting digital data and images to microfilm.

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