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TECHNICAL REPORT

report

report

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Requirements

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Technical Report for Information and Image Management —

Selecting an Appropriate Image Compression Method to Match User Requirements

An ANSI Technical Report prepared
by the Association for Information and Image Management International

Abstract:

This technical report provides practical methods for analyzing user requirements for image compression in order to select an appropriate and optimal image compression scheme that matches user requirements. The report describes procedures for applying image compression methods and standards to various types of documents in Electronic Image Management (EIM) systems. It addresses some of the applications of image compression methods and standards that are used for continuous tone (color and gray scale) images and for bi-level (line art and text) images, and it provides guidance in selecting applicable compression algorithms for each among a wide range of source documents.

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Foreword

(This foreword is not part of the American National Standard for Information and Image Management TR33-1998 – Technical Report – Selecting an Appropriate Image Compression Method to Match User Requirements.)

This report describes procedures for applying image compression methods and standards to various types of documents in Electronic Image Management (EIM) systems. It addresses some of the applications of image compression methods and standards that are used for continuous tone (color and gray scale) images and for bi-level (line art and text) images.

Standards that are discussed include ISO/IEC 11544, known as JBIG (Joint Bi-level Imaging Group), ISO/IEC 10918, known as JPEG (Joint Photographic Expert Group), and the ITU-T Rec. T.4 ("Group 3") and T.6 ("Group 4") compression schemes. This report does not attempt to address all compression schemes, but focuses only on those that are current national or international standards in the area of document image management. A number of international standards are in development which may be applicable in the future.

It is planned that this document will be revised as newer compression schemes become available and standardized.

This technical report is intended to cover scanned documents that are to be compressed, processed, and/or stored in an EIM system. Several strategies are described, including the use of single and multiple compression schemes for image storage or processing. Various parts of this document should be applicable to a wide range of systems.

This document is intended for use by managers and implementers involved in the acquisition and development of EIM systems.

Suggestions for improving this technical report are welcome. They should be sent to the Chair, AIIM Standards Board, Association for Information and Image Management International, 1100 Wayne Avenue, Suite 1100, Silver Spring, Maryland, 20910-5603.

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