



American National Standard for Financial Services

X9.100-181-2007

Specification for TIFF Image Format for Image Exchange



Accredited Standards Committee X9, Incorporated
Financial Industry Standards

Date Approved: 9/12/07

American National Standards Institute

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Foreword

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Published by

Accredited Standards Committee X9, Incorporated
Financial Industry Standards
1212 West Street Suite 200
Annapolis, MD 21401 USA
X9 Online <http://www.x9.org>

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Introduction

The purpose of this standard is to provide the financial industry with a defined specific implementation of a TIFF (Tagged Image File Format) structure necessary to support proper electronic check exchange (ECE) without the need of special agreements. This standard was determined to be necessary when an issue arose in the development of ANS X9.100-180-2006 (Specification for Electronic Exchange of Check and Image Data) which was proposing a normative Annex that contained minimum TIFF tags. As a result, the working group's decision was to move the TIFF tag Annex N in ANS X9.100-180-2006 from a normative to an informative Annex and create a separate standard ANS X9.100-181 that would define the minimum TIFF fields and their allowed values for image exchange. The new standard will allow development of accepted methods and procedures to accommodate any identified key non-conformances. JPEG (grayscale) compressions will be addressed in a separate standard to be developed in the future.

The standard will focus on seven (7) key issues regarding TIFF tags these are: Multistrip, Byte-order, Photometric Interpretation, Fill Order, Orientation, Resolutions and Private Tags.

Suggestions for the improvement or revision of this standard are welcome. They should be sent to the X9 Committee Secretariat, Accredited Standards Committee X9, Inc., Financial Industry Standards, 1212 West Street, Annapolis, MD 21401

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Financial Services, X9. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval.

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American National Standard for Financial Services— TIFF Image Format for Financial Image Exchange

1 Purpose

The ANS X9.100-180-2006 standard, as well as other standards, defines TIFF 6.0 as an image format scheme that can be used between exchange partners without the need of special agreement. Although TIFF is a defined specification, it is very flexible and is designed to accommodate a variety of uses. In addition, some TIFF field values can have different interpretations. Therefore, this flexibility can cause some TIFF readers, internal TIFF editors and image applications to experience problems when they encounter a variant which they are not designed to handle. Currently, many TIFF readers, editors and image applications in use in the financial industry do not support all variations and interpretations of TIFF generated by the diverse range of check image scanners and transports in use today.

In addition, as automated recognition and quality analysis becomes more common throughout the industry, some variations such as upside down or reversed image video can cause failures within these processes as well as printing and viewing concerns. As many new scanning devices and applications are being developed for check imaging, a central purpose of this standard is to provide guidance to the financial industry by defining the most commonly supported and least problematic uses of TIFF fields and their values for the exchange of images within the financial industry.

2 Scope

The scope of this standard is to define specific TIFF fields that can be used and the allowable values for those fields that will support interoperability for check image exchange processing between financial institutions. This standard will only address the use of G4 bilevel image (black/white) compressions within the TIFF 6.0 structure.

A “least common denominator” approach was used to identify the fields that everyone should read and the required or allowable values for these fields that everyone will be expected to support. To accomplish interoperability, some of the fields and values are more restrictive compared to what is being generated in today's environment. In addition, this standard clarified areas that have been interpreted in different ways.

This standard developed a methodology that promotes an expedited migration to these restrictive specifications as well as accepted procedures and techniques for dealing with variants or non-conformances. Initially, there are fields that will need to be allowed to vary in order to have an orderly migration to full compliance. The hope is that these variances would be minimal and would be phased out over time.

This standard will not address changing the industry TIFF (Tagged Image File Format) revision 6.0 (final June 3, 1992) standard owned by Adobe Systems Inc. as it is used for a wider variety of industry uses. Also, JPEG (grayscale) compressions will be addressed in a separate standard to be developed in the future.

This standard supersedes Annex N in ANS X9.100-180-2006. (Annex N Informative, TIFF 6.0 Recommendations for Exchange)