



## American National Standard for Financial Services

# ANSI X9.100-181-2014

## TIFF Image Format for Image Exchange



Developed by  
Accredited Standards Committee X9, Incorporated  
Financial Industry Standards

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American National Standards Institute

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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 to define the minimum TIFF fields and their allowed values for image exchange. The standard allows development of accepted methods and procedures to accommodate any identified key non-conformances. JPEG (grayscale) compressions may be addressed in a separate standard to be developed in the future.

The latest revision for clarifies certain points and places the restriction on the *StripByteCounts* (Tag 279) within Table 1 to avoid any confusion about the requirement. Other minor changes were made improve clarity, update references, and to reflect X9 organizational changes.

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, 275 West Street, Suite 107, 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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Working Group **X9AB6** on **Electronic Exchange of Check and Image Data** which developed this standard had the following participants:

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This document cancels and replaces ANS X9.100-181-2010, *TIFF Image Format for Image Exchange*.

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

## 1 Purpose

The ANSI X9.100-187 standard, as well as other standards, defines TIFF 6.0 as an image format scheme that will support interoperability for check image exchange processing between financial institutions 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 condition which they are not designed to handle. Many TIFF readers in use in the financial industry do not support all interpretations of TIFF generated by the diverse range of check image capture devices and software platforms.

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 and parameters for check image exchange and the allowable values for those parameters. 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 will not address changing the industry TIFF (Tagged Image File Format) revision 6.0 (final June 3, 1992) specification 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.

## 3 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ANSI X9.100-187, *Electronic Exchange of Check and Image Data*