



American National Standard for Financial Services

ANSI X9.100-183-2009

(Formerly published as DSTU X9.100-183-2005)

Specifications for Electronic Check Adjustments



Accredited Standards Committee X9, Incorporated
Financial Industry Standards

Date Approved: April 13, 2009

American National Standards Institute

American National Standards, Technical Reports and Guides developed through the Accredited Standards Committee X9, Inc., are copyrighted. Copying these documents for personal or commercial use outside X9 membership agreements is prohibited without express written permission of the Accredited Standards Committee X9, Inc. For additional information please contact ASC X9, Inc., 1212 West Street, Suite 200, Annapolis, MD 21401.

This page left intentionally blank

Contents

Page

Introduction.....	xii
1 Scope, purpose, and application	1
1.1 Scope	1
1.2 Purpose and application.....	1
2 References	1
3 Definitions	2
3.1 General Definitions.....	2
3.2 Adjustment Definitions	4
4 File Structure	4
4.1 Record Types.....	4
4.2 File Structure Requirements	5
4.2.1 File Header Record (Type 01).....	5
4.2.2 Batch Header Record (Type 10).....	5
4.2.3 Case Information Record (Type 20).....	5
4.2.4 Entry Research Record (Type 30).....	5
4.2.5 Cash Letter Research Record (Type 40)	5
4.2.6 Bundle Research Record (Type 50).....	5
4.2.7 Check Research Record (Type 60)	6
4.2.8 Digital Certificate Record (Type 64).....	6
4.2.9 Batch Control Record (Type 70)	6
4.2.10 Universal Documentation Addendum (Record Type 80).....	6
4.2.11 File Summary Record (Type 99).....	6
4.3 Examples	7
4.3.1 Example 1	7
5 Data and Field Specifications	8
5.1 Character Definitions	8
5.1.1 Blank	8
5.1.2 Alphabetic characters	8
5.1.3 Numeric characters	9
5.1.4 Questionable Data Character – (?)	9
5.1.5 Special characters.....	9
5.2 Special MICR characters	9
5.2.1 MICR Amount Symbol (\$)	9
5.2.2 MICR Can't Read (*).....	9
5.2.3 MICR Dash Symbol (-).....	9
5.2.4 MICR On-Ups Symbol (/)	9
5.2.5 MICR Transit Symbol (#).....	9
5.3 Generic Field Data Types	10
5.3.1 Blank (B).....	10
5.3.2 Alphabetic (A)	10
5.3.3 Numeric (N)	10
5.3.4 Numericblank (NB)	10
5.3.5 Alphameric (AN)	10
5.3.6 Alphameric/special (ANS).....	10
5.3.7 Numericblank/questionmark (NBQ).....	10
5.3.8 Binary.....	10
5.3.9 Numericblank/special MICR (NBSM)	10
5.3.10 Numericblank/special MICR Dash (NBSMD).....	11
5.3.11 Numericblank/special MICR Unparsed (NBSMU).....	11

ANS X9.100.183-2009

5.3.12	Numericblank/Dash (NBD)	11
5.3.13	Numeric/Dash (ND)	11
5.3.14	Numericblank/special MICR On-Us (NBSMOS)	11
5.3.15	Numericblank/signed number (NBSN)	11
5.3.16	Alphameric/comma delimited (ANC).....	11
5.4	Fill data	11
5.5	Data justification	11
5.5.1	Right justification.....	12
5.5.2	Left justification	12
5.6	General Field Orientation	12
5.7	User fields.....	12
6	Table Headings and Field Properties.....	12
6.1	Field.....	13
6.2	Field name	13
6.3	Usage	13
6.4	Position	13
6.5	Size	13
6.6	Type.....	13
6.7	Format.....	13
6.8	Defined values.....	13
7	File Header Record (Type 01)	14
7.1	Record Type	14
7.2	Standard Level	14
7.3	File Type Indicator	15
7.4	Immediate Destination Routing Number	15
7.5	Immediate Origin Routing Number	15
7.6	File Creation Date	16
7.7	File Creation Time.....	16
7.8	Resend Indicator.....	16
7.9	Immediate Destination Name.....	17
7.10	Immediate Origin Name.....	17
7.11	File ID Modifier	17
7.12	Country Code	17
7.13	User Field.....	18
7.14	Reserved.....	18
8	Batch Header Record (Type 10)	19
8.1	Record Type	19
8.2	Sender Institution Name	19
8.3	Sender Contact Name	20
8.4	Sender Contact Number.....	20
8.5	Sender Contact Number.....	20
8.6	Sender Fax Number	21
8.7	Sender Routing Number	21
8.8	Sender E-mail Address	21
8.9	Address Line 1	21
8.10	Address Line 2	22
8.11	City	22
8.12	State	22
8.13	Zip-Code	22
8.14	Receiver Routing Number.....	23
8.15	User Field.....	23
8.16	Reserved.....	23
9	Case Information Record (Type 20)	24
9.1	Record Type	25
9.2	Request Type Indicator	25
9.3	Receiver Reference Number.....	25
9.4	Message Type Indicator	26

9.5	Action Taken Indicator	26
9.6	Dollar Amount	27
9.7	Settlement Method Indicator	27
9.8	Recipient RN/Settlement Account	27
9.9	Investigation Type Indicator	28
9.10	Acknowledgment Requested Indicator	29
9.11	Universal Documentation Addendum Record Count	29
9.12	Case Total Record Count	29
9.13	Monetary / Non-Monetary	30
9.14	Compensation Indicator	30
9.15	Status Inquiry Counter	30
9.16	Sender Reference Number	30
9.17	Case Closed/Rejected Date	31
9.18	Date Submitted	31
9.19	Cash Letter Date	31
9.20	Settle Date	31
9.21	Collection Type Indicator	32
9.22	Group Adjustment Indicator	32
9.23	Group Count	33
9.24	Settlement Accounting Identifier (AID)	33
9.25	Document Received Indicator	33
9.26	3rd Party Institution RN	34
9.27	3rd Party Institution Account	34
9.28	3rd Party Documentation Location RN	34
9.29	Comments	34
9.30	User Field	35
9.31	Reserved	35
10	Entry Research Record (Type 30)	36
10.1	Record Type	36
10.2	Dollar Amount	36
10.3	Entry Date	36
10.4	Settlement Accounting Identifier (AID)	37
10.5	User Field	37
10.6	Reserved	37
11	Cash Letter Research Record (Type 40)	38
11.1	Record Type	38
11.2	Cash Letter Business Date	38
11.3	Cash Letter Total Listed As Amount	39
11.4	Cash Letter Sent To Routing Number	39
11.5	Cash Letter Received From Routing Number	39
11.6	Cash Letter Should Be Amount	40
11.7	Cash Letter Creation Date	40
11.8	Cash Letter ID	40
11.9	Actual Delivery Date	40
11.10	Actual Delivery Time	41
11.11	Cash Letter Documentation Type Indicator	42
11.12	User Field	42
11.13	Reserved	42
12	Bundle Research Record (Type 50)	44
12.1	Record Type	44
12.2	Bundle Business Date	44
12.3	Bundle Total Listed As Amount	45
12.4	Bundle Sent To RN	45
12.5	Bundle Received From RN	45
12.6	Bundle Total Should Be Amount	45
12.7	Bundle Creation Date	46
12.8	Bundle / ID GID - block / string	46

ANS X9.100.183-2009

12.9	User Field.....	46
12.10	Reserved.....	46
13	Image View Detail Record (Type 51)	48
13.1	Record Type	48
13.2	Image Indicator	49
13.3	Image Creator Routing Number	49
13.4	Image Creator Date.....	50
13.5	Image View Format Indicator.....	50
13.6	Image View Compression Algorithm Identifier.....	51
13.7	Image View Type.....	51
13.8	View Side Indicator.....	52
13.9	View Descriptor.....	52
13.10	Digital Signature Indicator	53
13.11	Digital Signature Hash Function Method	53
13.12	Digital Signature Cryptographic Algorithm Method.....	53
13.13	DSA/RSA Key Size or ECC Curve Number.....	54
13.14	Digital Certificate Indicator	54
13.15	Digital Certificate Format	54
13.16	Digital Certificate Conveyance Method	55
13.17	Start of Protected Data	55
13.18	Length of Protected Data	55
13.19	Image Recreate Indicator	56
13.20	User Field.....	56
13.21	Reserved.....	56
14	Image View Data Record (Type 52)	57
14.1	Record Type	58
14.2	ECE Institution Routing Number.....	58
14.3	Bundle Business Date	59
14.4	Cycle Number.....	59
14.5	ECE Institution Item Sequence Number.....	59
14.6	Security Originator Name	59
14.7	Security Authenticator Name	60
14.8	Security Key Name	60
14.9	Clipping Origin	60
14.10	Clipping Coordinate h1	61
14.11	Clipping Coordinates h2	61
14.12	Clipping Coordinates v1	61
14.13	Clipping Coordinates v2	62
14.14	Length of Image Reference Key	62
14.15	Length of Digital Signature.....	62
14.16	Length of Digital Certificate Pointer	62
14.17	Length of Digital Certificate.....	63
14.18	Length of Image Data	63
14.19	Image Reference Key	63
14.20	Digital Signature	64
14.21	Digital Certificate Pointer.....	64
14.22	Digital Certificate	64
14.23	Image Data.....	65
15	Image View Analysis Record (Type 54)	66
15.1	Record Type	67
15.2	Global Image Defect	68
15.3	Global Image Usability	68
15.4	Imaging Bank Specific Test.....	68
15.5	Partial Image.....	69
15.6	Excessive Image Skew.....	69
15.7	Piggyback Image.....	69
15.8	Too Light Or Too Dark.....	70

15.9	Streaks And Or Bands	70
15.10	Below Minimum Image Size	71
15.11	Exceeds Maximum Image Size.....	71
15.12	Reserved	71
15.13 through 15.24	Reserved.....	72
15.25	Image-Enabled POD	72
15.26	Source Document Bad	72
15.27	Date Usability	73
15.28	Payee Usability	73
15.29	Convenience Amount Usability	73
15.30	Amount in Words (Legal Amount) Usability	74
15.31	Signature Usability	74
15.32	Payor Name and Address Usability.....	74
15.33	MICR Line Usability	75
15.34	Memo Line Usability.....	75
15.35	Payor Bank Name And Address Usability	75
15.36	Payee Endorsement Usability	76
15.37	Bank of First Deposit Endorsement Usability	76
15.38	Transit Endorsement Usability	77
15.39	Reserved	77
15.40	Reserved	77
15.41	Reserved	77
15.42	Reserved	77
15.43	Reserved	77
15.44	Reserved	77
15.45	User Field	78
15.46	Reserved	78
16	Check Research Record (Type 60)	79
16.1	Record Type.....	79
16.2	Item Sequence Number.....	80
16.3	Item Before Amount	80
16.4	Item After Amount	81
16.5	Listed As Amount.....	81
16.6	Should Be Amount	81
16.7	Microfilm Sequence Number	82
16.8	Image Archive Sequence Number	82
16.9	Payor Account Name	82
16.10	Auxiliary On-Us.....	82
16.11	External Processing Code.....	83
16.12	Payor Bank Routing Number	83
16.13	On-Us	83
16.14	Item Amount.....	83
16.15	Treasury Reclamation Number	84
16.16	Payee Name	84
16.17	Treasury Locator Number	84
16.18	User Field	84
16.19	Reserved	84
17	Digital Certificate Record (Type 64).....	86
17.1	Record Type	86
17.2	Digital Certificate Format.....	86
17.3	Length of Digital Certificate Issuer Distinguished Name	87
17.4	Length of Digital Certificate Serial Number	87
17.5	Length of Digital Certificate	87
17.6	Digital Certificate Issuer Distinguished Name	87
17.7	Digital Certificate Serial Number	88
17.8	X.509 Digital Certificate.....	88
18	Batch Control Record (Type 70)	89

ANS X9.100.183-2009

18.1	Record Type	89
18.2	Adjustment Notice Count.....	89
18.3	Adjustment Notice Credit Dollar Amount.....	89
18.4	Adjustment Notice Debit Dollar Amount	90
18.5	Adjustment Request Count	90
18.6	Adjustment Request Dollar Total	90
18.7	Case Dollar Total.....	90
18.8	Batch Total Record Count	91
18.9	User Field.....	91
18.10	Reserved.....	91
19	Universal Documentation Addendum Record (Type 80).....	92
19.1	Record Type	92
19.2	Documentation Type Indicator	92
19.3	Media Delivery Specification	93
19.4	Network Address	93
18.5	User Field.....	93
19.6	Reserved.....	93
20	File Summary Record (Type 99)	95
20.1	Record Type	95
20.2	Adjustment Case Count	95
20.3	Total Record Count.....	96
20.4	File Dollar Total	96
20.5	Immediate Origin Contact Name	96
20.6	Immediate Origin Contact Phone Number	96
20.7	User Field.....	97
20.8	Reserved.....	97
	Annex A (Normative) Investigation Type Indicators	98
A.1	Matrix.....	98
	Annex B (Normative) Construction of Group Adjustments.....	113
B.1	The following principles shall be used in the creation of group adjustments.....	113
	Annex C (Normative) Documentation	114
C.1	Documentation	114
C.2	Mandatory Documentation	114
C.3	Adjustment Record Levels Cross Reference.....	114
C.4	Multiple Documents Within a Single Case	115
C.5	Documentation for Group Adjustments	115
	Annex D (Normative) Conditional Fields	116
D.1	General Comments.....	116
	Annex E (Normative) Image Record Definition for Image View Not Present.....	121
E.1	Image Record Field Values for Image View Not Present	121
E.1.1	Image View Detail Record (Type 51) Field Values for Image View Not Present condition.....	121
E.1.2	Image View Data Record (Type 52) Field Values for Image View Not Present condition.....	122
	Annex F (Normative) Standard On-Us Field Format	123
F.1	ANS X9.100-160-1 Structure and Definition of the On-Us field	123
F.2	Standard On-Us field format.....	123
	Annex G (Informative) Comments on The Creation of Adjustment Cases	124
G.1	General Comments.....	124
G.2	ECA File Formats	124
G.3	Decision Points for Constructing the Message.....	124
G.3.1	Senders and Receivers	124

G.3.2	Direct or Indirect Mode	124
G.3.3	Investigation Types	125
G.3.4	Action Taken and Message Type Indicators	125
G.4	Paid Twice – A Special Case	125
Annex H (Informative) Comments on Returns vs. Adjustments		126
H.1	General Comments.....	126
H.2	Forward Processing	126
H.3	Return Item Processing	126
H.4	Non-Cash Items	126
H.5	Other Special Cases.....	127
H.6	Return Reasons and Investigation Types in this Standard	127
Annex I (Informative) Comments on the Use Of The “Free” Investigation Type		128
I.1	General Comments.....	128
I.2	“Free” Item Stamp	128
I.3	“Free” Item Situations.....	128
Annex J (Informative) Comments on the Use Of The “Photo-in-Lieu” Investigation Type		130
J.1	General Comments.....	130
J.2	Current Paper Environment	130
J.2.1	Forward Processing	130
J.2.2	Returns Processing.....	131
Annex K (Informative) Comments on the Treasury Item Related Adjustments		132
K.1	General Comments.....	132
K.2	Submitting Adjustments to the Treasury.....	132
K.2.1	Special Handling.....	133
K.3	Receiving Adjustments from the Treasury Department.....	133
Annex L (Informative) Variable Length Record File.....		134
L.1	Background on Variable Length Record File	134
L.2	Methodology for Variable Length Record File	134
L.3	Samples of Variable Length Record File	134
L.3.1	File Header Record (Type 01) – 80 Characters	134
L.3.2	Image View Data Record (Type 52) – 32,000 Characters.....	135
Annex M (Normative) Image Record Definitions		136
M.1	Image View Data Record (Type 52).....	136
M.1.1	Item Reference Key	136
M.1.2	Clipping Information	136
M.2	Image View Analysis Record (Type 54).....	136
M.2.1	Image Defects	136
M.2.2	Image Usability	136
M.2.3	Image Analysis User Information	137
Annex N (Informative) Allowable Combinations between Image View Format Indicator and Image View Compression Algorithm		138
N.1	General Comments.....	138
Annex O (Normative) Image Security Fields.....		139
O.1	Introduction to Digital Signature and Digital Certificate	139
O.2	Fields related to Digital Signature and Digital Certificate Conveyance.....	139
O.3	Field Usage	141

ANS X9.100.183-2009

O.4	Preferred Methods for Digital Signature and Digital Certificate Creation.....	142
O.5	Alternate Method for Digital Signature Creation	143
O.6	Digital Signature Verification.....	144

Foreword

Approval of an American National Standard requires verification by ANS that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgment of the ANS Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretation should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of approval.

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>

Copyright © 2009 ASC X9, Inc.

All rights reserved.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior written permission of the publisher. Published in the United States of America.

ANS X9.100.183-2009

Introduction

The purpose of this standard is to provide the financial industry with a format to perform the electronic exchange of check adjustments. The format supports adjustment requests, adjustment notices, and other adjustments related messages.

The standard was developed as the second phase of a work effort originally prompted by enactment of the Federal Reserve Board's Same-Day Settlement proposal. The first standard resulting from the work effort was ANS X9.37-1994, Specifications for Electronic Check Exchange. ANS X9.37 was subsequently revised and updated according to ANS procedures in 2000, 2003, 2006 and 2008. This second standard completes the work effort, and is designed to work with the check and image data exchange standard to further facilitate the reduction of check processing costs through automation of the manual adjustment environment. Although the benefits of electronic check exchange would be maximized if the standards were implemented together, each may be implemented independently.

There are ten annexes in this standard. Annexes A through D are normative and are considered part of this standard; annexes E through J are informative and are not considered part of this standard.

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, Suite 200, Annapolis, MD 21401 USA.

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.

At the time this standard was approved, the X9 committee had the following members:

Jim Shaffer, X9 Chairman, ACI Worldwide

Vincent DeSantis, X9 Vice-Chairman, The Clearing House

Cynthia Fuller, X9 Executive Director (Secretariat)

Organization

ACI Worldwide
American Bankers Association
American Express Company
American Financial Services Association
Bank of America
Certicom Corporation
Citigroup, Inc.
CUSIP Service Bureau
Deluxe Corporation
Diebold, Inc.
Discover Financial Services
Federal Reserve Bank
First Data Corporation
Fiserv
FSTC, Financial Services Technology Consortium
Harland Clarke
Hewlett Packard
Hypercom

Representative

Jim Shaffer
C. Diane Poole
Mark Merkow
Mark Zalewski
Daniel Welch
Daniel Brown
Gary Word
James Taylor
John FitzPatrick
Bruce Chapa
Katie Howser
Dexter Holt
Rick Van Luvender
Skip Smith
Daniel Schutzer
John McCleary
Larry Hines
Gary Zempich

IBM Corporation	Todd Arnold
Ingenico	John Spence
Intuit, Inc.	Jana Hocker
J.P. Morgan Chase & Co	Robert Blair
KPMG LLP	Mark Lundin
MagTek, Inc	Carlos Morales
MasterCard International	William Poletti
NACHA The Electronic Payments Association	Nancy Grant
National Association of Convenience Stores	Michael Davis
National Security Agency	Paul Timmel
NCR Corporation	Steve Stevens
Proofspace	Paul Doyle
SWIFT/Pan Americas	James Wills
The Clearing House	Vincent DeSantis
U.S. Bank	Marc Morrison
University Bank	Stephen Ranzini
VECTORsgj	Ron Schultz
VeriFone, Inc.	Brad McGuinness
VISA	Richard Sweeney
Wachovia Bank	Raymond Gatland
Wells Fargo Bank	Ruven Schwartz

The X9AB subcommittee on Check Processing had the following members:

Mr. Dexter Holt, Chairman, Federal Reserve Bank
Mr. Daniel Welch, Vice Chairman, Bank of America
Ms. Nancy Grant, Vice Chairman, NACHA
Mr. Robert Blair, Vice Chairman, JPMorgan Chase

Organization

ACI Worldwide
ACI Worldwide
ACI Worldwide
ACOM Solutions
ACS, Government Solutions
All My Papers
All My Papers
All My Papers
American Bankers Association
American Express Company
American Express Company
American Financial Services Association
Anicheva
BancTec, Inc.
Boise Paper Solutions
Certicom Corporation
Check Site, Inc.
Check Site, Inc.
Check Site, Inc.
CheckFree
Citigroup, Inc.
Citigroup, Inc.
Citigroup, Inc.
Citigroup, Inc.
ClearWave Electronics

Representative

Dan Archer
Cindy Rink
Jim Shaffer
Gregory T. Church
Pat Solitro
Ray Higgins
Larry Krummel
Brett Nelson
C. Diane Poole
Richard Rodriguez
Vicky Sammons
Mark Zalewski
Juan Celorio
Peter Caporal
Jim Moore
Daniel Brown
Neil Godfrey
Blaugrund John
Mark Springer
Don Harman
Karla McKenna
Susan Rhodes
Andrew Thomas
Gary Word
Mark Ross

ANS X9.100.183-2009

Compass Bank	Jan Cole
Compass Bank	Kirk Maze
Davis & Henderson	Dragan Calusic
Davis & Henderson	Yves Denomme
Deluxe Corporation	John FitzPatrick
Deluxe Corporation	Ralph Stolp
Deluxe Corporation	Mike Valiquet
Diebold, Inc.	Bruce Chapa
Diebold, Inc.	Laura Drozda
Discover Financial Services	Peggy Burggraf
Discover Financial Services	Katie Howser
Discover Financial Services	Julie Shaw
ECCHO	Ellen Heffner
ECCHO	Phyllis Meyerson
First Data Corporation	Pam Carter
First Data Corporation	Elizabeth Lynn
First Data Corporation	Tina McGowan
Fiserv	Mary Bland
Fiserv	Keay Edwards
Fiserv	Lori Hood
Fiserv	Ron Jacobs
Fiserv	Dan Otten
Fiserv	Joe Pachunka
Fiserv	Skip Smith
Fiserv	Chad Speiser
Fiserv	Senthil Thiagarajan
FSTC, Financial Services Technology Consortium	Frank Jaffe
FSTC, Financial Services Technology Consortium	Christine Nautiyal
FSTC, Financial Services Technology Consortium	Daniel Schutzer
FSTC, Financial Services Technology Consortium	Colin Strutt
Harland Clarke	John McCleary
Harland Clarke	Valerie Meddleton
Huntington Bank	Michelle Dunkle
Huntington Bank	Jim Posani
Hypercom	Mohammed Arif
Hypercom	Scott Spiker
Hypercom	Gary Zempich
IBM Corporation	Rod Moon
IFSA	Katja Lehr
IFSA	Dan Taylor
ImageScan	Hanna Jabbour
ImageScan	Lucie Johnson
Ingenico	Alexandre Hellequin
Ingenico	John Spence
Intuit, Inc.	Jana Hocker
iStream Imaging/Bank of Kenney	Mike McGuire
J.P. Morgan Chase & Co	Dick Angerosa
J.P. Morgan Chase & Co	Roy Decicco
J.P. Morgan Chase & Co	Edward Koslow
J.P. Morgan Chase & Co	Jackie Pagan
J.P. Morgan Chase & Co	Paul Simon
J.P. Morgan Chase & Co	Bonnie Wright
J.P. Morgan Chase & Co	Jim Wright

Jack Henry and Associates	Jerry Garrett
Jack Henry and Associates	Chuck Hendrickson
MagTek, Inc.	Jeff Duncan
MagTek, Inc.	Carlos Morales
Maximus, Inc.	Jon Haught
Maximus, Inc.	Peter Relich
Micro Solutions Enterprises - MSE	Carl Grant
NACHA The Electronic Payments Association	Priscilla Holland
National Association of Convenience Stores	Michael Davis
National Association of Convenience Stores	Alan Thiemann
National Security Agency	Paul Timmel
Navy Federal Credit Union	Kim Engman
Navy Federal Credit Union	Joan Wood
NCR Corporation	Stewart Kelland
NCR Corporation	David Norris
NCR Corporation	Ron Rogers
NCR Corporation	Steve Stevens
NetDeposit, Inc.	Danne Buchanan
NetDeposit, Inc.	William Wong
Oce North America, Inc	Tony Ribeiro
Orbograph	Uriel BenDavid
Orbograph	Joe Gregory
Orbograph	Dave Kliewer
Paychex Inc	Carl Tinch
Piracle	Jared Kesler
Piracle	Lynn Shimada
Proofspace	Paul Doyle
RDM Corporation	Bill Faulkner
RDM Corporation	Tom Kettell
RDM Corporation	Karin McNabb
Relyco Sales Inc	Rick Gagnon
Relyco Sales Inc	Michael Steinberg
Reynolds and Reynolds Co.	Carolyn Brackman
Reynolds and Reynolds Co.	Mark Hoenie
Reynolds and Reynolds Co.	Steve Kuhn
Rosetta Technologies	Jim Maher
Silver Bullet Technology, Inc.	Bryan Clark
Silver Bullet Technology, Inc.	Matthew Dunne
Source Technologies	Wally Burlingham
Source Technologies	Roger Owens
Standard Register Company	Melissa Barnes
Standard Register Company	Russell Hill
SWIFT/Pan Americas	James Wills
The Clearing House	Vincent DeSantis
The Clearing House	Henry Farrar
The Clearing House	Susan Long
The National Clearing House	Tom D'Aquisto
The National Clearing House	Frank Jaffe
The National Clearing House	Karroll Searcy
Treasurer of State of Ohio	Michael Sawczyn
Troy Group, Inc.	Michael Riley
U.S. Bank	Tim Dawe
U.S. Bank	Scott LaPlante

ANS X9.100.183-2009

U.S. Bank	Nicole Mettler
U.S. Bank	Marc Morrison
U.S. Bank	Christopher Stickney
Unisys Corporation	David J. Concannon
Unisys Corporation	Navnit Shah
University Bank	Stephen Ranzini
University Bank	Michael Talley
VECTORsgi	Jerry Bowman
VECTORsgi	Jim Fancher
VECTORsgi	Ron Schultz
VeriFone, Inc.	Allison Holland
VeriFone, Inc.	Dan Kannady
VeriFone, Inc.	Brad McGuinness
VeriFone, Inc.	Brenda Watlington
Vicor, Inc.	Rick Smith
VISA	John Aafedt
VISA	Philippe De Smedt
VISA	Brian Hamilton
VISA	Richard Sweeney
Wachovia Bank	Andrew Garner
Wachovia Bank	Raymond Gatland
Wachovia Bank	Chris Klapheke
Wachovia Bank	Scott Meloun
Wachovia Bank	Keith Ross
Wachovia Bank	Laurie Yeager
Wells Fargo Bank	Ann Kirk
Wells Fargo Bank	Chuck Perry
Wells Fargo Bank	Ruven Schwartz
Wells Fargo Bank	Mark Tiggas
WorkflowOne	Kurt Schnabel
Viewpointe	Richard Luchak
VISA	Joe Bugajski
VISA	Philippe De Smedt
VISA	Brian Hamilton
VISA	Richard Sweeney
Wachovia Bank	Andrew Garner
Wachovia Bank	Raymond Gatland
Wachovia Bank	Chris Klapheke
Wachovia Bank	Scott Meloun
Wachovia Bank	Keith Ross
Wachovia Bank	Laurie Yeager
Wells Fargo Bank	Ann Kirk
Wells Fargo Bank	Chuck Perry
Wells Fargo Bank	Ruven Schwartz
Wells Fargo Bank	Mark Tiggas
WorkflowOne	Kurt Schnabel
Xerox Corporation	Frank Bov
Xerox Corporation	Susan Siani

Under ASC X9 procedures, a working group may be established to address specific segments of work under the ASC X9 Committee or one of its subcommittees. A working group exists only to develop standard(s) or guideline(s) in a specific area and is

then disbanded. The individual experts are listed with their affiliated organizations. However, this does not imply that the organization has approved the content of the standard or guideline.

Working Group X9B18 for Electronic Check Adjustments which supports this standard, had the following participants:

Jackie Pagán, Chair, J.P. Morgan Chase & Co

Organization

Representative

Bank of America	Patrick Breur
Bank of America	Tony England
Bank of America	Alison Field
Bank of America	William Ganey
Bank of America	Daniel Welch
CheckFree	Don Harman
CheckFree	Tamara Hoke
CheckFree	John Mason
CheckFree	Beverly Nichols
CheckFree	R. Puppala
ECCHO	Ellen Heffner
ECCHO	Phyllis Meyerson
Federal Reserve Bank	Darin Contini
Federal Reserve Bank	Mark Kielman
Federal Reserve Bank	Iva McHaney
Federal Reserve Bank	Susan Mikell
Federal Reserve Bank	Joel Warren
Fiserv	John Charicki
Fiserv	Keay Edwards
Fiserv	Lori Hood
Fiserv	Angela Miller-May
J.P. Morgan Chase & Co	Denise Boothman
J.P. Morgan Chase & Co	Derek Gryna
J.P. Morgan Chase & Co	Wayne Henry
J.P. Morgan Chase & Co	Mike Love
J.P. Morgan Chase & Co	Patricia Nicholson
J.P. Morgan Chase & Co	Eddie Norvell
J.P. Morgan Chase & Co	Reba Warner
J.P. Morgan Chase & Co	Nancy Wright
Metavante Image Solutions	Stephen Gibson-Saxty
NCR Corporation	Rick Lugg
NetDeposit, Inc.	William Wong
SVPCO	Susan Goold
SVPCO	Maddy Koch
SVPCO	Joe Mirabella
The Clearing House	Joseph Pawelczyk
The National Clearing House	Bill Cummings
The National Clearing House	Karroll Searcy
The National Clearing House	Angie Smith
U.S. Bank	Tim Kent
U.S. Bank	Keith Powers
Wachovia Bank	Todd Bower
Wachovia Bank	Marianne Daskou
Wachovia Bank	Andrew Garner
Wachovia Bank	Debbie Hyde

ANS X9.100.183-2009

Wachovia Bank
Wachovia Bank
Wells Fargo Bank
Wells Fargo Bank
Wells Fargo Bank
Wells Fargo Bank
Wells Fargo Bank
Wells Fargo Bank
Wells Fargo Bank
Wells Fargo Bank
Wells Fargo Bank

Mia Lyman
Alice Welsh
Sandy Acevedo
Willie Adnoy
Russell Bedore
Cindy Friske
Ann Kirk
Kerry Moore
Shauna Overson
Tracy Singleton
Terry Turley

This is a preview of "ANSI/X9 X9.100-183-2...". [Click here to purchase the full version from the ANSI store.](#)

Specifications for Electronic Check Adjustments

1 Scope, purpose, and application

1.1 Scope

This standard establishes the file sequences, record types, and field formats to be used for the electronic exchange of check adjustment messages.

The standard format supports check related adjustment notices and requests for individual checks, bundles of checks, check cash letters and attachment of images. It supports the full range of adjustment types currently in use by financial institutions and will support web-based or mainframe system transmission. The standard may be used whether or not the particular check, bundle of checks, or cash letter was presented via paper or via an electronic check exchange file.

The informative annexes attached to this standard provide information, which may prove useful to those planning on implementing the standard. This standard does not address certain operational, implementation, or settlement issues. These issues may include, but are not limited to a choice of: data and image compression, encryption, and transmission specifications and data representation.

1.2 Purpose and application

The purpose of this standard is to provide a structure to facilitate the electronic exchange of check adjustment information for the purposes of providing notification of adjustments, requesting adjustments, requesting information, and requesting documentation.

While this standard specifies a file transmission environment, the case related records provide the necessary information for processing adjustments in other environments. All records will be variable record length (beyond 80 bytes). For, example, the standard may be utilized by web-based adjustment message systems to facilitate the creation and transmission of electronic adjustment messages. If providers of web-based adjustment message systems also wish to receive or send adjustment files that conform to this standard, special attention should be given to usage conditions assigned to fields in the following records:

File Header Record (Type 01)

Batch Header Record (Type 10)

Batch Control Record (Type 70)

File Summary Record (Type 99)

Certain processing systems may require an indication of the number of characters in each record. In this case, by agreement between the parties an inserted length field may be added at the beginning of each record as described in Annex K.

2 References

ANS X9.7-1999 (ANS X9.100-110), *Bank Check Background and Convenience Amount Field Specification*

ANS X9.27-2000 (ANS X9.100-20), *Print and Test Specifications for Magnetic Ink Printing (MICR)*