

**AFP®**



# Annual Conference

Original / Essential / Unbiased / **Information**

## **BAI Reporting Reborn as BTRS** **The Journey to Create a Global Reporting Standard**

**James Wills**

**SWIFT**

**David Bellinger**

**AFP**

**Bill Lundeen**

**Procter & Gamble**

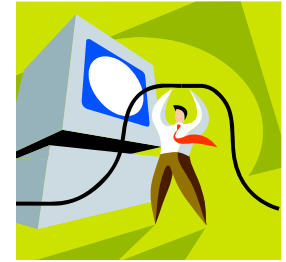
**David Repking**

**J.P. Morgan**

# Agenda

- ✓ Challenges
- ✓ BAI Background and X9 Workgroups
- ✓ AFP Questionnaire
- ✓ The New BTRS Standard
- ✓ A Corporate Perspective

# Today's Challenges



- Not many are satisfied with Information Reporting
- Multitude of existing standards and formats
  - Offering complexity by regional, payment type and bank specific requirements

## Corporations

- Multiple systems, processes, controls
- Timeliness of information
- Different information products/formats offered by banks
- Manage exceptions manually
- Resource intensive
- Difficulties centralizing

## Banks

- Face similar challenges as corporations plus...
- Comply with new regulations/legislation
- Demand for new technologies
- Need to grow and expand into new markets
- Competitive landscape
- Satisfy client requirements across segments (small business, mid-market, large corporate and global)

## Vendors

- Differing customer requirements
- Costly to support message formats and mapping requirements
- Resource intensive projects
- Competitive landscape
- Corporations pressure for innovation for the lowest cost

# Format Used for Wire Transfer Information

	All Organizations
BAI	54%
SWIFT MT	30
EDI/STP 820	23
Proprietary	12
ISO 20022 XML or SWIFT MX	2
Other XML	2
Other	22

*\*Percent of Organizations AFP 2009 Survey*

**AFP® Annual Conference**



# What are the benefits of the outcome?

- Better information
  - Standardized information directly from account holding bank (or via your aggregator)
  - Centralized reporting – 24/7
  - Multi bank relationship management
  - Improved STP
- Faster and consistent data
- Better prepared for the next stage

## What are BAI2 and X9?



## BAI Background

*BAI* “A colloquial term used to describe a file format for using to perform electronic cash management balance reporting.”

1980 BAI1 Released

1987 BAI2 Released

2008 Copyright Transferred to  
Accredited Standards Committee X9, Inc.

2011 Publish the new “BTRS” by end of year  
(*Balance and Transaction Reporting Standard*)



### Cash Management Balance Reporting Specifications Version 2

Technical Reference Manual



## X9 Workgroups

X9 Mission: to develop, establish, maintain, & promote standards for the Financial Services Industry

### ***X9 BAI2 Standards***

Lead Jim Wills, SWIFT

### ***BAI Codes Update***

Chair David Repking, J.P. Morgan

Co-Chair Greg Malosh, Bank of NY Mellon

### ***Language of the Standard***

Chair John Scully, Bank of America

Co-chair Bill Lundeen, Proctor and Gamble

### ***Wire Remittance Structure***

Chair Gina Russo, Federal Reserve Bank

Co-Chair Susan Colles, Bank of America



## AFP Survey



## AFP Survey to Document Corporate Concerns with BAI2

- X9 Group Recognized the need for the “Voice of the Customer”
- Survey conducted April 2010 by David Bellinger of AFP Research
- Sent to 6,300 AFP members and 1,116 responded
- Results from corporate practitioners only
  - Documented 600+ specific challenges with BAI2
  - Included New Code Suggestions
  - Provided the “Business Requirements”
- Published as “Updating the BAI Codes for Information Reporting to Corporates”
  - Available on the AFP website

## AFP Survey Results – BAI2 Challenges

1. Inconsistency
2. Too many BAI codes
3. Too many unused codes
4. Too many duplicate codes (e.g. 301 and 175)
5. Wrong BAI codes (e.g. 475 Check Paid for deposits 301)
6. Overuse of “Miscellaneous” codes (e.g., 399, 699, 469 and 169)
7. Inconsistent coding by banks for adjustments and fees
8. Status/Summary not used the same across all banks and are confusing
9. Inconsistent use of BAI codes for US versus non-US transactions

### This leads to:

- **Additional Programming**
- **TWS Customization for Each Bank**
- **Manual Processes**
- **Disposition of Exceptions**
- **No Stability**
- **Confusion!**

## Problem Illustration (identified by X9 group)

- The 2 green highlighted rows indicate the only consensus.
- Example of potential Detail Codes for an incoming “Cross Border Payment”

BAI	Description	Bank A	Bank B	Bank C	Bank D
108	Credit (Any Type)				X
191	Incoming Internal Money Transfer	X	X		
195	Incoming Money Transfer	X	X	X	X
196	Money Transfer Adjustment Credit	X			X
206	Book Transfer Credit	X	X		X
208	International Money Transfer Credit	X			X
214	Foreign Exchange of Credit		X		
229	International Credit			X	X
491	Outgoing Internal Money Transfer	X	X		
493	Customer Terminal Initiated Money Transfer	X			
495	Outgoing Money Transfer	X	X	X	X
496	Money Transfer Adjustment	X			X
501	Automatic Transfer Debit	X		X	
506	Book Transfer Debit	X	X		X
508	International Money Transfer Debits	X			X
514	Foreign Exchange Debit		X	X	
529	International Debit			X	X
998	Undefined Credit				X
999	Undefined Debit				X

## AFP Survey Conclusions

- Payments industry has evolved – BAI2 no longer effective
- Evolution naturally led to customization – resulted in large disparities between banks
- Disparities made it very difficult to automate data importation to internal systems—the central purpose of the standard!
  - Changes are clearly warranted – need to eliminate out of date codes to reduce confusion, bring greater consistency
  - All delivery channels for BAI2 (file transfer, web portal, e-banking platform, secure e-mail) should be considered when developing the new standard
  - Need to balance desire for flexibility vs. full automation

# Formulating the New Balance and Transaction Reporting Standard (BTRS)



## What are the Needs?

1. Goal: Standardization Across Banks to Enable Straight Thru Processing
2. Be Consistent!
  - ☐ Account Balances – prior day and current day
  - ☐ Transaction Summary (Family Level Totals)
  - ☐ Transaction Code Assignment
  - ☐ Transaction Code Level (Some need Family, others Sub-Family)
3. Eliminate Unused and Duplicate Codes
4. Provide Clear Descriptions
5. Accommodate Non-US Transaction Types

## Guiding Principles

1. The Survey Results direct the decisions
2. Establish a Simple Process to Request New Codes
3. Put codes and descriptions into Global terms – align with ISO 20022
4. Facilitate navigation between BTRS and SWIFT and ISO
5. Create new codes within the range of similar product family
6. Identify primary detail codes (e.g. 195/495) and secondary codes (e.g., 206/208)
7. Complete “Lifecycle” Codes – Core, Rejects, Returns, Adjustments, & Fees
8. Ensure transaction types have credit and debit representation
9. Make new codes as backwards compatible as possible
10. Try not to repurposed existing codes
11. Stop practice of coding everything as miscellaneous



## BTRS Status Codes

Type Code	Description	ISO Family	ISO Sub-Family	SWIFT	Required for Current Day	Required for Prior Day
010	Opening Ledger	OPBD	OpeningBooked	:60F:		✓
015	Closing Ledger	CLBD	ClosingBooked	:62F:		✓
020	Average Closing Ledger MTD					
025	Average Closing Ledger YTD					
030	Current Ledger	ITBD	InterimBooked	:62M:	✓	
035	Opening Available (NEW)	OPAV	OpeningAvailable	:65:		
040	Opening Available Next Business Day	FWAV	ForwardAvailable	:65:		
045	Closing Available	CLAV	ClosingAvailable	:64:		✓
050	Average Closing Available MTD					
055	Average Closing Available YTD					
057	Investment Sweep Position					
060	Current Available	ITAV	InterimAvailable	:65:	✓	
070	0 Day Available					
072	1 Day Available					
073	Availability Adjustment					
074	2 or More Days Available					
076	Balance Adjustment					
077	2 Day Available					
078	3 Day Available					
079	4 Day Available					
080	5 Day Available					
081	6 or More Days Available					

## BTARS Detail & Summary Codes – Example of ACH

Type	Detail Code	Summary Code	Description	ISO Domain	ISO Family	ISO Sub-Family	SWIFT
CR	166	167	ACH Originated Settlement	PMNT	ICDT	ASET	DDT
DB	466	450	ACH Originated Settlement	PMNT	ICDT	ASET	STO
CR	168	167	ACH Originated Settlement - Return	PMNT	ICDT	ARET	DDT
DB	468	467	ACH Originated Settlement - Return	PMNT	ICDT	ARET	STO
CR	165	140	ACH Received	PMNT	RCDT	ACDT	DDT
DB	455	450	ACH Received	PMNT	RDDT	ADBT	STO
CR	169	140	ACH Received - Miscellaneous	PMNT	RCDT	ATXN	DDT
DB	469	450	ACH Received - Miscellaneous	PMNT	RCDT	ATXN	DDT
CR	257	256	ACH Received - Return	PMNT	RCDT	ARET	RTI
DB	557	450	ACH Received - Return	PMNT	RCDT	ARET	RTI
CR	141	140	ACH SEPA Transfer	PMNT	ICDT	ESCT	STO
DR	441	450	ACH SEPA Transfer	PMNT	ICDT	ESDD	DDT
CR	357	356	Adjustment	ACMT	MCOP	ADJT	VDA
DB	631	630	Adjustment	ACMT	MDOP	ADJT	VDA

## Instituting Best Practices

- Always Include these Status Codes:

### PRIOR DAY

Opening Ledger (BAI 010 = Swift 60F)

Closing Ledger (BAI 015 = Swift 62F)

Closing Available (BAI 045 = Swift 64)

### CURRENT DAY

Current Ledger

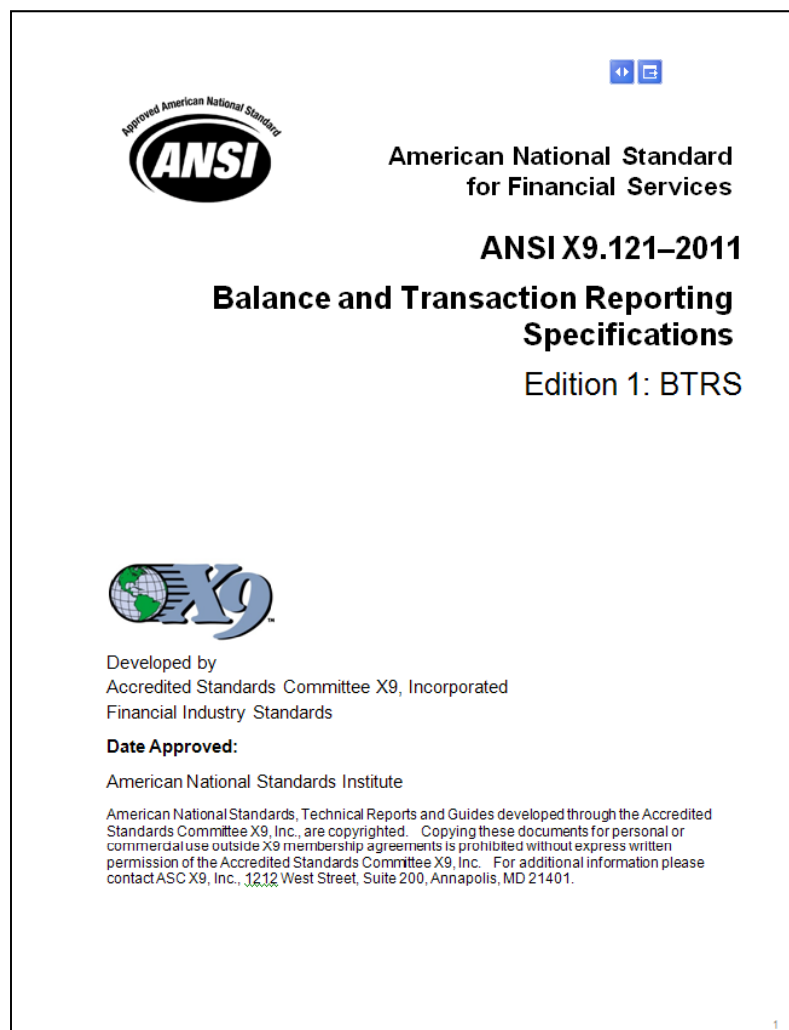
Current Available

- Always Include the 100 and 400 codes
- Allow for Local Language (UTF8/Multi-byte Characters, e.g., Chinese)
- Value dates after the As-of-Date in the Group Header record are the recommended method for identifying future dated transactions

## Language of the Standard



## The New Face of BAI2 - Introducing BTRS



# New FRB & CHIP Wire Payment Format

## Structured Remittance Fedwire & CHIPS Tag STANDARD

16,XX

88,ADDENDA= <Invcee>= <Id> OI <OrgId> CUST <Nm> ABC Corporation <Id> 111111111-P

88,D <AdrTp> DLVY <Dept> Purchasing Department <StrtNm> Washington Avenue

88,<BldgNb> 25 <PstCd> 10451 <TwnNm> Bronx <CtrySubDvsn> NY <Ctry> US <Nm> John

88,Smith <PhneNb> 212-555-1111 <MobNb> 212-444-2222 <EmailAdr> [john.smith@abccorpbrx.org](mailto:john.smith@abccorpbrx.org)

Fedwire/CHIPS Tags	ISO 20022 XML Tag	Example Data
{8300} / [830] Remittance Originator	<Invcee>	
01 Identification Typ	<Id>	OI
02 Identification Code	<OrgId> or <PrvtId>	CUST
03 Name	<Nm>	ABC Corporation
07 Address Type	<AdrTp>	DLVY
08 Department	<Dept>	Purchasing Department
10 Street Name	<StrtNm>	Washington Avenue
11 Building Number	<BldgNb>	25
12 Post Code (Zip Code)	<PstCd>	10451
13 Town Name	<TwnNm>	Bronx
14 County Sub Division (State)	<CtrySubDvsn>	NY
15 Country	<Ctry>	US
24 Contact Name	<Nm>	John Smith
25 Contact Phone Number	<PhneNb>	212-555-1111
26 Contact Mobile Number	<MobNb>	212-444-2222
28 Contact Electronic Address	<EmailAdr>	<a href="mailto:john.smith@abccorpbrx.org">john.smith@abccorpbrx.org</a>

## New Method to Include Batch Detail

Goal: Provide a standard method to report items within batch deposits (e.g., ACH & Lockbox )

Solution: Creation of new 89 (Batch) and 90 (Invoice) Records

Example: A \$600.00 Deposit to Lockbox 1234 that has 3 Remittances (\$100, \$200 and \$300), where each Remittance has one or more Invoices.

16,115,60000,S,0,60000,0,0500002363LB,1234

88,REMARK=LOCKBOX NO: 1234 FOR 3 ITEMS

89,<lkbxnum>1234,<remitter>xxxxx,<amt>30000,<payref>aa,<aba>aa,<acct>aa,<date>aa,<text>aa

90,<Invoice>oooooooo,<ref>vvvvvvv

90,<Invoice>oooooooo,<ref>vvvvvvv

89,<lkbxnum>1234,<remitter>xxxxx,<amt>20000,<payref>bb,<aba>bb,<acct>bb,<date>bb,<text>bb

90,<Invoice>oooooooo,<ref>vvvvvvv

89,<lkbxnum>1234,<remitter>xxxxx,<amt>10000,<payref>cc,<aba>cc,<acct>cc,<date>cc,<text>cc

90,<Invoice>oooooooo,<ref>vvvvvvv



## Implementing BTRS





## User Impacts - A BTRS file will still look like BAI2!

1. You must follow the Standard to call it BTRS
2. What does NOT change:
  - 01, 02, 49, 98, 99 Records
  - No new positional fields
  - Syntax
3. In the 03 Account Record:
  - Certain Balance fields must be present
  - Mandatory Inclusion of total credits and total debits
4. Banks will Remap:
  - Deleted Detail Codes using the Technical Implementation Guide
  - Summary Codes associated to each Detail Code
5. If you want a new code, then go to the X9 website and request it!

# Resources


## X9 Member Website

<http://www.x9.org/home/>

The screenshot displays the X9 Member Website interface. At the top, there is a navigation bar with 'Home' and 'Member Workspace' tabs. The user is logged in as 'David Repking' from 'J.P. Morgan Chase & Co', with an 'Administration' dropdown menu. Below this is a green banner for 'Accredited Standards Committee X9 Incorporated' with the logo and tagline 'Financial Industry Standards' and 'Always Part of the Solution'. A blue navigation bar contains a home icon, 'Groups' dropdown, 'Log Out', and a 'Ta' button. A search bar is labeled 'Search This Group'. The breadcrumb trail reads: 'Workspace > All Groups > My Groups > Board of Directors > X9AB - Payments Subcommittee > X9AB21 Cash Management (BA1) > X9AB21-1 Code List Update'. The main heading is 'X9AB21-1 Code List Update'. The content is organized into several sections: 'Group Info' (listing Group Chair Greg Malosh, Group Chair David Repking, Administrator Cynthia Fuller, and other administrators), 'Documents' (with links for quick add and add a document), 'Roster' (with a link for My Profile), 'Calendar' (with links for this week, add event, and comments), 'Comments' (with a link for documents open for comment), 'Ballots' (with links for add ballot, add approval ballot, closed ballots, and manage templates), 'Action Items' (with a link for add an action item), 'Email' (with a link for send email), and 'Settings'. There are also links for 'group charter', 'RSS', and 'display more items'. At the bottom, there are sections for 'Group Notes' and 'Upcoming Events'.

# Requesting New BTRS Codes & Procedures to Review and Publish

[Home](#) [Member Workspace](#)



Accredited Standards Committee X9 Incorporated  
**Financial Industry Standards**  
"Always Part of the Solution"

[Password Help](#)

## New BTRS Code Request

New BTRS Code Request Steps

[Entry](#) [Done](#)

**New BTRS Code Request**

Please answer the following questions then click [Next](#)

\*Required Field

First Name\*

Last Name\*

Email\*

Work Phone\*

Company Name\*

### Classify the Proposed Transaction

Please classify the proposed new transaction code.

Proposed Transaction Name \*

Proposed Transaction Description \*

Code Type \*

Name Related Code

Code in Another Format? If the proposed code(s) exist in another format (e.g., SWIFT, ISO), what is that

### Justification for New Code

Please justify the need for the proposed new transaction code.

Why is This Code Needed? If you do not have enough space in the text field below, upload your supporting

BTRS Code Currently Used What current BTRS code do you now assign to this proposed new transaction?

Upload Supporting Documentation Please upload any other descriptive information or supporting documentation as

Captcha to prevent non-human use of this form.\* Please enter the letters and numbers in this image.

## A Corporate Perspective



## Resources



## X9 BRS Workgroup Representation

<http://www.x9.org/home/>

### X9 Code List Subcommittee Membership

Accredited Standards Committee X9, Inc.

All My Papers

Association for Financial Professionals (AFP)

Bank of America

Citigroup, Inc.

Federal Reserve Bank

Fiserv

Independent Community Bankers of America

Jack Henry and Associates

J.P. Morgan

M&T Bank

Metavante Image Solutions

NACHA The Electronic Payments Association

NCR Corporation

Procter & Gamble

S1 Corporation

Standard Register Company

Sterling National Bank

SWIFT/Pan Americas

Symcor Inc.

The Bank of New York Mellon

The Clearing House

U.S. Bank

University Bank

Wells Fargo Bank

Visit Our Network: [gtnews](#) [bobsguide](#) [AFP of Canada](#) [Corporate Treasurers Council](#) [CIEBA](#)



**Association for Financial Professionals®**

**The Daily Resource for the Global Finance Profession**

[Topics A-Z](#) [Conferences & Events](#) [Training](#) [CTP Certification](#) [Global Careers](#) [Advocacy](#) [Membership](#)

[AFP Home](#) > [Press Room](#) > [Organizations Want Consistent BAI Format, Implementation across Banks, Survey Shows](#)

Press Room

Press at the AFP Annual Conference

AFP in the News

Current Press Releases

Press Release Archives  
2010  
2009


AFP Press Release

## Organizations Want Consistent BAI Format, Implementation across Banks, Survey Shows

International group seeks compatible global payments standards using AFP Survey

Corporate treasurers want a much more consistent messaging format when their banks report transaction and account information, according to a survey by the Association for Financial Professionals (AFP).

The **AFP Survey of Corporate Practices using the BAI Codes** was sent to organizations in April to help identify the updates needed for this messaging format, which is known as the BAI Codes Information Reporting Standard.



**Association for Financial Professionals**

## SURVEY OF CORPORATE PRACTICES USING THE BAI CODES INFORMATION REPORTING STANDARD

**Key Results**

June 2010

© 2010 The Association for Financial Professionals, Inc. All Rights Reserved.



## FRB Financial Services Documentation – Wire Remittance Website

<http://www.frbfinancialservices.org/campaigns/remittance/index.html>

The screenshot shows the Federal Reserve Bank Services website. The header includes the text "FEDERAL RESERVE BANK SERVICES" and a search bar. Below the header is a navigation bar with links to various services: Access Solutions - FedLine®, Account Services, Check, FedACH®, FedCash®, Fedwire®, National Settlement, Treasury, and Central Bank. On the left side, there is a "BROWSE BY TOPIC" menu with categories: Service Offerings, Service and Access Setup, Operations Resources, Events and Education, News and Communications, Help, and POPULAR CONTENT. The main content area displays the title "Fedwire Funds Format Changes for Remittance Information and Other Changes" and a brief description of the changes. A "Home - Fedwire Services - Fedwire Funds Format Changes for Remittance Information and Other Changes" link is visible at the top of the main content area. A "Add This Page to My Quick Links" button is also present.

**FEDERAL RESERVE BANK SERVICES** Search:  GO

Access Solutions - FedLine® Account Services Check FedACH® FedCash® Fedwire® National Settlement Treasury Central Bank

**BROWSE BY TOPIC**

- Service Offerings
- Service and Access Setup
- Operations Resources
- Events and Education
- News and Communications
- Help

**POPULAR CONTENT**

- Rules and Regulations

[Home - Fedwire Services](#) - Fedwire Funds Format Changes for Remittance Information and Other Changes [Add This Page to My Quick Links](#)

### Fedwire Funds Format Changes for Remittance Information and Other Changes

The Federal Reserve Banks will be implementing a new message format to support extended-character business remittance information, an improved cover payments solution, a new field to support payment notification and better alignment with the SWIFT message formats. Several additional minor changes will also be implemented. The Federal Reserve Banks will be implementing software changes on November 19, 2011, so that the new message format will be ready to use at the opening of the funds transfer business day for November 21, 2011.

To help customers prepare for the upcoming changes, the Federal Reserve Banks will provide ongoing updates and information.

7. Read the new [Balance and Transaction Reporting Specifications \(formerly published as BAI2\) Edition 1: BTRS](#) for information on how to map Fedwire Funds Service messages with extended remittance information to the BTRS 88 record.<sup>2</sup>



# Questions?

