



The New Balance & Transaction Reporting Standard (The Next Generation of BAI2)

James Wills, SWIFT

John Scully, Bank of America Merrill Lynch

David Repking, J.P. Morgan

Balance and Transaction Reporting Standard (BTRS)

History

1. (2008) BAI2 Copyright Transferred to Accredited Standards Committee X9, Inc.
2. (2010) AFP Survey Administered by David Bellinger

Responses from 1,116 Corporates concluded:

- a) Payments industry has evolved to the point where BAI2 is no longer effective
 - b) Customization has resulted in large disparities between banks
 - Inconsistent formats, syntax and transaction codes
 - Too many similar or obsolete BAI codes
 - c) Very difficult to automate data import/parsing interfaces to internal systems
3. (2011/2012) BTRS Formulated & Approved by ANSI
 - Collaboration of 52 Companies
 4. (2012) BTRS Replaces BAI2 as the Industry Standard
 5. ***ASC X9 to announce future sunset date for BAI2***

Balance and Transaction Reporting Standard (BTRS)

X9 Workgroups



The Accredited Standards Committee X9 has the mission to develop, establish, maintain, and 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

Key Elements of the new BTRS Standard

A Foundational Release



BTRS enforces Bank Standardization over BAI2

Improvements:

1. User Guide Modernized to include developments in banking and technology over the past 25 years
2. Rationalization and Reduction of the number of supported transaction codes
3. Globalization:
 - Additional SEPA transaction codes to support new European payment types
 - Double byte character set support through the incorporation of UTF-8
 - SWIFT and ISO 20022 XML interoperability – Code Mapping and Balance Inclusions
 - Modified currency rules to make them mandatory and allow for multi-currency
4. New batch level (89) and invoice level (90) records providing additional information using ISO 20022 component tags to assist in reconciliation and straight through processing
5. Additional structure to 88 record to support extended wire remittance in CTP payments

Key Elements of the new BTRS Standard

Highlights

Goal Accomplished: BTRS is backward-compatible to BAI2!

1. What does NOT change

- Syntax
- No new positional fields
- 88, 49, 98, 99 Records (Hash totals)

2. 01 File Header Record

- 1 = BAI1, 2 = BAI2, and 3 = BTRS

3. 03 Account Record

- Modernized the list of Status and Summary Codes
- Core Balance fields and the Currency Code field are now required
- Inclusion of total credits and total debits are now required

4. 16 Detail Record

- Modernized the list of Detail Transaction Codes
- Eliminated Funds Type “D” (Distributed Availability) – use Funds Type “S”
- Created New Batch 89 and Invoice 90 Record Types
- Instituted a new Standard format for Wire Remittance CTP (aligned with ISO field names)

Key Elements of the new BTRS Standard

Status & Summary Codes

Status Codes

1. 28 Codes Deleted
2. NEW - Opening Available (035) = Balance on the date reported
3. CD & PD Required Balances
4. ISO & SWIFT Interoperability

Type Code	Status Code Descriptions	ISO Family	ISO Sub-Family	SWIFT	Current Day	Prior Day
010	Opening Ledger	OPBD	OpeningBooked	:60F:		YES
015	Closing Ledger	CLBD	ClosingBooked	:62F:		YES
020	Average Closing Ledger MTD					
025	Average Closing Ledger YTD					
030	Current Ledger	ITBD	InterimBooked	:62M:	Yes	
035	Opening Available	OPAV	OpeningAvailable	:65:		
040	Opening Available Next Business Day	FWAV	ForwardAvailable	:65:		
045	Closing Available	CLAV	ClosingAvailable	:64:		YES
050	Average Closing Available MTD					
055	Average Closing Available YTD					
057	Investment Sweep Position					
060	Current Available	ITAV	InterimAvailable	:65:	YES	

Summary Codes

1. 92 Codes Deleted
2. 1 Summary Code assigned to 1 Detail Code
3. Always include Codes 100 (Total CR) & 400 (Total DR)
4. Globalization - Rename "Float" to "Available"



Key Elements of the new BTRS Standard

Example: Standardizing ACH Detail Codes

Comparison of BAI2 vs BTRS ACH Codes

Green = BTRS

Red = Obsolete

Type Code	BAI2	BTRS
141		ACH SEPA Transfer 
142	ACH Credit Received	use 165
143	Item in ACH Deposit	use new 89/90 records
145	ACH Concentration Credit	use 165/166
164	Corporate Trade Payment Credit	use 165/166
165	Preauthorized ACH Credit	ACH Received
166	ACH Settlement	ACH Originated Settlement
168	ACH Return Item or Adjustment Settlement	ACH Originated Settlement - Return
169	Miscellaneous ACH Credit	ACH Miscellaneous
257	Individual ACH Return Item	ACH Received - Return
441		ACH SEPA Transfer 
445	ACH Concentration Debit	use 455/466
447	ACH Disbursement Funding Debit	use 466
451	ACH Debit Received	use 455
455	Preauthorized ACH Debit	ACH Received
464	Corporate Trade Payment Debit	use 455/466
466	ACH Settlement	ACH Originated Settlement
468	ACH Return Item or Adjustment Settlement	ACH Originated Settlement - Return
469	Miscellaneous ACH Debit	ACH Miscellaneous
557	Individual ACH Return Item	ACH Received - Return

Key Elements of the new BTRS Standard



Example: Standardizing ACH Detail Codes

Normalization

- 110 Obsolete or Redundant Codes Deleted
- Established a Complete and Clear set of Codes
- 1 Summary Code Assigned to each Detail Code (1:1)
- Interoperability between BTRS, ISO & SWIFT

Globalization

- Added SEPA Codes
- Local Language (UTF8 – e.g., Chinese)

Type	Detail Code	Summary Code	Description	ISO Domain	ISO Family	ISO Sub-Family	SWIFT
CR	169	140	ACH Miscellaneous	PMNT	RCDT	ATXN	DDT
DB	469	450	ACH Miscellaneous	PMNT	ICDT	ATXN	DDT
CR	166	167	ACH Originated Settlement	PMNT	RCDT	ASET	STO
DB	466	450	ACH Originated Settlement	PMNT	ICDT	ASET	STO
CR	168	167	ACH Originated Settlement - Return	PMNT	ICDT	ARET	RTI
DB	468	467	ACH Originated Settlement - Return	PMNT	RCDT	ARET	RTI
CR	165	140	ACH Received	PMNT	RCDT	ACDT	DDT
DB	455	450	ACH Received	PMNT	ICDT	ADBT	DDT
CR	257	256	ACH Received - Return	PMNT	ICDT	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	STO

Key Elements of the new BTRS Standard

New Batch and Invoice Record Codes

Requirement:

Report items and the associated Invoices within the associated Batch

Challenge:

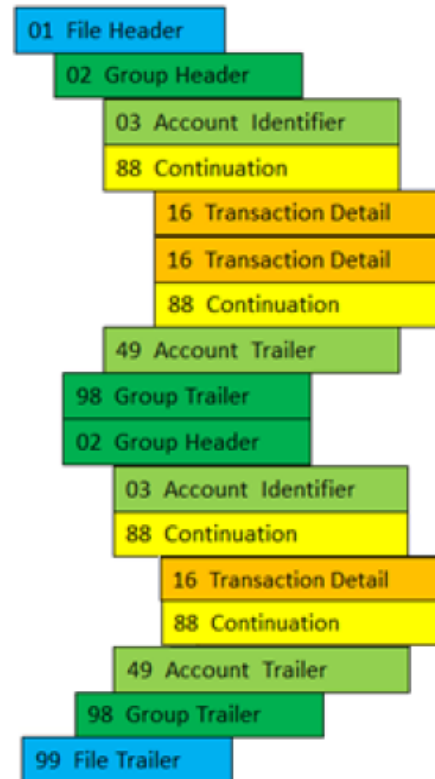
Including the Batch and Items within the same BAI2 file results in double-reporting!

Solution:

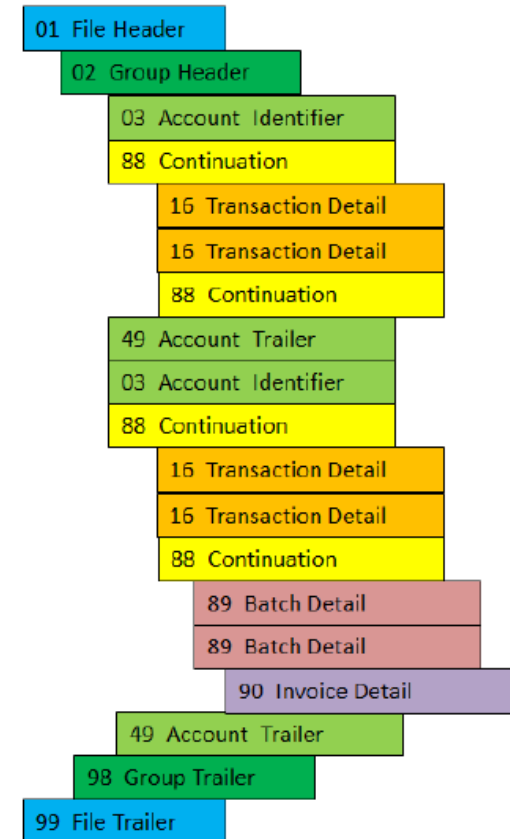
Use new BTRS Batch and Invoice records to insert items as a continuation of Transaction Detail

- 89 Batch Detail
- 90 Invoice Detail

BTRS without 89 and 90
(Compatible with BAI2)



BTRS with 89 and 90



Key Elements of the new BTRS Standard

New Batch and Invoice Record Codes

Batch Record 89 Allows you to insert information about the items within a batch.

Your Bank needs to include the 89 Record in your BTRS file and you will need to parse & load them

Example: A Credit Settlement of \$200 reports with 2 Originated Batches valued at \$100 each

```
16,166,20000,S,20000,0,0,RRRRRRRRRR,9999999999/  
88,ORIG CO NAME=YYYYYYYYYYYYYYYY,ORIG ID=5555555555,ENTRY DESCR=RTN OFFSET,ENTR  
88,Y CLASS=CCD,TRACE NO=021000024641577,ENTRY DATE=110919,IND ID NO=1234567890,  
88,IND NAME=NNNNNNNNNNNNNNNNNNNN,REMARK=EFT ITEMS OFFSET FOR FILE DATE MM/DD/YY  
89,<CdtDbInd> CR <Ref> RRRRRRRRRR <Dt> YYMMDD <Amt> 100.00 <OrigNm> AAAAAAAAAAAAA  
88,<OrigId> AAAAAAAAAAAAA <AddtlNtryInf> DDDDDDDDDDDDD <ActlDt> YYMMDD <BatNb> BBB1  
88,BBBBBB <Nb> NNNNNNNNNNNNN <Nm> MMMMMMMMMMMMMMMMMMM <AddtlTxInf> XXXXXXXXXX  
89,<CdtDbInd> CR <Ref> RRRRRRRRRR <Dt> YYMMDD <Amt> 100.00 <OrigNm> AAAAAAAAAAAAA  
88,<OrigId> AAAAAAAAAAAAA <AddtlNtryInf> EEEEEEEEEEEEE <ActlDt> YYMMDD <BatNb> BBB2  
88,BBBBBB <Nb> NNNNNNNNNNNNN <Nm> MMMMMMMMMMMMMMMMMMM <AddtlTxInf> XXXXXXXXXX
```

FRB & CHIPs Wire Remittance Format

(Effective Nov 2011)



Wire Payments can Include Remittance – similar to ACH CTX Addenda

1. New Customer Transfer Plus (CTP) message
2. Accommodates approximately 30 invoices (9,000 characters)
3. Interoperable with XML-based ISO 20022 & EDI-based STP820
4. Unstructured, Related and Structured Formats
5. Will be Included within the BTRS Descriptive Text (88-Level)

FRB & CHIPS Wire Remittance Format

(Effective Nov 2011)

Standard Remittance Fedwire & CHIPS Tags

16,XXX
 88,ADDENDA= <Invee>= <Id> OI <OrgId> CUST<Nm> ABC Corporation <Id> 11111111-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

Fedwire/CHIPS Tags	ISO 20022 XML Tag	Example Data
{8300} / [830] Remittance Originator	<Invee>	
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>	john.smith@abccorpbrx.org

What's Next?

Should we Create Standard Text Tag Structures?

Here are examples of how 4 banks report incoming wires:

16,195,10000,V,091212,,BBBBBBBBB,CCCCCCCCC/
88,FR:SAME DAY CR TRANSFER
88,ENDT:
88,TRID:
88,PY:
88,BI:
88,BN:
88,CR:
88,RF:
88,OB:
88,OK:

16,195,240000000,0, BBBB BBBB,CCCCCCCCC/
88,FUNDS TRANSFER=
88,RCVD FROM=
88,ORG=
88,RFB=
88,REF=

16,195,240000000,0, BBBB BBBB,CCCCCCCCC/
88,S ;REC FR :
88,B/O :
88,DESCR : W AM
88,REC GFP:;
88,CHIP ISN:
88,CHP REF:

16,195,240000000,0, BBBB BBBB,CCCCCCCCC/
88,WIRE TYPE:
88,SENDER REF:
88,SENDER NAME:

Resources



Resources

X9 BTRS Website

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



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

Accredited Standards Committee X9
Financial Industry Standards

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Home » BTRS

Introduction to Balance and Transaction Reporting

Market conditions and the need for greater visibility into cash flows have caused major corporations to focus increased attention on cash management. Banks have responded by offering services such as: electronic banking, information reporting, lockbox remittance processing, cash concentration, electronic transfers, and controlled disbursement which help companies improve cash flow and utilize idle funds.

Of equal importance are improvements in the delivery of information about a company's balances and transactions. The corporate treasurer's office must know the company's cash position to control usable funds effectively. By closely monitoring cash position, the treasurer is better able to:

- analyze and project funding needs
- appropriate liquidity
- minimize idle cash balances
- perform account reconciliation
- maximize investment opportunities or reduce borrowings

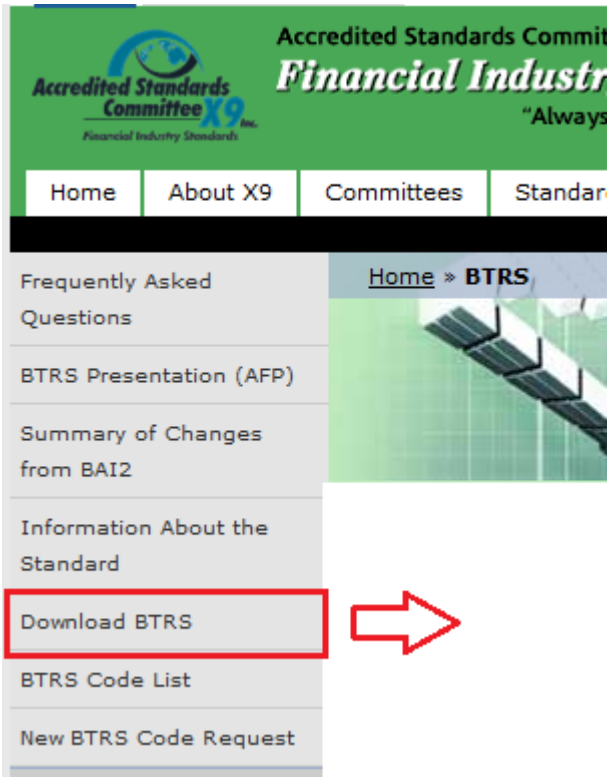
Formerly, information needs were relatively simple. Data such as ledger balances, available balances, and float breakdowns were usually sufficient. However, in recent years the needs for more extensive reporting and greater transaction detail have dramatically increased. Banks have since responded with increasingly sophisticated reporting systems.

When a company uses the services of only a few banks, notifications and reporting received via electronic banking platforms usually meet the treasurer's needs. But as the number of banking relationships increases, and as information requirements become more complex, the daily task of gathering information becomes more difficult and time-consuming.

In order to consolidate reporting, the corporate customers request each of their banks to report balance information to a central agent. The agent may be a bank, or it may be a third-party data aggregator. The corporate treasurer can then monitor banking relationships through a single data collection point. Many banks now offer data exchange to an increasing number of companies. And the products themselves have become more sophisticated, allowing treasurers to manipulate and respond to the information as it is presented.

Resources

BTRS is the New Face of BAI2



American National Standard
for Financial Services

ANSI X9.121-2012

**Balance and Transaction Reporting
Standard**

Previous version published as
BAI Cash Management Balance Reporting Specifications
Version 2 Technical Reference Manual



Developed by
Accredited Standards Committee X9, Incorporated
Financial Industry Standards

Date Approved:

American National Standards Institute

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Resources



What if I need a new Code?

By instituting BTRS under “Continuous Maintenance”, changes are readily adopted.

Step 1:

Request new code via X9 Website

Accredited Standards Committee X9 Inc. Financial Industry Standards

Home About X9 Commi

Frequently Asked Questions

BTRS Presentation (AFP)

Summary of Changes from BA12

Information About the Standard

Download BTRS

BTRS Code List

New BTRS Code Request

New BTRS Code Request Steps

Entry Done

New BTRS Code Request

Please answer the following questions then click 'Submit'.
*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 a

Step 2:

If urgently required, use 900 series codes until X9 assigns a new code



Type Codes	Description
001-099	Account status type codes
100	Total credits summary type code
101-399	Credit summary and detail type codes
400	Total debits summary type codes
401-699	Debit summary and detail type codes
700-799	Loan summary and detail type codes
900-919	Custom account status codes
920-959	Custom credit summary and detail
960-999	Custom debit summary and detail

Table 1 Type Code Ranges

Resources



AFP Member Website contains the survey and articles

<http://www.afponline.org/>

The screenshot shows the AFP Member Website interface. The header includes the AFP logo and the tagline "The Daily Resource for the Global Finance Profession". A navigation bar lists various topics like "Topics A-Z", "Conferences & Events", "Training", etc. A search bar is present with the text "AFP Home > Search". Below the search bar, the search results for "survey bai standard" are displayed. Two results are highlighted with red boxes:

- True Believers, AFP Corporate Members Want a True BAI Standard** (2/22/2011 4:12:05 PM)
to a recent Association for Financial Professionals **survey** said they would like to see the **BAI** cash ... a working group last year to take **BAI's** format and create an updated, more efficient **standard**. The group is still working and ASC X9 ... for certain lending transactions in 2001, but the **BAI** Version ... percent use it to manage liquidity. Corporates **surveyed** also reported using the format for account ...
ID=15025 Size=13 KB
- Organizations Want Consistent BAI Format, Implementation across Banks, Survey Shows** (2/22/2011 4:13:01 PM)
Our corporate members need consistent global **standards** and in this **survey** they made it clear the **BAI standard** can ... that has been working with the ANSI X9 **standards** body to update the **BAI standard** will ... vendors, and SWIFT, intends to convert the old **BAI** codes to an X9 **standard** and ... of the Association for Financial Professionals (AFP) **surveyed** 6,300 of its members about reporting **standards** that ...
ID=15023 Size=8 KB



James Wills, SWIFT

james.wills@swift.com

John Scully, Bank of America Merrill Lynch

j.e.scully@baml.com

David Repking, J.P. Morgan

david.repking@jpmchase.com