

Cash Management Balance Reporting Specifications Version 2

Technical Reference Manual



10/2005

Printed in the United States of America
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1 Cash Management Balance Reporting

AN OVERVIEW OF BALANCE REPORTING

Volatile interest rates and attractive investment alternatives have caused major corporations to focus increased attention on cash management. Banks have responded by offering services such as lockbox remittance processing, cash concentration, wire 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

- minimize idle cash balances
- assure appropriate liquidity
- take advantage of investment opportunities or reduce borrowings
- analyze and project funding needs

Formerly, information needs were relatively simple. Data such as ledger balances, available balances, and breakdown of float were usually sufficient. However, there is a trend toward more extensive reporting, including intraday position information and greater transaction detail. This trend requires increasingly sophisticated reporting systems.

When a company uses the services of only a few banks, telephone notification usually meets 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 response to corporate information needs, cash management banks now offer automated balance reporting services.

Under automated reporting, the corporate customers ask 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 processor. The corporate treasurer can then monitor banking relationships through a single data collection point. Many banks now offer automated reporting 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.

As reporting systems become more complex, differences in data formats can cause considerable difficulty. The *Cash Management Balance Reporting Specifications* establish a common format for exchanging data. By establishing an efficient mechanism for communication among multiple parties, the specifications facilitate complete, accurate, and timely information reporting, and help reduce the cost of providing this service.

2 Balance Reporting Transmission Files

DEFINITIONS OF PARTIES

In its simplest form, cash management balance reporting involves two parties: the customer and the depository institution. However, intermediaries, such as data processing firms and other banks, often relay the messages and may combine data from several sources into a single report for customer convenience. To avoid confusion when transmissions that involve a number of intermediaries are being described, the balance reporting specifications define the following relationships:

Customer: A commercial depositor. Balance and transaction data are reported for accounts held by the customer.

Originator: A depository financial institution. Data are reported for accounts held by the customer at the originator institution.

Intermediary: Any party other than the customer or originator involved in a balance reporting transmission.

Sender: The processor that is transmitting a file containing balance reporting data. The sender may be an originator or an intermediary.

Receiver: The processor receiving the file transmitted by the sender. The receiver may be an intermediary or the customer.

Ultimate Receiver: The processor that receives the final transmission of balance reporting data in BAI format before it is translated into usable form. It may be a bank or a data processor that provides cash management services to a customer. Or it may be the customer if balance reports are transmitted directly to the customer's computer system.

In balance reporting transmission files, the parties are identified as follows:

Domestic Financial Institutions: ABA/FRB routing and transit number, including the check digit.

Foreign Financial Institutions: S.W.I.F.T., CHIPS, or another mutually agreed upon identifier.

Nonbank Processors: DUNS number.

UNIFORM TYPE CODES

Balance reporting transmissions include data describing hundreds of different types of account activity, ranging from securities transactions to lockbox deposits. Each transaction, summary or balance classification has been assigned a uniform type code. The type code uniquely identifies the type of activity or balance being reported. Type codes are three-digit numbers used to identify the types of data reported. Codes are either Status, Summary or Detail. General usage rules are as follows:

Account Status: These codes describe the status of the account (for example, ledger balance, available balance and float position). Account Status type codes may only be used in the 03 record and associated Continuation (88) records. (See Record Descriptions for more information.) Status amounts may be positive or negative. Status type codes may not be accompanied by an item count or a funds type distribution. Only one amount for any Status type code can remain on file for a given As-of-Date for a given account.

Activity Summary: These codes summarize account credit and debit activity (for example, total lockbox credits or total security debits) and may only be used in the 03 record and associated Continuation (88) records. Summary amounts are always positive or unsigned. Summary type codes may be accompanied by an item count or funds type distribution. Only one amount for any Summary type code can remain on file for a given As-of-Date for a given account.

Transaction Detail: These codes detail individual credits and debits (for example, individual lockbox deposit or foreign exchange debit) and may only be used in the 16 record. Detail amounts are always positive or unsigned. An account file may contain several Transaction Details with the same type code for a given As-of-Date.

Only one amount for each Status or Summary type code can remain on file for each account on a given day. However, many Transaction Details may be on file with the same type code.

The originator has the responsibility to ensure that only valid type codes are used in all transmissions. Receivers may, at their discretion, reject transmissions that include invalid type codes. The receiver also has the option of passing the transmission as is to the next receiver.

Type Code Ranges

The following table indicates the ranges of three-digit numbers used for status, summary and detail type codes:

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
900-999	Customized Type Codes

Type Code for Non-monetary Information: Type Code 890 has been established to transmit information not associated with an Account Status, Summary amounts or Transactions. Type Code 890 is neither a debit nor a credit. It is a Detail type code and is used in Type 16 Transaction Detail records. The Text field in a Type 16 record with an 890 Type Code contains the non-monetary information. The Amount and Funds Type fields should be defaulted and the Bank Reference Number and Customer Reference Number may be either used as part of the message or defaulted. An example of such a message is illustrated below.

16,890,,,,,detail reports will be delayed until 11:00 AM.

Customized Type Codes

Whenever possible, processors should use Uniform Version 2 type codes. However, experiences over time have indicated a demand for highly specialized codes for use in two-party reporting systems. These codes are created to meet the needs of specific customers and are often not of general interest to the cash management community. Instead of allocating uniform type codes to such specialized activities, the range from 900–999 has been reserved for customized type codes.

BAI will not designate uniform type codes in this range, and users of the specification are free to assign unique type codes to meet customer needs within the following guidelines:

- These codes should only be used for transactions between parties that have agreed to support the nonstandard type.
- BAI will not support type codes in the 900–999 range and users of the *Specification* might not accept these types in transmissions.

Customized type codes should fall within the following ranges:

Type Codes	Description
900–919	Account Status Codes
920–959	Credit Summary and Detail
960–999	Debit Summary and Detail

FILE STRUCTURE

To simplify processing, balance reporting transmission files are divided into “envelopes” of data. These envelopes organize data at the following levels:

- Account
- Group
- File

Account: The first level of organization is the account. An account envelope includes balance and transaction data.

Example: Account #1256793 at Last National Bank, previous day information as of midnight.

Group: The next level of organization is the group. A group includes one or more account envelopes, all of which represent accounts at the same financial institution. All information in a group is for the same date and time.

Example: Several accounts from Last National Bank to XYZ Reporting Service, same-day information as of 9:00 AM.

File: Groups are combined into files for transmission. A file includes data transmitted between one sender and one receiver. A file can include groups of data from any number of originating financial institutions destined for any number of ultimate receivers. The groups within a file may contain different As-of-Dates and times.

For a specific account at a financial institution, all records in an account envelope refer to the same account as of the same date and time.

Intermediaries may combine groups from several different source files into a new file for transmission. For example, Last National Bank may combine reports from several correspondent banks into a single file for transmission to XYZ Reporting Service.

Example: A file from Last National Bank to XYZ Reporting Service could contain both of the following groups:

- From Last National Bank to XYZ, same day as of 9:00 AM.
- From Hometown Bank (via Last National and XYZ) to Megbank, previous day as of midnight.

RECORD DESCRIPTIONS

Balance Reporting files include the following types of records:

Record Code	Record Name	Purpose
01	File Header	The file header marks the beginning of a file. It identifies the sender and receiver of the transmission, and it describes the structure of the file.
02	Group Header	The group header identifies a group of accounts that are from the same originator and includes the same as-of-date and as-of-time.
03	Account Identifier and Summary/Status	This record identifies the account number and reports activity summary and account status information. Summary information may be accompanied by an item count and funds availability distribution.
16	Transaction Detail	This record is used for transmission of detail transaction information. Transaction detail may include two reference numbers and a free-form alphanumeric text.

Record Code	Record Name	Purpose
88	Continuation	A Continuation record is used when data exceed the maximum physical record length, or whenever it is desirable to continue data into an additional record. It may follow any record type, including another "continuation" (88) record.
49	Account Trailer	The Account Trailer record provides account control totals.
98	Group Trailer	This record provides group control totals.
99	File Trailer	This record provides file control totals.

FILE LAYOUT

The records in a balance reporting transmission file are ordered as follows:

Record Code	Record Name	Purpose
01	File Header	Begins File
02	Group Header	Begins Group
03	Account Identifier	Begins Account
16	Transaction Detail (Optional)	Within Account
49	Account Trailer	Ends Account
98	Group Trailer	Ends Group
99	File Trailer	Ends File

A file may contain several groups. Each group begins with an 02 Group Header record and ends with a 98 Group Trailer record. This procedure allows a file to contain information from multiple originators.

A group may contain several accounts. Each account begins with an 03 record. The 03 record may or may not be followed by a transaction detail record (16). The account always ends with a 49 Account Trailer record.

The following list shows multiple groups within a file and multiple accounts within a group:

Record Code	Record Name	Purpose
01	File Header	Begins File
02	Group Header	Begins First Group
03	Account Identifier	First Account
16	Transaction Detail	First Account Detail
49	Account Trailer	Ends First Account
03	Account Identifier	Second Account
49	Account Trailer	Ends Second Account
98	Group Trailer	Ends First Group
02	Group Header	Begins Second Group
03	Account Identifier	Begins Third Account
88	Continuation	Continues Previous 03 Record
49	Account Trailer	Ends Third Account
98	Group Trailer	Ends Second Group
99	File Trailer	Ends File

The preceding example included two groups. The first group included two accounts, the second included one account. Only the first account of the first group included transaction detail.

Continuation records (88), such as the one in the second group, may be used to continue any record.

RECORD CHARACTERISTICS

BAI *Cash Management Balance Reporting Specifications* define a format for data within files and records. The specifications ***do not*** replace, define, restrict, supersede, or alter data communication or telecommunication protocols used by senders and receivers of these files.

Physical Records and Logical Records

The specifications refer to both physical and logical records, which are defined here to avoid confusion.

Physical Record: A group of contiguous characters occupying a specific number of character spaces.

Logical Record: The group of characters within a physical record that convey meaningful, related data. The logical record includes the record code, other codes defined by the format, all data, field delimiters and text.

Example: If the file header specifies a physical record length of 80 characters but only 65 characters are required to describe a transaction detail in the correct format, then the following conditions are true:

- the physical record occupies characters 1 through 80
- the logical record occupies characters 1 through 65
- characters 66 through 80 are part of the physical record but not part of the logical record. Characters in these positions are meaningless and should be disregarded.

Fixed Length Records and Variable Length Records

Balance reporting physical records may be of fixed length or of variable length. The “Physical Record Length” field in the File Header (01) record specifies number of characters in fixed length records. If the “Physical Record Length” field is defaulted, the file contains variable length records.

Free Format Fields/Field Delimiters

The specification employs free-format fields within records. Free-format fields allow more flexibility than fixed fields for reporting diverse cash management data.

- Fields within records are delimited by a comma “,”.
- The end of a record that does not include text is indicated by the delimiter slash “/”.

The delimiter slash “/” indicates the end of a record that does not include text. It also indicates the end of the last field within the record. Do not use a comma to mark the end of the last field. A comma followed by a slash is used to indicate a defaulted field at the end of the record. The Sample Transmission in Appendix D and the example in each record description indicate the correct use of delimiters.

Some fields within records are optional. If an optional field is defaulted or left unspecified, this must be indicated by adjacent delimiters “,” or “/”. Optional fields at the end of a record cannot be left off but must be indicated by adjacent delimiters.

Because a comma “,” and a slash “/” are used as field/record delimiters, neither can be included in any field except “Text.” Text may include comma “,” or slash “/” but may not begin with comma “,” or slash “/”.

Leading Zeros

The record type is indicated by two digits. Both are significant. Do not delete the leading zero for record types 01, 02 and 03.

All three digits in a type code are significant. Do not delete leading zeros for status type codes 001 through 099.

Leading zeros in a customer account number are significant. Do not delete leading zeros in account numbers. For example, the account number “0087654” should not be transmitted as “87654”.

End of Record

The end of a logical record that does not contain text is indicated by the delimiter slash “/”.

The last field in the type 16 Transaction Detail record is “Text”. The text must not begin with slash “/”, but may contain comma “,” or slash “/” after the first text character. Therefore, the end of a record ending in text cannot be delimited using these characters. Instead, the logical record continues until another record that is not a continuation (88) record begins. If fixed length records are specified, spaces between the end of the text and the end of the physical record must be filled with blank characters.

If a type 16 record does not include text, the text field is defaulted, as indicated by the adjacent delimiters “,/”.

3 Record Formats

01 – FILE HEADER

The file header marks the beginning of a file. It identifies the sender and the receiver of the transmission, and it describes the structure of the file. All fields are required except those labeled optional.

Field Name	Field Description
Record Code	01
Sender Identification	Transmitter of file. Alphanumeric.
Receiver Identification	Next recipient of file. Alphanumeric.
File Creation Date	YYMMDD format; sender date.
File Creation Time	Military format (2400); sender time zone Times are stated in military format (0000 through 2400). 0000 indicates the beginning of the day and 2400 indicates the end of the day for the date indicated. Some processors use 9999 to indicate the end of the day. Be prepared to recognize 9999 as end-of-day when receiving transmissions.
File Identification Number	Identification number defined by the sender. The number must be new for each file with the same file creation date. Used to uniquely identify those files transmitted between a sender and a receiver on a given date.
Physical Record Length	Optional. Number of characters in a physical record. Default is variable length records.
Block Size	Optional. Number of physical records in a block. Default is variable block size.
Version Number	2

Delimiters

- Comma “,” delimits fields.
- Slash “/” delimits the end of the logical record.
- Adjacent delimiters, “,,” or “,/” identify defaulted or unspecified fields.
- All defaulted or unspecified fields must be identified.

Sample 01 Record

01,122099999,123456789,040621,0200,1,55,,2/

Last National Bank (122099999) is sending data to its third-party intermediary, Data Corp. (123456789). The file was created June 21, 2004 (040621) at 2:00 AM (0200). This is the first file created on this date and is identified as number 1. The physical records in this file are (55) characters in length. No block size is specified. This default is noted by adjacent delimiters (,,). The file is in Version (2) of the *Specifications*. The slash (/) indicates that the preceding character was the last significant character in this physical record.

02 – GROUP HEADER

The group header identifies a group of accounts, all of which are from the same originator and include the same As-of-Date. All fields are required except those labeled optional.

Field Name	Field Description
Record Code	02
Ultimate Receiver Identification	Optional. Final receiver of this group of data. Alphanumeric.
Originator Identification	Originator. Alphanumeric.
Group Status	1 = Update 2 = Deletion 3 = Correction 4 = Test Only See “Group Status Codes” for definitions.
As-of-Date	YYMMDD; Originator date.

Field Name	Field Description
As-of-Time	Optional. Military format (2400); originator time zone. For reference only. Times are stated in military format (0000 through 2400). 0000 indicates the beginning of the day and 2400 indicates the end of the day for the date indicated. Some processors use 9999 to indicate the end of the day. Be prepared to recognize 9999 as end-of-day when receiving transmissions.
Currency Code	Optional. Default is currency code "USD." See Appendix B for currency codes.
As-of-Date Modifier	Optional. 1 = Interim previous-day data 2 = Final previous-day data 3 = Interim same-day data 4 = Final same-day data As-of-Date Modifier does not affect processing. For reference only.

Delimiters

- Comma “,” delimits fields.
- Slash “/” delimits the end of the logical record.
- Adjacent delimiters “,,” indicate defaulted or unspecified fields.
- All defaulted or unspecified fields must be identified.

Sample 02 Record

02,031001234,122099999,1,040620,2359,,2/

A group of data is being sent to a bank (031001234) from Last National Bank (122099999). The data in the file has a group status of update (1) and the data are as-of-June 20, 2004 (040620) at 11:59 PM (2359). The optional group currency code field is defaulted as indicated by the adjacent delimiters (,,) and therefore is USD (US dollars). The data are final previous-day data as signified by the As-of-Date modifier (2).

03 – ACCOUNT IDENTIFIER AND SUMMARY STATUS

This record identifies the account number and reports summary and status information. Summary information may be accompanied by an item count and funds availability distribution. An 03 record must be used to identify each account. All fields are required except those labeled optional. 03 records cannot report transaction detail. Detail is reported in record 16.

Field Name	Field Description
Record Code	03
Customer Account Number	Customer account number at originator financial institution. The field is alphanumeric and includes significant leading zeroes. Must not contain a comma “,” or slash “/”.
Currency Code	Optional. Default is group currency code.
*Type Code	Optional. Identifies the type of summary or status data. See Appendix A for type codes. Default indicates that no status or summary data are being reported.
*Amount	Optional. Expressed without a decimal. The currency code will determine the implied decimal. Status amounts are signed positive “+” or negative “-”. Default of sign is positive. Summary amounts may only be positive or unsigned. Default of field indicates that no amount is being reported.
**Item Count	Optional. Integer field. Default is “unknown.” For summary type codes only; must be defaulted for Status type codes. No implied decimal.
**Funds Type	Optional. Types are 0 = immediate availability (zero) 1 = one-day availability 2 = two-or-more days availability S = distributed availability V = value dated D = distributed availability Z = unknown (default) If funds type = S, the next three fields are immediate availability amount, one-day availability amount, and more than one-day availability amount. See section “Funds Type.” If funds type = V, the next two fields are value date (YYMMDD) and value time in military format (2400). Both are for the originator’s business day and time zone. Value date is the date the originator makes funds available to the customer. Value dates prior to the As-of-Date in the Group Header record are not prohibited but are discouraged. Be prepared to receive such value dates. Records with value dates prior to the As-of-Date should be processed as if the value date was equal to the As-of-Date.

Field Name	Field Description
**Funds Type (continued)	Do not use prior value dates to adjust availability. Value time is optional and may be defaulted by adjacent delimiters. Times are stated in military format (0000 through 2400). 0000 indicates the beginning of the day and 2400 indicates the end of the day for the date indicated. Some processors use 9999 to indicate the end of the day. Be prepared to recognize 9999 as end-of-day when receiving transmissions. If funds type = D, the next field indicates the number of availability distributions, and each of the following pair of fields indicate the number of days and the amount of available funds, respectively. Format – “X,a,\$,a,\$” X = number of distributions (integer) A = availability in days (integer) \$ = availability amount The number of days over which funds availability may be distributed is not limited. The number of “a” (day) and “\$” (amount) fields must equal the integer stated in “x” (number of distributions). For example, if “x” is eight (8), there must be eight “a,\$” pairs. See Section “Funds Type.” Amounts in the Funds Type field have the same currency code and implied decimals specified in the 03 record. Amounts in the Funds Type field are not included in the Account, Group and File Trailer batch control totals.

*Type 03 records may report several different status and/or summary amounts for the same account. For example, a single 03 record might report ledger balance and available balance, as well as the amount, item count and funds type for total credits and total debits. The “Type Code,” “Amount,” “Item Count” and “Funds Type” fields are repeated to identify each status or summary type. *See Appendix A for Type Codes.*

**Type 03 records allow the reporting of item counts and funds availability for summary data only. Status availability is reported by individual type codes (e.g., type code 072, one-day float). The “Item Count” and “Funds Type” fields following a status amount should be defaulted by adjacent delimiters.

Delimiters

- Comma “,” delimits fields.
- Slash “/” delimits the end of the logical record.
- Adjacent delimiters “,,” or “,/” indicate defaulted or unspecified fields.
- All defaulted or unspecified fields must be identified.

Note: An 03 record must include an account number but might not include status or summary data. For example, an 03 record would not report status or summary data if it is used only to identify the account number for Transaction Detail (16) records that follow. In this case, the account number would be followed by five commas and a slash “,,,,,” to delimit the Currency Code, Type Code, Amount, Item Count and Funds Type fields, which are defaulted.

Example: 03,5765432,,,,,/.

Sample 03 Record

03,0975312468,,010,500000,,190,70000000,4,0/

Data in this record are for the sending bank’s account number (0975312468). The leading zero in the account number is significant and must be included in the data. The optional currency code is defaulted to the group currency code. The amount for type code (010) is \$5,000.00 (500000). The Item Count and Funds Type fields are defaulted to “unknown” as indicated by adjacent delimiters (,,). The amount for type code (190) is \$700,000.00 (70000000). The item count for this amount is four (4) and the availability is immediate (0).

16 – TRANSACTION DETAIL

This record reports transaction detail with accompanying text and reference numbers. All fields are required except those labeled optional.

Field Name	Field Description
Record Code	16
Type Code	Identified the type of detail data. See Appendix A for type codes. Type code 890 has been established to transmit information not associated with an Account Status, Summary amounts or Transactions. Type code 890 is neither a debit nor a credit. It is a detail type code and is used in Type 16 Transaction Detail records. The Text field in a Type 16 record with 890 type code contains the non-monetary information. The Amount and Funds Type fields should be defaulted and the Bank Reference Number and Customer Reference Number may be either used as part of the message or defaulted. An example of such a message is illustrated below: 16,890,,,,,detail reports will be delayed until 11:00 AM.
Amount	Optional. Always positive (unsigned). Expressed without a decimal. Currency code in a Group Header record or in an Account Identifier record determines implied decimal. Default indicates that no amount is being reported.

Field Name	Field Description
Funds Type	Optional. Types are as follows: 0 = immediate availability (zero) 1 = one-day availability 2 = two-or-more-days availability S = distributed availability V = value dated D = distributed availability Z = unknown (default) If funds type = S, the next three fields are immediate availability amount, one-day availability amount, and more than one-day availability amount. If funds type = V, the next two fields are value date (YYMMDD) and value time in military format (2400). Both are for the originator's business date and time zone. The value date is the date the originator makes funds available to the customer. Value dates prior to the As-of-Date in the Group Header record are not prohibited but are discouraged. Be prepared to receive such value dates. Records with value dates prior to the As-of-Date should be processed as if the value date was equal to the As-of-Date. Do not use prior value dates to adjust availability. Value time is optional and may be defaulted by adjacent delimiters. Times are stated in military format (0000 through 2400). 0000 indicates the beginning of the day and 2400 indicates the end of the day for the date indicated. Some processors use 9999 to indicate the end of the day. Be prepared to recognize 9999 as end-of-day when receiving transmissions. If funds type = D, the next field indicates the number of availability distributions and each following pair of fields indicate the number of days and the amount available, respectively. Format – "X,a,\$,a,\$" X = number of distributions (integer) A = availability in days (integer) \$ = available amount The number of days over which funds availability may be distributed is not limited. The number of "a" (day) and "\$" (amount) fields must equal the integer stated in "x" (number of distributions). For example, if "x" is eight (8), there must be eight "a,\$" pairs. See section "Funds Type." Amounts in the Funds Type field have the same currency code and implied decimals as the "amount" following the type code. Amounts in the Funds Type field are not included in the Account, Group and File Trailer batch control totals.

Field Name	Field Description
Bank Reference Number	Optional. Alphanumeric field defined by the originator. Must not contain a comma “,” or a slash “/”. The length of the Bank Reference Number is not limited. However, the use of reference numbers over 76 characters in length is highly discouraged because many processors use 80 character records.
Customer Reference Number	Optional. Alphanumeric field defined by the originator. Must not contain a comma “,” or a slash “/”. The length of the Customer Reference Number is not limited. However, the use of reference numbers over 76 characters in length is highly discouraged because many processors use 80 character records. The Customer Reference Number will be the check number for the Transaction Detail type codes 474, 475 and 395.
Text	Optional alphanumeric field defined by the originator. Must not begin with a slash “/”, but may contain a comma “,” or a slash “/” after the first character.

Note: Only one detail transaction may be reported by each Type 16 record. Record 16 cannot report status or summary amounts. Status and summary are reported in record 03.

Delimiters

- Comma “,” delimits fields.
- Adjacent delimiters “,,” indicate defaulted or unspecified fields.
- The end of the “text” field is indicated by the beginning of the next record (unless it is a type 88 continuation record). Spaces between the end of the text and the end of the physical record must be filled with blanks if fixed length records are used. If the Type 16 record does not include text, the end of the logical record is indicated by the adjacent delimiters “,/” following the Customers Reference Number field.

Note: Transaction Detail records report activity in accounts identified by 03 records. All Type 16 records following an 03 record refer to the account identified in the “Customer Account Number” field. (See Record Type 03.)

Sample 16 Record

16,165,1500000,1,DD1620,, DEALER PAYMENTS

This is a Detail Record (16). The amount for type code 165 is \$15,000.00 (1500000) and has one-day (1) deferred availability (1). The bank reference number is (DD1620). There is no customer reference number (,,). The text is (DEALER PAYMENTS). The remainder of the field is blank filled if fixed length records are used, and the text field is delimited by the fact that the next record is not “88”.

88 – CONTINUATION RECORD

Record 88 is a Continuation record. If the data in any type of record exceed the physical record size, or if dividing the record is desirable for any other reason, an 88 record allows the data to continue in the same format. The continuation is labeled as a type 88 record. A Continuation (88) record may follow any type of record, including another Continuation (88).

Any record type may be continued by a type 88 Continuation record. A field may not be split across physical records unless that field is a text field.

Field Name	Field Description
Record Code	88
(Next Field)	The “Record Code” field is followed by a continuation of the preceding record. The format is exactly the same as in the preceding record. If the preceding record ended within a text field, the text continues in the 88 record. If the preceding record did not end within the text field, the 88 record continues with whatever field follows the final field in the preceding physical record. Do not split nontext fields between records. If a nontext field is begun in one record, it must be completed in that record. The following 88 record may continue with the next field.

Delimiters

- Delimiters are the same as for the preceding record. If the preceding physical record does not end within a text field, that record should end with a delimiter slash “/”, even if the following Continuation (88) includes or begins with text. If the preceding physical record ends within text that is to be continued, no delimiter should be placed at the end of that record.
- If a record is to be continued by a type 88 Continuation record, the last field before the continuation is delimited by a slash “/”, **not** by a comma and a slash “,/”. The slash

replaces the comma that ordinarily delimits that field. The example below correctly illustrates the use of delimiters.

Sample 88 Record

```
16,115,10000000,S,5000000,4000000,1000000/
88,AX13612,B096132,AMALGAMATED CORP. LOCKBOX
88,DEPOSIT-MISC. RECEIVABLES
```

If the preceding record was a 16 record that ended with the Funds Type field, the 88 record would continue with “Bank Reference Number.”

49 – ACCOUNT TRAILER

The Account Trailer record provides account level control totals. All fields are required.

Field Name	Field Description
Record Code	49
Account Control Total	Algebraic sum of all “Amount” fields in the preceding type 03 record and all type 16 and 88 records associated with that account. The total does not include amounts reported in Funds Type or Item Count fields. This field includes the sign “+” or “-” for the total. If no sign precedes the total, the default is positive.
Number of Records	Integer. The total number of records in the account, including the 03 record and all 16 and 88 records, and including this account trailer 49 record.

Delimiters

- Comma “,” follows “Record Code” and “Account Control Total.”
- Slash “/” follows “Number of Records” and indicates the end of the logical record.

Note: There must be one 49 record for each 03 record. All 16 and 88 records between the 03 record and the 49 record refer to the account identified in the 03 record.

Sample 49 Record

49,18650000,3/

The Account Trailer record contains the account control total (18650000) which is the algebraic sum of “Amounts” in all records back to and including the preceding 03 record. The Account Control total does not include amounts in Funds Type fields. The number of records (3) includes the 03 record, a Detail (16) or Continuation (88) record, and this Account Trailer (49) record.

98 – GROUP TRAILER

The Group Trailer record provides group level control totals.

All fields are required

Field Name	Field Description
Record Code	98
Group Control Total	Algebraic sum of account control totals in this group. This field includes the sign (“+” or “-”) for the total. If no sign precedes the total, the default is positive.
Number of Accounts	Integer. The number of 03 records in this group.
Number of Records	Integer. The total number of all records in this group. Include the 02, all 03, 16, 49, and 88 records, and this 98 record.

Delimiters

- Comma “,” follows “Record Code,” “Group Control Total,” and “Number of Accounts.”
- Slash “/” follows “Number of Records” and indicates the end of the logical record.

Note: There must be one 98 record for each 02 record.

Sample 98 Record

98,11800000,2,6/

This Group Trailer record contains the group control total (11800000) which is the algebraic sum of all account control totals in this group. The number of accounts is two (2), reflecting the two account records (record type 03) in this group. The number of records in this group (6) includes the 02 record, all 03, 16, 88, and 49 records and this 98 record.

99 – FILE TRAILER

The File Trailer record provides file control totals. All fields are required.

Field Name	File Description
Record Code	99
File Control Total	Algebraic sum of all group control totals in this file. This field includes the sign (“+” or “-”) for the total. If no sign precedes the total, the default is positive.
Number of Groups	Number of 02 records in this file.
Number of Records	Total number of records of all codes in the file, including Continuation records, headers and trailers (and including this 99 record); exclude any device-oriented records, JCL, tape marks, and so on.

Delimiters

- Comma “,” follows “Record Code,” “File Control Total,” and “Number of Groups.”
- Slash “/” follows “Number of Records” and indicates the end of the logical record.

Note: There must be one 99 record for each file. The 99 record indicates the end of the logical file.

Sample 99 Record

99,1215450000,4,36/

The File Trailer record contains the file control total (1215450000) which is the algebraic sum of all group control totals for this file. The number of groups (4) is the number of 02 records in this file. The number of records (36) is the total number of records in this file, including this 99 record.

4 Data Elements

ACCOUNT CONTROL TOTAL

Records: 49
Numeric, signed

The algebraic sum of all “Amount” fields in the preceding type 03 record and all type 16 and 88 records associated with that account. The total does not include amounts reported in Funds Type fields. This field includes the sign “+” or “-” for the total. If no sign precedes the total, default is positive.

AMOUNT

Records: 03, 16, 88
Numeric, signed

Reports the amount of the balance, summary or transaction identified by the preceding type code. Optional.

If the preceding type code is an account status code, “Amount” may be “+,” “-” or unsigned. If the preceding type code is an Account Summary or Transaction Detail code, “Amount” must be “+” or unsigned only.

“Amount” is expressed without a decimal point “.” Instead, 0, 1, 2 or 3 characters at the end of the field are designated as implied decimal places. The currency code determines the number of implied decimal places. The implied decimal for most currency codes is two (2) places. Exceptions are listed at the end of Appendix B.

Example: \$150,097.36 is 15009736. The currency “USD” implies 2 decimal places.

AS-OF-DATE

Records: 02

Numeric, six digits

Date for which reported information is current. Refers to the posting or accounting date at the originator financial institution.

YYMMDD Format (Numeric)

AS-OF-TIME

Records: 02

Numeric, four digits

Time of day, in originator time zone, for which reported information is current. For reference only. Optional.

Military Format, 24 hours. 0001 through 2400.

Times are stated in military format (0000 through 2400). 0000 indicates the beginning of the day and 2400 indicates the end of the day for the date indicated. Some processors use 9999 to indicate the end of the day. Be prepared to recognize 9999 as end-of-day when receiving transmissions.

AS-OF-DATE MODIFIER

Records: 02

Numeric, one digit

Distinguishes same-day data from previous-day data and interim data from final data. As-of-Date Modifier is for identification only and does not affect processing.

- 1 = Interim/Previous-day
- 2 = Final/Previous-day
- 3 = Interim/Same-day
- 4 = Final/Same-day

Final: Status and Summary data at the close of business on the As-of-Date.

Interim: Status and Summary data may not reflect all activity on the As-of-Date.

Previous-day: As-of-Date is the previous business day.

Same-day: As-of-Date is the current business day. For intraday reporting.

BANK REFERENCE NUMBER

Records: 16
Alphanumeric

A field defined by the originator. Must not contain comma “,” or slash “/”. Optional.

The length of the Bank Reference Number is not limited. However, the use of reference numbers over 76 characters in length is highly discouraged because many processors use 80 character records.

BLOCK SIZE

Records: 01
Numeric

Number of physical records in a block. Optional.

CUSTOMER ACCOUNT NUMBER

Records: 03
Alphanumeric

The customer commercial account number at originator financial institution.

Include significant leading zeroes.

Must not contain comma “,” or slash “/”.

CURRENCY CODE

Records: 02, 03
Alpha, 3 characters

Identifies the currency of reported amounts in Amounts and Funds Type fields. These codes are based on international standard ISO 4217 and are the same as those used by S.W.I.F.T.

Defaults:

Group Header – USD.

Account Identifier (03) – Currency code in group header.

See Appendix B for valid currency codes.

The currency code determines the number of implied decimals in the “Amount” and “Funds Type, Amount” fields. Decimal points “.” are not used in amount fields. Instead, 0, 1, 2 or 3 characters at the end of the field are designated as implied decimal places. Amounts for most currency codes have two (2) implied decimal places. Exceptions are listed at the end of Appendix B.

Example: \$150,097.36 is 15009736. The Currency code “USD” implies 2 decimal places.

CUSTOMER REFERENCE NUMBER

Records: 16
Alphanumeric

A field defined by the originator. Must not contain comma “,” or slash “/”. Optional. The length of the Customer Reference Number is not limited. However, the use of reference numbers over 76 characters in length is highly discouraged because many processors use 80 character records.

The Customer Reference Number will be the check number for Transaction Detail type codes 474, 475 and 395.

FILE CONTROL TOTAL

Records: 99
Numeric, signed

Algebraic sum of all group control totals in this file. This field includes the sign (“+” or “-”) for the total. If no sign precedes the total, the default is positive.

FILE CREATION DATE

Records: 01

Numeric, 6 characters

Date sender created file.

YYMMDD Format

FILE CREATION TIME

Records: 01

Numeric, 4 characters

Time of day sender created file. Used in file header only.

Military Format, 24 hours. 0001 through 2400.

Times are stated in military format (0000 through 2400). 0000 indicates the beginning of the day and 2400 indicates the end of the day for the date indicated. Some processors use 9999 to indicate the end of the day. Be prepared to recognize 9999 as end-of-day when receiving transmissions.

FILE IDENTIFICATION NUMBER

Records: 01

Numeric

Sender determined identification number, used to identify uniquely those transmissions between a sender and a receiver. Each file with the same creation date must have a different identification number.

FUNDS TYPE

Records: 03, 16

Composite

Indicates the availability of the Account Summary or Transaction Detail “Amount.” Account status availability is reported by using a separate type code. The Funds Type field following an

Account Status type code in the 03 record should be defaulted, as indicated by the adjacent delimiters “,” or “/”

“Funds Type” is a composite data element. It may occupy one field or several separately delimited fields. The first field is a single-character code that indicates the distribution of availability, and therefore defines any fields that follow.

These codes are:

Z	=	Unknown (default)
0	=	Immediate availability
1	=	One day availability
2	=	Two-or-more days availability
V	=	Value dated
S or D	=	Distributed availability

“Z, 0, 1 or 2” indicate the availability of the entire “Amount”.
No other “Funds Type” fields follow.

“V” indicates the availability of the entire amount on the specified date. The next field is the value date in YYMMDD format and the value time in military (2400) format. Both are for the originator’s business date and time zone. Value dates prior to the As-of-Date in the Group Header record are not prohibited but are discouraged. Be prepared to receive such value dates. Records with value dates prior to the As-of-Date should be processed as if the value date was equal to the As-of-Date. Do not use prior value dates to adjust availability.

Value time is optional and may be defaulted by adjacent delimiters. Times are stated in military format (0000 through 2400). 0000 indicates the beginning of the day and 2400 indicates the end of the day for the date indicated. Some processors use 9999 to indicate the end of the day. Be prepared to recognize 9999 as end-of day when receiving transmissions.

Example:

...,V,040701,1300,....

The entire amount is value dated. July 1, 2004, available at 1:00 PM

“S” and “D” indicate availability distributed over several days.

S – the next three fields are:

- Immediate availability
- One-day availability
- Two-or-more days availability

Example: ...,S,150000,100000,90000,....

D – the next field indicates the number of availability distributions. Each following pair of fields indicates the number of days and available amount, respectively.

Example: ...,D,3,0,150000,1,100000,2,90000,...

(Both examples (S and D) indicate \$1,500 immediate and \$1,000 one-day availability. The first (S) indicator \$900 two-or-more days availability and the second (D) indicates \$900 two-day availability.)

Format – “X,a,\$,a,\$”

X = number of distributions (integer)

A = availability in days (integer)

\$ = available amount

The number of days over which funds availability may be distributed is not limited. The number of “a” (day) and “\$” (amount) fields must equal the integer stated in “x” (number of distributions). For example, if “x” is eight (8), there must be eight “a,\$” pairs.

Availability funds amounts reported under “Funds Type” in distributed availability fields have the same currency code and implied decimal as the “Amount” field to which they refer.

Available funds amount may be signed positive “+” or negative “-”. Default of sign is positive.

This allows float adjustments at the summary or detail level. Funds availability amounts may be associated with both debits and credits. Positive values indicate an increase in amount and negative values indicate a decrease in amount, regardless of whether the type code is a debit or credit. A record with no “Amount” field may include Funds Type availability amounts that are used to adjust float levels.

Available funds amounts are **not** included in Account, Group, and File control totals.

The sum of available funds may or may not equal the “Amount” field they describe.

GROUP CONTROL TOTAL

Records: 98

Numeric, signed

The algebraic sum of account control totals in this group. This field includes the sign (“+” or “-”) for the total. If no sign precedes the total, the default is positive.

GROUP STATUS

Records: 02

Numeric, one digit

The Group Status code specifies exactly how data in a group of accounts are to be processed.

Group Status Codes

- 1 = Update
- 2 = Deletion
- 3 = Correction
- 4 = Test Only

If a file must be retransmitted, the group status code does not change.

1 – Update

Most balance reporting transmissions are “updates.” “Update” is intended for both previous-day reporting and same-day reporting. “Update” reports all status, summary, and detail data.

Processing:

- An “update” must contain an 03 record for each account.
- If no data of any type code are on file, post the “update”.
- If status or summary data with the exact same type code as reported “update” data are already on file, delete the existing data and replace them with the “update” data. An account file can contain only one amount for each Status or Summary type code.
- If status or summary data with different type codes than reported “update” data are on file, post “update” data but do not change existing data with different type codes. They remain unchanged.
- Post any transaction detail data and do not affect existing detail, regardless of type code. A file can contain several details with the same type code.

2 – Deletion

“Deletion” removes all previously reported information for the indicated group of accounts on a particular As-of-Date. A deletion must contain an 03 record for each account to be deleted. This 03 record must include all fields, although only the “Customer Account Number” and “Record Code” must be specified. Others may be

defaulted by adjacent delimiters. After a “deletion,” no data remain on file for an account on the specified As-of-date. “Deletion” is used when data are substantially incorrect, and accurate data are not yet available. After a “deletion” group, an “update” or “correction” group may follow to provide good data.

Processing: Completely eliminate all data on file for the group of accounts on the specified As-of-Date.

Warning: “Deletion” will destroy all data regardless of source. Be extremely careful when using deletion.

Suggestion: If only a few status or summary fields require correction, an “update” will allow replacement of those fields without affecting other data on file.

3 – Correction

“Correction” is used when previously transmitted data are substantially wrong. It allows all previously reported data to be deleted and replaced with corrected data.

Processing:

- Delete any data already on file for the account on that As-of-Date
- Post status, summary and detail data to file

Warning: Any data of any type code already on file regardless of source will be lost when “correction” is posted.

4 – Test Only

“Test Only” indicates a file that must be edited for syntax and batch totals but does not affect the receiver’s live files. “Test Only” transmission is point-to-point only.

Group Status Code Processing Matrix

	1 Update	2 Deletion	3 Correction	4 Test Only
Data on File:				
Status – same type code	Replace	Delete	Replace	No Effect
Status – different type code	No Effect	Delete	Delete	No Effect
Summary – same type code	Replace	Delete	Replace	No Effect

	1 Update	2 Deletion	3 Correction	4 Test Only
Summary – different type code	No Effect	Delete	Delete	No Effect
Detail – same type code	No Effect	Delete	Replace	No Effect
Detail – different type code	No Effect	Delete	Delete	No Effect
New Data:				
Status	Post	Do Not Post	Post	Do Not Post
Summary	Post	Do Not Post	Post	Do Not Post
Detail	Post	Do Not Post	Post	Do Not Post

The preceding matrix describes the effect of processing at the type code level. However, actual processing might affect the entire account record, regardless of type code. Example: a deletion eliminates all data and would not need to read existing data at the type code level.

ITEM COUNT

Records: 03

Numeric, Integer

Reports the number of items included in an activity summary identified by the preceding type code. Default is “unknown,” indicated by adjacent delimiters “,,”.

Used only with activity summary type codes. This field should be defaulted for account status type codes.

NUMBER OF ACCOUNTS

Records: 98

Numeric, Integer

Number of 03 records in this group.

NUMBER OF GROUPS

Records: 99
Numeric, Integer

Number of 02 records in this file.

NUMBER OF RECORDS

Records: 49, 98, 99
Numeric, Integer

Total number of records within the account, group, or file of all codes, including continuation records, headers, and trailers (and including this control record); exclude any device-oriented records, JCL, tape marks, and so on.

ORIGINATOR IDENTIFICATION

Records: 02
Alphanumeric

Identifies the originator: The originator is the depository financial institution where the account being reported is held.

Domestic Financial Institutions: ABA/FRB routing and transit number, including the check digit (9 characters).

Foreign Financial Institutions: S.W.I.F.T., CHIPS, or another mutually agreed on number.

PHYSICAL RECORD LENGTH

Records: 01
Numeric

Number of characters in each physical record. Specified if fixed length records are used. If Physical Record Length is not specified, the records in the file are of variable length. If Physical Record Length is not specified, the field is defaulted by adjacent delimiters “,” indicating

variable length records. However, “physical record length” does not replace or alter any record length specified in the communication protocol. This field is strictly confined to the scope of this specification.

RECEIVER IDENTIFICATION

Records: 01
Alphanumeric

Identifies receiver of file.

Domestic Financial Institutions: ABA/FRB routing and transit number, including the check digit (characters)

Foreign Financial Institutions: S.W.I.F.T., CHIPS, or another mutually agreed on number.

Nonbank Processors: DUNS number (9 characters)

RECORD CODE

Records: All
Numeric, 2 characters

Identifies record type. Always the first two characters of a record.

- 01 File Header
- 02 Group Header
- 03 Account Identifier and Summary Status
- 16 Transaction Detail
- 49 Account Trailer
- 98 Group Trailer
- 99 File Trailer
- 88 Continuation

SENDER IDENTIFICATION

Records: 01
Alphanumeric

Identifies sender of a file.

Domestic Financial Institutions: ABA/FRB routing and transit number, including check digit (9 characters).

Foreign Financial Institutions: S.W.I.F.T., CHIPS, or another mutually agreed on number.

Nonbank Processors: DUNS number (9 characters)

TEXT

Records: 16
Alphanumeric

Descriptive text for detail transactions. Text must not begin with slash “/”, but may contain comma “,” or slash (/) after the first character.

If a 16 record does not contain text, the “Text” field is defaulted by the adjacent delimiters “,/”.

If a 16 or an 88 record does contain text, the end of the “Text” field is not delimited. Because “Text” is the last field in these records, the record is not delimited by slash “/”. Instead, the logical record continues until the beginning of the next record that is not a continuation (88) record. If fixed length records are used, the spaces between the end of the text and the end of the physical record must be filled with blank characters.

The “Text” field may continue into an 88 Continuation record. If the 88 continuation does not begin *within* the text field, the previous record is ended with a slash “/”.

TYPE CODE

Records: 03, 16, 88
Numeric, 3 digits

Identifies the type of balance, summary, or transaction being reported. There are three classes of type codes:

- Account Status
- Activity Summary
- Transaction Detail

Account status and activity summary type codes are used in record 03 only. Transaction detail type codes are used in record 16 only.

Type code 890 has been established to transmit information not associated with an account status, summary amounts or transactions. Type Code 890 is neither a debit nor a credit. It is a detail type code and is used in Type 16 Transaction Detail records. The Text field in a Type 16 record with an 890 Type Code contains the non-monetary information. The Amount and Funds Type fields should be defaulted and the Bank Reference Number and the Customer Reference Number may be either used as part of the message or defaulted. An example of such a message is illustrated below.

Example: 16,890,,,,,detail reports will be delayed until 11:00 AM.

Appendix A lists Uniform Type Codes for use in Version 2 transmissions. Appendix A also includes an explanation of type code usage.

Only one amount for each status or summary type code can remain on file for each account on an As-of-Date. Many transaction details may be on file with the same type code.

ULTIMATE RECEIVER IDENTIFICATION

Records: 02
Alphanumeric

Identifies Ultimate Receiver. Ultimate Receiver is the processor that receives the final transmission of a group of balance reporting data in BAI format before it is translated into usable form. Optional.

Domestic Financial Institutions: ABA/FRB routing and transit number, including check digit (9 characters).

Foreign Financial Institutions: S.W.I.F.T., CHIPS, or another mutually agreed on number.

Nonbank Processors: DUNS number (9 characters)

VERSION NUMBER

Records: 01

Numeric, one digit

For this version, always 2.

5 Implementing Cash Management Balance Reporting Specifications

OPERATING PROCEDURES

The initiation of a balance reporting relationship requires a clear understanding by all parties of a number of considerations. The following checklist is intended to bring some of these into focus:

Customer Setup

- Are the instructions received sufficient and clear?
- Are the listed account numbers accurate and correct?
- Is the target start-up date reasonably attainable?
- Is the requested transmission time reasonably attainable on an ongoing basis?
- Is there a charge to the customer for reporting balances? Is the customer aware of the charges?
- Is a test transmission requested or required by the ultimate receiver?
- How are bank holidays handled? Are the customer and ultimate receiver aware of the bank holiday schedule?

Ongoing Operations

- What is the originator's policy with regard to warehousing data?
- If there is a transmission failure, can data be retransmitted quickly?
- If a transmission error occurs and is detected by the originator, what steps should be taken? Who should be alerted of the error?
- Are transmission "time windows" defined on an ongoing basis?
- If a third-party intermediary is used in the transmission stream, is the confidentiality of data adequately protected?

Legal Considerations

- Is the person requesting balance information authorized to make the request (i.e., an authorized “signer” for the account)?
- Under what conditions can the bank be considered liable for:
 - Missed transmissions?
 - Incorrect information transmitted?
- Is the bank adequately protected in these cases?
- Are separate agreements required for transmission via a third-party intermediary?
- Are the responsibilities of third parties clearly defined?

Model Setup Form

A single document acting as a setup form is often used to provide all of the reference and descriptive data necessary to establish a balance reporting relationship. This sample form provides a format for most of the necessary information and instructions.

IMPLEMENTATION CONSIDERATIONS

The following points should be considered when implementing Version 2 specifications:

- When assessing the resources required to implement this format, keep in mind that BAI specifications may be used in many different areas. Systems that may be affected include:
 - Transmissions to other banks (or service bureaus) for input into your bank's own or another bank's multibank reporting systems.
 - Multibank reporting systems that receive data from other banks or data exchanges.
 - Treasury workstations or large corporations with their own systems that receive formatted data from banks or data exchanges.
- Please contact the bank or vendor you will be transmitting data to for any special requirements they might have regarding record formats or type codes.
- The specification defines the processing action to be taken for each group status code contained in record 02. Processing under Version 2 should conform to that defined in Version 2 specifications.
- Most transmissions will be "Updates" with a group status code of "1". Group status codes 2, 3, and 4 are used for special circumstances, such as major corrections of previously reported data and test transmissions. *See "Group Status Codes" for further explanation.*
- Each account must include a 03 record.
- There is a uniform type code list for Version 2. Only the codes on this list will be accepted as valid for a Version 2 transmission. *See Appendix A.*
- Variable record size is allowed according to the format definitions, but you should check with your transmission endpoint for compatibility before using this capability.
- There is no requirement for the sum of the amounts given for detailed transactions to equal the amount of the summary transaction. For example, many customers request detail on wire transfers over \$10,000 and a summary of total wires. There would be a discrepancy between the sum of the detail records and the summary equal to the amount of the wires under \$10,000. For similar reasons, the sum of the availability reported individual transactions need not equal the total float reported for the day.

Appendix A

UNIFORM BAI BALANCE REPORTING TYPE CODES AND TYPE CODE RANGES

Type codes are three-digit numbers used to identify the types of data reported. Codes are either Status, Summary, or Detail. General usage rules are as follows:

Account Status: These codes describe the status of the account (for example, ledger balance, available balance, and float position). Account Status type codes may only be used in the 03 record and associated Continuation (88) records. Status amounts may be positive or negative. Status type codes may not be accompanied by an item count or a funds type distribution. Only one amount for any status type code can remain on file for a given As-of-Date for a given account.

Activity Summary: These codes summarize account credit and debit activity (for example, total lockbox credits or total security debits) and may only be used in the 03 record and associated Continuation (88) records. Summary amounts are always positive or unsigned. Summary type codes may be accompanied by an item count or funds type distribution. Only one amount for any Summary type code can remain on file for a given As-of-Date for a given account

Transaction Detail: These codes detail individual credits and debits (for example, individual lockbox deposit or foreign exchange debit) and may only be used in the 16 record. Detail amounts are always positive or unsigned. An account file may contain several transaction details with the same type code for a given As-of-Date.

Type Code Ranges

The following table indicates the ranges of three-digit numbers used for Status, Summary, and Detail type codes:

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
900–999	Customized Type Codes

Type Code for Non-monetary Information: Type Code 890 has been established to transmit information not associated with an Account Status, Summary amounts or Transactions. Type Code 890 is neither a debit nor a credit. It is a detail type code and is used in Type 16 Transaction Detail records. The Text field in a Type 16 record with an 890 Type Code contains the non-monetary information. The Amount and Funds Type fields should be defaulted and the Bank Reference Number and Customer Reference Number may be either used as part of the message or defaulted. An example of such a message is illustrated below.

16,890,,,,,detail reports will be delayed until 11:00 AM.

Customized Type Codes

Whenever possible, processors should use Uniform Version 2 type codes. However, experience with Version 1 indicates a demand for highly specialized codes for use in two-party reporting systems. These codes are created to meet the needs of specific customers and are often not of general interest to the cash management community. Instead of allocating uniform type codes to such specialized activities, the range for 900–999 has been reserved for customized type codes. BAI will not designate uniform type codes in this range, and users of the specification are free to assign unique type codes to meet customer needs within the following guidelines:

- These codes should only be used for transmissions between parties that have agreed to support the nonstandard type.
- BAI will not support type codes in the 900-999 range and users of the specifications might not accept these types in transmissions.

Customized type codes should fall within the following ranges:

Type Codes	Description
900–919	Account Status Codes
920–959	Credit Summary and Detail
960–999	Debit Summary and Detail

Type codes 920–999 that are used in 03 records are Summary type codes.

Those used in 16 records are detail type codes.

UNIFORM BAI BALANCE REPORTING TYPE CODES

Note: The type codes on this list are subject to change. BAI will revise the list of Uniform Type Codes as new codes are established and others deleted.

Type Code	Transaction	Level	Description
010	NA	Status	Opening Ledger
011	NA	Status	Average Opening Ledger MTD
012	NA	Status	Average Opening Ledger YTD
015	NA	Status	Closing Ledger
020	NA	Status	Average Closing Ledger MTD
021	NA	Status	Average Closing Ledger – Previous Month
022	NA	Status	Aggregate Balance Adjustments
024	NA	Status	Average Closing Ledger YTD – Previous Month
025	NA	Status	Average Closing Ledger YTD

Type Code	Transaction	Level	Description
030	NA	Status	Current Ledger
037	NA	Status	ACH Net Position
039	NA	Status	Opening Available + Total Same-Day ACH DTC Deposit
040	NA	Status	Opening Available
041	NA	Status	Average Opening Available MTD
042	NA	Status	Average Opening Available YTD
043	NA	Status	Average Available – Previous Month
044	NA	Status	Disbursing Opening Available Balance
045	NA	Status	Closing Available
050	NA	Status	Average Closing Available MTD
051	NA	Status	Average Closing Available – Last Month
054	NA	Status	Average Closing Available YTD – Last Month
055	NA	Status	Average Closing Available YTD
056	NA	Status	Loan Balance
057	NA	Status	Total Investment Position
059	NA	Status	Current Available (CRS Suppressed)
060	NA	Status	Current Available
061	NA	Status	Average Current Available MTD
062	NA	Status	Average Current Available YTD
063	NA	Status	Total Float
065	NA	Status	Target Balance
066	NA	Status	Adjusted Balance
067	NA	Status	Adjusted Balance MTD
068	NA	Status	Adjusted Balance YTD
070	NA	Status	0-Day Float
072	NA	Status	1-Day Float

Type Code	Transaction	Level	Description
073	NA	Status	Float Adjustment
074	NA	Status	2 or More Days Float
075	NA	Status	3 or More Days Float
076	NA	Status	Adjustment to Balances
077	NA	Status	Average Adjustment to Balances MTD
078	NA	Status	Average Adjustment to Balances YTD
079	NA	Status	4-Day Float
080	NA	Status	5-Day Float
081	NA	Status	6-Day Float
082	NA	Status	Average 1-Day Float MTD
083	NA	Status	Average 1-Day Float YTD
084	NA	Status	Average 2-Day Float MTD
085	NA	Status	Average 2-Day Float YTD
086	NA	Status	Transfer Calculation

Summary and Detail Credits

Type Code	Transaction	Level	Description
100	CR	Summary	Total Credits
101	CR	Summary	Total Credit Amount MTD
105	CR	Summary	Credits Not Detailed
106	CR	Summary	Deposits Subject to Float
107	CR	Summary	Total Adjustment Credits YTD
108	CR	Detail	Credit (Any Type)
109	CR	Summary	Current Day Total Lockbox Deposits

Lockbox – Related Type Codes

Type Code	Transaction	Level	Description
110	CR	Summary	Total Lockbox Deposits
115	CR	Detail	Lockbox Deposit
116	CR	Detail	Item in Lockbox Deposit
118	CR	Detail	Lockbox Adjustment Credit
120	CR	Summary	EDI* Transaction Credit
121	CR	Detail	EDI Transaction Credit
122	CR	Detail	EDIBANX Credit Received
123	CR	Detail	EDIBANX Credit Return

Concentration – Related Type Codes

Type Code	Transaction	Level	Description
130	CR	Summary	Total Concentration Credits
131	CR	Summary	Total DTC Credits
135	CR	Detail	DTC Concentration Credit
136	CR	Detail	Item in DTC Deposit
140	CR	Summary	Total ACH Credits
142	CR	Detail	ACH Credit Received
143	CR	Detail	Item in ACH Deposit
145	CR	Detail	ACH Concentration Credit
146	CR	Summary	Total Bank Card Deposits
147	CR	Detail	Individual Bank Card Deposit

Preauthorized and ACH – Related Type Codes

Type Code	Transaction	Level	Description
150	CR	Summary	Total Preauthorized Payment Credits
155	CR	Detail	Preauthorized Draft Credit
156	CR	Detail	Item in PAC Deposit
160	CR	Summary	Total ACH Disbursing Funding Credits
162	CR	Summary	Corporate Trade Payment Settlement
163	CR	Summary	Corporate Trade Payment Credits
164	CR	Detail	Corporate Trade Payment Credit
165	CR	Detail	Preauthorized ACH Credit
166	CR	Detail	ACH Settlement
167	CR	Summary	ACH Settlement Credits
168	CR	Detail	ACH Return Item or Adjustment Settlement
169	CR	Detail	Miscellaneous ACH Credit

Other Deposits – Related Type Codes

Type Code	Transaction	Level	Description
170	CR	Summary	Total Other Check Deposits
171	CR	Detail	Individual Loan Deposit
172	CR	Detail	Deposit Correction
173	CR	Detail	Bank-Prepared Deposit
174	CR	Detail	Other Deposit
175	CR	Detail	Check Deposit Package
176	CR	Detail	Re-presented Check Deposit
178	CR	Summary	List Post Credits
180	CR	Summary	Total Loan Proceeds

Type Code	Transaction	Level	Description
182	CR	Summary	Total Bank-Prepared Deposits
184	CR	Detail	Draft Deposit
185	CR	Summary	Total Miscellaneous Deposits
186	CR	Summary	Total Cash Letter Credits
187	CR	Detail	Cash Letter Credit
188	CR	Summary	Total Cash Letter Adjustments
189	CR	Detail	Cash Letter Adjustment

Money Transfer – Related Type Codes

Type Code	Transaction	Level	Description
190	CR	Summary	Total Incoming Money Transfers
191	CR	Detail	Individual Incoming Internal Money Transfer
195	CR	Detail	Incoming Money Transfer
196	CR	Detail	Money Transfer Adjustment
198	CR	Detail	Compensation
200	CR	Summary	Total Automatic Transfer Credits
201	CR	Detail	Individual Automatic Transfer Credit
202	CR	Detail	Bond Operations Credit
205	CR	Summary	Total Book Transfer Credits
206	CR	Detail	Book Transfer Credit
207	CR	Summary	Total International Money Transfer Credits
208	CR	Detail	Individual International Money Transfer Credit
210	CR	Summary	Total International Credits
212	CR	Detail	Foreign Letter of Credit
213	CR	Detail	Letter of Credit

Type Code	Transaction	Level	Description
214	CR	Detail	Foreign Exchange of Credit
215	CR	Summary	Total Letters of Credit
216	CR	Detail	Foreign Remittance Credit
218	CR	Detail	Foreign Collection Credit
221	CR	Detail	Foreign Check Purchase
222	CR	Detail	Foreign Checks Deposited
224	CR	Detail	Commission
226	CR	Detail	International Money Market Trading
227	CR	Detail	Standing Order
229	CR	Detail	Miscellaneous International Credit

Security – Related Type Codes

Type Code	Transaction	Level	Description
230	CR	Summary	Total Security Credits
231	CR	Summary	Total Collection Credits
232	CR	Detail	Sale of Debt Security
233	CR	Detail	Securities Sold
234	CR	Detail	Sale of Equity Security
235	CR	Detail	Matured Reverse Repurchase Order
236	CR	Detail	Maturity of Debt Security
237	CR	Detail	Individual Collection Credit
238	CR	Detail	Collection of Dividends
239	CR	Summary	Total Bankers' Acceptance Credits
240	CR	Detail	Coupon Collections – Banks
241	CR	Detail	Bankers' Acceptances

Type Code	Transaction	Level	Description
242	CR	Detail	Collection of Interest Income
243	CR	Detail	Matured Fed Funds Purchased
244	CR	Detail	Interest/Matured Principal Payment
245	CR	Summary	Monthly Dividends
246	CR	Detail	Commercial Paper
247	CR	Detail	Capital Change
248	CR	Detail	Savings Bonds Sales Adjustment
249	CR	Detail	Miscellaneous Security Credit
250	CR	Summary	Total Checks Posted and Returned
251	CR	Summary	Total Debit Reversals
252	CR	Detail	Debit Reversal
254	CR	Detail	Posting Error Correction Credit
255	CR	Detail	Check Posted and Returned
256	CR	Summary	Total ACH Return Items
257	CR	Detail	Individual ACH Return Item
258	CR	Detail	ACH Reversal Credit
260	CR	Summary	Total Rejected Credits
261	CR	Detail	Individual Rejected Credit
263	CR	Detail	Overdraft
266	CR	Detail	Return Item
268	CR	Detail	Return Item Adjustment

ZBA and Disbursing – Related Type Codes

Type Code	Transaction	Level	Description
270	CR	Summary	Total ZBA Credits
271	CR	Summary	Net Zero-Balance Amount
274	CR	Detail	Cumulative** ZBA or Disbursement Credits
275	CR	Detail	ZBA Credit
276	CR	Detail	ZBA Float Adjustment
277	CR	Detail	ZBA Credit Transfer
278	CR	Detail	ZBA Credit Adjustment
280	CR	Summary	Total Controlled Disbursing Credits
281	CR	Detail	Individual Controlled Disbursing Credit
285	CR	Summary	Total DTC Disbursing Credits
286	CR	Detail	Individual DTC Disbursing Credit

Other (Expansion) Type Codes

Type Code	Transaction	Level	Description
294	CR	Summary	Total ATM Credits
295	CR	Detail	ATM Credit
301	CR	Detail	Commercial Deposit
302	CR	Summary	Correspondent Bank Deposit
303	CR	Summary	Total Wire Transfers In – FF
304	CR	Summary	Total Wire Transfers In – CHF
305	CR	Summary	Total Fed Funds Sold
306	CR	Detail	Fed Funds Sold
307	CR	Summary	Total Trust Credits
308	CR	Detail	Trust Credit

Type Code	Transaction	Level	Description
309	CR	Summary	Total Value - Dated Funds
310	CR	Summary	Total Commercial Deposits
315	CR	Summary	Total International Credits – FF
316	CR	Summary	Total International Credits – CHF
318	CR	Summary	Total Foreign Check Purchased
319	CR	Summary	Late Deposit
320	CR	Summary	Total Securities Sold – FF
321	CR	Summary	Total Securities Sold – CHF
324	CR	Summary	Total Securities Matured – FF
325	CR	Summary	Total Securities Matured – CHF
326	CR	Summary	Total Securities Interest
327	CR	Summary	Total Securities Matured
328	CR	Summary	Total Securities Interest – FF
329	CR	Summary	Total Securities Interest – CHF
330	CR	Summary	Total Escrow Credits
331	CR	Detail	Individual Escrow Credit
332	CR	Summary	Total Miscellaneous Securities Credits – FF
336	CR	Summary	Total Miscellaneous Securities Credits – CHF
338	CR	Summary	Total Securities Sold
340	CR	Summary	Total Broker Deposits
341	CR	Summary	Total Broker Deposits – FF
342	CR	Detail	Broker Deposit
343	CR	Summary	Total Broker Deposits – CHF
344	CR	Detail	Individual Back Value Credit
345	CR	Detail	Item in Brokers Deposit
346	CR	Detail	Sweep Interest Income

Type Code	Transaction	Level	Description
347	CR	Detail	Sweep Principal Sell
348	CR	Detail	Futures Credit
349	CR	Detail	Principal Payments Credit
350	CR	Summary	Investment Sold
351	CR	Detail	Individual Investment Sold
352	CR	Summary	Total Cash Center Credits
353	CR	Detail	Cash Center Credit
354	CR	Detail	Interest Credit
355	CR	Summary	Investment Interest
356	CR	Summary	Total Credit Adjustment
357	CR	Detail	Credit Adjustment
358	CR	Detail	YTD Adjustment Credit
359	CR	Detail	Interest Adjustment Credit
360	CR	Summary	Total Credits Less Wire Transfer and Returned Checks
361	CR	Summary	Grand Total Credits Less Grand Total Debits

Correspondent Bank and Federal Reserve – Related Type Codes

Type Code	Transaction	Level	Description
362	CR	Detail	Correspondent Collection
363	CR	Detail	Correspondent Collection Adjustment
364	CR	Detail	Loan Participation
366	CR	Detail	Currency and Coin Deposited
367	CR	Detail	Food Stamp Letter
368	CR	Detail	Food Stamp Adjustment
369	CR	Detail	Clearing Settlement Credit

Type Code	Transaction	Level	Description
370	CR	Summary	Total Back Value Credits
372	CR	Detail	Back Value Adjustment
373	CR	Detail	Customer Payroll
374	CR	Detail	FRB Statement Recap
376	CR	Detail	Savings Bond Letter or Adjustment
377	CR	Detail	Treasury Tax and Loan Credit
378	CR	Detail	Transfer of Treasury Credit
379	CR	Detail	FRB Government Checks Cash Letter Credit
381	CR	Detail	FRB Government Check Adjustment
382	CR	Detail	FRB Postal Money Order Credit
383	CR	Detail	FRB Postal Money Order Adjustment
384	CR	Detail	FRB Cash Letter Auto Charge Credit
385	CR	Summary	Total Universal Credits
386	CR	Detail	FRB Cash Letter Auto Charge Adjustment
387	CR	Detail	FRB Fine-Sort Cash Letter Credit
388	CR	Detail	FRB Fine-Sort Adjustment
389	CR	Summary	Total Freight Payment Credits

Miscellaneous Type Codes

Type Code	Transaction	Level	Description
390	CR	Summary	Total Miscellaneous Credits
391	CR	Detail	Universal Credit
392	CR	Detail	Freight Payment Credit
393	CR	Detail	Itemized Credit Over \$10,000
394	CR	Detail	Cumulative** Credits

Type Code	Transaction	Level	Description
395	CR	Detail	Check Reversal
397	CR	Detail	Float Adjustment
398	CR	Detail	Miscellaneous Fee Refund
399	CR	Detail	Miscellaneous Credit

Summary and Detail Debits

Type Code	Transaction	Level	Description
400	DB	Summary	Total Debits
401	DB	Summary	Total Debit Amount MTD
403	DB	Summary	Today's Total Debits
405	DB	Summary	Total Debit Less Wire Transfers and Charge-Backs
406	DB	Summary	Debits not Detailed
408	DB	Detail	Float Adjustment
409	DB	Detail	Debit (Any Type)
410	DB	Summary	Total YTD Adjustment
412	DB	Summary	Total Debits (Excluding Returned Items)

Lockbox Related – Type Codes

Type Code	Transaction	Level	Description
415	DB	Detail	Lockbox Debit
416	DB	Summary	Total Lockbox Debits
420	DB	Summary	EDI Transaction Debits
421	DB	Detail	EDI Transaction Debit
422	DB	Detail	EDIBANX Settlement Debit
423	DB	Detail	EDIBANX Return Item Debit

Payable-Through Draft – Related Type Codes

Type Code	Transaction	Level	Description
430	DB	Summary	Total Payable–Through Drafts
435	DB	Detail	Payable–Through Draft

ACH – Related Type Codes

Type Code	Transaction	Level	Description
445	DB	Detail	ACH Concentration Debit
446	DB	Summary	Total ACH Disbursement Funding Debits
447	DB	Detail	ACH Disbursement Funding Debit
450	DB	Summary	Total ACH Debits
451	DB	Detail	ACH Debit Received
452	DB	Detail	Item in ACH Disbursement or Debit
455	DB	Detail	Preauthorized ACH Debit
462	DB	Detail	Account Holder Initiated ACH Debit
463	DB	Summary	Corporate Trade Payment Debits

Type Code	Transaction	Level	Description
464	DB	Detail	Corporate Trade Payment Debit
465	DB	Summary	Corporate Trade Payment Settlement
466	DB	Detail	ACH Settlement
467	DB	Summary	ACH Settlement Debits
468	DB	Detail	ACH Return Item or Adjustment Settlement
469	DB	Detail	Miscellaneous ACH Debit

Checks Paid – Related Type Codes

Type Code	Transaction	Level	Description
470	DB	Summary	Total Check Paid
471	DB	Summary	Total Check Paid – Cumulative MTD
472	DB	Detail	Cumulative** Checks Paid
474	DB	Detail	Certified Check Debit
475	DB	Detail	Check Paid
476	DB	Detail	Federal Reserve Bank Letter Debit
477	DB	Detail	Bank Originated Debit
478	DB	Summary	List Post Debits
479	DB	Detail	List Post Debit
480	DB	Summary	Total Loan Payments
481	DB	Detail	Individual Loan Payment
482	DB	Summary	Total Bank-Originated Debits
484	DB	Detail	Draft
485	DB	Detail	DTC Debit
486	DB	Summary	Total Cash Letter Debits

Type Code	Transaction	Level	Description
487	DB	Detail	Cash Letter Debit
489	DB	Detail	Cash Letter Adjustment

Money Transfer – Related Type Codes

Type Code	Transaction	Level	Description
490	DB	Summary	Total Outgoing Money Transfers
491	DB	Detail	Individual Outgoing Internal Money Transfer
493	DB	Detail	Customer Terminal Initiated Money Transfer
495	DB	Detail	Outgoing Money Transfer
496	DB	Detail	Money Transfer Adjustment
498	DB	Detail	Compensation
500	DB	Summary	Total Automatic Transfer Debits
501	DB	Detail	Individual Automatic Transfer Debit
502	DB	Detail	Bond Operations Debit
505	DB	Summary	Total Book Transfer Debits
506	DB	Detail	Book Transfer Debit
507	DB	Summary	Total International Money Transfer Debits
508	DB	Detail	Individual International Money Transfer Debits
510	DB	Summary	Total International Debits
512	DB	Detail	Letter of Credit Debit
513	DB	Detail	Letter of Credit
514	DB	Detail	Foreign Exchange Debit
515	DB	Summary	Total Letters of Credit
516	DB	Detail	Foreign Remittance Debit
518	DB	Detail	Foreign Collection Debit

Type Code	Transaction	Level	Description
522	DB	Detail	Foreign Checks Paid
524	DB	Detail	Commission
526	DB	Detail	International Money Market Trading
527	DB	Detail	Standing Order
529	DB	Detail	Miscellaneous International Debit

Security – Related Type Codes

Type Code	Transaction	Level	Description
530	DB	Summary	Total Security Debits
531	DB	Detail	Securities Purchased
532	DB	Summary	Total Amount of Securities Purchased
533	DB	Detail	Security Collection Debit
534	DB	Summary	Total Miscellaneous Securities DB – FF
535	DB	Detail	Purchase of Equity Securities
536	DB	Summary	Total Miscellaneous Securities Debit – CHF
537	DB	Summary	Total Collection Debit
538	DB	Detail	Matured Repurchase Order
539	DB	Summary	Total Bankers' Acceptances Debit
540	DB	Detail	Coupon Collection Debit
541	DB	Detail	Bankers' Acceptances
542	DB	Detail	Purchase of Debt Securities
543	DB	Detail	Domestic Collection
544	DB	Detail	Interest/Matured Principal Payment
546	DB	Detail	Commercial paper
547	DB	Detail	Capital Change

Type Code	Transaction	Level	Description
548	DB	Detail	Savings Bonds Sales Adjustment
549	DB	Detail	Miscellaneous Security Debit

Deposited Items Returned – Related Type Codes

Type Code	Transaction	Level	Description
550	DB	Summary	Total Deposited Items Returned
551	DB	Summary	Total Credit Reversals
552	DB	Detail	Credit Reversal
554	DB	Detail	Posting Error Correction Debit
555	DB	Detail	Deposited Item Returned
556	DB	Summary	Total ACH Return Items
557	DB	Detail	Individual ACH Return Item
558	DB	Detail	ACH Reversal Debit
560	DB	Summary	Total Rejected Debits
561	DB	Detail	Individual Rejected Debit
563	DB	Detail	Overdraft
564	DB	Detail	Overdraft Fee
566	DB	Detail	Return Item
567	DB	Detail	Return Item Fee
568	DB	Detail	Return Item Adjustment

ZBA and Disbursing – Related Type Codes

Type Code	Transaction	Level	Description
570	DB	Summary	Total ZBA Debits
574	DB	Detail	Cumulative ZBA Debits
575	DB	Detail	ZBA Debit
577	DB	Detail	ZBA Debit Transfer
578	DB	Detail	ZBA Debit Adjustment
580	DB	Summary	Total Controlled Disbursing Debits
581	DB	Detail	Individual Controlled Disbursing Debit
583	DB	Summary	Total Disbursing Checks Paid – Early Amount
584	DB	Summary	Total Disbursing Checks Paid – Later Amount
585	DB	Summary	Disbursing Funding Requirement
586	DB	Summary	FRB Presentment Estimate (Fed Estimate)
587	DB	Summary	Late Debits (After Notification)
588	DB	Summary	Total Disbursing Checks Paid-Last Amount

Other (Expansion) Type Codes

Type Code	Transaction	Level	Description
590	DB	Summary	Total DTC Debits
594	DB	Summary	Total ATM Debits
595	DB	Detail	ATM Debit
596	DB	Summary	Total APR Debits
597	DB	Detail	ARP Debit
601	DB	Summary	Estimated Total Disbursement
602	DB	Summary	Adjusted Total Disbursement
610	DB	Summary	Total Funds Required

Type Code	Transaction	Level	Description
611	DB	Summary	Total Wire Transfers Out- CHF
612	DB	Summary	Total Wire Transfers Out – FF
613	DB	Summary	Total International Debit – CHF
614	DB	Summary	Total International Debit – FF
615	DB	Summary	Total Federal Reserve Bank – Commercial Bank Debit
616	DB	Detail	Federal Reserve Bank – Commercial Bank Debit
617	DB	Summary	Total Securities Purchased – CHF
618	DB	Summary	Total Securities Purchased – FF
621	DB	Summary	Total Broker Debits – CHF
622	DB	Detail	Broker Debit
623	DB	Summary	Total Broker Debits – FF
625	DB	Summary	Total Broker Debits
626	DB	Summary	Total Fed Funds Purchased
627	DB	Detail	Fed Funds Purchased
628	DB	Summary	Total Cash Center Debits
629	DB	Detail	Cash Center Debit
630	DB	Summary	Total Debit Adjustments
631	DB	Detail	Debit Adjustment
632	DB	Summary	Total Trust Debits
633	DB	Detail	Trust Debit
634	DB	Detail	YTD Adjustment Debit
640	DB	Summary	Total Escrow Debits
641	DB	Detail	Individual Escrow Debit
644	DB	Detail	Individual Back Value Debit
646	DB	Summary	Transfer Calculation Debit

Type Code	Transaction	Level	Description
650	DB	Summary	Investments Purchased
651	DB	Detail	Individual Investment purchased
654	DB	Detail	Interest Debit
655	DB	Summary	Total Investment Interest Debits
656	DB	Detail	Sweep Principal Buy
657	DB	Detail	Futures Debit
658	DB	Detail	Principal Payments Debit
659	DB	Detail	Interest Adjustment Debit

Correspondent Bank and Federal Reserve – Related Type Codes

Type Code	Transaction	Level	Description
661	DB	Detail	Account Analysis Fee
662	DB	Detail	Correspondent Collection Debit
663	DB	Detail	Correspondent Collection Adjustment
664	DB	Detail	Loan Participation
665	DB	Summary	Intercept Debits
666	DB	Detail	Currency and Coin Shipped
667	DB	Detail	Food Stamp Letter
668	DB	Detail	Food Stamp Adjustment
669	DB	Detail	Clearing Settlement Debit
670	DB	Summary	Total Back Value Debits
672	DB	Detail	Back Value Adjustment
673	DB	Detail	Customer Payroll
674	DB	Detail	FRB Statement Recap
676	DB	Detail	Savings Bond Letter or Adjustment

Type Code	Transaction	Level	Description
677	DB	Detail	Treasury Tax and Loan Debit
678	DB	Detail	Transfer of Treasury Debit
679	DB	Detail	FRB Government Checks Cash Letter Debit
681	DB	Detail	FRB Government Check Adjustment
682	DB	Detail	FRB Postal Money Order Debit
683	DB	Detail	FRB Postal Money Order Adjustment
684	DB	Detail	FRB Cash Letter Auto Charge Debit
685	DB	Summary	Total Universal Debits
686	DB	Detail	FRB Cash Letter Auto Charge Adjustment
687	DB	Detail	FRB Fine-Sort Cash Letter Debit
688	DB	Detail	FRB Fine-Sort Adjustment
689	DB	Summary	FRB Freight Payment Debits
690	DB	Summary	Total Miscellaneous Debits
691	DB	Detail	Universal Debit
692	DB	Detail	Freight Payment Debit
693	DB	Detail	Itemized Debit Over \$10,000
694	DB	Detail	Deposit Reversal
695	DB	Detail	Deposit Correction Debit
696	DB	Detail	Regular Collection Debit
697	DB	Detail	Cumulative** Debits
698	DB	Detail	Miscellaneous Fees
699	DB	Detail	Miscellaneous Debit

Loan Transactions- Related Type Codes

Type Code	Transaction	Level	Description
701	NA	Status	Principal Loan Balance
703	NA	Status	Available Commitment Amount
705	NA	Status	Payment Amount Due
707	NA	Status	Principal Amount Past Due
709	NA	Status	Interest Amount Past Due
720	CR	Summary	Total Loan Payment
721	CR	Detail	Amount Applied to Interest
722	CR	Detail	Amount Applied to Principal
723	CR	Detail	Amount Applied to Escrow
724	CR	Detail	Amount Applied to Late Charges
725	CR	Detail	Amount Applied to Buydown
726	CR	Detail	Amount Applied to Misc. Fees
727	CR	Detail	Amount Applied to Deferred Interest Detail
728	CR	Detail	Amount Applied to Service Charge
760	DB	Summary	Loan Disbursement

Non-Monetary Information

Type Code	Transaction	Level	Description
890	----	Detail	Contains Non-monetary Information

*EDI – Electronic Data Interchange

**These type codes have been added so that cumulative dollar amount of credits or debits, not transmitted as separate detail records, can be transmitted as a detail item.

Example: Each check over \$10,000 is transmitted as an individual, detail item. The cumulative value of checks under \$10,000 is transmitted in one type code 472 detail record.

APPENDIX B

CURRENCY CODES

The following currency codes may be used in the 02 and 03 records. The codes are based on international standard ISO 4217 and are the same as those used by S.W.I.F.T. Note that ISO code “USN” representing U.S. Dollar Next-Day Funds is not used with the *Specifications* and is not included in the following list. As new ISO currency codes are developed, they should be used in balance reporting transmissions and this list updated.

Country	Currency	Code
Afghanistan	Afghani	AFN
Albania	Lek	ALL
Algeria	Algerian Dinar	DZD
American Samoa	U.S. Dollar	USD
Andorra	Euro	EUR
Angola	Kwanza	AOA
Anguilla	East Caribbean Dollar	XCD
Antarctica	No Universal Currency	--
Antigua and Barbuda	East Caribbean Dollar	XCD
Argentina	Argentine Peso	ARS
Armenia	Armenian Dram	AMD
Aruba	Aruban Guilder	AWG
Australia	Australian Dollar	AUD
Austria	Euro	EUR
Azerbaijan	Azerbaijani Manat	AZM
Bahamas	Bahamian Dollar	BSD
Bahrain	Bahraini Dinar	BHD

Country	Currency	Code
Bangladesh	Taka	BDT
Barbados	Barbados Dollar	BBD
Belarus	Belarussian Ruble	BYR
Belgium	Euro	EUR
Belize	Belize Dollar	BZD
Benin	CFA Franc BCEAO	XOF
Bermuda	Bermudian Dollar	BMD
Bhutan	Indian Rupee	INR
Bhutan	Ngultrum	BTN
Bolivia	Boliviano	BOB
Bolivia	Mvdol	BOV
Bosnia and Herzegovina	Convertible Marks	BAM
Botswana	Pula	BWP
Bouvet Island	Norwegian Krone	NOK
Brazil	Brazilian Real	BRL
British Indian Ocean Territory	U.S. Dollar	USD
Brunei Darussalam	Brunei Dollar	BND
Bulgaria	Bulgarian Lev	BGN
Burkina Faso	CFA Franc BCEAO	XOF
Burma	Kyat	BUK
Burundi	Burundi Franc	BIF
Cambodia	Riel	KHR
Cameroon	CFA Franc BEAC	XAF
Canada	Canadian Dollar	CAD
Canton and Enderbury Islands	U.S. Dollar	USD
Cape Verde	Cape Verde Escudo	CVE

Country	Currency	Code
Cayman Islands	Cayman Islands Dollar	KYD
Central African Republic	CFA Franc BEAC	XAF
Chad	CFA Franc BEAC	XAF
Chile	Chilean Peso	CLP
Chile	Unidades de fomento	CLF
China	Yuan Renminbi	CNY
Christmas Island	Australian Dollar	AUD
Cocos (Keeling) Islands	Australian Dollar	AUD
Colombia	Colombian Peso	COP
Colombia	Unidad de Valor Real	COU
Comoros	Comoro Franc	KMF
Congo	CFA Franc BEAC	XAF
Congo, The Democratic Republic of	Franc Congolais	CDF
Cook Islands	New Zealand Dollar	NZD
Costa Rica	Costa Rican Colon	CRC
Cote D'Ivoire	CFA Franc BCEAO	XOF
Croatia	Croatian Kuna	HRK
Cuba	Cuban Peso	CUP
Cyprus	Cyprus Pound	CYP
Czech Republic	Czech Koruna	CZK
Denmark	Danish Krone	DKK
Djibouti	Djibouti Franc	DJF
Dominica	East Caribbean Dollar	XCD
Dominican Republic	Dominican Peso	DOP
Ecuador	U.S. Dollar	USD
Egypt	Egyptian Pound	EGP

Country	Currency	Code
El Salvador	El Salvador Colon	SVC
El Salvador	U.S. Dollar	USD
Equatorial Guinea	CFA Franc BEAC	XAF
Eritrea	Nakfa	ERN
Estonia	Kroon	EEK
Ethiopia	Ethiopian Birr	ETB
Falkland Islands (Malvinas)	Falkland Islands Pound	FKP
Faroe Islands	Danish Krone	DKK
Fiji	Fiji Dollar	FJD
Finland	Euro	EUR
France	Euro	EUR
French Guiana	Euro	EUR
French Polynesia	CFP Franc	XPF
French Southern Territories	Euro	EUR
Gabon	CFA Franc BEAC	XAF
Gambia	Dalasi	GMD
Georgia	Lari	GEL
Germany	Euro	EUR
Ghana	Cedi	GHC
Gibraltar	Gibraltar Pound	GIP
Greece	Euro	EUR
Greenland	Danish Krone	DKK
Grenada	East Caribbean Dollar	XCD
Guadeloupe	Euro	EUR
Guam	U.S. Dollar	USD
Guatemala	Quetzal	GTQ

Country	Currency	Code
Guinea	Guinea Franc	GNF
Guinea-Bissau	CFA Franc BCEAO	XOF
Guinea-Bissau	Guinea-Bissau Peso	GWP
Guyana	Guyana Dollar	GYD
Haiti	Gourde	HTG
Haiti	U.S. Dollar	USD
Heard Island and McDonald Islands	Australian Dollar	AUD
Holy See (Vatican City State)	Euro	EUR
Honduras	Lempira	HNL
Hong Kong	Hong Kong Dollar	HKD
Hungary	Forint	HUF
Iceland	Iceland Krona	ISK
India	Indian Rupee	INR
Indonesia	Rupiah	IDR
Iran, Islamic Republic of	Iranian Rial	IRR
Iraq	Iraqi Dinar	IQD
Ireland	Euro	EUR
Israel	New Israeli Sheqel	ILS
Italy	Euro	EUR
Jamaica	Jamaican Dollar	JMD
Japan	Yen	JPY
Johnston Island	U.S. Dollar	USD
Jordan	Jordanian Dinar	JOD
Kazakhstan	Tenge	KZT
Kenya	Kenyan Shilling	KES
Kiribati	Australian Dollar	AUD

Country	Currency	Code
Korea, Democratic People's Republic of	North Korean Won	KPW
Korea, Republic of	Won	KRW
Kuwait	Kuwaiti Dinar	KWD
Kyrgyzstan	Som	KGS
Lao People's Democratic Republic	Kip	LAK
Latvia	Latvian Lats	LVL
Lebanon	Lebanese Pound	LBP
Lesotho	Loti	LSL
Lesotho	Rand	ZAR
Liberia	Liberian Dollar	LRD
Libyan Arab Jamahiriya	Lybian Dinar	LYD
Liechtenstein	Swiss Franc	CHF
Lithuania	Lithuanian Litas	LTL
Luxembourg	Euro	EUR
Macao	Pataca	MOP
Macedonia, the former Yugoslav Republic of	Denar	MKD
Madagascar	Ariary	MGA
Madagascar	Malagasy Franc	MGF
Malawi	Kwacha	MWK
Malaysia	Malaysian Ringgit	MYR
Maldives	Rufiyaa	MVR
Mali	CFA Franc BCEAO	XOF
Malta	Maltese Lira	MTL
Marshall Islands	U.S. Dollar	USD
Martinique	Euro	EUR

Country	Currency	Code
Mauritania	Ouguiya	MRO
Mauritius	Mauritius Rupee	MUR
Mayotte	Euro	EUR
Mexico	Mexican Peso	MXN
Mexico	Mexican Unidad de Inversion (UDI)	MXV
Micronesia, Federated States of	U.S. Dollar	USD
Midway Islands	U.S. Dollar	USD
Moldova, Republic of	Moldovan Leu	MDL
Monaco	Euro	EUR
Mongolia	Tugrik	MNT
Montserrat	East Caribbean Dollar	XCD
Morocco	Moroccan Dirham	MAD
Mozambique	Metical	MZM
Myanmar	Kyat	MMK
Namibia	Namibia Dollar	NAD
Namibia	Rand	ZAR
Nauru	Australian Dollar	AUD
Nepal	Nepalese Rupee	NPR
Netherlands	Euro	EUR
Netherlands Antilles	Netherlands Antillian Guilder	ANG
New Caledonia	CFP Franc	XPF
New Zealand	New Zealand Dollar	NZD
Nicaragua	Cordoba Oro	NIO
Niger	CFA Franc BCEAO	XOF
Nigeria	Naira	NGN

Country	Currency	Code
Niue	New Zealand Dollar	NZD
Niue Islands	New Zealand Dollar	NZD
Norfolk Island	Australian Dollar	AUD
Northern Mariana Islands	U.S. Dollar	USD
Norway	Norwegian Krone	NOK
Oman	Rial Omani	OMR
Pacific Islands (Trust Territory)	U.S. Dollar	USD
Pakistan	Pakistan Rupee	PKR
Palau	U.S. Dollar	USD
Palestinian Territory, Occupied	--	--
Panama	Balboa	PAB
Panama	U.S. Dollar	USD
Papua New Guinea	Kina	PGK
Paraguay	Guarani	PYG
Peru	Nuevo Sol	PEN
Philippines	Philippine Peso	PHP
Pitcairn	New Zealand Dollar	NZD
Poland	Zloty	PLN
Portugal	Euro	EUR
Puerto Rico	U.S. Dollar	USD
Qatar	Qatari Rial	QAR
Reunion	Euro	EUR
Romania	Leu	ROL
Russian Federation	Russian Ruble	RUB
Russian Federation	Russian Ruble	RUR

Country	Currency	Code
Rwanda	Rwanda Franc	RWF
Saint Helena	St. Helena Pound	SHP
Saint Kitts and Nevis	East Caribbean Dollar	XCD
Saint Lucia	East Caribbean Dollar	XCD
Saint Pierre and Miquelon	Euro	EUR
Saint Vincent and the Grenadines	East Caribbean Dollar	XCD
Samoa	Tala	WST
San Marino	Euro	EUR
São Tome and Principe	Dobra	STD
Saudi Arabia	Saudi Riyal	SAR
Senegal	CFA Franc BCEAO	XOF
Serbia & Montenegro	Euro	EUR
Serbia & Montenegro	Serbian Dinar	CSD
Seychelles	Seychelles Rupee	SCR
Sierra Leone	Leone	SLL
Singapore	Singapore Dollar	SGD
Slovakia	Slovak Koruna	SKK
Slovenia	Tolar	SIT
Solomon Islands	Solomon Islands Dollar	SBD
Somalia	Somali Shilling	SOS
South Africa	Rand	ZAR
South Georgia &The South Sandwich Islands	--	--
Spain	Euro	EUR
Sri Lanka	Sri Lanka Rupee	LKR
Sudan	Sudanese Dinar	SDD

Country	Currency	Code
Suriname	Suriname Dollar	SRD
Svalbard and Jan Mayen Islands	Norwegian Krone	NOK
Swaziland	Lilangeni	SZL
Sweden	Swedish Krona	SEK
Switzerland	Swiss Franc	CHF
Syrian Arab Republic	Syrian Pound	SYP
Taiwan, Province of China	New Taiwan Dollar	TWD
Tajikistan	Somoni	TJS
Tanzania, United Republic of	Tanzanian Shilling	TZS
Thailand	Baht	THB
Timor-Leste	U.S. Dollar	USD
Togo	CFA Franc BCEAO	XOF
Tokelau	New Zealand Dollar	NZD
Tonga	Pa'anga	TOP
Trinidad & Tobago	Trinidad & Tobago Dollar	TTD
Tunisia	Tunisian Dinar	TND
Turkey	Turkish Lira	TRL
Turkmenistan	Manat	TMM
Turks and Caicos Islands	U.S. Dollar	USD
Tuvalu	Australian Dollar	AUD
Uganda	Uganda Shilling	UGX
Ukraine	Hryvnia	UAH
United Arab Emirates	UAE Dirham	AED
United Kingdom	Pound Sterling	GBP
United States	U.S. Dollar	USD
United States	U.S. Dollar (Next Day)	USN

Country	Currency	Code
United States	U.S. Dollar (Same Day)	USS
United States Minor Outlying Islands	U.S. Dollar	USD
United States Misc. Pacific Islands	U.S. Dollar	USD
Uruguay	Peso Uruguayo	UYU
Uzbekistan	Uzbekistan Sum	UZS
Vanuato	Vatu	VUV
Venezuela	Bolivar	VEB
Viet-Nam	Dong	VND
Virgin Islands British and Virgin Islands U.S.	U.S. Dollar	USD
Wake Island	U.S. Dollar	USD
Wallis and Futuna Islands	CFP Franc	XPF
Western Sahara	Moroccan Dirham	MAD
Yemen	Yemeni Rial	YER
Yemen, Democratic	Yemeni Dinar	YDD
Yugoslavia	New Yugoslavian Dinar	YUD
Zaire	Zaire	ZRZ
Zambia	Kwacha	ZMK
Zimbabwe	Zimbabwe Dollar	ZWD
	Silver	XAG
	Gold	XAU
	European Composite Unit (EURCO)	XBA
	European Monetary Unit (EMU-6)	XBB

Country	Currency	Code
	European Unit of Account (EUA-9)	XBC
	European Unit of Account (EUA-17)	XBD

IMPLIED DECIMALS

The currency code used in the 02 and 03 records will determine the number of implied decimal places in all Amount fields and Funds Type field amounts.

Currency codes have two implied decimal places with the following exceptions:

ZERO (0) Decimals

Country	Currency	Code
Andora	Euro	EUR
Belgium	Euro	EUR
Benin	CFA Franc BCEAO	XOF
Brazil	Brazilian Real	BRL
Burkina Faso	CFA Franc BCEAO	XOF
Cameroon	CFA Franc BEAC	XAF
Central African Republic	CFA Franc BEAC	XAF
Chad	CFA Franc BEAC	XAF
Comoros	Comoro Franc	KMF
Congo	CFA Franc BEAC	XAF
French Polynesia	CFP Franc	XPF
Gabon	CFA Franc BEAC	XAF
Italy	Euro	EUR
Japan	Yen	JPY
Luxemburg	Euro	EUR

Country	Currency	Code
Mali	CFA Franc BCEAO	XOF
New Caledonia	CFP Franc	XPF
Niger	CFA Franc BCEAO	XOF
Senegal	CFA Franc BCEAO	XOF
Spain	Euro	EUR
Togo	CFA Franc BCEAO	XOF
Wallis and Futuna Islands	CFP Franc	XPF

One (1) Decimal

Country	Currency	Code
Mauritania	Ouguiya	MRO

Three (3) Decimals

Country	Currency	Code
Bahrain	Bahraini Dinar	BHD
Egypt	Egyptian Pound	EGP
Iraq	Iraqi Dinar	IQD
Jordan	Jordanian Dinar	JOD
Kuwait	Kuwaiti Dinar	KWD
Libyan Arab Jamahiriya	Lybian Dinar	LYD
Malta	Maltese Lira	MTL
Oman	Rial Omani	OMR
Sudan	SudaneseDinar	SDP

Country	Currency	Code
Tunisia	Tunisian Dinar	TND
Yemen, Democratic	Yemeni Dinar	YDD

Appendix C

GLOSSARY

The following are Data Elements and Definitions.

Account Status Terminology

Available Balance

The portion of the commercial account ledger balance against what the bank normally limits the account holder to draw. $\text{Ledger Balance} - \text{Float} = \text{Available Balance}$. This balance is also referred to as good funds, immediately available funds, or usable funds.

Frequently, the term “Collected Balance” is used to describe “Available Balance” as defined here. (See “Collected Balance” under Related Terminology.) In these instances, banks should report this balance in the Available Balance category.

Average Closing Available Balance MTD The average closing available balance month-to-date. In general, it is calculated by summing the closing available balance for each calendar day elapsed in the month and dividing by the number of calendar days covered. This balance may or may not include adjustments depending on the procedures of each bank.

Average Closing Available Balance YTD The average closing available balance year-to-date. In general, it is calculated by summing the closing available balance for each calendar day elapsed in the year and dividing by the number of calendar days covered. This balance may or may not include adjustments depending on the procedures of each bank.

Closing Available Balance The available balance at the end of the business day for which activity is being reported. $\text{Closing Ledger} - \text{Float} = \text{Closing Available}$.

Current Available Balance The available balance at a given time during the business day the information is being reported. It includes zero-float debits and credits processed up to that time. $\text{Opening Available Balance} + (\text{the Net of Zero-Day Float Debits and Credits processed up to that time}) = \text{Current Available Balance}$.

Opening Available Balance The available balance at the start of the business day following the day for which activity is reported. $\text{Closing Available Balance Reported} + \text{The Net of One-day Float} = \text{Opening Available Balance}$. For example, Wednesday’s

“Opening Available Balance” is the result of Tuesday’s “Closing Available Balance” $\pm$ The Net of One-Day Float.

Float

The portion of the commercial account ledger balance that is normally not available for the account holder to draw against. $\text{Ledger Balance} - \text{Available Balance} = \text{Float}$.

One-Day Float The portion of the commercial account ledger balance that is not available for the account holder to draw for one business day.

Two or More Days Float The portion of the commercial account ledger balance that is not available for the account holder to draw against for the two or more days.

Zero-Day Float The net of debits or credits in a day’s activity for which there is no float. This total affects the available balance immediately upon processing.

Ledger Balance

A commercial account balance that is the result of the total debit and credit activity as of a specific date and time. There is no indication of funds availability or usability. This is sometimes referred to as book, gross, or statement balance.

Average Closing Ledger Balance – MTD The average daily closing ledger balance month-to-date. In general, it is calculated by summing the closing ledger balance for each calendar day elapsed in the month and dividing by the number of calendar days covered. This balance may or may not include adjustments depending on the procedures of each bank.

Average Closing Ledger Balance – YTD The average daily closing ledger balance year-to-date. In general, it is calculated by summing the closing ledger balance for each calendar day in the year and dividing by the number of calendar days covered. This balance may or may not include adjustments depending on the procedures of each bank.

Closing Ledger Balance The ledger balance as of the end of the business day (As-of-Date) for which the activity is being reported. $\text{Opening Ledger} + \text{Total Credits} - \text{Total Debits} = \text{Closing Ledger Balance}$.

Current Ledger Balance The ledger balance at the time during the day the information is being reported. It includes debits and credits that have been processed up to that time. $\text{Opening Ledger Balance} + (\text{the Net of Debits and Credits processed up to that time}) = \text{Current Ledger Balance}$.

Opening Ledger Balance The ledger balance at the start of business on the day (As-of-Date) for which the activity is being reported.

Total Credits

The sum of all credits posted to the ledger balance of an account.

Total Debits

The sum of all debits posted to the ledger balance of an account.

Related Terminology for Balance Reporting Systems

The following are Data Elements and Definitions.

Beginning Available Balance *See* “Opening Available Balance”

Beginning Ledger Balance *See* “Opening Ledger Balance”

Book Balance *See* “Ledger Balance”

Collected Balance Frequently, the term “Collected Balance” is used to describe “Available Balance” as defined in this glossary. In these instances, banks would report this balance in the “Available Balance” category.

However, many banks define “Collected Balance” internally as the portion of the commercial account ledger balance for which a hold time allowing for the collection and return of deposited items has elapsed. When defined in this manner, a “Collected Balance” is distinguished from an “Available Balance.” For example, a bank may make the funds represented by a deposited item available to the customer in two business days per its clearing schedule, while the bank may not include the deposited item as collected for six days to allow for the possible return of the item.

Credit A posting to a specified account of a certain named amount resulting in an increase in the value of the balance of the account.

Customer Account In general, this term is associated with a demand deposit checking account. However, there are other types of depository accounts that could have balances associated with them such as interest-bearing accounts.

Debit A posting to a specified account of a certain named amount resulting in a decrease in the value of the balance of the account.

Demand Deposit Account *See* “Commercial Account”

Ending Ledger Balance *See* “Closing Ledger Balance”

Funds Availability The float assigned to an item or a group of items that can be expressed in terms of zero-day, one-day, or two or more days.

Funds Usability *See* “Funds Availability”

Good Funds *See* “Available Balance”

Gross Balance *See* “Ledger Balance”

Immediately Available Funds *See* “Available Balance”

Statement Balance *See* “Ledger Balance”

Unavailable Balance *See* “Float”

Uncollected Funds *See* “Float”

Usable Balance *See* “Available Balance”

Account Summary Credit Totals

The following are Summary Totals and Definitions.

Total Checks Posted Returned The sum of funds credited to an account that represents the reversal of items posted to an account which were then returned by the drawee bank. Types of reasons for returns include nonsufficient funds, stop payment, lack of endorsement, or incorrect endorsement.

Total Concentration Deposits The sum of those deposits that consist of transactions initiated to gather intracompany funds from a number of banks into an account at one bank. Types of transactions include depository transfer checks and automated clearing house items.

Total Incoming Money Transfer The sum of those funds credited to an account by the money transfer department of a bank. Types of transactions include intrabank or interbank movement of funds received through Fed Wire, Bank Wire, CHIPS or other communications systems.

Total International Credits The sum of those funds credited to an account that involves either a non-U.S. dollar currency or where a party to the transaction is outside of the United States. Types of transactions include foreign letters of credit, foreign exchange, foreign remittances and foreign collections.

Total Lockbox Deposits The sum of those deposits that consist of remittances or transactions credited to a commercial account through a lockbox.

Total Other Check Deposits The sum of those deposits that consist of checks. Types of transactions include commercial deposits, over-the-counter deposits, and cash letters. Lockbox, concentration, and preauthorized payment deposits are not included in this category.

Total Other/Miscellaneous Credits The sum of those credit transactions that a bank cannot report under other defined categories. Types of transactions include adjustments, loans and so on.

Total Preauthorized Payment Deposits The sum of those deposits that consists of transactions initiated by a company to gather payment funds from a number of customers' accounts into an account at one bank. Types of transactions include preauthorized drafts, preauthorized checks and automated clearing house items.

Total Security Credits The sum of those funds credited to an account representing security related transactions. Types of transactions include the sale of debt or equity instruments, the maturing of a debt instrument, or the collection of a dividend or interest income. These transactions may originate from the bond, trust, safekeeping or other areas of the bank.

Total Zero-Balance Credits The sum of those funds credited to a zero-balance main (parent, master) account that are related to any number of zero-balance subaccounts.

Account Summary Debit Totals

The following are Summary Totals and Definitions.

Total ACH-Related Debits The sum of those charges that are either processed through an automated clearing house transaction or related to an automated clearing house transaction.

Total Checks Paid The sum of all checks that have been charged to a commercial account. Type of items include checks, depository transfer checks and preauthorized checks.

Total Deposited Items Returned The sum of changes to an account that represents reversals of items which were deposited and credited to an account. Types of reasons for returns include nonsufficient funds, stop payment, lack of endorsement and incorrect endorsement.

Total International Debits The sum of those funds charged to an account that involves either a non-US dollar currency or where a party to the transaction is outside of the United States. Types of transactions include foreign letters of credit, foreign exchange, foreign remittances and foreign collections.

Total Other Miscellaneous Debits The sum of those debit transactions that a bank cannot report under other defined categories. Types of transactions include adjustments, service charges and so on.

Total Outgoing Money Transfers The sum of those funds charged to an account by the money transfer department of a bank. Types of transactions include intrabank or interbank movement of funds sent through the Fed Wire, Bank Wire, CHIPS or other communication system.

Total Payable-Through Drafts The sum of charges to an account resulting from drafts issued by the account holder which cleared and were payable through the reporting bank.

Total Security Debits The sum of charges to an account representing security related transactions. Types of transactions include purchases of debt or equity instruments. These transactions may originate from the bond, trust, safekeeping or other areas of the bank.

Total Zero Balance Account Debits The sum of those funds charged to a zero-balance main (parent, master) account that are related to any number of zero-balance subaccounts.

Appendix D

SAMPLE TRANSMISSIONS

This file illustrates Version 2 transmission formats.

01,122099999,123456789,040621,0200,1,65,,2/
02,031001234,122099999,1,040620,2359,,2/
03,0123456789,,010,+4350000,,,040,2830000,,/
88,072,1020000,,,074,500000,,/
16,,115,450000,S,100000,200000,150000,,,/
49,9150000,4/
03,9876543210,,010,-500000,,,100,1000000,,,400,2000000,,,190/
88,500000,,,110,1000000,,,072,500000,,,074,500000,,,040/
88,-1500000,,/
16,115,500000,S,,200000,300000,,,LOCK BOX NO.68751
49,4000000,5/
98,13150000,2,11/
02,053003456,122099999,1,040620,2359,,2/
03,4589761203,,010,1000000,,,040,5000000,,,074,4000000,,/
88,400,500000000,,,100,600000000,,,110,200000000,,,072,1000000,,/
16,218,20000000,V,040622,,SP4738,YRC065321/
88,PROCEEDS OF LETTER OF CREDIT FROM THE ARAMCO OIL CO
16,195,10000000,1,,,/
49,180000000,6/
98,180000000,1,8/
02,071207890,122099999,1,040620,2359,,2/
03,0975312468,,010,500000,,,190,70000000,4,0,110/
88,70000000,15,D,3,0,20000000,1,30000000,3,20000000/
49,140500000,3/
98,140500000,1,5/
02,071207890,122099999,3,040620,2359,,2/
03,7890654321,,010,800000,,,040,6000000,,,110,5000000/
88,4,/
49,11800000,3/
98,11800000,1,5/
99,345450000,4,31/

Record Code	Description
01	Last National Bank (122099999) is sending data to its third party intermediary, Data Corp. (123456789). The file was created June 21, 2004 (040621) at 2:00 a.m. (0200). This is the first file created this date and is sequence number 1. The physical records are (65) characters in length. No block size is specified. This default is noted by adjacent delimiters (,,). The file is in Version 2 of the <i>Specifications</i> . The slash (/) indicates that the preceding character was the last significant character in this physical record.
02	A group of data is being sent to a bank (031001234) from Last National Bank (122099999). The data in the file have a group status of "update" (1) and the data are as-of-June 20, 2004 (040620) at 11:59 p.m. (2359). The optional group currency code field is defaulted as indicated by the adjacent delimiters (,,) and therefore is USD (U.S. dollars). The data are final previous-day data as signified by the As-of-Date modifier (2).
03	Data in this record and all records until the next 03 record are for the sending bank's account number (0123456789). The optional currency code is defaulted as indicated by adjacent delimiters (,,) to the group currency code, U.S. dollars. The first data value is for type code (010), the sign is positive (+), and amount is \$43,500.00 (4350000). Item count and funds type are defaulted as indicated by the adjacent delimiters (,,). The second data value is for type code (040), the sign is positive (defaulted to positive by absence of a sign preceding the amount), and the amount is \$28,300.00(2830000). Again, item count and funds type are defaulted.
88	This continuation record picks up the same format as the preceding record (in this case an 03 record). The type code is (072) and the amount is a positive \$10,200.00 (1020000). The next data value is for type code (074) and the amount is a positive \$5,000.00 (500000). Item count and funds type are defaulted for both.
16	This detail record contains data for type code (115), the amount is a positive \$4,500.00 (450000), and the funds type is distributed (S). The same (or zero) –day availability is \$1,000.00 (100000), the one-day availability is \$2,000.00 (200000), and greater-than-one-day availability is \$1,500.00 (150000). Bank reference number, customer reference number, and text are not used. These fields are defaulted as indicated by the adjacent delimiters (,,/).
49	The account trailer record contains the account control total (9150000), which is the algebraic sum of all amounts in all records back to and including the preceding 03 record. Funds type amounts are not included in this control total. The number of records (4) includes one 03 record, one 16 record, one 88 record, and this 49 record.
03	This second account record and its continuation record are similar to the first one except that they contain amounts with negative signs.

Record Code	Description
16	This detail record contains data for type code (115) in an amount of \$5,000.00 (500000) with distributed availability (S). There is no same-day availability (the field is defaulted to zero by the adjacent delimiters “,”). The one-day availability is \$2,000.00 (200000) and the two-or-more day availability is \$3,000.00 (300000). Bank reference number and customer reference number are not used, as indicated by adjacent delimiters (,,). The text is (LOCK BOX NO. 68751). The remainder of the field is filled with blanks to position 65. The field is delimited by the fact that the next record is not “88”.
49	This is the account trailer record as previously described.
98	This group trailer record contains the group control total (13150000) which is the algebraic sum of all account control totals in this group. The number of accounts is two (2), reflecting the two account records (record type 03) in this group. Number of records (11) includes all records in this group, including the 02 and this 98 group trailer record.
02	A group of data is being sent to bank (053003456). This is an update (1) as-of-June 20, 2004, (040620) at 11:59 p.m. (2359). The currency code field is defaulted to U.S. dollars. The data is final previous-day data (2). (/) indicates end of record.
03	This summary/status record is similar to the two previous ones.
88	This is a continuation record as previously described.
16	This detail record contains data for type code (218) in an amount of \$200,000.00 (20000000) with value-dated availability (V). The value date is June 22, 2004 (040622) and the value time is not specified, as indicated by adjacent delimiters (,,). The bank reference number is (SP4738), and the customer reference number is (YRC065321).
88	This continuation record contains the text for the preceding 16 record (PROCEEDS OF LETTER OF CREDIT FROM THE ARAMCO OIL CO). Because the text does not go to the end of the 65-character physical record, additional blanks are required. The field is delimited by the fact that the following record code is not an 88.
16	This detail record contains data for type code (195) in the amount of \$100,000.00 (10000000). The funds have one-day availability (1). Bank reference number, customer reference number, and text are not used, as indicated by the adjacent delimiters (,,/).
49	This record is similar to previous account trailer (49) records.
98	This record is similar to previous group trailer (98) records.
02	A group of data is going to bank (071207890). This group is an update with the same as-of-date, time, and modifier as the prior 02 record. (See previous examples.)

Record Code	Description
03	Data in this record are for the sending bank's account number (0975312468). The leading zero in the account number is significant and must be included in the data. The optional currency code is defaulted to the group currency code. The amount for type code (010) is \$5,000.00 (500000). The item count and funds type field are defaulted to "unknown" as indicated by adjacent delimiters (,,). The amount for type code (190) is \$700,000.00 (70000000). The item count for this amount is four (4), and the availability is immediate (0). Type code (110) is the last data item in this record. The slash (/) indicates end of record.
88	This continuation record extends the format of the preceding 03 record. The amount for type code (110) is \$700,000.00 (70000000). The item count for this amount is fifteen (15) and availability is distributed (D). There are three funds type distributions (3). Immediate availability (0) is \$200,000.00 (20000000), one-day availability (1) is \$300,000.00 (30000000), and three-day availability (3) is \$200,000.00 (20000000).
49	This account trailer record contains the account control total (140500000), which is the algebraic sum of all amounts of all records for this account. Funds type distributions are not included in this control total. The number of records (3) includes all records in this account, including this trailer record.
02	A group of data is going to bank (071207890). These data are a "correction" (3) of previously sent data. The as-of-date is June 20, 2004 (040620) and the as-of-time is 11:59 p.m. (2359). The currency code is defaulted to U.S. dollars (,,). This is final previous-day data (2). This correction will delete all data already on file for the account identified in the 03 record and will replace it with new data.
03	This summary/status replaces the previously sent 03 record for this account (7890654321). Type code (010) has an amount of \$8,000.00 (800000). The item count and funds type fields are defaulted to "unknown" as indicated by adjacent delimiters (,,). Type code (040) has an amount of \$60,000.00 (60000000). The item count and funds type fields are defaulted to "unknown" as indicated by adjacent delimiters (,,). Type code (110) has an amount of \$50,000.00 (50000000).
88	This continuation record extends the format of the preceding 03 record. The item count for type code (110) is four (4). Funds type is defaulted to "unknown" by adjacent delimiters (,/).
49	This account trailer record contains the account control total (118000000), which is the algebraic sum of all amounts in all records for this account. Funds type distributions are not included in this control total. The number of records includes all records in this account, including this account trailer.
98	This group trailer record contains the group control total (118000000), which is the algebraic sum of all account control totals for this group. The number of accounts is one (1). Number of records includes all records in this group, including this 98 record.
99	The file trailer record contains the file control total (345450000), which is the algebraic sum of all group control totals for this file. The number of groups (4) is the number of 02 records in this file. The number of records (3) is the total number of records in this file, including this 99 record.

Appendix E

S.W.I.F.T. MESSAGE TYPE 940: Conventions for translation into BAI Balance Reporting Format, Version 2.

The resulting BAI message should follow the following format:

```
02,a,b,l,c,,d,e/  
03,f,,g,h,i,j,k,l,,,m*,n*,o*,p*/  
16,q,r,V,s,,t,u,vw  
16,890,,,x,y,zw
```

Where “a” through “z” match the following fields in the S.W.I.F.T. message:

- a = Optional
- b = “Sending Bank Identifier” from message header **
- c = 62 “Closing Balance”; Subfield 2 “date”
- d = 62 “Closing Balance”; Subfield 3 “currency code”
- e = If 62F “2”; if 62M “3”
- f = 25 “Account Identification”; Edit to remove “,” or “/”
- g = “015” If message contains field 62F “Closing Balance; Final”. Otherwise delete this field and following delimiter comma “,”.
- h = 62F “Closing Balance”; Subfield 4 “amount” ***. If message contains no field 62F delete this field and following delimiter comma “,”.
- i = if message contains field 62F this is a defaulted field indicated by adjacent delimiters “,,”.
Otherwise delete this field and following delimiter comma “,”.
- j = If message contains field 62F this is a defaulted field indicated by adjacent delimiters “,,”.
Otherwise delete this field and following delimiter comma “,”.
- k = If 62F “045”; if 62M “060”
- l = 64 “Closing Available Balance”; Subfield 4 “amount”***
- m = BAI Status type code; *See* Table M
- n = 65 “Forward Available Funds”; Subfield 4 “amount”***
- o = Defaulted field
- p = Defaulted field
- q = BAI Transaction Detail type code ; *See* Table Q
- r = 61 “Statement Line”; Subfield 5 “amount”
- s = 61 “Statement Line”; Subfield 1 “value date”

t	=	61 “Statement Line”; Subfield 8 “Account Servicing” bank reference.
u	=	61 “Statement Line”; Subfield 7 “Account Owner” reference
v	=	86 “Information to Account Owner” associated with field 61
w	=	Delimiter “/” if no “Information to Account Owner”
x	=	20 “Transaction Reference Number”
y	=	21 “Reference to Related Message”
z	=	86 “Information to Account Owner” not associated with field 61

*A S.W.I.F.T. 940 message may include several fields with the tag 65 for “Forward Available Funds”. BAI fields indicated by *, (m,n,o,p) are repeated in series as needed for each field 65.

**If “sending bank” is U.S. institution, replace S.W.I.F.T. identification with FRB Routing/Transit number, including check digit.

***If Subfield 1 “debit/credit mark” is “D”, signed negative “-a”.

S.W.I.F.T. fields 64 & 65 are optional. If either of these fields does not occur in a type 940 message, delete the corresponding item from the BAI format above, as well as accompanying delimiters and those for defaulted fields associated with the deleted item.

S.W.I.F.T. fields 21 & 86 are also optional. If either of these fields does not occur in a type 941 message, the corresponding field in the BAI format should be defaulted, as indicated by adjacent delimiters “,” and “/” respectively.

A S.W.I.F.T. message 940 may contain several “Statement Line” fields (field tag 61) and associated “Information to Account Owner” (field tag 86) fields. A separate BAI “Transaction Detail” record is created for each. If the message does not contain field 61, the first of the type 16 records in the above format is eliminated.

S.W.I.F.T. MESSAGE TYPE 941: Conventions for translation into BAI Balance Reporting Format, Version 2.

The resulting BAI message should follow the following format:

```
02,a,b,1,c,,d,2/
03,e,,010,f,,,400,g,h,,100,i,j,,015,k,,,045,l,,m*,n*,o*,p*/
16,890,,,q,r,st
```

Where “a” through “t” match the following fields in the S.W.I.F.T. message:

a	=	Optional
b	=	“Sending Bank Identifier” from message header **
c	=	62F “Closing Balance”; Subfield 2 “date”

d	=	62F “Closing Balance”; Subfield 3 “currency code”
e	=	25 “Account Identification”; Edit to remove “,” or “/”
f	=	60F “Opening Balance”; Subfield 4 “amount” ***
g	=	90D “Number and Sum of Entries”; Subfield 3 “amount”
h	=	90D “Number and Sum of Entries”; Subfield 1 “# of entries”
i	=	90C “Number and Sum of Entries”; Subfield 3 “amount”
j	=	90C “Number and Sum of Entries”; Subfield 1 “# of entries”
k	=	62F “Closing Balance”; Subfield 4 “amount” ***
l	=	64 “Closing Available Balance”; Subfield 4 “amount” ***
m	=	BAI Status type code; <i>See</i> table M
n	=	65 “Forward Available Funds”; Subfield 4 “amount” ***
o	=	Defaulted field
p	=	Defaulted field
q	=	20 “Transaction Reference Number”
r	=	21 “Reference to Related Message”
s	=	86 “Information to Account Owner”
t	=	Delimiter “/” if no “Information to Account Owner”

*A S.W.I.F.T. 941 message may include several fields with the tag 65 for “Forward Available Funds”. BAI fields indicated by *, (items m, n, o and p), are repeated for each availability indicated by a field 65.

**If “sending bank” is U.S. institution, replace S.W.I.F.T. identification with FRB Routing/Transit number, including check digit

***If Subfield 1 “debit/credit mark” is “D”, amount is signed negative “-”.

S.W.I.F.T. fields 60F, 90D, 90C, 64 and 65 are optional. If any of these fields does not occur in a type 941 message, delete the corresponding item from the BAI format above, as well as accompanying delimiters and those for defaulted fields associated with the deleted item.

S.W.I.F.T. fields 21 and 86 are also optional. If either of these fields does not occur in a type 941 message, the corresponding field in the BAI format should be defaulted, as indicated by adjacent delimiters “,” and “/” respectively.

S.W.I.F.T. MESSAGE TYPE 942: Conventions for translation into BAI Balance Reporting Format, Version 2.

The resulting BAI message should follow the following format:

```
02,a,b,l,c,d,e,3/
03,f,,100,g,h,,400,i,j,/
16,k,l,V,m,,n,o,pq
16,890,,,r,s,tu
```

Where “a” through “u” match the following fields in the S.W.I.F.T. message:

- a = Optional
- b = “Sending Bank Identifier” from message header *
- c = 13 “Date/Time Indicator”; characters 1 through 6 “date”
- d = 13 “Date/Time Indicator”; characters 7 through 10 “time”
- e = 90C “Number and Sum of Entries”; Subfield 2 “funds code” or
90D “Number and Sum of Entries”; Subfield 2 “funds code” or
61 “Statement Line”; Subfield 4 “currency code” **
- f = 25 “Account Identification”; Edit to remove “,” or “/”
- g = 90C “Number and Sum of Entries”; Subfield 3 “amount”
- h = 90C “Number and Sum of Entries”; Subfield 1 “# of entries”
- i = 90D “Number and Sum of Entries” Subfield 3 “amount”
- j = 90D “Number and Sum of Entries”; Subfield 1 “# of entries”
- k = BAI Transaction Detail type code; *See* Table Q
- l = 61 “Statement Line”; Subfield 5 “amount”
- m = 61 “Statement Line”; Subfield 1 “value date”
- n = 61 “Statement Line”; Subfield 8 “Account Servicing” bank reference.
- o = 61 “Statement Line”; Subfield 7 “Account Owner” reference.
- p = 86 “Information to Account Owner” associated with field 61
- q = Delimiter “/” if no “Information to Account Owner” associated with field 61.
- r = 20 “Transaction Reference Number”
- s = 21 “Reference to Related Message”
- t = 86 “Information to Account Owner” not associated with field 61
- u = Delimiter “/” if no “Information to Account Owner”

*If “sending bank” is U.S. institution, replace S.W.I.F.T. identification with FRB Routing/Transit number, including check digit.

**If currency type is not the same for all 90D, 90C and 61 fields, create a separate group of each currency.

S.W.I.F.T. fields 90D and 90C are optional. If any of these fields does not occur in a type 942 message, delete the corresponding item from the BAI format above, as well as accompanying delimiters and those for defaulted fields associated with the deleted item.

S.W.I.F.T. fields 21 and 86 are also optional. If either of these fields does not occur in a type 941 message, the corresponding field in the BAI format should be defaulted, as indicated by adjacent delimiters “,” and “/” respectively.

A S.W.I.F.T. message 942 may contain several “Statement Line” fields (field tag 61) and associated “Information to Account Owner” (field tag 86) fields. A separate BAI “Transaction Detail” record is created for each. If the message does not contain field 61, the first of the type 16 records in the above format is eliminated.

Table M

S.W.I.F.T. field 65 “Forward Available Funds”; Subfield 2 “date” indicates the day on which funds are available to the customer. To determine the BAI type code for reporting funds availability, calculate the number of business days between this date and the date in field 62F “Closing Balance”; Subfield 2. The BAI type code for the number of business days is shown below:

Number of Days	BAI Type Code
1	072
2	074
3	075
4	079
5	080
6	081

If the date in field 65 falls on a weekend or holiday, determine BAI type code according to first business day following actual value date.

Table Q

Conversion of S.W.I.F.T. Field 61 “Statement Line” type code to BAI Transaction Detail type code.

S.W.I.F.T. Field 61 Subfield 6 “Type Code”	BAI Credit Type Code*	BAI Debit Type Code*
BOE	399	699
BRF	399	698
CHG	399	698
CHK	175	475

S.W.I.F.T. Field 61 Subfield 6 “Type Code”	BAI Credit Type Code*	BAI Debit Type Code*
CLR	187	487
COL	237	487
COM	224	524
DCR	213	513
DIV	238	549
ECK	399	699
EQA	399	699
FEX	214	514
INT	354	654
LBX	115	415
LDP	171	481
MSC	399	699
RTI	266	566
SEC	249	549
STO	227	527
TCK	399	699
TRF	195	495
VDA	357	631
100	195	495
20	195	495
201	195	495
202	195	495

S.W.I.F.T. Field 61 Subfield 6 “Type Code”	BAI Credit Type Code*	BAI Debit Type Code*
203	195	495
205	195	495
300	216	514
350	354	654

*S.W.I.F.T. Field 61, Subfield 3 “credit/debit mark” determines whether BAI credit or debit type code is chosen;

D = Debit

C = Credit

If Subfield 3 contains “RC” or “RD”:

RC = BAI type code 252

RD = BAI type code 552