

# Electronic Bank Statement (FI)



HELP.FIBLEBS

**Release 4.6B**



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**Electronic Bank Statement (FI)**

## Electronic Bank Statement (FI)

In many countries today, bank statement data can be electronically retrieved from banks. In Germany, this information is accessed using the bank communication standard (BCS) of the banks. To transmit data from bank to customer, a transfer program (for example, MultiCash) that recognizes BCS is necessary. For example, MultiCash retrieves the desired data (for example, bank statements) from the banks and generates two files from the bank data for further processing:

- UMSATZ.TXT
- AUSZUG.TXT

The AUSZUG.TXT file contains the header information on the bank statement. The UMSATZ.TXT file contains the line items. These files can be imported into the R/3 System where they are then automatically processed. To do this, you run the program that imports the files generated by MultiCash into the R/3 System or, more specifically, into the bank data memory.

During conversion, data in these files is supplied with SAP-specific information, such as the chart of accounts and company code, for further processing. After the import transaction is completed, the data in the bank data memory is analyzed. The system tries to identify the individual business transactions and filter out the information necessary for posting, for example document numbers, from the note to payee fields on the bank statement (interpretation of the note to payee).

If the necessary information can be interpreted, the system will automatically post the transactions (using batch input or a call transaction). All line items are usually posted automatically.

Statistics show that up to 95% of customer data can be posted automatically in the R/3 System. The R/3 System offers convenient tools for further processing of line items that are not posted.



Problems may occur during the posting of incoming payments in the accounts receivable area. Some customer invoices may not be completely cleared or bank transactions may have been made with incorrect references. In these situations, you will have to use the postprocessing function to post the items.

The following topics explain the processing steps of the electronic bank statement, such as how data is imported, posted, displayed, and subject to further processing. You can also find important information on the note to payee fields, how to start the program, and how to configure it. Customizing for the electronic bank statement is also explained in more detail.

## Electronic Bank Statement: Configuration

By making configuration settings, you ensure that all business transactions of which your bank informs you using the electronic bank statement are posted correctly in the system.

The following topics contain the information you require to be able to configure the electronic statement.

You access the configuration functions for the electronic bank statement using the “Bank Accounting” node in the implementation guide (IMG).

For more information on the steps involved, refer to the online documentation for this node and the steps for making specifications for the electronic bank statement in the IMG.

## Central Terms

# Central Terms

The following topics explain the terms that you need to understand when configuring the electronic bank statement.

## External Transactions

External transactions (also known as business transaction codes) are bank-specific codes for business transactions, each of which involves a different type of payment.

The external transaction code is issued by banks in the electronic bank statement. The R/3 System requires this code in order to identify the business transaction. It converts the bank-defined codes into its own system-internal transaction codes (known as posting rules), which in turn trigger certain specific posting transactions in the system.

Examples of bank-defined external transactions are:

- 020 Transfer order
- 051 Transfer credit memo
- 052 Recurring entry credit memo
- 072 Bill of exchange presentation
- 206 Foreign bank transfer

For more information, see [Posting Rules \[Page 10\]](#)

## Posting Rules

### Posting Rules

As part of the configuration of the electronic bank statement, external transactions must be allocated to a posting rule. The system uses the posting rules to determine which bank or sub-ledger accounts to post the transactions to.

Posting rules are represented in the system by a non-bank-specific code (for example, 0001 for debit memos).

Why do you require an internal code that is related to the posting rule in order to configure the electronic bank statement? Why is each posting rule not directly linked to an external transaction?

Banks have many different transactions, several of which may require just a single posting in your accounts.

#### Example:

- Transaction code 004 denotes a direct debit by debit memo
- Transaction code 005 denotes a collection authorization by debit memo
- Transaction code 020 denotes a transfer order by debit memo

These three external transactions all require the same posting in your accounts. They must therefore all be allocated to the same posting rule (for example, 001 for debit memos). This posting rule tells the system how to post a debit memo.

Using internal codes (posting rules) when configuring the electronic bank statement has the advantage that you only need to determine how a transaction (for example, debit memo) is posted **once** and not three times (as in the example above).

See also [Posting Specifications and Account Determination \[Page 12\]](#)

## Transaction Types

You define transaction types in order to group together banks with the same external transaction codes (for example, all banks of the same type).

The advantage of this method is that you do not have to allocate the external transaction codes of the banks (business transaction codes) to internal R/3 posting rules for every individual bank but rather can make this allocation just **once** per transaction type.

After defining transaction types you must allocate each of your house banks to a transaction type.

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**Posting Specifications and Account Determination**

## Posting Specifications and Account Determination

When you define a posting rule, you must specify how each business transaction that is transmitted to you by electronic bank statement (for example, bank transfer) is posted in your system.

When you do this you can specify two sets of posting specifications for each posting rule, one for G/L account postings (or bank-related postings) and one for sub-ledger postings.

Depending on whether this posting rules only requires a posting to a G/L account (or bank account) or also requires a sub-ledger posting, you specify posting specifications for either one or both of these postings.



For the “check credit memo” transaction you only require posting specifications for the G/L accounts, since the customer entry is cleared when the check is deposited. However, for a “transfer” transaction, you require posting specifications for both the G/L accounts and the sub-ledger accounts, in order to be able to clear the customer entry.

You enter account symbols rather than the actual account names in posting specifications. You can define these account symbols to meet your requirements.



For account 113100 you could define an account symbol BANK.

For information on account symbols, see [Account Symbols And Account Allocation \[Page 16\]](#)

Posting specifications consist of a posting key and account symbol (and their attendant specifications) for one or two line items (debit and credit postings). The system uses the account symbol to determine the G/L account to which to make the posting.

## Example 1: Posting Check Deposits

### Example 1: Posting Check Deposits

Posting rules	Posting area	Document type	Posting key	Account symbols
0003	1	SA	40	INCOMING_CHECK
			50	CLEAR_CHECK
0003	2	DZ	40	CLEAR_CHECK
			no entry	no entry

When making these specifications, you should note that you are not permitted to enter account symbols for sub-ledger accounts, since these are determined either by the standard interpretation algorithm for finding clearing information or by functional enhancements.

You start by specifying a **posting type** for each set of posting specifications.

You can choose from the following posting types:

Key	Meaning
1	Post to G/L account
2	Debit posting to sub-ledger account
3	Credit posting to sub-ledger account
4	Clear debit entry from G/L account
5	Clear credit entry from G/L account
7	Clear debit entry from sub-ledger account
8	Clear credit entry from sub-ledger account

In **example 1** the posting in posting area 1 would have posting type 1 (Post to G/L account) and the posting in posting area 2 would have posting type 8 (Clear credit entry from sub-ledger account).

## Posting Specifications and Account Determination

**Example 2: Posting Transfer Debit Memos****Example 2: Posting Transfer Debit Memos**

Posting rules	Posting area	Document type	Posting key	Account symbols
0006	1	SA	40	TRANSFER
			50	BANK

You start by specifying a **posting type** for each set of posting specifications.

You can choose from the following posting types:

Key	Meaning
1	Post to G/L account
2	Debit posting to sub-ledger account
3	Credit posting to sub-ledger account
4	Clear debit entry from G/L account
5	Clear credit entry from G/L account
7	Clear debit entry from sub-ledger account
8	Clear credit entry from sub-ledger account

In example 2 you would allocate posting type 4 (Clear debit entry from G/L account).

## Example 3: Posting Charges

### Example 3: Posting Charges

Posting rules	Posting area	Document type	Posting key	Account symbols
0009	1	SA	40	OTHERS
			50	BANK

You start by specifying a **posting type** for each set of posting specifications.

You can choose from the following posting types:

Key	Meaning
1	Post to G/L account
2	Debit posting to sub-ledger account
3	Credit posting to sub-ledger account
4	Clear debit entry from G/L account
5	Clear credit entry from G/L account
7	Clear debit entry from sub-ledger account
8	Clear credit entry from sub-ledger account

In example 3 you would allocate posting type 1 (Post to G/L account).

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**Account Symbols and Account Allocation**

## Account Symbols and Account Allocation

The account symbol is defined by the user when configuring the electronic bank statement. It specifies which G/L account is posted to. You create the prerequisites for this when creating your house banks. Here you maintain the bank details and the accounts that you have at your house bank. You **must** create a G/L account in your system for each of these accounts. In the master record of each of these G/L accounts you enter a currency key. The currency key must be the same as the currency in which you run the respective account at your house bank.

Maintain your house banks in the Bank Accounting implementation guide, step *Define House Banks*.



When specifying bank account data in the house bank table on your accounts at your house bank, you must create a G/L account for each account. If you fail to do this, the system cannot make any postings when it receives the electronic bank statement.

How can you be certain that specifying a certain account symbol leads to the G/L account you specified when maintaining your house bank accounts being posted to? The R/3 System ensures that the correct account is posted to by replacing this account symbol with the appropriate account at the time of posting.

Assigning G/L Accounts to Account Symbols

## Assigning G/L Accounts to Account Symbols

You can assign the G/L account to the account number in the following ways:

- You can enter it in full:

Account symbols	G/L accounts
BANK	0000113100

- You can enter the account number generically, i.e. by entering a series of “+” signs:

Account symbols	G/L accounts
BANK	+++++++

If you enter the number generically, the system replaces these plus signs with the G/L account number you maintained for your house bank (for example, 0000113100).

- You can enter the part of the account number and complete the field with “+” signs:

Account symbol	G/L accounts
BANK	+++++++02

In this case too the system replaces these plus signs with the G/L account number you maintained for your house bank, but the non-generic part of your entry remains in the field. Again, taking the example of account 0000113100 (as defined in the house bank master), the two end digits of the number are replaced by “02”. This entry would trigger a posting to account 00001131**02**.



Note that, when making generic entries (i.e. using “+” signs), the system expects a 10-character entry for an account. If you are using account numbers shorter than 10 characters, you must make your entries right-justified.

You can test the postings that your entries will trigger by selecting *Goto* → *Select simulation* from the maintenance screen for the posting specifications.

## Allocations for Foreign Currency Transactions

## Allocations for Foreign Currency Transactions

You can also make postings in **foreign currencies** to foreign currency accounts. For example, you want to post foreign currency cash receipts (for example, DEM, GBP) to a different account from that to which you post cash receipts in local currency (for example, USD). You achieve this by making the following entries in the account determination configuration settings:

Account symbols	Currency	G/L account
CASH_RECEIPT(1)	+	+++++++01
CASH_RECEIPT(2)	DEM	+++++++02
CASH_RECEIPT(3)	GBP	+++++++03

If the electronic bank statement contains an amount in GBP, the system takes the second entry from the table (2) in order to determine the account for posting. For amounts in DEM it takes the third entry (3). For amounts in local currency or currencies for which no separate account has been defined, the system takes the first entry (1).

Account Allocation Using Function Enhancement:

## Account Allocation Using Function Enhancement:

Another way of modifying the determination of accounts for postings in the R/3 System is the **Account modification** function (field FEBEP-KFMOD). Entries in the "Account modification" column are user-defined. They are required by the functional enhancement (customer exit) for your company-specific posting transactions such as "breakdown of account transactions by processing clerk" or "selection by delivery note number".

**Example:**

An insurance company has defined the account symbol CASH\_RECEIPT for cash receipts from its policy holders. To make the postings easier to analyze, the accounting department wants to post the cash receipts to different accounts according to the type of insurance involved. The insurance type is therefore denoted by the first three digits of the insurance number. The policy holders pay their premiums using pre-printed transfer forms containing the insurance number. This enables the company to set the account modification as the first three digits of the insurance number (by means of a functional enhancement). Assuming the G/L account for the bank account is 113100, the following entries would be made for account determination:

Account symbols	Account modif.	Currency	G/L account
CASH_RECEIPT	+	+	+++++++01
CASH_RECEIPT	200	+	+++++++02
CASH_RECEIPT	300	+	+++++++03

If you have programmed your function enhancement accordingly and then receive a cash receipt for insurance number 200.1234.3456.11, the table field FEBEP-KFMOD is set to "200" in customer exit. This triggers a posting to account 113102.

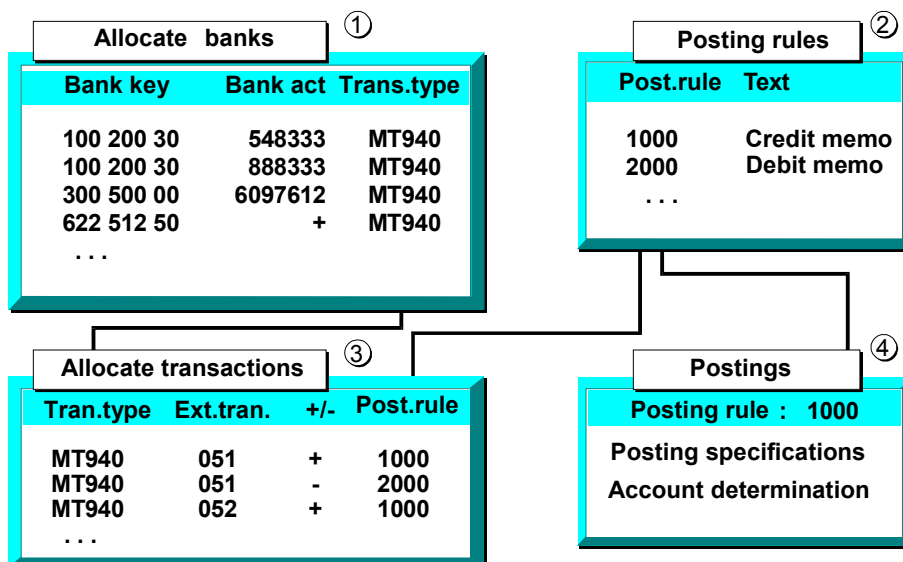
If the system cannot find an insurance number at the time of the cash receipt, this field remains empty and account 113100 receives the posting.

Recommended Sequence of Configuration Tasks

## Recommended Sequence of Configuration Tasks

You should carry out the configuration of the electronic account statement in the following order:

1. Define transaction types.  
You should group together all banks that use the same external transaction code for certain business transactions under the same transaction type.
2. Allocate banks to each transaction type using the bank key and bank account number (1).
3. Create posting rules. The system needs these to find the posting specifications (2).
4. Allocate the external transactions to the posting rules (3).
5. Define posting rules and/or posting specifications (4).



If you want to read bank statements containing currency keys that do not conform to ISO (and hence SAP) standards, you can get around this problem in Customizing by using a currency class to assign the variant currency keys, used by your house banks or customers, to the SAP currency keys. You then store the currency classes in the house bank.

For more information on currency classes, refer to the Bank Accounting implementation guide.

## Creating Transaction Types

You define transaction types under the Bank Accounting section of the Implementation Guide (IMG) by choosing the activity *Create transaction types*. For more information on the procedure, see *Bank Accounting* in the Implementation Guide.

See also:

[Transaction Types \[Page 11\]](#)

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**Allocating Banks**

## Allocating Banks

You allocate each of your house banks to a transaction type under the Bank Accounting section of the Implementation Guide (IMG). Banks are identified by specifying bank keys and external account numbers.

To do this, choose the activity "*Allocate Banks to Transaction Types*". For more information on the procedure, see *Bank Accounting* in the Implementation Guide.

## Creating Keys For Posting Rules

You create posting rules under the Bank Accounting section of the Implementation Guide (IMG). Posting rules are represented in the system by a non-bank-specific code (for example, 0001 for debit memos).

To do this, choose the activity *Create Keys for Posting Rules*.

For more information on the procedure, see *Bank Accounting* in the Implementation Guide.

See also:

[Posting Rules \[Page 10\]](#)

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**Allocating External Transactions**

## Allocating External Transactions

Under the *Bank Accounting* section of the Implementation Guide you allocate the external bank-defined transaction codes to system-internal posting rules for each transaction type. You do this under the activity *Allocate External Transactions to Posting Rules*.

Note the following when allocating the transaction codes:

- **The +/- sign**

You can further differentiate external transactions by setting “+” or “-” signs for them. If the external transaction code has a “+” sign in front of it, it is a cash receipt; likewise, a “-” sign represents a cash disbursement.

- **The interpretation algorithm**

In addition to specifying posting rules, you must also specify which interpretation algorithm should be used. The interpretation algorithm determines whether (and with which algorithms) the system should search the note to payee lines of the electronic bank statement for clearing information.

For more information, see [Interpreting the Note to Payee Fields \[Page 34\]](#)

For more information on the procedure, see *Bank Accounting* in the Implementation Guide.

See also:

[Posting Rules \[Page 10\]](#)

## Defining Posting Rules

You define posting rules under the *Bank Accounting* section of the Implementation Guide (IMG). To do so, choose the activity *Define Posting Rules for Electronic Bank Statement*.

In this activity you carry out the following:

- You create the account symbols for the required posting transactions.
- You define the account determination rules for each of the account symbols.
- You create posting specifications for postings to G/L or bank accounts (posting area 1) and subledger postings (posting area 2) for those of the posting transactions you choose.

For more information on the procedure, see *Bank Accounting* in the Implementation Guide.

See also:

[Posting Specifications and Account Determination \[Page 12\]](#)

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**Electronic Bank Statement Implementation Tool**

## Electronic Bank Statement Implementation Tool

Program RFEBKATX supports you during implementation of the electronic bank statement, helping with Customizing and giving you a feel for the options available in the electronic bank statement.

### Background

One of the functions of the electronic bank statement is automatically to assign payments received by/made from house bank accounts (whether by check, bank transfer, and so on) to the appropriate open items (which items have already been posted in the system).

There are two main obstacles in Customizing to quick and efficient installation of the electronic bank statement:

- Creating the files UMSATZ.TXT and AUSZUG.TXT is a complex process. Experience has shown that many implementation errors arise from incorrect creation (format errors) of these files. Using actual files from the bank is also difficult as the files are usually very big.
- The open items to be found and cleared using the electronic bank statement must usually be entered into the (test) system manually and with correct clearing information. This information must also exist in the correct fields in the individual line items in the UMSATZ.TXT file (for example in the note to payee fields).

You can use program RFEBKATX to create open items in a company code and the related (MULTICASH) bank statement files for a house bank account. You can import these directly using program RFEBKA00, and so test both your Customizing settings and the general functions provided by program RFEBKA00.

### Prerequisites

1. You may first have to create a house bank account (for which the bank statements are to be generated) in your company code. Important: The G/L account must be maintained in the house bank account master record (G/L account 113100 for example).
2. You may first need to create those customers for whom you want to test creation of open items in the company code.
3. You must create a G/L account as a substitute account for the postings that you carry out to generate the open items in the customer accounts. The number of this G/L account must be identical to the number of the G/L account of the house bank account, except for the last two figures that must be "19".

Example:

G/L account: 113100

Substitute account: 113119



Running test program RFEBKATX creates a payment on account labeled "Customer to substitute account" (for the purposes of creating open customer items). Although, in accounting terms, this is not correct for an invoice posting to a customer account,

the correct update of customer invoices to revenue accounts is not the purpose of this program, which must only be run in your test system.

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**Electronic Bank Statement Implementation Tool**

To generate open items in clearing accounts, you must create G/L account for these clearing accounts. These accounts are numbered similarly to the method for substitute accounts, although the final digits are as follows:

Outgoing checks: '01' (in our example: 113101)

Incoming checks: '08' (in our example: 113108)

Cash out: '09' (in our example: 113109)

In the master data for these accounts, set the indicators for "Open item management" and "Line item display".

## How Does Automatic Posting Work?

### How Does Automatic Posting Work?

The following section describes the process involved in the automatic posting of the data from the electronic bank statement in the R/3 System.

You will find it helpful to have first read the configuration topics before reading this section.

## Information in the Electronic Bank Statement

The electronic bank statement contains the following information:

- General information on the house bank (bank number and account number, account currency, statement number and statement date)
- List of individual business transactions that were posted to the account (line items)

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**Electronic Bank Statement: Posting and Clearing**

## Electronic Bank Statement: Posting and Clearing

After importing the electronic bank statement, the R/3 System searches through it for the information that it requires for the automatic part of the processing.

For example: Your customer pays an open invoice by bank transfer to your house bank account (item no.5 in the bank statement example). Refer to the graphic in [Information in the Electronic Bank Statement \[Page 29\]](#).

You have configured the electronic statement in such a way that this transaction triggers the following two-level posting transaction in your system:

1. The cash receipt is posted to a clearing account such as a cash receipt account (bank posting).
2. The system locates the customer and clears the item from this account (subledger posting).

To do so, it requires the following information from the statement:

- a) The accounting transaction (credit transfer for example) must be identified. The system must then apply a rule to determine how that business transaction is posted in the system (account determination).
- b) Clearing information must be found (document numbers for example) so that the customer open items can be cleared.

How does the system identify the accounting transaction and find the relevant account using the posting rule?

It does so by running through the following search sequence:

1. It finds the transaction type in the Customizing table using the bank key (**66010076** in our example) and the bank account (**179097789** in our example)
2. It determines the posting rule key in the Customizing table from the transaction type and the external transaction code/bank's business transaction code (BTC) (**051** in our example).
3. From the posting rule key, it determines the posting specifications and the account determination rules that you defined in the configuration of the electronic bank statement.

How is the customer open item now cleared? Which information is required for the clearing transaction?

The system finds the necessary information for this in the note to payee lines in the statement (in our example the reference number **131000067**). Using the document number or the reference document number, the system finds and clears the document. The document number or the reference document number are found for the note to payee information using "interpretation algorithms".

Even if the document number was not included in the statement, there are several ways to clear the document. For further information, refer to [Interpreting the Note to Payee Fields \[Page 34\]](#)

If the system is able to find all the information it requires in the electronic statement, the data is posted in the system. Normally these postings should be made error-free. However, there are many cases that require manual post-processing - see [Postprocessing Bank Statements \[Page 49\]](#)

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Electronic Bank Statement: Posting and Clearing

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## Using the Electronic Bank Statement

### Using the Electronic Bank Statement

The following sections describe the procedure for entering data contained in electronic bank statements. Processing always takes place in three stages.

1. Each file is transferred (in the relevant bank statement format) to the bank data storage.
2. The data that is used to filter out the clearing information is then interpreted. This clearing information is stored in bank data storage.
3. Batch input sessions are then created, **or** the bank statements are posted directly.

To ensure statements are posted properly, certain requirements must be fulfilled.

- An internal posting rule must be defined for all posting transactions. This posting rule represents the business transactions relevant to bank statement entry and controls postings to G/L and subledger accounts.
- External transactions must be defined for those keys (business transaction code, text key, posting text) that may be used differently by each bank.
- External transactions must be allocated to a posting rule so that the system can post them.

If, during data import, the program encounters an "unknown" external business transaction code, it terminates after the entire bank statement is imported and outputs a list of the missing entries.

The missing external transactions must then be entered and the program restarted. As of Release 3.0I the data is deleted; the importing transaction must be restarted.

The above requirements for the posting procedure are entered in Customizing. For more information on this topic, see [Electronic Account Statement: Customizing \[Page 7\]](#)

## Importing the Bank Statement

Before importing bank statements into the R/3 System, you must first retrieve them from the banks.

Normally, you receive the statement files by means of banking communication software (BCS), which calls the bank and retrieves the files. Banks in almost all countries sell these PC programs and provide training for them.

Data transfer with banks usually occurs on a contractual basis.



Contact your banking representative for more information on electronic banking.

Data transfer in Germany is normally carried out with MultiCash Software. Almost every credit institute has its own name for data transfer software.

The import procedure can be carried out only once the bank statement files are accessible on your file system or PC drive.

Over 16 international formats for the electronic bank statement are supported. Before importing files, R/3's standard program converts some of the bank statement files to MultiCash format.

For the SWIFT format, there are dialects which differ from the standard SWIFT. The R/3 System does not support these dialects. SAP does however certify the SWIFT MT940 interface (FI-SBS). Certified banks or software providers can supply you with SWIFT MT940 files that can be processed.



For more information on the format you require see the respective program documentation.

## Interpreting the Note to Payee Fields

## Interpreting the Note to Payee Fields

The note to payee fields in the electronic bank statement contain information used to clear open items.

The following information may be included in the electronic bank statement for each line item:

- Document number
- Reference document number
- Check number

The interpretation algorithm allows you to search for your own incoming and outgoing payments in the bank statement, based on information supplied by your customers and/or your house bank and entered in the note to payee lines in the bank statement.



The information in the note to payee lines must already be “known” to your R/3 System. A document number can only be found in the system if the information on it is supplied by your customer and/or bank in exactly the same form and with exactly the same number of characters as it exists in the R/3 System.

This stipulation also applies to leading zeroes.

The interpretation algorithm determines how the system interprets the information in the note to payee lines. Algorithms can recognize and process different types of information (the document number for example) per payment.

### Example:

Note to payee info	Interpretation alg.	Interpretation
1001101	011	“1001101” is interpreted as the check number and not as a document number; the algorithm uses the check number to find the document number in the R/3 System
1001101	012	“1001101” is interpreted as the check number and the document number; in this case, the check number is the same as the document number in the R/3 System

For all line items, the system first uses the accounting transaction code or the external transaction to check whether and with what algorithms it should try to obtain clearing information.

## String Search for Document Numbers

### Use

When an electronic bank statement is imported, the system identifies the transactions contained therein, (cash receipt for example), and determines how they are posted. The system uses the document number from the note to payee of the account statement to determine the critical information required for this.

In many cases the note to payee field is unstructured, (MultiCash account statement format, for example). This means that, in addition to the document number, the character string contains other text modules, (payment data, for example). The [Interpretation Algorithms \[Ext.\]](#) trigger the document number from the character string. Here, it is especially important that the reference information be transmitted unchanged. If figures or characters have been added or removed from the document number, the interpretation algorithms **cannot** find the document number in the system. These transactions then have to be processed manually.



Examples of changed or incomplete document numbers:

- First character omitted

The customer regularly receives invoices with the following type of document number: **18000XXXXX**. These numbers always start with **18000**, so the customer omits these digits given that they contain no important information.

- Addition of characters

Customers sometimes divide up long document numbers with periods or blank spaces when writing out the numbers by hand, so as to prevent errors. There have also been instances where document numbers have been changed during electronic processing of payments by the customer.

Original document number	Actual document number
5406423	540 6423
6067132, 6136194	60-67132, 61-36194
6200122	6 200 122
6032946	6.032946
5997137	599 7137
851333	001*0050*0000851333

The string search supplements the standard interpretation algorithms. It facilitates the automatic identification of document numbers even if they are incomplete or have been changed. You can call up all possible document numbers sent by your customer using the search strings without having to do any programming.



## String Search for Document Numbers

After you have defined search strings for document numbers, the system first carries out a search string before starting the interpretation algorithm.

### Features

- Defining search strings

You determine a search string through which document numbers are identified in the system.

The search string can contain all types of character or digit and you can make it as long as you wish. Likewise, the search string can contain the "Meta characters" listed below.

#### Characters with special meaning in the search string

Character	Meaning	Example
	Or	a b finds a or b
()	Group	c(ac b)d finds cacd or cbd
+	Repetition (as often as you like, must occur at least once)	(ab)+ finds ab or ababababab
*	Repetition (as often as you like, must occur at least once)	ab* finds a or b or abbbbbbb
?	Wildcard	a?b finds a Qb or a1b
#	Digits 0-9	
\	Slash (searches for special characters)	\#\#\# finds ### and not 123, for example
^	Start of line	
\$	End of line	

- Defining mapping

You can identify a grouping of characters within a character string using the search string. However, excess characters are still present. This is achieved with a mapping string. You determine a mapping string for each search string. You can assign each character of the search string to another character. (For example: Search string **a**, mapping string **x**: The character **a** is replaced with **x**; Search string **#**, mapping string **1**: Each character is replaced with **1**, the character string **a45C1** is replaced with **a11C1**).

Graphic

If you do not want to replace any characters in the character string, the search string and mapping string are identical. First of all, the system suggests the search string as a mapping string so that you only have to change the desired characters.

- Testing the search string/mapping string

---

**String Search for Document Numbers**

You can test a newly created search string/mapping string. The system displays the document number used to search for the document to post the business transaction.

- **Simulating the search string/mapping string**

You can simulate a set of search strings that you have defined. You can therefore check the importation of account statements before and after definition of search strings. You can hereby ensure that transactions that were **not** posted automatically prior to this are posted automatically after the search string has been defined.

You are able to define search strings and to make appropriate changes after simulation until the desired result is achieved.

## Activities

To define and test search strings/mapping strings, carry out the activity: [Define Search String for Document Numbers \[Ext.\]](#) under *Financial Accounting* → *Bank Accounting* → *Business Transactions* → *Payment Transactions* → *Electronic Bank Statement* in the Implementation Guide.

To simulate the string search, carry out the activity [Simulate Document Number Search Using Strings \[Ext.\]](#)

## Interpretation Algorithms

## Interpretation Algorithms

The following algorithms are available:

- **000 (no interpretation)**

You use this algorithm if you do not want to use the standard algorithms delivered by SAP. If so, the system calls up the algorithms you defined yourself, in conjunction with the functional enhancements (user exits).

- **001 (standard algorithm)**

Algorithm 001 interprets the values in the note to payee fields of the electronic bank statement as either document numbers or reference document numbers. In the process, it checks whether the values are in the document/reference document number ranges you entered when importing the bank statement. If (and only if) they are, it then tries to find the items to be cleared in the R/3 System.



Note that you must prescribe the possible intervals for documents/reference documents using the values “BELNR number range” and “XBLNR number range” in the selection screen for importing the electronic bank statement.

The following rule applies for reference document numbers: If the reference document was stored with leading zeroes in the R/3 System, the system can find a line item only if the reference document number in the bank statement is imported with these leading zeroes. If, on the bank statement import selection screen, you were to enter 00100 - 00200 as the interval, the system does not find the value if the reference document number is simply 100.

- **011 (Outgoing check: Check number not identical to document number)**

This algorithm is used for payments by check if the bank uses pre-numbered checks. Your house bank supplies the check number in the bank statement. The algorithm uses the check number to find the appropriate document number.

- **012 (Outgoing check: Check number identical to document number)**

You use this algorithm for payments by check if checks are printed using forms that do not yet contain a check number. The SAP document number is then printed on the check as the check number. Your house bank confirms this check number on the bank statement. The algorithm finds the check number (which in this case is the same as the document number) in the note to payee lines in the statement.

On the selection screen for importing electronic bank statements, you must specify the possible number ranges for the document number search (see algorithm 001).

- **013 (Outgoing check: Check number identical/not identical to document number)**

This algorithm finds the check number in the note to payee lines either per algorithm 11 or per algorithm 12.

- **015 (Clearing transaction: Selection per allocation number)**

This algorithm enables you to clear open items according to the allocation number:

- If the posting rule in question permits clearing, the system selects the items for clearing according to the allocation number.

## Interpretation Algorithms

- If the posting rule in question does not permit clearing, the system writes the bank reference (check number for example) as the allocation number in the line item of the posting on account.

You can then use report SAPF123W to clear the item automatically at a later date.



These algorithms have the following limitations:

- The system can only clear an item by means of the allocation number if it can locate the account to be cleared (the bank data in the case of customers/vendors or the posting rule in the case of G/L accounts).
  - To select items using the allocation number, the system uses the *Bank reference* or *Check number* field from the bank statement. (If there is no entry in this field, it uses the start of the *Note to payee* field.) Check whether these fields contain the information that the system requires to be able to find open items in the relevant account.
  - Since the allocation number is a text field, the information in the bank statement may not be correctly formatted. If you want selection to take place using the allocation number even though the information in the bank statement is missing or not in the correct format, you can use the customer exit to enter data in the *Check number* field FEBEP-CHECT).
- **019 (DME administration reference number)**

You use this algorithm to import those bank statement line items that relate to a previous payment run. All the items for a payment medium generated by the payment program are summarized by means of a DME (data medium exchange) reference number. Your house bank confirms the overall total for the line items, together with the DME reference number. The algorithm finds the DME reference number in the note to payee lines in the bank statement. The reference number is used to find and clear all the line items in the system.
  - **020 (Document number search)**

Algorithm 020 functions in the same way as algorithm 001, except that it interprets the contents of the note to payee fields only as a document number.
  - **021 (Reference document number search)**

Algorithm 020 functions in the same way as algorithm 001, except that it interprets the contents of the note to payee fields as a reference document number only.
  - **022 (BZÜ procedure (Germany) with document number)**

Algorithm 022 refers to the BZÜ procedure (payment form transfer without documents). Under this procedure, a billing system creates a transfer form that contains a thirteen digit number in the coding line. This number normally consists of the document number a check digit and is returned by your house bank. This algorithm cuts off the check digit and interprets the number (right-aligned) as document number.
  - **023 (BZÜ procedure (Germany) with reference document number)**

This algorithm also refers to the BZÜ procedure (payment form transfer without documents). Under this procedure, a billing system creates a transfer form that contains a thirteen digit number in the coding line. This number normally consists of the reference

## Interpretation Algorithms

document number and a check digit and is returned by your house bank. This algorithm interprets the number (including the check digit) in the note to payee fields of the electronic bank statement as a reference document number.

You define the interpretation algorithm under the Customizing activities for the electronic bank statement. To do this, access the Implementation Guide (IMG) and choose the activity *Allocate External Transactions to Posting Rules* (located under *Electronic Bank Statement*). For each external transaction, you then define which interpretation algorithm is to apply. For more information, see [Allocating External Transactions \[Page 24\]](#)



If the standard algorithms supplied by SAP for interpreting note to payee fields do not meet your requirements, customer exits can be programmed which do so. These exits do not involve any modification to the standard system.

- **026 (Search for reference document number with leading zeros, if < 10)**

You can use this algorithm if the ten digit reference number in the bank statement does not contain leading zeros (if for example the reference document number in the statement is 100 and not 000000100). This algorithm works in three stages:

- a. As for algorithm 021, algorithm 026 reads the *Note to payee* field for a reference document number (number range XBELNR on the selection screen following import of the bank statement).
- b. In contrast to algorithm 21, it enters ten digits by adding leading zeros.
- c. Finally, it compares the reference document numbers from the bank statement with the reference document numbers in the system.

- **027 (Reference number TITO))**

This algorithm searches for the *Payment reference* supplied by the Finnish TITO bank statement format.

- **028 (Reference number per MULTICASH conversion programs)**

This algorithm uses number range BELNR and is the same as 027 except that the bank statement files are imported in MULTICASH format.

- **029 (Payment order number)**

This algorithm uses number range XBELNR and searches using the payment order number.

- **030 (Brazil)**

Applies where the electronic bank statement is implemented in Brazil. It searches for the document number, the fiscal year, and the number of the line item within the accounting document.

- **031 (Document number search (customer number in line item))**

This algorithm functions in the same way as algorithm 020 (document number search), with the following exceptions:

- If the system can identify the business partner from a document number entered in the *Note to payee* field, then you have the system add the bank details to the master data. This facility also exists with algorithm 021. Since the bank statement normally contains the bank details, these details can be used to supplement the master data. You can use

## Interpretation Algorithms

report RFEBKA80 to generate a file containing customers' bank details and add this data to the master records using report RFBIDE00. For more information, see the documentation for these programs.



Where an alternative payer is specified, the bank details contained in the bank statement are not those of the business partner to which the document number previously found in the note to payee refers. The bank details in question are not added to the correct business partner.

- This algorithm is used automatically to create payment advice notes when importing bank statements. The system creates a payment advice note if, when importing the bank statement data, it could not clear every open item right away (for example because it could not find every document number contained in the *Note to payee* field). The payment advice note contains the document numbers the system found, and can be used to post the bank statement items if you enter the missing document numbers yourself.

It is possible that the individual document number or payment advice note items relate to different business partners. If this is the case, these items are only automatically assigned to the correct business partner if you use algorithm 031. If you use algorithm 21, you need to add the correct business partner information to each individual payment advice note items.

- **040 (Treasury (TR): Standard search followed by loan search)**

This algorithm can be used if you implement the *Treasury Management* (TR-TM) application component. The system first runs algorithm 001 (document and reference number search). If this search is unsuccessful, it then searches for Treasury documents (using a Treasury customer exit).



To search for Treasury documents, the Treasury customer exit must not be activated.

- **041 (Treasury: Search for loan, then standard search)**

As for algorithm 040 above, except that the search is carried out in the reverse order.

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**Executing the Program**

## Executing the Program

Use program RFEBKA00 to import files containing bank statement data.

To run the program, proceed as follows.

1. Choose *Incomings* → *Electronic bank statement* → *Import*.
2. Depending on your Customizing settings (*Specify report and variant selection*) you now either access the relevant country-specific program for importing the data or jump directly to the input screen.
3. Enter the information necessary in the entry areas in the active fields.

The program then lists these entry areas. For more detailed information on the most important fields in the entry areas, double click on one of the areas listed here:

- [File Specifications \[Page 43\]](#)
  - [Posting Parameters \[Page 44\]](#)
  - [Cash Management \[Page 45\]](#)
  - [Algorithms \[Page 46\]](#)
  - [Output Control \[Page 47\]](#)
4. To execute the program, choose *Program* → *Execute*.

## File Specifications

### Importing the file

Select the option *Import data*. Set this indicator to transfer the bank statement from the file system to SAP bank data storage.



If you start the import program without setting this indicator, the system will try to process **all** the bank statements already in bank data storage. For this reason, make sure that bank data storage contains only actual data and no test data.

### Elect. bank statement format

Here you specify the format in which the bank statements are to be imported. This will normally be either the format **M**(ulticash) or **S**(wift MT 940).

### Statement file

Enter the name of the file containing the statement data and the file path. When importing from a PC (hard drive or disk drive) you must also specify the drive (for example, A: Line item file).

### Line item file

Enter the path and the name of the file containing the line item data.



You can only make an entry in this field if you are using the MultiCash format. This field is not required for any other format.

### PC upload

Select this option if you are using a PC and want to import the file from the disk drive or hard drive.



Note that this option is not possible if you have selected the option *Execute as Batchjob* (see: [Data Output Options \[Page 47\]](#))

## Executing the Program

# Posting Parameters

### Post immediately

Select this indicator to have the program post the data immediately (call transaction). Note that you must select this option to be able to use the postprocessing transaction for the electronic bank statement. For more information, see [Postprocessing Bank Statements \[Page 49\]](#)

### Bank accounts only

If you select this indicator, the system initially posts only to posting area 1 (General Ledger or Bank Accounting) during bank statement importing (defined in each case by the posting specifications). The postings for posting area 2 are not made at this stage and can be performed at a later date.

### Generate batch input

To generate batch input sessions, select this option. At the same time, you can update the line items to the G/L and subsidiary ledger accounts. To do this, the system creates two batch input sessions:

- Bank accounting
- Subledger accounting

Both sessions are created in the course of one run.



Once a transaction is included in a session, it is considered to be posted.

For more information, refer to [Postprocessing Bank Statements \[Page 49\]](#)

### Session names

This option is not effective if the indicator *Post immediately* is selected. Enter a number that specifies how the session name is to be generated. The default setting is 1, meaning that the session name consists of the house bank ID and account ID. This applies both to the bank posting session and the subledger posting session, the only difference being that the first character in the name of the subledger posting session is a “/”.

### Do not post

If you select this indicator, no postings are generated. The data is loaded into bank data storage and held there. The posting log lists which postings would have been placed in the batch input sessions during a production run. You are recommended to set this indicator during a test phase.

### Assign value date to account

If you select this option, the system uses the value date during posting.



Make sure that the value date field on the bank posting line items is ready for input (see the field status groups).

## Cash Management

If you are posting directly (online), the cash management data is posted automatically when the documents are generated. If you are generating batch input sessions, however, and do not process these on time, you can integrate the data from the bank statements into cash management by generating cash management payment advice notes.

### Cash mgmt payment advice notes

Select this option if you want the system to create a payment advice in cash management for each line item in the bank statement. This option is useful if there are so many postings to be made in bank-related accounting that the system cannot post the bank statements by the time you need to carry out your cash planning.



You can select this option only if you post the electronic bank statement using batch input.

Since postings in Financial Accounting have an effect on planning data, the batch input sessions can then only be processed after you have completed your cash planning. Cash management payment advice notes generated by the program are archived with the first transaction in the session for bank-related accounting. This option cannot be used if you select "Post immediately".

### Planning type

The planning type is an entry criterion for:

- The planning level at which the memo record is updated,
- The archiving category in which the memo record is stored during archiving,
- Determining whether the memo record should expire automatically because of an expiration date, or whether it remains valid until archiving.
- The number range under which memo records are managed, and
- Determining which fields are to be displayed and ready for input when you create or change memo records.

### Summarization

If you select this option, the system does not create a payment advice for each bank statement item. Instead, it summarizes the bank statement items by value date and then places the payment advice notes resulting from the summarized records into the session.

## Executing the Program

# Algorithms

### Number interval

Here you enter the intervals in which the values of your document numbers and/or reference document numbers are found. Values that do not lie within these intervals are ignored by the program and therefore cannot be used as information to clear open items.

The reference number entered in the account statement by your customer or house bank must be in the the same format and of the same length as the number in the R/3 System.



You send your customer a bank transfer form with the reference document number 000101. This customer passes only the last three digits of this number on to your house bank, and this number (101) also appears on the electronic bank statement. The system cannot then find this number. For this reason, it is essential when processing electronic bank statements that customers or house banks do not omit leading zeroes from such forms.

### Bundling

You can use this field to determine whether and if so how bank statement items should be grouped into bundles. If you have the program post the bank statements immediately (call transaction), you can select the items of a bank statement in the postprocessing function by bundle. If you use batch input sessions, you can generate a separate session for each bundle.

Under bundle type 1 (bundle per accounting clerk), the system enters the accounting clerk ID from the customer master record into the field. If the customer cannot be uniquely identified from the bank details, the field remains blank.

Under bundle type 2, the system creates a bundle per  $n$  items, enabling up to 99 bundles to be created. If you enter  $n = 100$ , the first 100 line items are contained in bundle 1, the next 100 items in bundle 2 and so on. If you enter  $n = 1$ , line items 1 to 99 are entered in bundles 1 to 99. The 100th line item is then entered starting once again from bundle 1.

## Data Output Options

The way in which data is output is controlled by the following parameters:

**Execute as background job**

**Print bank statement**

**Print posting log**

**Print statistics**

**Separate list**

Select this option if you want the posting log and posting statistics printed separately.



However, you can only use this option if you have selected background job. The information is then printed separately according to the entries in the list separation table with domain "LSEPW\_EB". In this table, you can maintain the parameters for printing the posting log with value "1", and can maintain the parameters for printing the statistics with value "2".

---

**Displaying Bank Statements**

## Displaying Bank Statements

You can display the bank statements found in the bank data memory at any time. To select the bank statements for display, you can enter the following information:

- Company code
- House bank ID
- Bank account ID
- Statement number
- Statement date
- External transaction code
- Posting rules
- Bundle number
- Amount

The ID is information that is not transmitted with the bank statement. Each bank statement is assigned a unique number in the R/3 System. This is referred to as the ID.

The ID is internally assigned by the R/3 System

To display the overview, proceed as follows:

1. Select *Incomings* → *Electronic bank statement* → *Display*.
2. On the screen that is now displayed, access the country-specific program.
3. Enter your selection parameters on the next screen.
4. Select *Program* → *Execute*.

## Postprocessing Bank Statements

You have the following options for postprocessing electronic bank statements. You choose these in the bank account import selection screen.

1. Post immediately (call transaction).
2. Generate batch input

The type of processing you choose at this point determines what type of postprocessing you can use for the electronic bank statement.

If you selected the *Post immediately* parameter when importing the bank statement, you can use a **postprocessing transaction** to modify and then post line items that the system has not automatically posted.

The advantage of this option is that each document number posted as a result of the electronic bank statement is saved in bank data storage. You can then determine the status of a posting.

This is not possible in batch input processing because the statement data is not posted until the sessions are processed. Only then can you obtain information on whether or not a posting was made successfully.

As a rule, the sessions are first processed in the background. The result is recorded in the batch input log. Transactions not updated remain in the session as defective records. The sessions are then postprocessed online. You can change or delete defective data or add any that was missing. Postprocessing is complete when there are no more defective records in a session.

Since the system assumes that the postings in a session will eventually be made successfully, it indicates that the line items of the bank statement are "posted successfully".

An additional advantage is the extra options provided by the postprocessing transaction. You can for example change the postings rules later or edit the payment advice notes (not to be confused with the cash management payment advice notes).

### Electronic Bank Statement: Postprocessing Options

Posting Parameters	Postprocessing	Where is data stored if no posting is made?
Post immediately	Use transaction FEBA (from the Cash Management menu, choose <i>Incomings</i> → <i>Electronic bank statement</i> → <i>Postprocess</i> )	Payment advice database
Generate batch input	Process defective sessions online	Records in the defective batch input session



The type of postprocessing depends on the posting parameter chosen. This means that it is **not** possible to use the postprocessing transaction to edit a batch input session which may be defective.

---

Postprocessing Bank Statements

## Postprocessing Electronic Bank Statements

The postprocessing transaction is carried out as follows.

- Select a posting area (bank accounts or subledger accounts).
- Select the line items for postprocessing.
- For each line item, you can change or delete clearing information by comparing the note to payee lines with the clearing information that the interpretation algorithm, or customer exit, stored in the payment advice.

After making your changes, you can rerun the posting process. The system then automatically creates the posting data. You can choose whether to display all the screens or none of them, or only to display screens in the event of an error.

To postprocess bank statements, proceed as follows:

1. Select *Incomings* → *Electronic bank statement* → *Postprocess*.  
The system displays the screen *Bank Statement Subsequent Processing*.
2. Enter the information necessary in the entry areas in the active fields.  
The program then lists these entry areas. For more detailed information on the most important fields in the entry areas, double click on one of the areas listed here:
  - [Bank Statement \[Page 52\]](#)
  - [Posting Parameters \[Page 53\]](#)
3. To display the bank statements for postprocessing, choose *Goto* → *Statement overview*.

---

**Postprocessing Electronic Bank Statements**

## Bank Statements

### Bundle number

Bank statement line items that belong together can be combined into a bundle by using this field. This field only applies if the field GRPNR was either (a) filled by bundling when the bank statement was imported or (b) filled using the user exit.

The following fields are self-explanatory:

- **Company code**
- **House bank**
- **Account ID**
- **Statement number**
- **Statement date**

## Posting Parameters (Postprocessing)

### Posting area

Here you specify whether G/L postings or subledger postings are displayed.

### Posting method

Here you specify which screens are displayed. Since the postprocessing transaction is designed to post those items manually that could not be posted automatically, you should therefore select the setting "Display incorrect screens".

---

**Postprocessing Bank Statements by Batch Input**

## Postprocessing Bank Statements by Batch Input

If you want to use batch input to postprocess a bank statement, proceed as follows:

1. Use the electronic bank statement import program to generate the batch input session.  
To do so, from the Cash Management, choose *Incomings* → *Electronic bank statement* → *Import*.  
At the same time, you can update the line items in the G/L and subsidiary ledger accounts. The system generates two batch input sessions for this purpose; one for the bank account posting and one for the subsidiary ledger posting.  
You can create both sessions in one run.
2. Process the sessions in the background.  
The system makes the appropriate postings.  
Data from defective postings are recorded in a session.
3. If there are any defective postings, process the defective session online.
4. Post the defective postings using the usual posting transactions.

## Conversion Programs

The following programs convert bank statements to MultiCash format.

Program **RFEBBE00** converts the Belgium bank statement format, CODA, to MultiCash format.

Program **RFECFI00** converts Finnish bank statements specifying reference payments from customers or bank collections to MultiCash format.

Program **RFEBDK00** converts Danish bank statements to MultiCash format. The following services are supported:

- UDDATA giro bank
- Pengeinstituttens Betalingssystemer(PBS)

Program **RFEBNO00** converts Norwegian bank statements to MultiCash format. The OCR giro format from Betalings Sentral (BBS) and the OCR format from a giro account are supported.

Program **RFEBSE00** converts Swedish bank statements to MultiCash format. The following formats are supported:

- Bank giro OCR
- Bank giro LM (Automatisk avprickning)
- Bank giro Autogiro
- Postal giro OCR
- Postal giro TIPS (Total Integrated Payment System)
- Postal giro Autogiro

These programs import a statement file that is stored on a PC (hard drive, disk) or in a file system, and create two MultiCash files.

1. **Statement file**

This file contains data about the statements (statement number, old balance, new balance, currency, bank account number).

2. **Line item file**

This file contains the individual transactions from the statements.



To import the MultiCash files that are created, use the standard program RFEBKA00. For more information see the documentation for this program.

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**Enhancements For The Electronic Bank Statement**

## Enhancements For The Electronic Bank Statement

Functional enhancement FEB0001 allows you to change the way the statement is processed.

The exact procedure is described in the documentation for the enhancement components. You can find this documentation within the enhancement definitions.

You define enhancements in the ABAP/4 Development Workbench by choosing Utilities → Enhancements → Definition. Then enter the name of the enhancement (here FEB0001), select “Components” and then select the *Display* button. From the component display screen select the path *Edit* → *Documentation*.

## Formats for the Electronic Bank Statement

The following section contains an overview of the formats that are supported for the electronic bank statement in Germany. This information also applies to all countries where the bank software package MultiCash is available or the MultiCash format is supported.

The following formats are supported:

- **MultiCash format**

This format is created from the bank statement data received from the banks (usually SWIFT MT940) using the BCS (Banking Communication Standard) software.

Standard for all banks, it can be easily run using a spreadsheet program or a word processing program. It consists of two files in format AUSZUG.TXT and UMSATZ.TXT. The AUSZUG.TXT contains the header information for the account statements, UMSATZ.TXT the item information. This format allows you to import data from several bank statements at the same time, including those from different banks.

BCS software is usually MultiCash software. This is often used by banks under a different name (Cotel - Commerzbank, Dretec - Dresdner Bank, ELKO - Sparkassen, ...). If the BCS program is from the *Deutsche Bank*, you must install the program 'db-direct'.

- **Swift MT940**

Many banks provide bank statements in the SWIFT MT940 format (with or without structured field 86).

SAP offers a certification program by which banks and BCS software providers are certified to deliver files in MT940 format. This format is compatible with SAP's SWIFT MT940 format recommendation.

SWIFT MT940 should only be used in cases where it is not possible to use the MultiCash format.

- **DTAUS format**

The main advantage of the electronic bank statement is that it ensures that all the business transactions contained in the statement are posted in your system.

The DTAUS format only contains a single business transaction (for example, cash receipt) per file and therefore only represents a fraction of the items processed in an account. Using the DTAUS format usually entails importing more than one file into the system. In addition, certain business transactions (that are not supported by this format) may need to be posted manually.

Moreover, the header record of DTAUS files does not contain any reference to the statement from which the items originated (such as statement date or number). This means that the import program cannot carry out the usual checks, such as those which prevent the same items being imported more than once, or which check that imported data is complete.

The DTAUS format originated in the mainframe era and has certain disadvantages; for example the individual data records are not separated by the special character denoting a "new line" (Carriage-Return Line-Feed <CR><LF> ) and this renders the search for errors extremely difficult in cases where the bank has transmitted defective files. Such problems occur relatively often in Germany, where the "Umlaut" character (ö, ü or ü) is

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**Formats for the Electronic Bank Statement**

frequently converted into a special character during the conversion from ASCII to EBCDIC code and back again, and thus not transmitted as a text character.

Another disadvantage of DTAUS files is that if just a single byte is missing from the file, the whole file is rendered unreadable, since every subsequent data record is displaced by one byte.

For the above reasons SAP does not recommend the use of the DTAUS format for posting bank statement data in the system, unless of course there are unavoidable reasons for doing so.

## Receiving Bank Statements Using EDI

Whereas bank statements were previously retrieved from the house bank using ordinary telecommunications, you can now use Electronic Data Interchange (EDI). This means that account statement information is transferred to the system automatically, from where it can then be processed. For information on the EDI interface in the R/3 System, refer to the *IDoc Interface for EDI* documentation.

The bank statement consists of two levels of information. The totals level identifies the house bank account and gives details of the current account balance. The transaction level logs the transactions processed in the bank account. The transactions can be described in more detail using messages (debit/credit display). In cases where you have done these, the bank statement contains only a reference to the relevant messages.

Bank account processing using EDI takes place in three stages: Data is automatically imported into the system where it is stored in the bank data storage or in the payment advice database. You then schedule report program **RFEBKA30** which generates the postings that follow from the bank statement. For more information, read the program documentation. You can process the bank statement using transaction FEBA (*Bank Statement Subsequent Processing*)

The bank statement query (Polling Information) is a special type of bank statement that does not involve the transfer of line items. The information is stored in a separate area in the bank data storage. Payment advice notes from cash management and forecast are generated, not however any postings. You can use report program **RFEBPI20** for further processing. For more information, read the program documentation.

### Procedure

The payee's bank sends a bank statement as an EDI message (example: FINSTA in EDIFACT standard) to your customer. The customer's EDI subsystem generates an interim document from the EDI message (in the example, IDOC type FINSTA01, logical message FINSTA) which is passed on to the R/3 System. Further processing of this interim document is controlled by the process code in the partner profile.

### Processing

During processing, data is transferred from the interim document to the SAP data store for the bank statement and payment memos. The system evaluates Customizing and the Customizing data (postings rules, company code, house bank account data, and so on) is added to the bank statement. The system then searches for the debit and credit displays referenced in the statement and enters the relevant key from the payment advice database in the statement. The system uses the information contained in the payment advice notes to clear payments. The payment advice notes may also contain the document number and any other criterion you need. If the credit memo or debit display does not include any detailed information (no payment advice note items), the data is transferred to the bank statement item and the advice note deleted. If no errors occur, inbox processing ends with update of the bank data storage. You must then use program RFEBKA30 (see above) to generate the resulting postings.

### Changes to System Parameters in Customizing

To set up a partner for the bank statement EDI inbox, you need to maintain EDI partner profiles in the system administration menu. To do this, access the system administration menu and choose *Administration* → *Process technology*, followed by *IDoc* → *Partner profile*. In the inbound parameters, create a partner with the process code "FINS". The related message

## Receiving Bank Statements Using EDI

name is "FINSTA". For the credit memo display, use process code "CREA" and message "CREADV"; for the debit display, use process code "DEBA", message "DEBADV".

For more information, read the IDoc interface documentation.

## Further Customizing

As ISO codes are transmitted using EDI, the tables for converting SAP codes into ISO codes for currencies, quantity units, and countries must be fully maintained.

For more information, read the documentation for the following steps in the *Global Settings Implementation Guide (IMG)*:

- Define countries
- Check company codes
- Check units of measure

Bank statements entered using EDI are a form of electronic bank statement. This means you must maintain the Customizing tables for the electronic bank statement.

When you use the bank statement to find out the account balance (Polling Statement), you must enter a planning type for the process category in the bank assignment. The system then generates cash management and forecast payment advice notes automatically.

For more information on Customizing, go to the Financial Accounting IMG and choose *Bank Accounting* → *Business Volume* → *Payment Transactions* → *Electronic Bank Statement*.

## Effect of Errors on the Dataset

In the event of an error, the system initiates the standard workflow task FINSTA\_ERROR. Ensure that an administrator is defined in the basic data for the task, so that he or she can then be automatically notified in the event of an error. You maintain tasks using transaction PFTC.

## Using Customer Exits to Modify Data

There are clearly defined interfaces which you can use to read or change the dataset when processing the interim document. To this end, the system supports a number of customer functions which are accessed at particular points during processing.

The function modules are stored in enhancement "FEDI0005".

The following customer functions are accessed during processing of type FINSTA01 interim documents; you can use the functions to create your own modifications:

1. Saving a bank statement - function module "201".  
The system accesses function module 201 immediately before writing the data for a bank statement. For detailed information, read the documentation on function module **EXIT\_SAPLIEDP\_201** in enhancement FEDI0005.
2. Dynamic access  
You can also access the dataset when writing individual segments. You must first define the segments for which such access is to be made.  
To this end, maintain table FEDICUS as appropriate.  
The system then accesses function module 202 during processing of each of the segments you specify in the table.

For detailed information, read the documentation on function module **EXIT\_SAPLIEDP\_202** in enhancement FEDI0005.



Enhancement FEB00001 of the electronic bank statement is also run during IDoc entry (report program RFEBKA30 accesses report program RFEBBU10 (from where the customer exit is called up)). This means that you do not need to copy any coding stored there to one of the customer functions in enhancement FEDI0005.

### Software/Hardware Requirements

You require an EDI subsystem on an EDI server.

### Changes in System Administration

Within a test system, you can change any IDoc data you want, provided you have the following authorization:

Object: S\_'IDOCMONI'  
Activity: '02'

The system logs all the changes made to an IDoc. To ensure that the subsystem actually processes the original data for a payment IDoc, you can, within a productive system, assign authorizations for exception cases only and for limited periods.

### Further Information

The **EDI Interface Enhancement Concept** enables you to add further segments (for example, for industry-specific or customer-specific data) to existing IDoc structures. These must be supplied by the converter as appropriate.

## Electronic Bank Statement: Glossary of Terms

### Bank Data Storage

Internal memory to which the information imported from the electronic bank statement is saved. The bank data storage consists of different tables and is used by other application components besides electronic bank statement (manual account statement, Lockbox, and so on.).

### Posting area

Depending on the external transaction code and your Customizing settings, a single line item from an electronic bank statement can automatically trigger up to two posting transactions: A posting in posting area 1 (bank accounting or G/L accounting) and a further posting to posting area 2 (subledger accounting).

### Posting type

The posting type must be entered for each posting specification you define in Customizing (clear subledger accounts in debit for example).

### Posting rule

In Customizing, you can assign every external transaction to a posting rule. This posting rule determines which posting specification is triggered by the external transaction.

### Posting specifications

Posting specifications describe which posting transactions are triggered by the information supplied in the bank statement. The posting specifications that apply to a particular line item in a bank statement are ultimately controlled by the external transaction code supplied with that line item.

### Customer Function

Customer functions (previously known as user exits) enable customers to enhance the standard functions for processing electronic bank statement to meet their own needs (see also interpretation algorithms, account modification).

### External transaction

External transactions (or accounting transaction codes) are keys supplied by banks that identify the line items in the bank statement (credit memo, check deposit for example).

### Interpretation algorithm

In order to clear open items automatically, the information contained in the note to payee lines of the electronic bank statement is evaluated (interpreted). The algorithms (check number search, document number search and so on) used to interpret this information is determined by the external transaction and your Customizing settings.

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**Electronic Bank Statement: Glossary of Terms****Account determination**

Posting specifications are not defined using G/L account numbers, but using accounts symbols. The system determines the G/L account to be posted to using the definition of the account symbol. Account determination can be influenced by account modification.

**Account modification**

Account modification refers to the process by which account determination is influenced through the use of customer functions.

**Account symbol**

Account symbols are used when creating posting specifications. When postings are carried out using a particular set of posting specifications, they are then replaced by the G/L accounts to be posted to (bank clearing accounts for example).

**Transaction type**

Transaction types represents a number of allocations of external transactions to posting rules. Having entered a transaction type in Customizing, you then allocate the appropriate banks to this type.

**+/- Signs**

+/- signs are entered in Customizing when assigning external transactions to posting rules, whereby + represents incoming payments and - outgoing payments. A different posting rule can apply to the same external transaction depending on the +/- sign.