BAAN IVc3scc1

Definition of BEMIS 1.2a Import and Export File for the Message Type Self-billed Invoice

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About this document

This documentation details the standard in-house data formats, which the BAAN Electronic Message Interchange System BEMIS requires as interfaces to the EDI subsystem.

The documentation is intended for developers of EDI subsystems, which want to realize an interface of their software to BAAN IV. Furthermore, it supports consultants who want to implement and verify such an interface within a customer project. Important fields are identified with both the English and German terms, to assist German-language speakers using this documentation.

Chapter 1 gives an overview over the general principles of the relevant EDI message, for example, available record types, message structures, key fields and other conventions.

Chapter 2 details all corresponding record types for the EDI message. All data fields are listed in an overview table in connection with the corresponding table fields. In addition, every single field is detailed. You will find information about the general conditions that you need to observe for the processing in the EDI subsystem or in BAAN IV.

1 Introduction

This section describes the BAAN EDI in-house format for the message type *self-billed invoice (incoming).*

Record types available

The table below shows whether the record types is conditional (C) or mandatory (M), when you transmit information about self-billed invoices by means of the message VDA 4908 Remote transmission of self-billed invoice data. (*Datenfernübertragung von Gutschrift Anzeigedaten*).

ID	Status	Name
SA1	M	Self-Billed Invoice Overhead
SA2	M	Self-Billed Invoice Header
SA3	M	SBI–Advice-Note-Lines
SA4	C	SBI-Surcharges by Line

Branching diagram

The branching diagram shows the structure of the message. It indicates the hierarchical relationship between segments. A segment is a set of functionally-related BAAN tables. Figure 1 shows the record structure used for the message type BEMIS – Self-billed invoice:

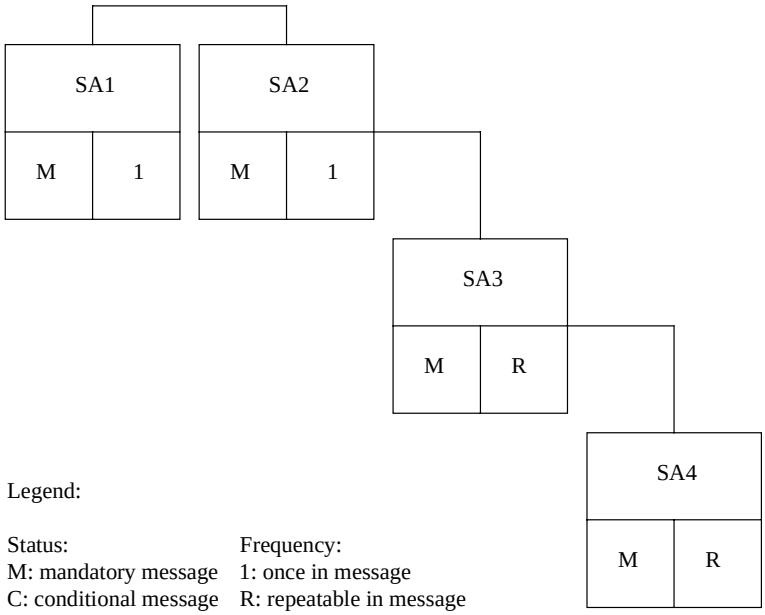


Figure 1, Branching diagram

For example, for two self-billed invoices the BEMIS file has the following structure:

SA1 ...	BAAN IV Overhead
SA2 ...	Self-Billed Invoice Header 1
SA3 ...	Self-Billed Invoice Lines 1
SA4...	SBI-Surcharges 1 by Lines 1
....	
SA3 ...	Self-Billed Invoice Lines 2
SA4...	SBI-Surcharges 1 by Lines 2
....	

SA1 ...	BAAN IV Overhead
SA2 ...	Self-Billed Invoice Header 2
SA3 ...	Self-Billed Invoice Lines 1
SA4...	SBI-Surcharges 1 by Lines 1
....	
SA3 ...	Self-Billed Invoice Lines 2
SA4...	SBI-Surcharges 1 by Lines 2

Key fields

The following structure of the key fields is used to determine the related data records of a self-billed invoice on the basis of the BEMIS conversions:

Record type	Key field 1	Key field 2	Key field 3	Key field 4	Key field 5
SA1	Message reference	Network address customer			
SA2	Message reference	Network address customer			
SA3	Message reference	Network address customer	Self-billed invoice number customer		
SA4	Message reference	Network address customer	Self-billed invoice number customer	Shipping note number	Customer's item number

BEMIS Messages - Conventions

The following general rules apply to a message record in a BEMIS message file:

- Every message record starts with “SAx“
- Every message record ends with “SAx_END“
- The length of a data record can vary.
- The message record must consist of all fields, even if not every field contains a value.
- The fields in the file must be separated by a semi-colon (;).
- All string fields have to be put in inverted commas (“....“).

In the following sections you will find the format descriptions for the individual record types of the interface file. The table contains the following data:

SBI INHOUSE FORMAT				
Pos	FIELD NAME	Key	ST	FM

The first block of the table describes the format of a record type:

Pos.	Position of the field in the data record
Field name	Name of the field
Key	Key field outgoing (O) / incoming (I)
ST	Field status mandatory (M) / conditional (C)
FM	Field format
	an..14 alphanumerical field with a maximum of 14 characters
	an14 alphanumerical field with exactly 14 characters
	n..10 numerical field with a maximum of 10 characters
	n1 numerical field with exactly 1 character

When BAAN generates outgoing messages, the numerical fields are written into the in-house format file without leading zeros. For example, for the year “0000“ a “0“ will be written in the BEMIS message file.

On the outgoing side numerical fields with decimal places will be used in the following way: If the decimal places equal the value zero these decimal places will not be written. For example, in the interface file the internal value ‘13.00‘ will be indicated as 13.

Map to Application Table Fields	
Table Field	Action

The second block of the table describes the corresponding table field for outgoing messages in BAAN IV as well as the possible special actions, which will be taken during the processing of the messages.

In the past, there seemed to be some doubts about the way BAAN points out a position within the message file. Here are some additional explanations:

As defined in BEMIS a position within a message file is pointed out using two semikolons.

To draw an example: `”SAX”;...;Position;...;”SAX_END”`

If an position in a BEMIS Message File is not taken by a value (this means the position is empty), the position is pointed out as shown above. Moreover the BAAN EDI Module distinguishes between numerical and alphanumerical data format. If a position defined as numerical is empty the position is pointed out using semikolons. On the other hand emty alphanumerical positions are exported in two way. The first way is to point out a position using the semikolons. The second way BAAN exports empty alphanumerical positions is to write two inverted commans within the position. This depends whether the alphanumerical field existis in BAAN's database or not. Finally we take a look at the following expample:

empty numerical Position:

```
"SAX";...;;...;"SAX_END"
```

empty alphanumerical Position:

```
"SAX";...;;...;"SAX_END"
```

or

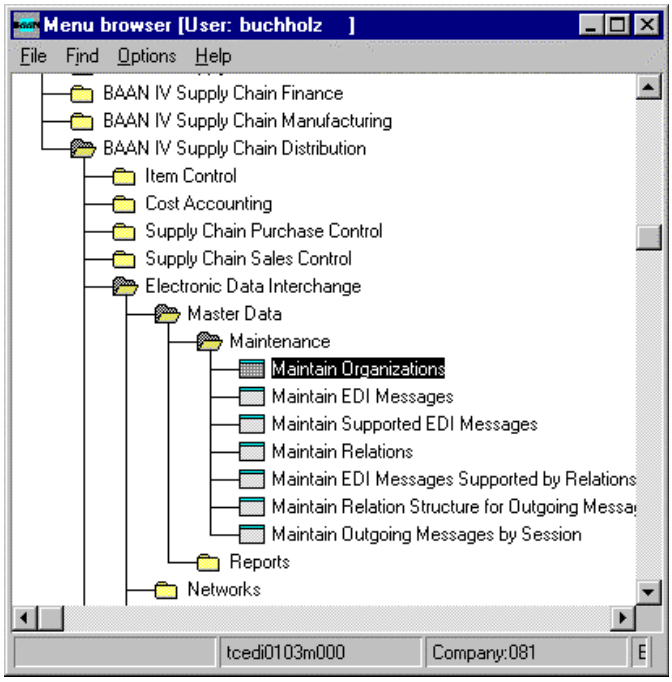
```
"SAX";...;"";...;"SAX_END"
```

Changing the Date Format

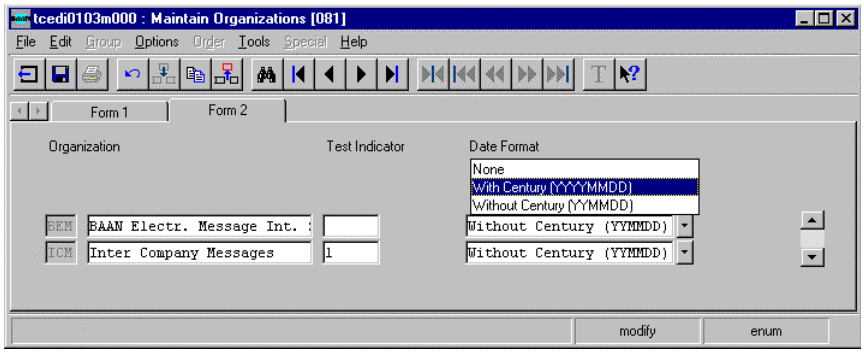
For the BAAN Versions b and c2/3 we have defined a date format using up to 6 numerical digits. Reading this definition, you will find out that the date format has been changed to 8 digits at maximum. With the BAAN Version BAAN IVC4 the delivered BEMIS default file the defaults.edi will be different in this point (in comparison to the versions delivered before). In BAAN EDI there is one global Parameter in order to send out date information including the two digits for the century.

The enclosed screen shots will show you where you will find the responsible parameter.

You have to choose the following menu option:



After you called the session tcedi0103m000 you will see that the entry for the dateformat on form two has been changed to “With Century (YYYYMMDD).



PLEASE NOTICE

If you use this option above the date format of every exported message will be changed to 8 digits! This means that the partner system (the translator software) has to able to translate each outgoing message comming with the changed date format!

Following the table overview, every BAAN field is described in a more detailed way, including information about the processing in the EDI subsystem and in BAAN IV.

Network directories

The so-called network directories form the basis of the communication between the EDI subsystem and BAAN IV. These directories are established in BAAN. The network basis directories for each network will be defined in the BAAN session tcedi0120m000. For the network BEMIS, the basis directories can be indicated in the following way:

/auto3/baanIV/bemis/sbi/

BAAN will additionally create the following subdirectories:

/auto3/baanIV/bemis/sbi/appl_from/
/auto3/baanIV/bemis/sbi/appl_to/
/auto3/baanIV/bemis/sbi/command/
/auto3/baanIV/bemis/sbi/store_recv/
/auto3/baanIV/bemis/sbi/store_sent/
/auto3/baanIV/bemis/sbi/trace/

The above directories have the following function:

- **.../appl_from/:** In this directory, BAAN IV records the outgoing messages which are the defined BEMIS in-house format files. The EDI subsystem can collect them from here.
- **.../appl_to/:** The EDI subsystem writes the incoming message into this directory in the BAAN IV in-house format.
- **.../command/:** Directory of the semaphores.
- **.../store_recv/:** BAAN IV stores in this directory processed incoming messages, if the configuration is appropriate. During this process an additional subdirectory by incoming message file will be created which is named with a date and time stamp indicating when the message was moved.
- **.../store_sent/:** BAAN IV stores in this directory processed outgoing messages if the configuration is appropriate. During this process an additional subdirectory by incoming message file will be created which is named with a date and time stamp indicating when the message was moved.
- **.../trace/:** BAAN creates under this directory a log of the incoming and outgoing messages in the processing order, if the configuration is appropriate.

The file name of the BEMIS in-house format file of the self-billed invoice, which is being described in this documentation, is defined in the following way:

Direction	File name	Network directory
incoming	SBI.IN	**../appl_to**

Changes in Comparison to Version 1.1.a

In comparison to Version 1.1.a new positions has been added to data record SA3. Furthermore please notice that the plant code in SA3 position 8 and the delivery point code in SA3 position 9 is now converted using the Code - and Conversion Table Tbtcedi310. Therefore the two BEMIS standard qualifier has to be defined in SA3:

SA3.22: Qualifier address code Constant DP

SA3.23: Qualifier address code Constant ZZ

SA3.24: The record end sign has been moved from position 22 to 24.

2 Data record description by record type

SA1 Self-billed invoice overhead

Status Mandatory
Frequency : Once by self-billed invoice, at least once by BEMIS in-house Format File
Description: This record type contains information about the transmitter, the type of the message and the time of the transmission. The message reference included contains all related records of this message.

SBI INHOUSE FORMAT					Map to Application Table Fields	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table Field**	**Action**
1	Record type	J	M	an3		
2	Message reference	J	M	an..14	tcedi702.bano	Generation by EDI subsystem
3	Network address customer	J	M	an..17	tcedi702.reno	Conversion (see below)
4	Message		M	an..6	tcedi702.mess	
5	Organization		M	an..6	tcedi702.orga	
6	Order Type		M	an..6	tcedi702.koor	(here " ")
7	Order Reference		M	an..14	tcedi702.msno	
8	Transmission date		M	n6	tcedi702.send	
9	Transmission time		M	n..4	tcedi702.sent	
10	Transmission reference number old		M	an..14	tcedi702.prno	
11	End of record marker		M	an7		

Detailed description of Self-Billed invoice incoming, record type SA1 Overhead

Position **1**	Field format	**an3**	Field status	**M**
Field name	**Record type**		(Key field)	

Description: This field identifies the record type in the message block. It contains the fixed value ‘SA1’.

Processing incoming

EDI subsystem: This field is filled with the fixed value ‘SA1’.

BAAN: None

Position **2**	Field format	**an..14**	Field status	**M**
Field name	**Message reference**		(Key field)	

Description: This field identifies all the data records connected with one self-billed invoice. The numbering, which has to be clear by self-billed invoice, helps to control the chronological order of the self-billed invoices and the complete transmission. The field consists of the current date (format: YYMMDD) and a serial number with four characters.

Processing incoming

EDI subsystem: The EDI subsystem generates this number to identify a self-billed invoice and writes it into all data records of an invoice.

BAAN: Map to BAAN table field tcedi702.bano.

Position **3**	Field format	**an..17**	Field status	**M**
Field name	**Network address customer**		Key field)	

Description:	This field contains the network address of the customer.
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	The corresponding business partner and network are determined on the basis of the network address in the BAAN table tcedi028 ‘Relations by network’. This business partner identification is mapped to the BAAN table field tcedi702.reno.

Position **4**	Field format	**an..6**	Field status	**M**
Field name	**Message**			

Description:	This field contains the code for the identification of the concerned message. The code for the message type ‘Self-billed invoice’ is SBI-IN.
Processing incoming	
EDI subsystem:	The field is filled with the fixed value ‘SBI-IN’.
BAAN:	The message code in the table tcedi001 ‘Supported EDI Messages’ determines, which internal message in BAAN is connected to this self-billed invoice. In the BAAN table tcedi005 ‘EDI Messages’ is determined for every message which session (DLL) is used in BAAN to process the invoice. The message code is mapped to the BAAN table field tcedi702.mess.

Position **5**	Field format	**an..6**	Field status	**M**
Field name	**Organization**			

Description:	This field contains the organization (standard) which is used for the EDI communication.
Processing incoming	
EDI subsystem:	The field is filled with the fixed value ‘BEMIS’.
BAAN:	Map to BAAN table field tcedi702.orga.
	The corresponding organization must have been entered into the BAAN table tcedi003.

Position **6**	Field format	**an..35**	**Field status**	**M**
Field name	**Order type**			

Description:	This field contains a code for the concerned order type.
Processing incoming	
EDI subsystem:	This field is filled with the value blank.
BAAN:	Map to BAAN table field tcedi702.koor.
	In the BAAN table tcedi200 there must be an entry for this order type in connection with the appropriate message and organization.

Position **7**	Field format	**an..14**	Field status	**M**
Field name	**Order reference**			

Description:	This field contains the transmission number that the transmitter applied to the order and included in the message.
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tcedi702.msno.

Position **8**	Field format **n6**	Field status **M**
Field name	**Transmission Date**	

Description: This field contains the date when the EDI subsystem received the message (format: YYMMDD).

Processing incoming

EDI subsystem: Entry of the arrival date of the message at the EDI subsystem.

BAAN: Map to BAAN table field tcedi702.send.

Position **9**	Field format **n..4**	Field status **M**
Field name	**Transmission Time**	

Description: This field contains the time when the EDI subsystem received the message (format: HHMM).

Processing incoming

EDI subsystem: Time of message at EDI subsystem.

BAAN: Map to BAAN table field tcedi702.sent.

Position **10**	Field format **an..14**	Field status **M**
Field name	**Transmission number old**	

Description: This field contains the order reference of the previous transmission.

Processing incoming

EDI subsystem: Transmission of value out of transmission file.

BAAN: Map to BAAN table field tcedi702.prno.

Position **11**	Field format **an7**	Field status **M**
Field name	**End of record marker**	

Description:	The field indicates the end of the record. It contains the fixed value ‘SA1_END’.
Processing incoming	
EDI subsystem:	The field is filled with the fixed value ‘SA1_END’.
BAAN:	None

SA2 Self-billed Invoice Header – *Gutschrift Kopfdaten*

Status: Mandatory

Frequency: Once by self-billed invoice number, at least once by BEMIS in-house format file

Description: This record type is used to transmit data in connection with self-billed invoices. The record type contains information about the customer and supplier, the VAT identification and the total of the VAT amount and of the final value of the self-billed invoice. This record type (self-billed invoice header) can be used in a BEMIS self-billed invoice file as often as there are self-billed invoices available. All data records up to the next data record of the type SA1 refer to the same self-billed invoice number.

SBI INHOUSE FORMAT					**Map to Application Table Fields**	
Pos	**FIELD Name**	**Key**	**ST**	**FM**	**Table Field**	**Action**
1	Record type	J	M	an3		
2	Message reference	J	M	an..14	tcedi702.bano	
3	Customer identification	J	M	an..17	tfsbi005.cuno	Conversion (see below)
4	Self-billed invoice number		M	an..20	tfsbi005.cinv	
5	VAT identification ship-to BP		C	an..20	tfsbi005.fovn	
6	VAT identification ship-from BP		C	an..20	tfsbi005.vatn	
7	Self-billed invoice date		M	n6	tfsbi005.dats	
8	Due date		M	n6	tfsbi005.dued	
9	Total discount amount (with value sign)		M	n..13	tfsbi005.disa	
10	Total VAT amount		M	n..13	tfsbi005.vata	
11	Total self-billed invoice amount (no discount)		M	n..13	tfsbi005.amts	
12	Currency		M	an..3	tfsbi005.curr	Conversion
12	Currency		M	an..3	tfsbi005.curr	Conversion
13	Self-billed invoice type code		M	n..2	tfsbi005.mode	0 = Self-billed invoice 1 = Adjustment invoice

14	Rate		C	n..14	tfsbi005.rats	
15	Payment type		C	an..3	tfsbi005.paym	
16	Accounts payable transaction number		C	an..30	tfsbi005.cacn	
17	Foreign currency		C	an..3	tfsbi005.fcrc	Conversion
18	Foreign currency rate		C	n..6	tfsbi005.frat	
19	End of record marker		M	an7		

Detailed description Self-Billed Invoice (incoming), record type SA2 Self-billed invoice header

Position **1**	Field format	**an3**	Field status	**M**
Field name	**Record type**		(Key field)	

Description: This field identifies the record type in the message block. It contains the fixed value ‘SA2’.

Processing incoming

EDI subsystem: This field is filled with the fixed value ‘SA2’.

BAAN: None

Position **2**	Field format	**an..14**	Field status	**M**
Field name	**Message reference**		(Key field)	

Description: This field identifies all connected data records of one self-billed invoice. The numbering, which has to be clear by self-billed invoice, helps to control the chronological order of the self-billed invoices and the complete transmission. The field consists of the current date (format: YYMMDD) and a serial number with four characters.

Processing incoming

EDI subsystem: The EDI subsystem generates this number to identify a self-billed invoice and writes it into all data records of an invoice.

BAAN: Map to BAAN table field tcedi702.bano.

Position **3**	Field format	**an..17**	Field status	**M**
Field name	**Customer identification**	(Key field)		

Description:	This field contains the network address of the customer.
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	The network address determines in the table tcedi028 'Relations by network' the corresponding business partner (customer) and network. The business partner identification is mapped to the BAAN table field tcedi702.reno.

Position **4**	Field format	**an..20**	Field status	**M**
Field name	**Self-billed invoice number**			

Description:	This field contains the identification that the customer applied to the self-billed invoice.
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	Map to BAAN table field tfsbi005.cinv.

Position **5**	Field format	**an..20**	Field status	**M**
Field name	**VAT identification ship-to business partner**			

Description:	This field contains the identification number of the national tax authority of the ship-to business partner.
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	Map to BAAN table field tfsbi005.fovn.

Position **6**	Field format	**an..20**	Field status	**M**
Field name	**VAT identification ship-from business partner**			

Description: This field contains the identification number of the national tax authority of the ship-from business partner.

Processing incoming

EDI subsystem: Transmission of value from message file.

BAAN: Map to BAAN table field tfsbi005.vatn.

Position **7**	Field format	**n6**	Field status	**M**
Field name	**Self-billed invoice date**			

Description: This field contains the date of the self-billed invoice.

Processing incoming

EDI subsystem: The field will be generated with the format YYMMDD.

BAAN: Map to BAAN table field tfsbi005.dats.

Position **8**	Field format	**n6**	Field status	**M**
Field name	**Due date**			

Description: This field contains the due date for the payment.

Processing incoming

EDI subsystem: The field will be generated with the format YYMMDD.

BAAN: Map to BAAN table field tfsbi005.dued.

Position **9**	Field format	**n..13**	**Field status**	**M**
Field name	**Total discount amount**			

Description: This field contains the total discount amount of the self-billed invoice (format: *`NNNNNNNNNNN.NN´*).

Processing incoming

EDI subsystem: Transmission of the value from the transmission file, adding the corresponding value sign.

BAAN: Map to BAAN table field tfsbi005.disa.

Position **10**	Field format	**n..13**	Field status	**M**
Field name	**Total VAT amount**			

Description: This field contains the total VAT amount of the self-billed invoice (format: *`NNNNNNNNNNN.NN´*).

Processing incoming

EDI subsystem: Transmission of the value from the transmission file.

BAAN: Map to BAAN table field tfsbi005.vata.

Position **11**	Field format	**n..13**	Field status	**M**
Field name	**Total self-billed invoice amount (no discount)**			

Description: This field contains the total amount of all self-billed invoice lines (format: *`NNNNNNNNNNN.NN´)*.

Processing incoming

EDI subsystem: Transmission of the value out of the transmission file, adding the corresponding value sign.

BAAN: Map to BAAN table field tfsbi005.amts.

Position **12**	Field format	**an..3**	Field status	**M**
Field name	**Currency**			

Description: This field indicates the currency of the total self-billed invoice amount. Refer to ISO4217 for the currency codes (for example, DEM for German mark).

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi005.ccur. Conversion in BAAN-specific currency description using the code and conversion table in the session tcedi3124m000 “Maintain Conversion of Currency Codes (in)“.

Position **13**	Field format	**n..2**	Field status	**M**
Field name	**Self-billed invoice types code**			

Description: This field contains the code for the self-billed invoice types

0 = Self-billed invoice
1 = Adjustment invoice

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi005.mode and verification of self-billed invoice types 0 and 1.

Position **14**	Field format	**n..14**	Field status	**C**
Field name	**Rate**			

Description: This field indicates the rate of the self-billed invoice (format: *`NNNNNNNN.NNNNNN´).*

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi005.rats.

Position **15**	Field format **an..3**	Field status **C**
Field name	**Payment type**	

Description: This field contains the encoded payment type which is defined as follows:

0 = not yet defined
1 = check
2 = bank order
3 = bill of exchange
4 = check / bill of exchange
5 = clearing customer
6 = electronic bill of exchange

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi005.paym.

Position **16**	Field format **an..30**	Field status **C**
Field name	**Accounts payable transaction number**	

Description: This field contains the identification number that is assigned to the transaction.

Processing incoming

BAAN: Transmission of value from transmission file.

EDI subsystem: Map to BAAN table field tfsbi005.cacn.

Position **17**	Field format **an..3**	Field status **C**
Field name	**Foreign currency**	

Description:	This field contains the code for the foreign currency. Refer to ISO4217 for the currency codes (for example DEM for German mark).
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tfsbi005.fcur. Conversion into BAAN-specific currency description using the code and conversion table in the session tcedi3124m000 Maintain Conversion of Currency Codes (in).

Position **18**	Field format **n..6**	Field status **C**
Field name	**Foreign currency rate**	

Description:	This field contains the foreign currency rate (format: *`NNNN.NN´*).
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tfsbi005.frat.

Position **19**	Field format **an7**	Field status **M**
Field name	**End of record marker**	

Description:	The field indicates the end of the record. It contains the fixed value ‘SA2_END’.
Processing incoming	
EDI subsystem:	The field is filled with the fixed value ‘SA2_END’.
BAAN:	None

SA3 Self-billed Invoice Lines – *Gutschrift Positionsdaten*

Status: Mandatory
Frequency : At least once by self-billed invoice
Description: This record type supports the transmission of the self-billed invoice lines. In BEMIS, a self-billed invoice line contains the shipping note data and shipping note position data of a self-billed invoice message according to VDA 4908 on the ODETTE Invoice.

SBI INHOUSE FORMAT					**Map to Application Table Fields)**	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table Field**	**Action**
1	Record type	J	M	an3		Constant value 'SA3'
2	Message reference	J	M	an..14	tcedi702.bano	
3	Customer identification	J	M	an..17	tfsbi005.cuno	Conversion (see below)
4	Self-billed invoice number	J	M	an..20	tfsbi005.cinv	
5	Shipping note number / Mais Pick Up Number		M	an..35	tfsbi006.ides and tfsbi006.dino and tfsbi006.dref	
6	Customer's item number		M	an..35	tfsbi006.cpno and tfsbi006.item	Conversion
7	Qualifier for item ID		M	an2		'SA' must have been entered into message
8	Plant		M	an..35	tfsbi006.plnt	
9	Final delivery point		C	an..35	tfsbi006.delp	
10	Order number		C	an..12	tfsbi006.cono	
11	Transmission date		M	n6	tfsbi006.ddat	
12	Quantity unit		M	an..3	tfsbi006.cuqs	Conversion
13	Shipped quantity		M	n..12	tfsbi006.quar	
14	Price unit		M	n..16	tfsbi006.tprs	

15	Unit price		M	n..13	tfsbi006.spri	
16	Total price including surcharges		M	n..13	tfsbi006.amts	
17	Discount amount		M	n..13	tfsbi006.disa	
18	VAT tariff		M	n..13	tfsbi006.pvat and Tfsbi006.cvat	Conversion
19	Qualifier VAT-ID		M	an3		'GUT' must have been entered into message
20	Constant value for transaction type		M	an3		'01' must have been entered into message
21	Total VAT amount		M	n..13	tfsbi006.vata	
22	Qualifier address code		M	an2	DP	
23	Qualifier address type		M	an2	ZZ	
24	End of record marker		M	an7		Constant value 'SA3_END'

Detailed description of Self-billed Invoice (incoming), record type SA3 Self-billed invoice lines

Position **1**	Field format	**an3**	Field status	**M**
Field name	**Record type**		(Key field)	

Description: This field identifies the record type in the message block. It contains the fixed value 'SA3'.

Processing incoming

EDI subsystem: This field is filled with the fixed value 'SA3'.

BAAN: None

Position **2**	Field format **an..14**	Field status **M**
Field name	**Message reference**	(Key field)

Description: This field identifies all connected data records of one self-billed invoice. The numbering, which has to be clear by self-billed invoice, helps to control the chronological order of the self-billed invoices and the complete transmission. The field consists of the current date (format: YYMMDD) and a serial number with four characters.

Processing incoming

EDI subsystem: The EDI subsystem generates this number to identify a self-billed invoice and writes it into all data records of an invoice.

BAAN: Map to BAAN table field tcedi702.bano.

Position **3**	Field format **an..17**	Field status **M**
Field name	**Customer identification**	Key field)

Description: This field contains the network address of the customer.

Processing incoming

EDI subsystem: Transmission of value from message file.

BAAN: The network address determines in the table tcedi028 ‘Relations by network’ the corresponding business partner (customer) and network. The business partner identification is mapped to the BAAN table field tcedi702.reno.

Position **4**	Field format **an..20**	Field status **M**
Field name	**Self-billed invoice number**	(Key field)

Description: This field contains the identification number that the customer applied to a self-billed invoice.

Processing incoming

EDI subsystem: Transmission of value from message file.

BAAN: Map to BAAN table field tfsbi005.cinv.

Position **5**	Field format **an..35**	Field status **M**
Field name	**Shipping note number / Mais Pick Up Number**	

Description:	This field contains the shipping note number that the supplier applied to a shipping note.
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	Map to BAAN table fields TFtfsbi006.ides and tfsbi006.dino. Using MAIS processing the number is mapped to tfsbi006.dref.

Position **6**	Field format **an..35**	Field status **M**
Field name	**Customer's item number**	

Description:	This field contains the identification number which the customer applied to an item (customer's item number).
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	BAAN maps the field to tfsbi006.cpno. The system then reads the field again. The conversion tables for the item numbers are stored in the BAAN table tcedi306 under the business partner and the organization of record type SA1 and the *item group ID*. The incoming item number of the customer will be converted to the BAAN internal item number and mapped to the field TFtfsbi006.item.

Position **7**	Field format **an2**	Field status **M**
Field name	**Qualifier item number**	

Description: This field contains the qualifier item number for the determination of the item number on the basis of the customer's item number in position 6. It must contain the fixed value 'SA' ('SA' = customer's item number).

Processing incoming

EDI subsystem: The field has to be filled with the fixed value 'SA'.

BAAN: The qualifier must have been entered in the BAAN table tcedi232 (item code group). It will be taken into account for the determination of the BAAN internal item number on the basis of the item number in position 6.

Position **8**	Field format **an..35**	Field status **M**
Field name	**Plant customer**	

Description: This code contains the code for the plant of the customer.

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN Map to BAAN table field tfsbi006.plnt.

Position **9**	Field format	**an..35**	Field status	**C**
Field name	**Final delivery point**			

Description:	Description of the final delivery point of the customer's plant.
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tfsbi006.delp. The conversion tables for the address codes can be found in the BAAN table tcedi310 under the business partner and the *Organization* from data record SA1 and the *Address code-ID* from data record SA3. The BAAN internal address code is determined in this BAAN table and mapped to the BAAN table field TFtdssc013.cdel. The related DLL use the combination of SA3.8 and SA3.9 to convert these codes in the message to determine the code for the delivery address.

Position **10**	Field format	**an..12**	Field status	**C**
Field name	**Order number**			

Description:	This field contains the identification number that the customer applied to the order or a contract.
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tfsbi006.cono.

Position **11**	Field format	**n6**	Field status	**M**
Field name	**Shipping date**			

Description: This field contains the shipping date (format: YYMMDD).

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi006.ddat.

Position **12**	Field format	**an..3**	Field status	**M**
Field name	**Quantity unit**			

Description: This field contains the unit of the delivered quantity. The encoding was carried out according to ODDC 25.

Millimeter	MMT
Centimeter	CMT
Meter	MTR
Kilometer	KMT
Square millimeter	MMK
Square centimeter	CMK
Square meter	MTK
Cubic millimeter	MMQ
Cubic centimeter	CMQ
Cubic meter	MTQ
Liter	DMQ
Gram	GRM
Kilogram	KGM
Metric ton	TON
Piece	PCE

If you want to transmit additional units of measurement, enter them in the session tcedi2130m000 ‘Maintain units’ for the company **BEM**.

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi006.cuqs. Conversion of code in message into the BAAN internal unit codes using the code and conversion tables in the session tcedi3104m000 Maintain Conversion of Unit Codes (in).

Position **13**	Field format	**n..12**	Field status	**M**
Field name	**Shipped quantity**			

Description: This field contains the quantity that the supplier entered in the shipping note (format: *'NNNNNNNN.NNNN'*).

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi006.quar.

Position **14**	Field format	**n..16**	Field status	**M**
Field name	**Price unit**			

Description: This field contains the price unit of the delivered item (format: *'NNNNNNNNN.NNNNNNNN'*).

Processing incoming

EDI subsystem: The EDI subsystem transmits the converted code of the price unit to BAAN. For example, for the code 02 the value 100 will be written into the BEMIS in-house format file. That means:

- for the code in the message 01 BAAN expects the value 1
- for the code in the message 02 BAAN expects the value 100
- for the code in the message 03 BAAN expects the value 1000

for the code in the message 01 BAAN expects by displayed shipped quantity (BEMIS: SA3.13)

BAAN: Map to BAAN table field tfsbi006.tprs.

Position **15**	Field format	**n..13**	Field status	**M**
Field name	**Price unit**			

Description:	This field contains the net price without VAT (format: *'NNNNNNNNNN.NN'*).
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tfsbi006.tprs.

Position **16**	Field format	**n..13**	Field status	**M**
Field name	**Total price including surcharges**			

Description:	This field contains the total amount of the shipped quantity and price unit including surcharges, but without VAT (format: *'NNNNNNNNNN.NN'*).
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tfsbi006.amts.

Position **17**	Field format	**n..13**	Field status	**M**
Field name	**Discount amount**			

Description:	This field contains the discount amount which the customer calculated = Total price x discount percentage / 100 (format: *'NNNNNNNNNN.NN'*)
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tfsbi006.disa.

Position **18**	Field format	**n..13**	Field status	**M**
Field name	**VAT tariff**			

Description: This field contains the VAT tariff referring to the line of the shipping note (format: '*NNNNNNNNNNN.NN*').

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi006.pvat.

Position **19**	Field format	**an3**	Field status	**M**
Field name	**Qualifier VAT tariff ID**			

Description: This field contains the qualifier VAT tariff ID for the determination of the VAT tariff.

Processing incoming

EDI subsystem: The field is filled with the fixed value 'GUT'.

BAAN: The qualifier must have been created in the BAAN session Maintain Tax Code Ids (tcedi2140m000) and mapped to the corresponding code of the application in the session Maintain Conversion of Tax Codes (in) (tcedi3108m000).

Position **20**	Field format	**an2**	Field status	**M**
Field name	**Constant value for the transaction key**			

Description: This field contains the transaction key.

Processing incoming

EDI subsystem: The field is filled with the fixed value '01'.

BAAN:

Position **21**	Field format **n..13**	Field status **M**
Field name	**Total VAT amount**	

Description: This field contains the total VAT amount for the shipping notification (format: *'NNNNNNNNNNN.NN'*)

Processing incoming

EDI subsystem: Transmission of value from transmission file.

BAAN: Map to BAAN table field tfsbi006.vata.

Position **22**	Field format **an2**	Field status **M**
Field name	**Qualifier address code**	

Description: This field contains the qualifier address code which is used to determine the delivery address from the value in position 8. This position must be filled with the fixed value 'DP'.

Processing incoming

EDI subsystem: This field is filled with the fixed value 'DP'.

BAAN: The qualifier must have been entered in the BAAN table TBtcedi218 (Address code IDs). It is taken into account when the BAAN internal delivery address code is determined from the value in position 8.

Position **23**	Field format **an2**	Field status **M**
Field name	**Qualifier address type**	

Description: This field contains the qualifier address type which is used to determine the delivery address from the value in position 8. This position must be filled with the fixed value 'ZZ'.

Processing incoming

EDI subsystem: This field is filled with the fixed value 'ZZ'.

BAAN: The qualifier must have been entered in the BAAN table TBtcedi224 (Address types). It is taken into account when the BAAN internal delivery address code is determined from the value in position 8.

Position **24**	Field format **an7**	Field status **M**
Field name	**End of record marker**	

Description:	This field indicates the end of the data record. It contains the fixed value ‘SA3_END’.
Processing incoming EDI subsystem:	This field is filled with the fixed value ‘SA3_END’.
BAAN:	None

SA4 Self-billed Invoice Surcharges by Line – *zu-/abschläge*

Status: Conditional
Frequency : n-times by record type SA3
Description: This record type supports the transmission of self-billed invoice surcharges by line.

SBI INHOUSE FORMAT					Map to Application Table Fields	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table Field**	**Action**
1	Record type (*Satzart*)	J	M	an3		Constant value 'SA4'
2	Message reference (*Nachrichtenreferenz*)	J	M	an..14	tcedi702.bano	
3	Customer identification (*Identifikation Kunde*)	J	M	an..17	tfsbi005.cuno	Conversion (see below)
4	Self-billed invoice number (*Gutschriftanzeigenummer*)	J	M	an..20	tfsbi005.cinv	
5	Shipping note number / Mais Pick Up Number	J	M	n..9	tfsbi006.ides and tfsbi006.dino tfsbi006.dref	
6	Customer's item number (*Teilenummer des Kunden*)	J	M	an..35	tfsbi006.cpno	Conversion
7	Code surcharges (*Schlüssel Zu-/Abschlag*)		M	an..20	tfsbi007.surc	
8	Surcharges amount (*Betrag Zu-/Abschlag*)		M	n..13	Tfsbi007.amnt	
9	End of record marker (*Satzendekennung*)		M	an7		Constant value 'SA4_END'

Detailed description of Self-billed Invoice (incoming), record type SA4 Self-Billed Invoice Surcharges by Line

Position **1**	Field format	**an3**	Field status	**M**
Field name	**Record type**		(Key field)	

Description: This field identifies the record type in the message block. It contains the fixed value ‘SA4’.

Processing incoming

EDI subsystem: This field is filled with the fixed value ‘SA4’.

BAAN: None

Position **2**	Field format	**an..14**	Field status	**M**
Field name	**Message reference**		(Key field)	

Description: This field identifies all connected data records of one self-billed invoice. The numbering, which has to be clear by self-billed invoice, helps to control the chronological order of the self-billed invoices and the complete transmission. The field consists of the current date (format: YYMMDD) and a serial number with six characters.

Processing incoming

EDI subsystem: The EDI subsystem generates this number to identify a self-billed invoice and writes it into all data records of an invoice.

BAAN: Map to BAAN table field tcedi702.bano.

Position **3**	Field format **an..17**	Field status **M**
Field name	**Customer identification**	(Key field)

Description:	This field contains the network address of the customer.
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	The network address determines in the table Relations by network (tcedi028) the corresponding business partner (customer) and network. The business partner identification is mapped to the BAAN table field tcedi702.reno.

Position **4**	Field format **an..20**	Field status **M**
Field name	**Self-billed invoice number**	(Key field)

Description:	This field contains the identification number that the customer applied to the created self-billed invoice.
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	Map to BAAN table field tfsbi005.cinv.

Position **5**	Field format **an..35**	Field status **M**
Field name	**Shipping note number / Mais Pick Up Number** (Key field)	

Description:	This field contains the identification number that the supplier applied to the shipping note.
Processing incoming	
EDI subsystem:	Transmission of value from message file.
BAAN:	Map to BAAN table fields TFtfsbi006.ides and tfsbi006.dino. Using MAIS processing the number is mapped to tfsbi006.dref.

Position **6**	Field format **an..35**	Field status **M**
Field name	**Customer's item number**	(Key field)

Description: This field contains the identification number which the customer applied to the item (customer's item number).

Processing incoming

EDI subsystem: Transmission of value from message file.

BAAN: BAAN maps the field to tfsbi006.cpno. The system afterwards reads the field again. The conversion tables for the item numbers are stored in the BAAN table tcedi306 under the business partner and the organization of record type SA1 and the *item group ID*. The incoming item number of the customer will be converted to the BAAN internal item number and mapped to the field TFtfsbi006.item.

Position **7**	Field format **an.20**	Field status **M**
Field name	**Code surcharges**	

Description: This field contains the code for the surcharges according to VDA:

01 = packing (*Verpackung*),
02 = freight (*Fracht*),
03 = material control surcharge (*Materialsteuerungszuschlag MTZ*),
99 = other (*Sonstiges*)

Processing incoming

EDI subsystem: Transmission of value from message file.

BAAN: Map to BAAN table field tfsbi006.surc.

Position **8**	Field format **n..13**	Field status **M**
Field name	**Surcharges amount**	

Description:	This field contains the amount of the surcharges of the self-billed invoice code = ‘0’, discrepancy of the surcharges “old”, “new” if self-billed invoice code = ‘1’ (format: *‘NNNNNNNNNN.NN’*).
Processing incoming	
EDI subsystem:	Transmission of value from transmission file.
BAAN:	Map to BAAN table field tfsbi006.amnt.

Position **9**	Field format **an7**	Field status **M**
Field name	**End of record marker**	

Description:	This field indicates the end of the data record. It contains the fixed value ‘SA4_END’.
Processing incoming	
EDI subsystem:	This field is filled with the fixed value ‘SA4_END’.
BAAN:	None

3 Sample files

"SA1";"97111700010001";"TEST";"SBI-IN";"BEMIS";"
";"00007";971117;1739;"00006";"SA1_END"

"SA2";"97111700010001";"TEST";"1601413";"DE811163876";"DE811111210"
;950123;950131;0;267.3;2049.3;"DEM";0;0;"";" ";"";0;"SA2_END"

"SA3";"97111700010001";"TEST";"1601413";628784;"090502286";"SA";"06";
"";"X60755401";950112;"PCE";400;2;198;792;0;15;"GUT";"01";118.8;"SA3_E
ND"

"SA3";"97111700010001";"TEST";"1601413";629096;"090502286";"SA";"06";
"";"X60755401";950113;"PCE";500;2;198;990;0;15;"GUT";"01";148.5;"SA3_E
ND"

"SA4";"97111700010002";"TEST";"1601413";629096;"090502286";"1";901.23;
"SA4_END"

"SA4";"97111700010002";"TEST";"1601413";629096;"090502286";"2";2.34;"S
A4_END"

"SA1";"97111700010002";"TEST";"SBI-IN";"BEMIS";" ";" ";971117;1739;"
";"SA1_END"

"SA2";"97111700010002";"TEST";"1601414";"DE811163876";"DE811111210"
;950123;950215;0;386.1;2960.1;"DEM";0;0;"";" ";"";0;"SA2_END"

"SA3";"97111700010002";"TEST";"1601414";629726;"090502286";"SA";"06";
"";"X60755401";950116;"PCE";400;2;198;792;0;15;"GUT";"01";118.8;"SA3_E
ND"

"SA3";"97111700010002";"TEST";"1601414";630066;"090502286";"SA";"06";
"";"X60755401";950117;"PCE";500;2;198;990;0;15;"GUT";"01";148.5;"SA3_E
ND"

"SA3";"97111700010002";"TEST";"1601414";630549;"090502286";"SA";"06";
"";"X60755401";950118;"PCE";400;2;198;792;0;15;"GUT";"01";118.8;"SA3_E
ND"

4 Glossary of terms and abbreviations

ABRUF	Schedule
Appl	Application
ANSI	American National Standards Organization
BEM	Baan Electronic Message - abbreviated form of BEMIS used with the definition of the EDI organization
BEMIS	Baan Electronic Message Interchange System
Business partner (BP)	Customer or supplier
C	Conditional, that is, optional message
defaults.edi	Export file detailing master EDI data
DELINS	Odette Delivery Instruction (Schedule)
EDI	Electronic Data Interchange; electronic exchange of documents in standard formats
EDIFACT	Electronic Data Exchange For Administration, Commerce and Transport. An ISO standard.
ELP	External Logistic partner
evaluation expression	If statement in the conversion setup for outgoing messages
ISO	International Standards Organization
ISO 4217	Code table
M	Mandatory (compulsory) message
MAIS	General Motor's interpretation of the subset of EDIFACT DELJIT Message
Messg	Message
Network address	Folder (directory) path on network
ODDC	Odette Code Table
ODDC25	Odette Code Table 25
ODETTE	European standard for electronic data exchange
Org	Organization, that is, system
SCH	Supply Chain
Semaphore	Method to show a status using files with zero length
Translation	Conversion of one data format to another, for example Baan in-house data format to ODETTE

VAT	Value Added Tax (tax on turnover; sales tax)
VDA	Standard used for electronic data exchange in Germany
X12	Standard used for electronic data exchange in the United States