BAAN IVc3scc1

Definition of BEMIS 1.0.a Import and Export File for the Message Type 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 appropriate EDI subsystem.

The documentation is intended for developers of EDI subsystems who want to make an interface with BAAN IV. Furthermore, this documentation helps consultants who want to implement an interface on this basis, to check the correct data contents of the transmission files. Important fields are identified with both the English and German terms, to assist German-language speakers using this documentation. This documentation describes the EDI message *Invoices (incoming/outgoing)*.

Chapter 1 describes the structure of the interface file, the different record types within the file and the used key fields.

Chapter 2 details single record type of the message. This chapter contains an overview table with the corresponding BAAN table fields. In addition, every single field is described in more detail.

1 Introduction

This section details the BAAN electronic message in-house format “Invoices”.

Available record types of the message type invoice

The use of the following record types is conditional (C) or mandatory (M), when you transmit invoice information by means of the message VDA 4906 (Remote transmission of invoices*: Datenfernübertragung von Rechnungen*).

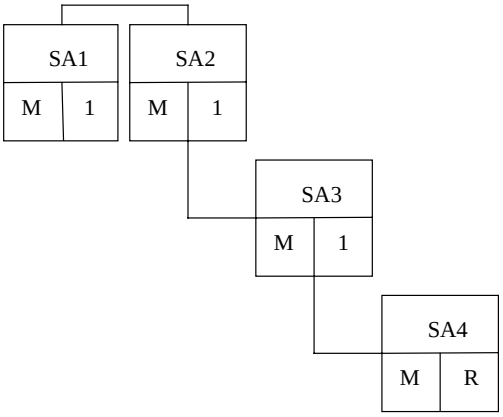
The invoice message (in-house format) consists of the following records:

ID	Status	Name
SA1	M	Invoice Overhead
SA2	M	Invoice Header
SA3	C	Shipping Note Header
SA4	M	Invoice Position

Structure of the invoice message (in-house format)

The branching diagram below shows the structure of the message. It indicates the hierarchical relationship between segments. A segment is a set of functionally-related BAAN tables.

Level	Record ID	Status	Name
1	SA1	M/1	Invoice Overhead
2	SA2	M/1	Invoice Header
3	SA3	M/R	Shipping Note *Header*
4	SA4	M/R	Invoice Position



Legend:

Status:	Frequency:
M: mandatory message	1: once in message
C: conditional message	R: repeatable in message

Figure 1, Branching diagram

For example, for two invoices of one supplier and one customer, the BEMIS file has the following structure:

```
SA1 ...                 BAAN IV Overhead
SA2 ...                 Invoice header
SA3 ...                 Shipping note header
SA4 ...                 Invoice position
SA4 ...                 Invoice position
....

SA4 ...


SA1 ...                 BAAN IV Overhead
SA2 ...                 Invoice header
SA3                     Shipping note header
SA4 ...                 Invoice position
SA4 ...                 Invoice position
....
SA4 ...
```

Invoice – Key fields

The following structure of the key fields is used to determine the related records of an invoice:

Record type	Key field 1	Key field 2	Key field 3	Key field 4
SA1	Message reference			
SA2	Message reference	Identification supplier		
SA3	Message reference	Identification supplier	Invoice number	Shipping note number
SA4	Message reference	Identification supplier	Invoice number	Shipping note number

Network directories

The network directories (folders) 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 is defined in the BAAN session tcedi0120m000. For the network BEMIS, the basis directories can be indicated in the following way:

/auto3/baanIV/bemis/invoice

BAAN will also create the following subdirectories:

/auto3/baanIV/bemis/invoice/appl_from/
/auto3/baanIV/bems/invoice/appl_to/
/auto3/baanIV/bemis/invoice/command/
/auto3/baanIV/bemis/invoice/store_recv/
/auto3/baanIV/bemis/invoice/store_sent/
/auto3/baanIV/bemis/invoice/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 correct. During this process an additional subdirectory by incoming message file is 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 correct. During this process an additional subdirectory by outgoing message file is 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 correct.

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

Direction	File name	Network directory
outgoing	RECHNUNG.OUT	**../appl_from**
incoming	RECHNUNG.IN	**../appl_to**

Invoice - Conventions

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

- The length of a record can vary
- The message record must consist of all fields, even if not every field contains a value
- The fields in the file are to be separated by a semicolon (;)
- The text values of the fields have to be put in inverted commas (“”)
- The numerical values must not be put in inverted commas (“”)
- Every message record starts with “SAx“.
- Every message record ends with “SAx_END“.

In the following sections you will find the format descriptions for the individual record types of the BEMIS in-house format file. The tables contain the following data:

INVOICE IN-HOUSE 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 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 digits
n1	numerical field with exactly 1 digit

alphanumerical and date fields have to be put into inverted commas (“....“)

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“ is written into the BEMIS message file.

On the outgoing side numerical fields with decimal places is used 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‘ is indicated as 13.

Map from Application Table field s (Outgoing)	
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 are taken during the processing of the messages.

Mapping in Application Table field s (Incoming)	
Table field	Action

The third block of the table describes the corresponding table field for incoming messages in BAAN IV as well as the possible special actions, which are 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

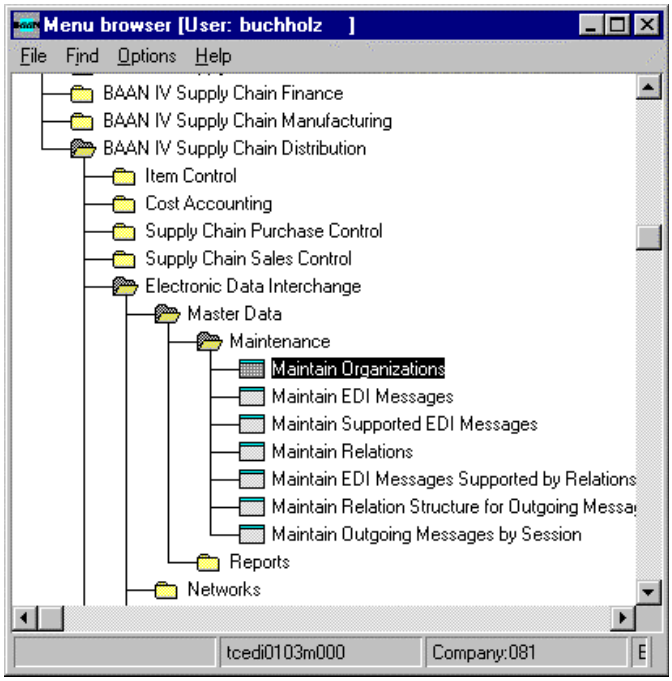
```
"SAX";...;"";...;"SAX_END"
```

Changing the Date Format

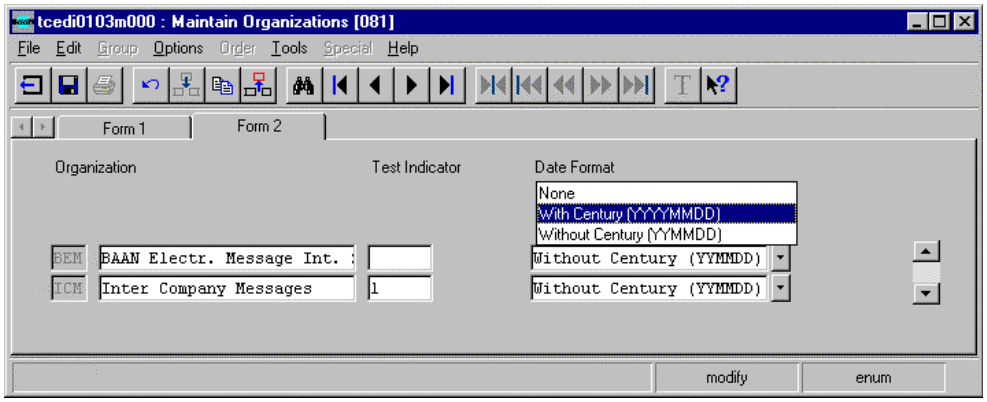
For the BAAN Versions b and c2/3 we have defined a date format using up to 6 numerical digits. Reading this definition, you will find out that the date format has been changed to 8 digits at maximum. With the BAAN Version BAAN IVC4 the delivered BEMIS default file the defaults.edi will be different in 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.

2 Invoice – Record description

This chapter describes the record types that are used in the BAAN standard in-house message format for outgoing invoices according to VDA 4906.

SA1 Message Overhead

Status : Mandatory
Frequency : Once by transmission
Description: This record supports the unambiguous identification of the whole message.

INVOICE IN-HOUSE FORMAT					Map from Application Table fields (out)		Map to Application Fields (in)	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table field**	**Action**	**Table field**	**Action**
1	Record type	O/I	M	an3	SA1		SA1	
2	Message reference	O/I	M	an..14	tcedi701.bano	Generation (see below)	tcedi702.bano	Generation by EDI subsystem
3	Network address customer		M	an..17	tcedi028.neta	Conversion (see below)	tcedi702.reno	Conversion (see below)
4	Network address supplier		M	an..17	tcedi020.neta	Conversion (see below)	empty	
5	Message		M	an..6	tcedi001.code	Conversion (see below)	tcedi702.mess	Conversion (see below)
6	Organization		M	an..6	tcedi003.code	Conversion (see below)	tcedi702.orga	Conversion (see below)
7	Order type		M	an..35	tcedi011.koor	Conversion (see below)	tcedi702.koor	Conversion (see below)
8	Order reference		M	an..35	empty	here (...;"";...)	tcedi702.msno	Conversion (see below)
9	Transmission date		M	n..8	current date		tcedi702.send	
10	Transmission time		M	n..4	current time		tcedi702.sent	
11	Transmission number old		M	an..14	empty	here (...;"";...)	tcedi702.prno	
12	End of record marker		M	an7	SA1_END		SA1_END	

Detailed description of Invoice, record type SA1 Overhead

Position	**1**	Field format	**an3**	Field Status	**M**
Field name		**Record type**		(Key field out/in)	

Description:	This field identifies the record type in the message block. It contains the fixed value ‘SA1’.
Processing outgoing	
EDI subsystem:	
BAAN:	Field is filled with fixed value ‘SA1’.
Processing incoming	
EDI subsystem:	Field is filled with fixed value ‘SA1’.
BAAN:	None

Position	**2**	Field format	**an..14**	Field Status	**M**
Field name		**Message reference**		(Key field out/in)	

Description:	This field identifies all related records of one invoice. The numbering of the message reference, which has to be unambiguous by invoice, helps to control the chronological order of the invoices and the complete transmission. The field consists of a fix part with four characters, the current date (format: YYMMDD) and a serial number with four characters. The special format is defined in the network parameters in the BAAN table tcedi020. When generating the message reference with the EDI subsystem, the created message reference needs to be specific, that is unique. While storing the message reference BAAN checks whether it is specific.
Processing outgoing	
EDI subsystem:	
BAAN:	BAAN generates this number to identify an invoice, stores it in tcedi701.bano and writes it into all records of an invoice.

Processing incoming

EDI subsystem: The EDI subsystem generates this number to identify an invoice and writes it into all 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**			

Description: This field contains on the outgoing side our identification (customer) in the network.

Processing outgoing

EDI subsystem:

BAAN: The identification of the customer in the used network is stored in the table tcedi020 ‘Networks‘. The BAAN table field tcedi028.neta is mapped to this position.

Processing incoming

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

BAAN: On the incoming side this field will be ignored.

Position	**4**	Field format	**an..17**	Field Status	**M**
Field name		**Network address supplier**		(Key field)	

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

Processing outgoing

EDI subsystem: None

BAAN: The network address is stored in the BAAN table tcedi028 ‘Relations by network’ under the corresponding business partner (supplier) and the corresponding network in the BAAN field tcedi028.neta. The contents of this field is mapped to the position of the transmission file.

Processing incoming

EDI subsystem: None

BAAN: This field will not be used.

Position	**5**	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 of the message type shipment notification is ‘RECHNU‘.
Processing outgoing	
EDI subsystem:	
BAAN:	The internal message code tcedi001.code ‘RECHNU’ of the BAAN table tcedi001 ‘Supported EDI Messages’ is mapped to this position.
Processing incoming	
EDI subsystem:	This field is filled with the fixed value ‘RECHNU’.
BAAN:	The message code in the BAAN table tcedi001 ‘Supported EDI Messages’ determines, which internal message is connected to this BEMIS invoice. In the BAAN table tcedi005 ‘EDI Messages’ is determined for every message, which session (DLL) is used in BAAN to process the BEMIS invoice. The message code is mapped to the BAAN table field tcedi702.mess.

Position	**6**	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 outgoing	
EDI subsystem:	
BAAN:	The internal organization code tcedi003.code ‘BEMIS’ from the BAAN table tcedi003 ‘Organizations’ is mapped to this position.
Processing incoming	
EDI subsystem:	This field is filled with the fixed value ‘BEMIS’.
BAAN:	Map to BAAN field tcedi702.orga. The corresponding organization must have been entered into the BAAN table tcedi003.

Position	**7**	Field format	**an..35**	**Field Status**	**M**
Field name		**Order type**			

Description:	This field contains a code for the concerned order type.
Processing outgoing	
EDI subsystem:	
BAAN:	In BAAN table tcedi011 there must be an entry for this order type in connection with the message and organization. The BAAN table field tcedi011.koor is mapped to this position. It contains blanks.
Processing incoming	
EDI subsystem:	The value blank is entered into this field.
BAAN:	Map to BAAN table field tcedi702.koor. In BAAN table tcedi200 there must be an entry for this order type in connection with the message and organization.

Position	**8**	Field format	**an..35**	**Field Status**	**M**
Field name		**Order reference**			

Description:	This field contains a code for the order reference.
Processing outgoing	
EDI subsystem:	
BAAN:	This position is filled with ‘0’.
Processing incoming	
EDI subsystem:	Transmission of the value from the transmission file.
BAAN:	Map to BAAN table field tcedi702.msno.

Position	**9**	Field format	**n..8**	Field Status	**M**
Field name		**Transmission date**			

Description:	This field contains on the outgoing side the current date, on which the invoice was created. On the incoming side, this field contains the arrival date of the invoice at the EDI subsystem (format: YYYYMMDD).
Processing outgoing	
EDI subsystem:	
BAAN:	Map the current date to the position.
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	**10**	Field format	**n..4**	Field Status	**M**
Field name		**Transmission time**			

Description:	This field contains on the outgoing side the time, when the invoice was created. On the incoming side, the field contains the arrival time of the invoice at the EDI subsystem (format: HHMM).
Processing outgoing	
EDI subsystem:	
BAAN:	Map the current time to the position.
Processing incoming	
EDI subsystem:	Entry of the arrival time of the message at the EDI subsystem.
BAAN:	Map to BAAN table field tcedi702.send.

Position	**11**	Field format	**an..14**	Field Status	**M**
Field name		**Transmission number old**			

Description:	This field contains the reference number of the previous transmission.
Processing outgoing	
EDI subsystem:	
BAAN:	The position will not be filled.
Processing incoming	
EDI subsystem:	Transmission of the value from the transmission file.
BAAN:	Map to BAAN table field tcedi702.prno.

Position	**12**	Field format	**an7**	Field Status	**M**
Field name		**End of record marker**			

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

SA2 Invoice header

Status : Mandatory
Frequency: Once by invoice
Description: This record type is used to transmit invoice-specific data. The record contains information about the invoice number, order, customer and supplier. This record type is available only once by invoice number. All records, which follow up to the next record of the type SA2, refer to the same invoice number.

INVOICE IN-HOUSE FORMAT					**Map from Application Table fields (out)**		**Map to Application Fields (in)**	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table field**	**Action**	**Table field**	**Action**
1	Record type	O/I	M	an3	SA2		SA2	
2	Message reference	O/I	M	an..14	tcedi701.bano	Generation (see below)	tcedi702.bano	Generation by EDI subsystem
3	Supplier number		M	an..15	tccom010.osno		tfacp200.suno	
4	Invoice number		M	an..20	tccom000.namf	consists of tdsls480.ttyp + tdsls480.inv	tfacp200.isup	
5	Invoice date		M	n..8	tdsls480.date		tfacp200.docd	
6	Total tax amount		M	n..13	tdsls480.tvat		tfgld102.vamt	
7	Invoice amount		M	n..13	tdsls480.invo		tfacp200.amnt	
8	Invoice currency		M	an..3	tdsls480.ccur	Conversion (see below)	tfacp200.ccur	Conversion (see below)
9	Due date		M	n..8	tdsls480.dued		tfacp200.dued	
10	Payment		M	n..13	tdsls480.ctnt	Calculation: tdsls480.invo - tdsls480.cost		
11	Percentage VAT		M	n...3	tdsls481.pvat		tfgld102.cvat	
12	Plant		C	an..35	tdssc001.plnt			
13	VAT number customer		C	an..20	tccom013.fovn			
14	VAT number supplier		C	an..20	tccom000.vatn			
15	Customer number		M	an..15				
16	Qualifier VAT code		M	an3	VAT		VAT	
17	End of record marker Constant value “SA2_END”		M	an7	Constant value “SA2_END”		Constant value “SA2_END”	

Detailed description of Invoice, record type SA2 Invoice Header

Position	**1**	Field format	**an3**	Field Status	**M**
Field name		**Record type**		(Key field out/in)	

Description:	This field identifies the record type in the message block. It contains the fixed value ‘SA2’.
Processing outgoing	
EDI subsystem:	None
BAAN:	Position is filled with fixed value ‘SA2’.
Processing incoming	
EDI subsystem:	Position is filled with fixed value ‘SA2’.
BAAN:	None

Position	**2**	Field format	**an..14**	Field Status	**M**
Field name		**Message reference**		(Key field out/in)	

Description:	This field identifies all related records of one invoice. The numbering of the message reference, which has to be unambiguous by invoice, helps to control the chronological order of the invoices and the complete transmission. The field consists of a fix part with four characters, the current date (format: YYMMDD) and a serial number with four characters. The special format is defined in the network parameters in the BAAN table tcedi020. When generating the message reference with the EDI subsystem, the created message reference needs to be specific, that is unique. While storing the message reference BAAN controls whether it is specific.
Processing outgoing	
EDI subsystem:	
BAAN:	BAAN generates this number to identify an invoice, stores it in tcedi701.bano and writes it into all records of an invoice.

Processing incoming

EDI subsystem: The EDI subsystem generates this number to identify an invoice and writes it into all records of an invoice.

BAAN: Map to BAAN table field tcedi702.bano

Position	**3**	Field format	**an..15**	Field Status	**M**
Field name		**Supplier number**			

Description: This field contains the identification which the customer applied to the supplier.

Processing outgoing

EDI-Subsystem: None

BAAN: Map BAAN table field tccom010.osno to position.

Processing incoming

EDI subsystem: None

BAAN: The EDI subsystem will convert the incoming supplier number to own supplier number. Map field value to BAAN table field tfacp200.suno.

Position	**4**	Field format	**an..20**	Field Status	**M**
Field name		**Invoice number**			

Description: This field contains the identification number, which the supplier applied to a created invoice.

Processing outgoing

EDI subsystem: None

BAAN: The outgoing invoice number consists of the fields tdsls480.tty and tdsls480.inv. Sending a VDA-conform message, the series in the BAAN module Finance has to be set in a way that the numerical part of the transaction type consists of not more than 5 digits (tfgld0111m000).

Processing incoming

EDI subsystem: None

BAAN: Map field value to BAAN table field tfacp200.isup.

Position	**5**	Field format	**n..8**	Field Status	**M**
Field name		**Invoice date**			

Description: This field contains the date of the current invoice.

The field contains the date of the delivery (format: *YYYYMMDD*).

Processing outgoing

EDI-Subsystem: None

BAAN: Map BAAN table field tdsls480.date to position.

Processing incoming

EDI subsystem: None

BAAN: Map field value to BAAN table field tfacp200.docd.

Position	**6**	Field format	**n..13**	Field Status	**M**
Field name		**Total VAT amount**			

Description: This field contains the total VAT amount of the invoice.

The field contains the numerical VAT amount of the invoice (format: *NNNNNNNNNN.NN*).

Processing outgoing

EDI-Subsystem: None

BAAN: Map BAAN table field tdsls480.tvat to position.

Processing incoming

EDI subsystem: None

BAAN: Map field value to BAAN table field tfacp200.vamt

Position	**7**	Format	**n..13**	Field Status	**M**
Field name		**Invoice amount**			

Description:	This field contains the total invoice amount. The field contains the numerical amount of the invoice (format: *NNNNNNNNNN.NN*).
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdsls480.invo to position.
Processing incoming	
EDI subsystem:	None
BAAN:	Map field value to BAAN table field tfacp200.amnt.

Position	**8**	Field format	**an..3**	Field Status	**M**
Field name		**Invoice currency**			

Description:	This field indicates the currency of the invoice. It contains the unambiguous alphanumerical identification of the invoice. The currency code is defined according to ISO 4217, for example‚280‘ for German mark (DM).
Processing outgoing	
EDI-Subsystem:	
BAAN:	Used code and conversion table: ‘Maintain Conversion of Currency Codes (out)’ (tcedi4138m000). Map BAAN table field tdsls480.ccur to position.
Processing incoming	
EDI subsystem:	None
BAAN:	Map field value to BAAN table field tfacp200.ccur. Used code and conversion table: ‘Maintain Conversion of Currency Codes (in)’ (tcedi3124m000) for conversion of the field in BAAN-specific currency.

Position	**9**	Field format	n..8	Field Status	**M**
Field name		**Due date**			

Description:	This field indicates the due date of the invoice.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdsls480.dued to position.
Processing incoming	
EDI subsystem:	Map field value to BAAN table field tfacp200.dued
BAAN:	None

Position	**10**	Field format	**n..13**	Field Status	**M**
Field name		**Payment**			

Description:	This field contains the net amount of the invoice (gross amount without service and packaging charges and without VAT) It contains the numerical amount of the payment (format: *NNNNNNNNNN.NN*).
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdsls480.ctnt to position. (calculation: tdsls480.invo – tdsls480.cost)
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**11**	Field format	**n..3**	Field Status	**M**
Field name		**Percentage VAT**			

Description:	This field contains the amount of the VAT tax rate. It contains the numerical amount of the VAT tax rate (format: *NN.N*).
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdsls481.pvat to position.
Processing incoming	
EDI subsystem:	None
BAAN:	Map field value to BAAN table field tfgld102.cvat

Position	**12**	Field format	**an..35**	Field Status	**M**
Field name		**Plant**			

Description:	This field contains the plant code.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdssc001.plnt to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**13**	Field format	**an..20**	Field Status	**C**
Field name		**VAT number customer**			

Description:	This field contains the VAT number of the customer's company.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tccom013.fovn to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**14**	Field format	**an..20**	Field Status	**C**
Field name		**VAT number supplier**			

Description:	This field contains the VAT number of the own company.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tccom000.vat to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**15**	Field format	**an..15**	Field Status	**M**
Field name		**Customer number**			

Description:	This field contains the identification of the customer.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	None
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**16**	Field format	**an3**	Field Status	**M**
Field name		**Qualifier VAT code**			

Description:	This field contains the qualifier VAT code which is used to determine the delivery address on the basis of the value in position 11. It must contain the fixed value ‘VAT’.
Processing outgoing	
EDI subsystem:	
BAAN:	The field is filled with the fixed value ‘VAT’.
Processing incoming	
EDI subsystem:	The field is filled with the fixed value ‘DP’.
BAAN:	This qualifier must have been entered in the BAAN table tcedi240 (Tax Code IDs). It is taken into account when determining the BAAN internal VAT code on the basis of the value in position 11.

Position	**17**	Field format	**an7**	Field Status	**M**
Field name		**End of record marker**			

Description:	This field indicates the end of the record. 'SA2_END'
Processing outgoing	
EDI subsystem:	None
BAAN:	The value 'SA2_END' is mapped to position.
Processing incoming	
EDI subsystem:	The value 'SA2_END' is mapped to position.
BAAN:	None

SA3 Shipping Note Header

Status : Mandatory
Frequency :
Description: This record type supports the transmission of single invoice positions to a customer. These instructions refer to the item which is indicated in the previous record type SA2.

INVOICE IN-HOUSE FORMAT					**Map from Application Table fields (out)**		**Map to Application Fields (in)**	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table field**	**Action**	**Table field**	**Action**
1.	Record type	O/I	M	an3	SA3		SA3	
2.	Message reference	O/I	M	an..14	tcedi701.bano	Generation (see below)	tcedi702.bano	Generation by EDI subsystem
3.	Supplier number	O/I	M	an..15	tccom010.osno		tfacp200.suno	
4.	Invoice number	O/I	M	an..20	tccom000.namf	Consists of tdsls480.ttyp + tdsls480.inv	tfacp200.isup	
5.	Shipping note number	O/I	M	an..8	tdssc018.dord		tfacp200.disp	
6.	Transmission date		M	n..8	tdsls045.ddat			
7.	Final delivery point		M	an..32	tssc001.delp			
8.	Identification of customer		M	an..4	tdssc002.fucp			
9.	Shipping type		C	an..2	tdssc017.trmd			
10.	Shipping costs		M	n..13				
11.	Packaging costs		M	n..13				
12.	End of record marke		M	an7	Constant value “SA3_END”		Constant value “SA3_END”	

Detailed description of Invoice, record type SA3 Shipping Note Header

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

Description:	This field identifies the record type in the message block. It contains the fixed value ‘SA3’.
Processing outgoing	
EDI subsystem:	None
BAAN:	Position is filled with fixed value ‘SA3’.
Processing incoming	
EDI subsystem:	Position is filled with fixed value ‘SA3’.
BAAN:	None

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

Description:	This field identifies all related records of one invoice. The numbering of the message reference, which has to be unambiguous by invoice, helps to control the chronological order of the invoices and the complete transmission. The field consists of a fix part with four characters, the current date (format: YYMMDD) and a serial number with four characters. The special format is defined in the network parameters in the BAAN table tcedi020. When generating the message reference with the EDI subsystem, the created message reference needs to be specific, that means unique. While storing the message reference BAAN controls whether it is specific.

Processing outgoing	
EDI subsystem:	
BAAN:	BAAN generates this number to identify an invoice, stores it in tcedi701.bano and writes it into all records of an invoice.
Processing incoming	
EDI subsystem:	The EDI subsystem generates this number to identify an invoice and writes it into all records of an invoice.
BAAN:	Map to BAAN table field tcedi702.bano

Position	**3**	Field format	**an..15**	Field status	**M**
Field name		**Supplier number**			

Description:	This field contains the identification which the customer applied to the supplier.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tccom010.osno to position.
Processing incoming	
EDI subsystem:	None
BAAN:	The EDI subsystem will convert the incoming supplier number to own supplier number. Map field value to BAAN table field tfacp200.suno.

Position	**4**	Field format	**an..20**	Field status	**M**
Field name		**Invoice number**			

Description:	This field contains the identification number, which the supplier applied to a created invoice.
Processing outgoing	
	None
EDI subsystem:	The outgoing invoice number consists of the fields tdsls480.tty and tdsls480.inv. Sending a VDA-conform message, the series in the BAAN module Finance has to be set in a way that the numerical part of the transaction type consists of not more than 5 digits (tfgld0111m000).
BAAN:	
Processing incoming	
	None
EDI subsystem:	Map field value to BAAN table field tfacp200.isup.
BAAN:	

Position	**5**	Field format	**an..8**	Field status	**M**
Field name		**Shipping note number**			

Description:	This field contains the identification number of the shipping note.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	The BAAN table field tdssc018.ides is written into tdssc018.dord and then displayed as alphanumerical field. Map BAAN table field tdssc018.dord to position.
Processing incoming	
EDI subsystem:	None
BAAN:	Map field value to BAAN table field tfacp200.disp

Position	**6**	Field format	n..8	Field status	**M**
Field name		**Transmission date**			

Description:	This field indicates the date of the shipping. It contains a numerical date with a maximum of 6 characters (format: *YYMMDD*).
Processing outgoing	
EDI subsystem:	None
BAAN:	Map BAAN table field tdsls045.ddat to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**7**	Field format	**an..32**	Field status	**M**
Field name		**Final delivery point**			

Description:	This field indicates the final delivery point of the customer. It contains the alphanumerical code of the final delivery point.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdssc001.delp to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**8**	Field format	**an..4**	Field status	**M**
Field name		**Identification of the customer**			

Description:	This field describes the so-called follow up code or the identification of the customer. It contains an alphanumerical code.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdssc002.fucp to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**9**	Field format	**an..2**	Field status	**C**
Field name		**Shipping type**			

Description:	This field contains an alphanumerical code which might be: 01 = truck subcontractor (*LKW Unterlieferant*) 02 = truck customer (*LKW Kunde*) 03 = truck carrier (*LKW Spedition*) 04 = truck rail (*LKW Bahn*) 05 = truck self (supplier) *(LKW eigen (Lieferant*)) 06 = rail freight (*Bahn Fracht*) 07 = rail express (*Bahn Expreß*) 08 = rail waggon (*Bahn Waggon*) 09 = mail (*Postsendung*) 10 = air freight (*Luftfracht*) 11 = sea freight (*Seefracht*)
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdssc017.trmd to position.

Processing incoming

EDI subsystem: None

BAAN: None

Position	**10**	Field format	**n..13**	Field status	**C**
Field name		**Shipping costs**			

Description: This field indicates the shipping costs of the concerned delivery.

It contains the numerical amount of the payment (format: *NNNNNNNNNN.NN*).

Processing outgoing

EDI-Subsystem: None

BAAN: None, here (...;;...).

Processing incoming

EDI subsystem: None

BAAN: None

Position	**11**	Field format	**n..13**	Field status	**C**
Field name		**Packaging costs**			

Description: This field indicates the packaging costs of the concerned delivery.

It contains the numerical amount of the payment (format: *NNNNNNNNNN.NN*).

Processing outgoing

EDI-Subsystem: None

BAAN: None, here (...;;...).

Processing incoming

EDI subsystem: None

BAAN: None

Position	**12**	Field format	**an7**	Field status	**M**
Field name		**End of record marker**			

Description:	This field indicates the end of the record. 'SA3_END'
Processing outgoing	
EDI subsystem:	None
BAAN:	The field is filled with the fixed value 'SA3_END'.
Processing incoming	
EDI subsystem:	The field is filled with the fixed value 'SA3_END'.
BAAN:	None

SA4 Invoice Position

Status : Mandatory

Frequency: Several times by invoice position

Description: This record type supports the transmission of position-specific invoice data. It is directly connected to the previous record type SA2 and can occur several times, but will occur at least once.

INVOICE IN-HOUSE FORMAT					**Map from Application Table fields (out)**		**Map to Application Fields (in)**	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table field**	**Action**	**Table field**	**Action**
1.	Record type	O/I	M	an3	SA4		SA4	
2.	Message reference	O/I	M	an..14	tcedi701.bano	Generation (see below)	tcedi702.bano	Generation by EDI subsystem
3.	Supplier number	O/I	M	an..15	tccom010.osno		tfacp200.suno	
4.	Invoice number	O/I	M	an..20		tdsls480.ttyp + tdsls480.inv	tfacp200.isup	
5.	Shipping note number	O/I	M	an..8	tdssc018.dord		tfacp200.disp	
6.	Item number (own)		M	an..12	tdssc018.item		tdpur041.item	Conversion (see below)
7.	Delivered quantity		M	n..13	tdssc018.cqty		tdpur045.iqan	
8.	Unit sales price		M	an..3	tdsls041.cups	Conversion (see below)	tdpur041.cupp	Conversion (see below)
9.	Sales price		M	n..13	tdsls045.pric			
10.	Basis for price by unit		C	n..9	tdsls041.cvps		tdpur041.cvpp	
11.	Invoice amount position		M	n..13	tdsls041.amta		tdpur045.iamt	
12.	Price reduction_1		C	n..4	tdsls041.disc (1)			
13.	Price reduction_2		C	n..4	tdsls041.disc (2)			
14.	Price reduction_3		C	n..4	tdsls041.disc (3)			
15.	Country of origin		M	an..3	tiitm001.ctyo			
16.	VAT preference Constant value		M	an1	one blank (...;“ “;...)			
17.	Percentage advance payment Constant value ‘0‘		M	an1	(...;“0“;...)			
18.	Preferential trade Constant value ‘G‘		M	an1	(...;“G“;...)			
19.	Order number		M	an..17	tdssc001.cono			
20.	Item number		M	an..35	tdssc018.cpno			
21.	Qualifier item number		M	an2	SA		SA	
22.	End of record marker Constant value ‘SA4_END”		M	an7	Constant value “SA4_END”		Constant value “SA4_END”	

Detailed description of Invoice, record type SA4 Invoice Position

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

Description:	This field identifies the record type in the message block. It contains the fixed value ‘SA4’.
Processing outgoing	
EDI subsystem:	None
BAAN:	Position is filled with fixed value ‘SA4’.
Processing incoming	
EDI subsystem:	Position is filled with fixed value ‘SA4’.
BAAN:	None

Position	**2**	Field format	**an..14**	Field Status	**M**
Field name		**Message reference**		(Key field out/in)	

Description:	This field identifies all related records of one invoice. The numbering of the message reference, which has to be unambiguous by invoice, helps to control the chronological order of the invoices and the complete transmission. The field consists of a fix part with four characters, the current date (format: YYMMDD) and a serial number with four characters. The special format is defined in the network parameters in the BAAN table tcedi020. When generating the message reference with the EDI subsystem, the created message reference needs to be specific, that means unique. While storing the message reference BAAN controls whether it is specific.
Processing outgoing	
EDI subsystem:	
BAAN:	BAAN generates this number to identify an invoice, stores it in tcedi701.bano and writes it into all records of an invoice.

Processing incoming

EDI subsystem: The EDI subsystem generates this number to identify an invoice and writes it into all records of an invoice.

BAAN: Map to BAAN table field tcedi702.bano

Position	**3**	Field format	**an..15**	Field Status	**M**
Field name		**Supplier number**			

Description: This field contains the identification which the customer applied to the supplier.

Processing outgoing

EDI-Subsystem: None

BAAN: Map BAAN table field tccom010.osno to position.

Processing incoming

EDI subsystem: None

BAAN: The EDI subsystem will convert the incoming supplier number to own supplier number. Map field value to BAAN table field tfacp200.suno.

Position	**4**	Field format	**an..20**	Field Status	**M**
Field name		**Invoice number**			

Description: This field contains the identification number, which the supplier applied to a created invoice.

Processing outgoing

EDI subsystem: None

BAAN: The outgoing invoice number consists of the fields tdsls480.tty and tdsls480.inv. Sending a VDA-conform message, the series in the BAAN module Finance has to be set in a way that the numerical part of the transaction type consists of not more than 5 digits (tfgld0111m000).

Processing incoming

EDI subsystem: None

BAAN: Map field value to BAAN table field tfacp200.isup

Position	**5**	Field format	**an..8**	Field Status	**M**
Field name		**Shipping note number**			

Description:	This field contains the identification of the shipping note.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	The BAAN table field tdssc018.ides is written into tdssc018.dord and then displayed as alphanumerical field. Map BAAN table field tdssc018.dord to position.
Processing incoming	
EDI subsystem:	None
BAAN:	Map field value to BAAN table field tfacp200.disp

Position	**6**	Field format	**an..35**	Field Status	**M**
Field name		**Item number (own)**			

Description:	This field indicates the identification of the item.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdssc018.item to position
Processing incoming	
EDI subsystem:	None
BAAN:	Conversion of incoming item number by EDI subsystem. Map field value to BAAN table field tdpur041.item

Position	**7**	Field format	**n..13**	Field Status	**M**
Field name		**Delivered quantity**			

Description:	This field indicates the delivered quantity of the concerned invoice position. It contains a numerical value for the delivered quantity (format: *NNNNNNNNNN.NN*).
Processing outgoing	
EDI subsystem:	None
BAAN:	Map BAAN table field tdssc018.cqty to position.
Processing incoming	
EDI subsystem:	None
BAAN:	Map field value to BAAN table field tdpur045.iqan

Position	**8**	Field format	**an..3**	Field Status	**M**
Field name		**Unit sales price**			

Description: This field contains the encoded measure of the shipped quantity. The coding was carried out on the basis of ODETTE-Standard 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, you need to enter them in the session tcedi2130m000 'Maintain units' for the company **BEM**.

Processing outgoing

EDI subsystem: None

BAAN: Map BAAN table field tdsls041.cupp to position.

Processing incoming

EDI subsystem: None

BAAN: Map field value to BAAN table field tdpur045.cups

Position	**9**	Field format	**n..13**	Field Status	**M**
Field name		**Sales Price**			

Description: This field indicates the price of the item.

It contains a numerical value for the delivered quantity (format: *NNNNNNNNNN.NN*).

Processing outgoing

EDI subsystem: None

BAAN: Map BAAN table field tdsls045.pric to position.

Processing incoming

EDI subsystem: None

BAAN: Map field value to BAAN table field tdpur045.pric

Position	**10**	Field format	**n..9**	Field Status	**C**
Field name		**Basis of price by unit (ODETTE)**			

Description: This field indicates the unit of the price (for example, 100 per Euro).

It contains a numerical value for the unit.

Processing outgoing

EDI subsystem: None

BAAN: Map BAAN table field tdsls041.cvps to position.

Processing incoming

EDI subsystem: None

BAAN: Map field value to BAAN table field tdpur041.cvpp

Position	**11**	Field format	**n..13**	Field Status	**M**
Field name		**Invoice amount position**			

Description: This field indicates the demanded amount for the invoice position.

It contains a numerical value for the delivery quantity (format: *NNNNNNNNNN.NN*).

Processing outgoing

EDI subsystem: None

BAAN: Map BAAN table field tdsls041.amta to position.

Processing incoming

EDI subsystem: None

BAAN: Map field value to BAAN table field tdpur045.iamt

Position	**12**	Field format	**n..4**	Field Status	**C**
Field name		**Price reduction_1**			

Description: This field indicates the percentage of the price reduction.

It contains a numerical value for the price reduction (format: *NN.NN*).

Processing outgoing

EDI subsystem: None

BAAN: Map BAAN table field tdsls041.disc(1) to position.

Processing incoming

EDI subsystem: None

BAAN: None

Position	**13**	Field format	**n..4**	Field Status	**C**
Field name		**Price reduction_2**			

Description:	This field indicates the percentage of the price reduction. It contains a numerical value for the price reduction (format: *NN.NN*).
Processing outgoing	
EDI subsystem:	None
BAAN:	Map BAAN table field tdsls041.disc(2) to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**14**	Field format	**n..4**	Field Status	**C**
Field name		**Price reduction_3**			

Description:	This field indicates the percentage of the price reduction. It contains a numerical value for the price reduction (format: *NN.NN*).
Processing outgoing	
EDI subsystem:	None
BAAN:	Map BAAN table field tdsls041.disc(3) to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**15**	Field format	**an..3**	Field Status	**M**
Field name		**Country of origin**			

Description:	This field indicates the country of origin of the item. This field contains the identification of the country of origin for an item according to ODDC 6. AT: Austria BE: Belgium CH: Switzerland DE: Federal Republic of Germany DK: Denmark ES: Spain FI: Finland FR: France GB: United Kingdom GR: Greece IE: Ireland IT: Italy LU: Luxembourg NL: Netherlands NO: Norway PT: Portugal SE: Sweden TR: Turkey YU: Yugoslavia
Processing outgoing	Conversion of country code for outgoing messages.
EDI subsystem:	None
BAAN:	Map BAAN table field tiitm001.ctyo to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**16**	Field format	**an..1**	Field status	**M**
Field name		**VAT preference**			

Description:	This field is reserved for later extensions. It contains the value ‘blank’.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Mapping one blank to position, here (...;“ “;...)
Processing incoming	
EDI subsystem:	Enter fixed value ‘blank‘ to position, here (...;“ “;...)
BAAN:	None

Position	**17**	Field format	**an1**	Field Status	**M**
Field name		**Percentage advance payment**			

Description:	This field is reserved for later extensions.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map fixed value ‘0‘ to position, here (...;“0“;...).
Processing incoming	
EDI subsystem:	Enter fixed value ‘0‘ to position, here (...;“0“;...)
BAAN:	None

Position	**18**	Field format	**an1**	Field Status	**C**
Field name		**preferential trade**			

Description:	This field is reserved for later extensions.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map fixed value to position, here (...;“G“;...)
Processing incoming	
EDI subsystem:	Enter fixed value ‘G‘ to position, here (...;“G“;...)
BAAN:	None

Position	**19**	Field format	**an..17**	Field Status	**M**
Field name		**Order number**			

Description:	This field indicates the identification of the SCH sales contract. It contains a numerical 6-digit-identification of the contract.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdssc001.cono to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**20**	Field format	**an..35**	Field Status	**M**
Field name		**Item number (customer)**			

Description:	This field indicates the identification which the customer applied to the item. It contains the identification of the item with a maximum of 35 characters.
Processing outgoing	
EDI-Subsystem:	None
BAAN:	Map BAAN table field tdssc018.cpno to position.
Processing incoming	
EDI subsystem:	None
BAAN:	None

Position	**21**	Field format	**an2**	Field Status	**M**
Field name		**Qualifier item code**			

Description:	This field contains the qualifier item code for the determination of the item code on the basis of the *Article code customer* in position 6. It must contain the fixed value ‘SA’. (‘SA’ = Supplier item code)
Processing outgoing	
EDI subsystem:	
BAAN:	The field is filled with the fixed value ‘SA’.
Processing incoming	
EDI subsystem:	The field is filled with the fixed value ‘SA’.
BAAN:	This qualifier must have been entered in the BAAN table tcedi232 (Item Code IDs). It is taken into account when determining the BAAN internal item code on the basis of the customer article code in position 6.

Position	**22**	Field format	**an7**	Field Status	**M**
Field name		**End of record marker**			

Description:	This field indicates the end of the record.
Incoming:	‘SA4_END’
Processing outgoing	
EDI-Subsystem:	None
BAAN:	The position is filled with the fixed value ‘SA4_END’.
Processing incoming	
EDI subsystem:	The position is filled with the fixed value ‘SA4_END’.
BAAN:	None

3 Sample file incoming/outgoing message

"SA1";"F8009712100013";"100";"F800";"RECHNU";"BEMIS";"4906";"";9712
10;1321;"";"SA1_END"

"SA2";"F8009712100013";"8569112";"SLS00000103";971210;468;3588;"280";
980109;3588;15;"999";"TEST";"";"";"VAT";"SA2_END"

"SA3";"F8009712100013";"8569112";"SLS00000103";"800958";980109;"Tor
1";"";"";;;"SA3_END"

"SA4";"F8009712100013";"8569112";"SLS00000103";"800958";"MB2";100;"K
GM";30;1;3000;0;0;0;"DE";"";"0";"G";"100-510";"SA";"SA4_END"

"SA4";"F8009712100013";"8569112";"SLS00000103";"800958";"MB2";4;"KG
M";30;1;120;0;0;0;"DE";"";"0";"G";"100-510";"SA";"SA4_END"

"SA1";"F8009712100014";"100";"F800";"RECHNU";"BEMIS";"4906";"";9712
10;1321;"";"SA1_END"

"SA2";"F8009712100014";"8569112";"SLS00000104";971210;49.5;379.5;"280"
;980109;379.5;15;"999";"TEST";"";"";"VAT";"SA2_END"

"SA3";"F8009712100014";"8569112";"SLS00000104";"800959";980109;"Tor
1";"";"";;;"SA3_END"

"SA4";"F8009712100014";"8569112";"SLS00000104";"800959";"MB2";11;"K
GM";30.3333;1;330;0;0;0;"DE";"";"0";"G";"100-510";"SA";"SA4_END

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)
Directory	Folder
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