BAAN IVc3scc1

Definition of BEMIS 1.0.a Import and Export File of the Message Type Invoice Run Number

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Table of contents

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 document 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 booklet describes the BAAN internal EDI message Invoice Run Number (incoming). This kind of message is used additional to the outgoing Automotive Invoice. For some EDI partners it is demanded to import the transmission number back into the BAAN application. Normally the transmission number has to be generated by the EDI translator system.

Chapter 2 describes the structure of the interface file, the different record types within the file and the used key fields.

Chapter 3 details every message record type. This chapter contains an overview table with the corresponding BAAN table fields. In addition, every single field is described in a more detailed way.

A glossary of terms and abbreviations is provided at the end of the book.

1 Introduction: record types

This chapter details the Baan Electronic Message in-house format “Invoice Run Number.”

Available record types of the message type Invoice Run Number

The use of the following record types is mandatory (M) in order to import the run numbers generated by the EDI Sub- System.

The message Invoice Run Number(in-house format) consists of the following records:

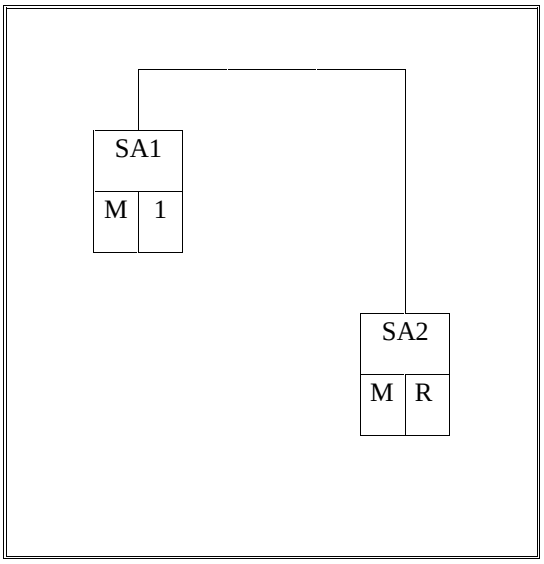
ID	Status	Name
SA1	M	Message Overhead
SA2	M	Invoice Run Number Data

Structure of the message Invoice Run Number(in-house format)

The following record structure is used for the message type BEMIS Invoice Run Number.

Level	Record ID	Status	Name
1	SA1	M/1	Message Overhead
2	SA2	M/N	Invoice Run Number Data

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.



Legend:

Status: Frequency:

M: mandatory message 1: once in message

C: conditional message R: repeatable in message

Figure 1 Branching diagram

A BEMIS file might have the following structure:

SA1 ...	Message Overhead Network Address 1
SA2 ...	Network Address 1 Run Number 1
SA2 ...	Network Address 1 Run Number 2
SA2 ...	Network Address 1 Run Number 3
SA2 ...	...
SA1 ...	Message Overhead Network Address 2
SA2 ...	Network Address 2 Run Number 1
SA2 ...	Network Address 2 Run Number 2
SA2 ...	Network Address 2 Run Number 3
SA2 ...	...

Invoice Run Number- Key Fields

The following structure of the key fields is used to determine the corresponding records of a shipment notification:

Record type	Key field 1	Key field 2	Key field 3	Key field 4
SA1	Message Reference	Network address customer		
SA2	Message Reference	Network address customer		

Network directories

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

/auto3/baanIV/bemis/invoice

BAAN will also create the following subdirectories:

/auto3/baanIV/bemis/invoice/appl_from/
/auto3/baanIV/bemis/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 accordingly. 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 accordingly. During this process, an additional subdirectory by outgoing message file is created, which is named with a date and time stamp showing 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 accordingly.

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

Direction	File name	Network directory
incoming	INRNOIN	**.../appl_to**

BEMIS Messages - 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 ; .
- The text values of the fields have to be put into ““
- The numerical values must not be put into ““
- Every message record starts with “SAx“
- Every message record ends with “SAx_END“

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 in the BEMIS message file.

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

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:

INVOICE RUN NUMBERINHOUSE 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
	alphanumerical fields have to be put in inverted commas (“.... “)

Mapping from Application Table Fields (Incoming)	
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 that 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

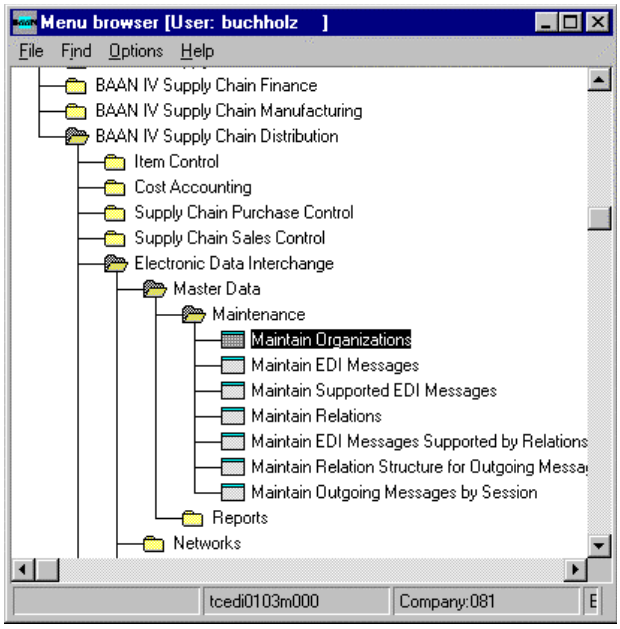
```
"SAX";...;"";...;"SAX_END"
```

Changing the Date Format

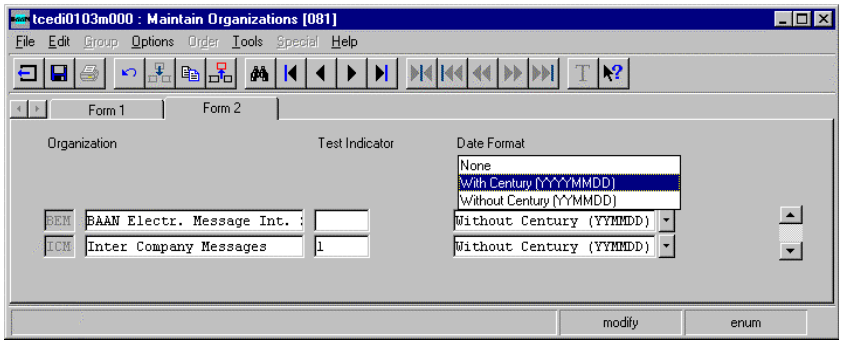
For the BAAN Versions b and c2/3 we have defined a date format using up to 6 numerical digits. Reading this definition, you will find out that the date format has been changed to 8 digits at maximum. With the BAAN Version BAAN IVC4 the delivered BEMIS default file the defaults.edi will be different in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

How to use this message

This kind of message is not related to an external standard. It is used to import transmission numbers or also called run numbers generated by the partner system back into the BAAN application.

Workflow:

1. At first you have to export BEMIS Automotive Invoices.
2. The EDI Sub-System reads the outgoing Automotive Invoice. The Invoices and its Invoice Numbers are sorted by the business partners. In order to send out the Automotive Invoices to the business partner, the EDI Sub-System has to generate a unique number for the transmission. This transmission number is also called Run Number because all Automotive Invoices for one business partner with different Invoice numbers are sent out in one run.
3. For some business partner BAAN has to know which transmission number is used for which Invoice Numbers. Thus you have to import this information back into the BAAN System. After sending out the Invoices the EDI Sub-System has to create this message.
4. The EDI – Sub-System copies the message Invoice Run Number into the import appl_to. It has to be the the base directory which is used for the Invoice messages.
5. After deleting the command.fil, the BAAN System will import the run number informations.

Conditions:

1. The message type Invoice Run Number has to use the same Network Directory which is use for the export and the import of Automotive Invoices.
2. In the BAAN System there has to be maintained a customer called ‘BAAN’.
3. The EDI Sub – System has to be able to generate this kind of message.

2 Invoice Run Number: record type description

This chapter describes the record types required by the BAAN Standard in-house Message format for the import of the invoice run numbers.

SA1 Invoice Run NumberOverhead

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

INVOICE RUN NUMBERIN-HOUSE FORMAT					Map to Application Fields (in)	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table Field**	**Action**
1.	Record type	O/I	M	an3	SA1	
2.	Message reference	O/I	M	an..14	tcedi702.bano	Generation by EDI subsystem
3.	Network address customer		M	an..17	tcedi702.reno	Conversion (see below)
4.	Message		M	an..6	tcedi702.mess	Conversion (see below)
5.	Organization		M	an..6	tcedi702.orga	Conversion (see below)
6.	Order type		M	an..35	tcedi702.koor	Conversion (see below)
7.	Order reference		M	an..35	tcedi702.msno	Conversion (see below)
8.	Transmission date		M	n..8	tcedi702.send	
9.	Transmission time		M	n..4	tcedi702.sent	
10.	Transmission number old		M	an..14	tcedi702.prno	
11.	End of record marker		M	an7	SA1_END	

Detailed description of Invoice Run Number, record type SA1 Overhead

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

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 out/in)	

Description: This field identifies all connected records of one ELP shipment. The message reference has to be unambiguous by Invoice Run Number. The numbering helps to control the chronological order of the Invoice Run Numberand the complete transmission. The field consists of a fixed part with four characters, the current date in the format YYMMDD and a serial number with four characters. The special format is defined in the network parameters in the BAAN table tcedi020.

Processing incoming
EDI Subsystem: The EDI subsystem generates this number to identify an Invoice Run Numberand writes it into all records of an Invoice Run Number.
BAAN: Map to BAAN table field tcedi702.bano.

Position	3	Field format	an..17	Field status	M
Field name		Identification/network address customer			

Description: This field contains the identification respectively network address of the ship-from business partner.

Processing incoming
EDI Subsystem: Transmission of value from message file.
BAAN: The network address determines the corresponding business partner (customer) and the network in the BAAN table tcedi028 Relations by network. This 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 of the message type BEMIS Invoice Run Number is INRNO.

Processing incoming
EDI Subsystem: This field has the fixed value ‘INRNO’.
BAAN: The message code in the BAAN table tcedi001 ‘Supported EDI Messages’ determines which internal message is connected to this BEMIS Invoice Run Number. The BAAN table tcedi005 EDI Messages determines, for every message, which session (DLL) is used in BAAN to process the BEMIS shipment notification. 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: Map to BAAN table field tcedi702.orga.
BAAN: 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 BAAN table tcedi200 there must be an entry for this order type in connection with the respective message and organization.

Position	7	Field format	an..35	Field status	M
Field name		Order reference			

Description: This field contains a code for the order reference.

Processing incoming
EDI Subsystem: Transmission of the value from the transmission file.
BAAN: Map to BAAN table field tcedi702.msno.

Position	8	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 message was created. On the incoming side, this field contains the arrival date of the message at the EDI subsystem (format: YYYYMMDD).

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 on the outgoing side the time, when the message was created. On the incoming side, the field contains the arrival time of the message at the EDI subsystem (format: HHMM).

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

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

Processing incoming
EDI Subsystem: Transmission of the value from the 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: This field indicates the end of the record. It contains the fixed value ‘SA1_END’.

Processing incoming
EDI Subsystem: The field is be filled with the fixed value ‘SA1_END’.
BAAN: None

SA2 Run Number Data

Status : Mandatory

Frequency : At least once by message

Description: This record type conatins the run number and the invoice number.

INVOICE RUN NUMBER INHOUSE FORMAT					**Map to Application Fields (in)**	
Pos	**FIELD NAME**	**Key**	**ST**	**FM**	**Table Field**	**Action**
1.	Record type	I	M	an3	SA2	
2.	Message reference	I	M	an..14	tcedi702.bano	Generation by EDI subsystem
3.	Network address customer	I	M	an..17	tfcmg900.cuno	Conversion (see below)
4.	Run Number	I	M	an..35	tfcmg900.runn	
5.	Invoice Number		M	an ..20	tfcmg900.ttyp + tfcmg900.inv	
6.	End of record marker fixed value “SA2_END”		M	an7		

Detailed description of Invoice Run Number, record type SA2

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

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

Processing incoming
EDI subsystem: The position 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 records of one Invoice Run Number message. The message reference has to be unambiguous by an Invoice Run Number. The numbering helps to control the chronological order of the Invoice Run Number and the complete incomming transmission. The field might consists of the current date (e.g. format: CCYYMMDD) and a serial number with six characters.

Processing incoming
EDI subsystem: Map BAAN table field tcedi701.bano to position.
BAAN: None

Position	3	Field format	an..17	Field status	M
Field name		Identification/network address customer			

Description: This field contains the identification respectively network address of the ship-from business partner.

Processing incoming
EDI subsystem: Transmission of value from message file.
BAAN: The network address determines the corresponding business partner and the network in the BAAN table tcedi028 Relations by network. This identification is mapped to the BAAN table field tcedi702.reno and converted to tfcmg900.cuno.

Position	4	Field format	an..35	Field status	M
Field name		Run Number	(Key field)		

Description: This field contains the identification of the transmission of the Automotive Invoice. The number is generated by the EDI Sub-System to transmitt one or more invoices to the business partner. The number has to be unique.

Processing incoming
EDI subsystem: None
BAAN: Map field value to BAAN table field tfcmg900.runn.

Position	5	Field format	an..20	Field status	M
Field name		Invoice Number	(Key field)		

Description: This field contains the external invoice number generated by the BAAN Application. The external Invoice Number consists of two BAAN table fields. The first three digits are used for the transaction type. The rest is a numerical part. This part must be mapped to the BAAN internal invoice number.

Processing incoming
EDI subsystem: None
BAAN: Mapping of the first three digits to the BAAN table field tfcmg900.ttyp. Starting with position four the rest of the external invoice number is mapped to the BAAN table field tfcmg.ninv.

Position	6	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 ‘SA2_END’.

EDI subsystem: The field is filled with the fixed value ‘SA2_END’.
BAAN: None

3 Glossary of terms and abbreviations

ABRUF	Schedule
Appl	Application
ANSI	American National Standards Organisation
BEM	Baan Electronic Message - abbreviated form of BEMIS used with the definition of the EDI organization
BEMIS	Baan Electronic Message Interchange System
business partner	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
VDA	Standard used for electronic data exchange in Germany
X12	Standard used for electronic data exchange in the United States

4 Sample file incoming message

```
"SA1";"LA000100003302";"audigoer";"";"INRNO";"BEMIS";"
";"77";980930;2216;"76";"S
A1_END"
"SA2";"LA000100003302";"audigoer";"1001";"SLS300001";"
SA2_END"
"SA2";"LA000100003302";"audigoer";"1001";"SLS300002";"
SA2_END"
"SA2";"LA000100003302";"audigoer";"1001";"SLS300003";"
SA2_END"
"SA2";"LA000100003302";"audigoer";"1001";"SLS300004";"
SA2_END"
```

Definition of BEMIS 1.0.a Import and Export File of the Message Type Invoice Run Number 4-2