

Definition of BEMIS FMS001 Import and Export File for Business Document Carrier Status Information

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About this Guide

Objective

This document describes the content and the corresponding structure of the EDI message “Carrier Status Information”, which is supported by Baan Electronic Message, the ERP LN In-house format.

The message’s content refers to the following origin message types and gives their attribution to the transferred ASCII file of the BEMIS format.

- EDIFACT IFTSTA
- ANSI X12 214

The message structure is defined by referring to the incoming direction.

The document contains the following chapters:

Chapter 1, “General Principles”, provides a general introduction to the EDI in-house format for the Business Document Type Carrier Status Information.

Chapter 2, “Data Record Description by Type of Data Record”, describes in detail the data records used for the EDI in-house format of EDI message Carrier Status Information.

Chapter 3, “Definitions, Acronyms, and Abbreviations”, provides a glossary of terms used in Infor ERP LN and in this document, and also a list of abbreviations.

Appendix A, “Sample File”, provides a sample file for the incoming message FMS001.

Intended audience

This document is intended for the following categories of users:

- Users who want to understand what the processed information of the EDI messages in ERP LN are.
- Users who develop the translation from external EDI format to the in-house format.

References

The following documents might be of importance:

| No. | Document number | Title |
|-----|-----------------|--|
| 1 | U8912B US | <i>User's Guide for BEMIS</i> |
| 2 | U8998B US | <i>User's Guide for BEMIS Business documents</i> |

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In your e-mail, refer to the document code and title. More specific information will enable us to process feedback efficiently.

Chapter 1

General Principles

1

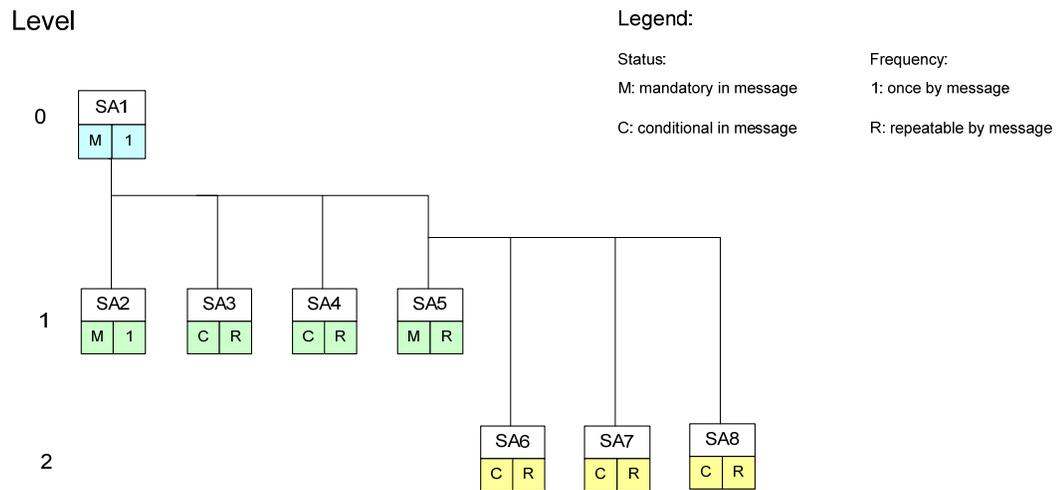
Available types of data records

This section describes the EDI In-house format for the Business Document Type Carrier Status Information (incoming). When you transmit information about loads, the use of the following types of data records is conditional (C) or respectively mandatory (M).

| ID | Status | Name |
|-----------|---------------|----------------------|
| SA1 | M | Global Overhead |
| SA2 | M | Load |
| SA3 | C | Load Address |
| SA4 | C | Load Address Text |
| SA5 | M | Shipments |
| SA6 | C | Shipment's Addresses |
| SA7 | C | Shipment Text |
| SA8 | M | Shipment Lines |

Branching diagrams

The following data record structure is used for the BEMIS message type Carrier Status Information:



For example, for two loads with each two shipments the BEMIS file has the following structure:

SA1 ... Global Overhead

SA2 ... Load 1

SA5 ... Shipment 11

SA8 ... Shipment Line 111

SA8 ... Shipment Line 112

SA5 ... Shipment 12

SA8 ... Shipment Line 121

SA1 ... Global Overhead

SA2 ... Load 2

SA5 ... Shipment 21

SA8 ... Shipment Line 211

SA8 ... Shipment Line 212

- SA5 ... Shipment 22
- SA8 ... Shipment Line 221
- SA8 ... Shipment Line 222

Key fields incoming

The incoming message refers to the carrier and the Shipments by Load.
 The following structure of the key fields is used to determine the related data records of a Carrier Status Information message:

| Sorted by Key | | | | | |
|---------------|-----------|--------------|-----------|---------|----------|
| Type | Data Rec. | key 1 | key 2 | Key 3 | key 4 |
| field 1 | Backpt | | | | |
| SA1 | | Message ref. | BP net ID | | |
| SA2 | 1 | Message ref. | BP net ID | Load No | |
| SA3 | 2 | Message ref. | BP net ID | Load No | |
| SA4 | 2 | Message ref. | BP net ID | Load No | |
| SA5 | 2 | Message ref. | BP net ID | Load No | |
| SA6 | 5 | Message ref. | BP net ID | Load No | Shipment |
| SA7 | 5 | Message ref. | BP net ID | Load No | Shipment |
| SA8 | 5 | Message ref. | BP net ID | Load No | Shipment |

Business partner relations

The following table shows the business partner relations:

| Incoming Carrier Status Information | |
|-------------------------------------|---------------|
| Buy-from BP | ecedi702.bpid |
| Carrier | fmlbd450.cfrw |

Network directories

In the Direct Network Communication (ecedi7205m000) session, the user can receive and generate EDI messages.

As written in the User's Guide EDI Business Document [2], the communication is done between the EDI Sub-System and ERP LN to transfer the message's ASCII files across the specific network. This communication is based on the network directories that are established in ERP LN.

The network basis directories for each network will be defined in the ecedi0120m000 session.

The ERP LN user can decide the structure of the used network directories, such as the following:

- For every message type, one network directory can be used for outgoing messages and one can be used for incoming messages. This means that one message file contains data for several business partners.
- For a group of message types, such as Loads, one network directory can be used for outgoing messages and one can be used for incoming messages.
- Every business partner can use their own network directory, and the files would be able to contain data for several messages types.

Infor recommends the second possibility.

For the network BEMIS, for example the basis directories can be indicated in the following way:

- /\${BSE}/edi/bemis/Load/

ERP LN will additionally create the following subdirectories:

- /\${BSE}/edi/bemis/Load/appl_from/
- /\${BSE}/edi/bemis/Load/appl_to/
- /\${BSE}/edi/bemis/Load/command/
- /\${BSE}/edi/bemis/Load/store_rcv/
- /\${BSE}/edi/bemis/Load/store_sent/
- /\${BSE}/edi/bemis/Load/trace/

The above mentioned directories refers to one message type "Carrier Status Information", the directories have the following function:

- **.../appl_from/:** In this directory, ERP LN records the outgoing messages that 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 ERP LN in-house format.
- **.../command/:** A directory of the semaphores.
- **.../store_rcv/:** ERP LN stores processed incoming messages in this directory, if the corresponding EDI parameter is set in this way. During this process, an additional subdirectory by incoming message file is created; the subdirectory is named with a date and time stamp that indicates when the message was moved.
- **.../store_sent/:** ERP LN stores processed outgoing messages in this directory, if the corresponding EDI parameter is set in this way. During this process, an additional subdirectory by incoming message file is created; the subdirectory is named with a date and time stamp that indicates when the message was moved.
- **.../trace/:** ERP LN creates a log of the incoming messages and outgoing messages in the processing order in this directory, if the corresponding EDI parameter is set in this way.

The file name of the BEMIS in-house format files of the Carrier Status Information which is being described in this documentation, is defined in the following way:

| Direction | File Name | Network Directory |
|-----------|------------|---------------------------------|
| outgoing | | |
| incoming | fms001.txt | /\${BSE}/edi/bemis/Load/appl_to |

ERP LN - BEMIS Messages – Conventions

Written in User's Guide for BEMIS [1] Infor uses rules to structure the EDI message.

- Each data segment is defined by a unique code in an EDI message. The format of the data segment code is SA99. Each segment (message record) starts with the unique code "Sax"; the message record ends with "SAx_END".
- The length of the several data segments can vary.
- Even if some fields do not contain a value, each data segment (message record) must consist of all fields.
- The fields in the file must be separated by a defined sign, such as a semicolon (;)
- A filled string field must be put inside quotation marks ("....").
- If a position in a BEMIS Message File is not taken by a value, which means that the position is empty, then the position is pointed out using two semicolons. Also, the ERP LN EDI Module distinguishes between numerical data and alphanumerical data format, as shown in the following examples:

Empty numerical Position: "SAx"; ... ; ; ... ;"SAx_END"

Empty alphanumerical Position: Infor differs between the following, in case the field exists in the LN database:

"SAx"; ... ; ; ... ;"SAx_END" and "SAx"; ... ; "" ; ... ;"SAx_END"

In the following sections are the format descriptions of the individual types of data segments (message records) of the interface file. The table contains the following data:

ORDER INHOUSE FORMAT

| Pos | Field description | Key | ST | FM |
|-----|-------------------|-----|----|----|
|-----|-------------------|-----|----|----|

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

Pos. Position of the field in the data record

| | |
|-------------------|--|
| Field description | Description of the field |
| Key | Key field outgoing (O) / incoming (I) |
| ST | Field status mandatory (M) / conditional (C) |
| FM | Field format, for example 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 |

The second block of the table describes the corresponding table field in ERP LN and describes possible special actions, which will be carried out when the messages are being processed.

from Application Table Field (out) / Mapping to Table Field (in)

| Table Field | Action |
|-------------|--------|
| | |

Following the table overview, every field is described in a more detailed way, including information about the processing in the EDI Sub-System and in ERP LN.

Consider one exception: if a position of the data record is not currently used, then Infor omits the detailed description of this empty position.

What is new in comparison to BEMIS for BAAN V?

- The new message refers to the Freight Management and sends the Carrier Status Information of the Load. Infor has not an analogy in Baan V.

Chapter 2

Data Record Description by Type of Data Record

SA1 Message Overhead

Status: Mandatory

Frequency: Once by Carrier Status Information

Description: This data record contains information about the transmitter, the message type and the time of the transmission. The message reference identifies all related data records of this message.

| Carrier Status Information In-house Format | | | | | Mapping from Application Table Fields (out) | | Mapping to Application Table Fields (in) | |
|---|----------------------|-----|----|--------|--|--------|---|------------------------------|
| Pos | Field Description | Key | ST | FM | Table field | Action | Table field | Action |
| 1 | Type of data record | I | M | an3 | | | SA1 | |
| 2 | Message Reference | I | M | an..35 | | | ecedi701.bano | Generation by EDI Sub-System |
| 3 | Net ID of Sender | I | M | an..17 | | | ecedi702.bpid | Conversion (see below) |
| 4 | Load Number | | M | an..9 | | | ecedi702.msno | |

| Carrier Status Information In-house Format | | Mapping from Application Table Fields (out) | | Mapping to Application Table Fields (in) | |
|---|----------------------------------|--|--|---|---------------------------|
| 5 | | | | | |
| 6 | Organization M an..6 | | | ecedi702.orga | Conversion (see below) |
| 7 | Message M an..6 | | | ecedi702.mess | Conversion (see below) |
| 8 | Order Type M an..35 | | | ecedi702.koor | Conversion (see below) |
| 9 | | | | | |
| 10 | Transmission Date Time M n..8 | | | current date / time | |
| 11 | | | | | |
| 12 | Test M an..1 | | | ecedi702.test | |
| 13 | Data record end sign M an7 | | | SA1_END | |

Detailed description: Carrier Status Information

Type of data record: SA1 Overhead

| Position | 1 | Field Format | an3 | Field Status | M |
|------------|----------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Type of Data Record</u> | | Key field In | | |

Description This field identifies the type of data record in the message block. It contains the constant value 'SA1'.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

This field will be filled with the constant value 'SA1'.

ERP LN

None

| Position | 2 | Field Format | an..14 | Field Status | M |
|------------|--------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Message Reference</u> | | Key field In | | |

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

The special format will be defined in the network parameters in the ERP LN table ecedi020. When generating the message reference with the EDI Sub-System, the created message reference needs to be specific, which means unique. While storing the message reference ERP LN controls whether it is specific.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

The EDI Sub-System generates this number to identify an order and writes it into all data records of an FMS001 message.

ERP LN

Mapping to ERP LN table field ecedi702.bano.

| Position | 3 | Field Format | an..17 | Field Status | M |
|---------------------------------------|--|--------------|----------------------|--------------|---|
| Field Name | <u>Net ID of sender</u> | | Key field Out | | |
| Description | This field contains the identification of the sender (for example the ILN Number) | | | | |
| Processing outgoing EDI Sub-System | Transmission of the value from the message file. | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | | | | | |
| ERP LN | The identification of the sender determines the corresponding business partner (customer) and the network in the table ecedi028 'Relations by network'. This identification is mapped to the ERP LN table field ecedi702.bpid. | | | | |

| Position | 4 | Field Format | an..20 | Field Status | M |
|---------------------------------------|--|--------------|--------|--------------|---|
| Field Name | <u>Load Number</u> | | | | |
| Description | This field contains the Load Number referring to the information message. | | | | |
| Processing outgoing EDI Sub-System | | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | Transmission of the value from the transmission file. | | | | |
| ERP LN | Mapping to ERP LN table field ecedi702.msno. This field should contain the customer purchase order number. | | | | |

| | | | | | |
|-------------------|-----------------------|---------------------|--------------|---------------------|----------|
| Position | 6 | Field Format | an..6 | Field Status | M |
| Field Name | <u>Message</u> | | | | |

Description This field contains the code for the identification of the concerned message. The code for the message type 'Carrier Status Information' is FMS001.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

This field will be filled with the constant value 'FMS001'.

ERP LN

The message code in the table ecedi001 'Supported EDI Messages' determines which internal message in ERP LN is connected to this Carrier Status Information. In the ERP LN table ecedi005 'EDI Messages' is determined for every message which session (DLL) is used in ERP LN to process the message. The message code is mapped to the ERP LN table field ecedi702.mess.

| | | | | | |
|-------------------|----------------------------|---------------------|--------------|---------------------|----------|
| Position | 7 | Field Format | an..6 | Field Status | M |
| Field Name | <u>Organization</u> | | | | |

Description This field contains the organization (Standard), which is used for the EDI communication.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

This field will be filled with the constant value 'BEMIS'.

ERP LN

Mapping to ERP LN table field ecedi702.orga. The corresponding Organization must have been entered into the ERP LN table ecedi003.None

| | | | | | |
|-------------------|--------------------------|---------------------|---------------|---------------------|----------|
| Position | 8 | Field Format | an..35 | Field Status | M |
| Field Name | <u>Order Type</u> | | | | |

Description This field contains a code for the concerned order type.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

ERP LN

Mapping to ERP LN table field ecedi702.koor. In the ERP LN table ecedi200 there must be an entry for this order type in connection with the respective message and organization.

| Position | 10 | Field Format | n..8 | Field Status | M |
|-------------------|---------------------------------------|--------------|------|--------------|---|
| Field Name | <u>Transmission Date /Time</u> | | | | |

Description This field contains on the outgoing side the current date, on which the Carrier Status Information message was created (format: YYYYMMDD).

Processing outgoing
EDI Sub-System

ERP LN Mapping of the current date / time to the position.

Processing Incoming
EDI Sub-System

ERP LN

| Position | 11 | Field Format | n..6 | Field Status | M |
|-------------------|---------------------------------|--------------|------|--------------|---|
| Field Name | <u>Transmission Time</u> | | | | |

Description This field contains on the arrival date / time of the Carrier Status message at the EDI Sub-System (format: HHMMSS).

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System Entry of the arrival date / time of the message at the EDI Sub-System.

ERP LN Mapping to ERP LN table field ecedi702.send

| Position | 12 | Field Format | an1 | Field Status | C |
|-------------------|----------------------------------|--------------|-----|--------------|---|
| Field Name | <u>Identifier of Test</u> | | | | |

Description This field contains the code that will identify incoming messages for this organization as test messages. A test message is checked, but not copied to the database.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System Transmission of the value from the transmission file.

ERP LN Mapping to ERP LN table field ecedi702.test.

SA2 Load

Status: Mandatory

Frequency: Once by Load

Description: This data record contains all information of the Load except of address and text data, and it is related to SA1.

| Carrier Status Information In-house Format | | | | | Mapping from Application Table Fields (out) | | Mapping to Application Table Fields (in) | |
|---|-------------------------|-----|----|--------|--|--------|---|-------------------------------------|
| Pos | Field Description | Key | ST | FM | Table field | Action | Table field | Action |
| 1 | Type of data record | I | M | an3 | | | SA2 | |
| 2 | Message Reference | I | M | an..35 | | | ecedi701.bano | Generation by EDI Sub- System |
| 3 | Net ID of Sender | I | M | an..17 | | | ecedi702.bpid | Conversion (see below) |
| 4 | Load Number | | M | an..9 | | | fmlbd450.load | |
| 5 | Carrier | | M | an..9 | | | fmlbd450.cfrw | Conversion |
| 6 | | | | | | | | |
| 7 | Data record end sign | | M | an7 | | | SA2_END | |

Detailed description: Carrier Status Information
 Type of data record: SA2 Load

| Position | 1 | Field Format | an3 | Field Status | M |
|------------|----------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Type of Data Record</u> | | Key field In | | |

Description This field identifies the type of data record in the message block. It contains the constant value 'SA1'.

Processing outgoing
 EDI Sub-System

ERP LN

Processing Incoming
 EDI Sub-System

This field will be filled with the constant value 'SA1'.

ERP LN

None

| Position | 2 | Field Format | an..14 | Field Status | M |
|------------|--------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Message Reference</u> | | Key field In | | |

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

The special format will be defined in the network parameters in the ERP LN table ecedi020. When generating the message reference with the EDI Sub-System, the created message reference needs to be specific, which means unique. While storing the message reference ERP LN controls whether it is specific.

Processing outgoing
 EDI Sub-System

ERP LN

Processing Incoming
 EDI Sub-System

The EDI Sub-System generates this number to identify an order and writes it into all data records of an FMS001 message.

ERP LN

Mapping to ERP LN table field ecedi702.bano.

| Position | 3 | Field Format | an..17 | Field Status | M |
|------------|-------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Net ID of sender</u> | | Key field In | | |

Description This field contains the identification of the sender (for example the ILN Number)

Processing outgoing
EDI Sub-System

Transmission of the value from the message file.

ERP LN

Processing Incoming
EDI Sub-System

ERP LN

The identification of the sender determines the corresponding business partner (customer) and the network in the table ecedi028 'Relations by network'. This identification is mapped to the ERP LN table field ecedi702.bpid.

| Position | 4 | Field Format | an..9 | Field Status | M |
|------------|--------------------|--------------|-------|--------------|---|
| Field Name | <u>Load Number</u> | | | | |

Description This field contains the Load Number referring to the information message.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

Transmission of the value from the transmission file.

ERP LN

Mapping to ERP LN table field ecedi702.msno. This field should contain the customer purchase order number.

| Position | 5 | Field Format | an..3 | Field Status | M |
|-------------------|-----------------------|--------------|-------|--------------|---|
| Field Name | <u>Carrier</u> | | | | |

Description This field contains the code of the carrier.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System Transmission of the value from the message file.

ERP LN Mapping to the ERP LN table field fmlbd450.cfrw and conversion with ERP LN table ecedi318.

| Position | 7 | Field Format | an7 | Field Status | M |
|-------------------|------------------------------------|--------------|-----|--------------|---|
| Field Name | <u>Data Record end sign</u> | | | | |

Description This field identifies the end of data record in the message block. It contains the constant value 'SA2_END'.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System This field will be filled with the constant value 'SA2_END'.

ERP LN None

SA3 Load Addresses

| | |
|--------------|--|
| Status: | Conditional |
| Frequency: | Twice by Load |
| Description: | This data record contains the specific addresses of the Load and is related data record SA2. |

This data record is not be used currently.

SA4 Load Address Text

| | |
|--------------|---|
| Status: | Conditional |
| Frequency: | Multiple by Load |
| Description: | This data record contains the text information of a Load Address and is related to SA2. |

This data record is not be used currently.

SA5 Shipments

Status: Mandatory
Frequency: Multiple by Load
Description: This data record contains the Shipments of the load and is related to SA2.

| Carrier Status Information In-house Format | | | | | Mapping from Application Table Fields (out) | | Mapping to Application Table Fields (in) | |
|---|-------------------------|-----|----|--------|--|--------|---|-------------------------------------|
| Pos | Field Description | Key | ST | FM | Table field | Action | Table field | Action |
| 1 | Type of data record | I | M | an3 | | | SA5 | |
| 2 | Message Reference | I | M | an..35 | | | ecedi701.bano | Generation by EDI Sub- System |
| 3 | Net ID of Sender | I | M | an..17 | | | ecedi702.bpid | Conversion (see below) |
| 4 | Load Number | I | M | an..9 | | | fmlbd450.load | |
| 5 | Shipment | | M | an..9 | | | fmlbd450.shpm | |
| 6 | Carrier PRO Number | | C | an..30 | | | fmlbd450.cpro | |
| 7 | Load Status | | M | an1 | | | fmlbd450.stat | |
| 8 | Actual Unload date | | C | n..14 | | | fmlbd450.adat | |
| 9 | | | | | | | | |
| 10 | Data record end sign | | M | an7 | | | SA5_END | |

Detailed description: Carrier Status Information
 Type of data record: SA5 Shipments

| Position | 1 | Field Format | an3 | Field Status | M |
|------------|----------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Type of Data Record</u> | | Key field In | | |

Description This field identifies the type of data record in the message block. It contains the constant value 'SA1'.

Processing outgoing
 EDI Sub-System

ERP LN

Processing Incoming
 EDI Sub-System

This field will be filled with the constant value 'SA1'.

ERP LN

None

| Position | 2 | Field Format | an..14 | Field Status | M |
|------------|--------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Message Reference</u> | | Key field In | | |

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

The special format will be defined in the network parameters in the ERP LN table ecedi020. When generating the message reference with the EDI Sub-System, the created message reference needs to be specific, which means unique. While storing the message reference ERP LN controls whether it is specific.

Processing outgoing
 EDI Sub-System

ERP LN

Processing Incoming
 EDI Sub-System

The EDI Sub-System generates this number to identify an order and writes it into all data records of an FMS001 message.

ERP LN

Mapping to ERP LN table field ecedi702.bano.

| Position | 3 | Field Format | an..17 | Field Status | M |
|---------------------------------------|--|--------------|--------------|--------------|---|
| Field Name | <u>Net ID of sender</u> | | Key field In | | |
| Description | This field contains the identification of the sender (for example the ILN Number) | | | | |
| Processing outgoing EDI Sub-System | Transmission of the value from the message file. | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | | | | | |
| ERP LN | The identification of the sender determines the corresponding business partner (customer) and the network in the table ecedi028 'Relations by network'. This identification is mapped to the ERP LN table field ecedi702.bpid. | | | | |

| Position | 4 | Field Format | an..9 | Field Status | M |
|---------------------------------------|--|--------------|--------------|--------------|---|
| Field Name | <u>Load Number</u> | | Key field In | | |
| Description | This field contains the Load Number referring to the information message. | | | | |
| Processing outgoing EDI Sub-System | | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | Transmission of the value from the transmission file. | | | | |
| ERP LN | Mapping to ERP LN table field ecedi702.msno. This field should contain the customer purchase order number. | | | | |

| Position | 5 | Field Format | an..9 | Field Status | M |
|---------------------------------------|---|--------------|-------|--------------|---|
| Field Name | <u>Shipment</u> | | | | |
| Description | This field contains the Shipment number assigned to the Load. | | | | |
| Processing outgoing EDI Sub-System | | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | Transmission of the value from the message file. | | | | |
| ERP LN | Mapping to ERP LN table field fmlbd450shpm | | | | |

| Position | 6 | Field Format | an..30 | Field Status | C |
|---------------------------------------|--|--------------|--------|--------------|---|
| Field Name | <u>Carrier PRO Number</u> | | | | |
| Description | This field contains the Carrier PRO Number to identify the load. | | | | |
| Processing outgoing EDI Sub-System | | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | Transmission of the value from the message file. | | | | |
| ERP LN | Mapping to ERP LN table field fmlbd450.cpro | | | | |

| Position | 7 | Field Format | an1 | Field Status | C |
|---------------------------------------|--|--------------|-----|--------------|---|
| Field Name | <u>Load Status</u> | | | | |
| Description | This field contains the status of the load or the shipment; use the number referring to following possible values: 1 = In Progress 2 = Delivered 3 = Bad Order 4 = At Customs 5 = Storage in Transit 6 = Load Cancelled 7 = Held Consignee Closed | | | | |
| Processing outgoing EDI Sub-System | | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | Transmission of the value from the message file. | | | | |

ERP LN Mapping to ERP LN table field fmlbd450.stat

| Position | 8 | Field Format | n..14 | Field Status | C |
|-------------------|----------------------------------|--------------|-------|--------------|---|
| Field Name | <u>Actual Unload Date</u> | | | | |

Description This field contains the actual unload date / time (YYYYMMDDHHMMSS) unloading the shipment.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System Transmission of the value from the message file.

ERP LN Mapping to ERP LN table field fmlbd450.adat

| Position | 10 | Field Format | an7 | Field Status | M |
|-------------------|------------------------------------|--------------|-----|--------------|---|
| Field Name | <u>Data Record end sign</u> | | | | |

Description This field identifies the end of data record in the message block. It contains the constant value 'SA5_END'.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System This field will be filled with the constant value 'SA5_END'.

ERP LN None

SA6 Shipment Addresses

| | |
|--------------|--|
| Status: | Conditional |
| Frequency: | Multiple by Load |
| Description: | This data record contains the specific addresses of the Shipment and is related data record SA5. |

This data record is not be used currently.

SA7 Shipment Text

| | |
|--------------|---|
| Status: | Conditional |
| Frequency: | Multiple by Load |
| Description: | This data record contains the text information of a Shipment and is related to SA5. |

This data record is not be used currently.

SA8 Shipment Lines

Status: Mandatory

Frequency: Multiple by Load

Description: This data records contain information about the shipped items; it is related to SA5.

| Carrier Status Information In-house Format | | | | | Mapping from Application Table Fields (out) | | Mapping to Application Table Fields (in) | |
|---|-------------------------|-----|----|--------|--|--------|---|-------------------------------------|
| Pos | Field Description | Key | ST | FM | Table field | Action | Table field | Action |
| 1 | Type of data record | I | M | an3 | | | SA8 | |
| 2 | Message Reference | I | M | an..35 | | | ecedi701.bano | Generation by EDI Sub- System |
| 3 | Net ID of Sender | I | M | an..17 | | | ecedi702.bpid | Conversion (see below) |
| 4 | Load Number | I | M | an..9 | | | fmlbd450.load | |
| 5 | Shipment | I | M | an..9 | | | fmlbd450.shpm | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | Shipment Line Number | | C | n..14 | | | fmlbd450.pono | |
| 9 | | | | | | | | |
| 10 | Data record end sign | | M | an7 | | | SA8_END | |

Detailed description: Carrier Status Information
 Type of data record: SA8 Shipment Line

| Position | 1 | Field Format | an3 | Field Status | M |
|------------|----------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Type of Data Record</u> | | Key field In | | |

Description This field identifies the type of data record in the message block. It contains the constant value 'SA1'.

Processing outgoing
 EDI Sub-System

ERP LN

Processing Incoming
 EDI Sub-System

This field will be filled with the constant value 'SA1'.

ERP LN

None

| Position | 2 | Field Format | an..14 | Field Status | M |
|------------|--------------------------|--------------|--------------|--------------|---|
| Field Name | <u>Message Reference</u> | | Key field In | | |

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

The special format will be defined in the network parameters in the ERP LN table ecedi020. When generating the message reference with the EDI Sub-System, the created message reference needs to be specific, which means unique. While storing the message reference ERP LN controls whether it is specific.

Processing outgoing
 EDI Sub-System

ERP LN

Processing Incoming
 EDI Sub-System

The EDI Sub-System generates this number to identify an order and writes it into all data records of an FMS001 message.

ERP LN

Mapping to ERP LN table field ecedi702.bano.

| Position | 3 | Field Format | an..17 | Field Status | M |
|---------------------------------------|--|--------------|--------------|--------------|---|
| Field Name | <u>Net ID of sender</u> | | Key field In | | |
| Description | This field contains the identification of the sender (for example the ILN Number) | | | | |
| Processing outgoing EDI Sub-System | Transmission of the value from the message file. | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | | | | | |
| ERP LN | The identification of the sender determines the corresponding business partner (customer) and the network in the table ecedi028 'Relations by network'. This identification is mapped to the ERP LN table field ecedi702.bpid. | | | | |

| Position | 4 | Field Format | an..9 | Field Status | M |
|---------------------------------------|--|--------------|--------------|--------------|---|
| Field Name | <u>Load Number</u> | | Key field In | | |
| Description | This field contains the Load Number referring to the information message. | | | | |
| Processing outgoing EDI Sub-System | | | | | |
| ERP LN | | | | | |
| Processing Incoming EDI Sub-System | Transmission of the value from the transmission file. | | | | |
| ERP LN | Mapping to ERP LN table field ecedi702.msno. This field should contain the customer purchase order number. | | | | |

| Position | 5 | Field Format | an..9 | Field Status | M |
|-------------------|------------------------|--------------|---------------------|--------------|---|
| Field Name | <u>Shipment</u> | | Key field In | | |

Description This field contains the Shipment number assigned to the Load.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

Transmission of the value from the message file.

ERP LN

Mapping to ERP LN table field fmlbd450shpm

| Position | 8 | Field Format | n..4 | Field Status | M |
|-------------------|------------------------------------|--------------|------|--------------|---|
| Field Name | <u>Shipment Line Number</u> | | | | |

Description This field contains Shipment Line number.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

Transmission of the value from the message file.

ERP LN

Mapping to ERP LN table field fmlbd450.pono

| Position | 10 | Field Format | an7 | Field Status | M |
|-------------------|------------------------------------|--------------|-----|--------------|---|
| Field Name | <u>Data Record end sign</u> | | | | |

Description This field identifies the end of data record in the message block. It contains the constant value 'SA8_END'.

Processing outgoing
EDI Sub-System

ERP LN

Processing Incoming
EDI Sub-System

This field will be filled with the constant value 'SA8_END'.

ERP LN

None

Chapter 3 Definitions, Acronyms, and Abbreviations

3

| Term | Description |
|-------------|---|
| ANSI X12 | American National Standards Institute Accredited Standards Committee X12; Standard definitions of American EDI Directories |
| ASCII | American Standard Code for Information Interchange |
| ASN | Advanced Shipment Notification |
| BEM | Baan Electronic Message - abbreviated form of BEMIS used with the definition of the EDI organization |
| BEMIS | “BAAN Electronic Message Interchange System”; it is used for the ERP LN In-house EDI format |
| BP | Business Partner; used for Customer and Supplier |
| CUM | Cumulated Quantity |
| EDI | Electronic Data Interchange; electronic exchange of documents in standard formats |
| EDIFACT | Electronic Data Interchange for Administration, Commerce and Transport; Standard definitions of United Nations Directories |
| GLN | Global Location Number, a thirteen digit number used to identify legal entities, trading parties and locations. |
| ID | Identification |
| ILN | International Location Number; see GLN |
| VDA | The German Association of the Automotive Industry; Standard definitions of German EDI Directories |

Appendix A Sample File

A

Example incoming message

```
"SA1";"AUSYD200807300000000000030";"etc002";"LOF000407";"BEMIS";"FMS001";";;20080807130500;;  
;"SA1_END"
```

```
"SA2";"AUSYD2008073000000000000030";"etc002";"LOF000407";"VDT";;"SA2_END"
```

```
"SA5";"AUSYD2008073000000000000030";"etc002";"LOF000407";"SHF000376";";2;20080806100800;;"SA5_END"
```

```
"SA8";"AUSYD2008073000000000000030";"etc002";"LOF000407";"SHF000376";";;10;;"SA8_END"
```

```
"SA8";"AUSYD2008073000000000000030";"etc002";"LOF000407";"SHF000376";";;20;;"SA8_END"
```
