Application of ISO/ EDIFACT and OFTP

General

At the end of 1987, the ISO (International Standardization Organization) adopted a general set of rules for the construction of standardized data messages between the industrial, commercial and transport sectors. The rules and syntax were presented in ISO/EDIFACT DIS 9735.

Odette has decided to apply certain ISO/EDIFACT recommendations. This application is presented in the document entitled “Odette application of ISO/EDIFACT - June 1988 Version 3”.

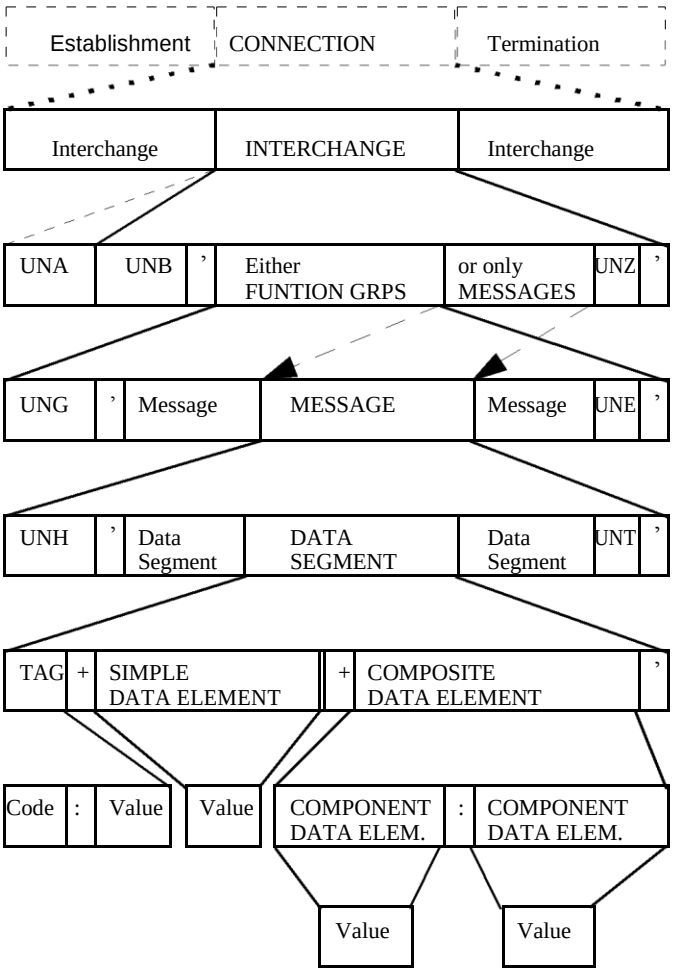
Among the cornerstones of the syntax we find the following:

- Transfer structure
- Service segment (UNB, UNH, UNT, UNZ etc.)
- Separators
- Character sets (abc, ABC)
- Partner Identification

For further information, we recommend you to study the ISO/EDIFACT specification.

Transfer structure

Transfer according to ISO/EDIFACT follows a hierarchical pattern.
The diagram below is from the ISO/EDIFACT specification.



Service segment

Only UNB and UNH and the corresponding final trailer segments UNT and UNZ are used. For a better understanding of the details below, please refer to ISO/EDIFACT 9735 or Odette's implementation of ISO/EDIFACT.

Separators

The following characters are reserved for special use in ISO/EDIFACT:

+ Segment tag and data element separator

: Component data element separator

' Segment terminator

? Release character

Character sets

Volvo supports levels A, B and C. However Volvo recommends the use of **level A** wherever possible. The character sets are specified in section 5 in ISO/EDIFACT.

UNOA allowed characters	A-Z, 0-9, blank and . , ( ) / - =
UNOB allowed characters	a-z, A-Z, 0-9, blank and . , ( ) / - = : + ` ?
UNOC allowed characters	Figures: 0123456789 Space: Upper cases: ABCDEFGHIJKLMNOPQRSTUVWXYZ Lower cases: abcdefghijklmnopqrstuvwxyz Special characters I: ! " % & ' ( ) * + , - . / : ; < = > ? Country-specific upper cases I: ÄÅÉÖÜ Country-specific lower cases I: äåéöü Special characters II: # $ _ Country-specific upper cases II: ÀÁÂÃÆÇÈÊËÌÍÎÏÑÒÓÔÕØÙÚÛß Country-specific lower cases II: àáâãæçèêëìíîïñòóôõøùúûÿ Special characters III: @ [\ ] { | } ¡ ¢ £ ¥ § « _ ¨ » ¼ ½ ¾ ¿

Identification of partners

ODETTE has tried to use existing code systems for identification of partners.This applies to both physical (SSID and SFID) and logical addresses (UNB). However, the various data messages make use of current methods of identifying partners.This means for instance, that each supplier receives a supplier number from each customer and that it is the responsibility of the supplier to keep track of this number.

As regards to physical (SSID and SFID) and logical addressing (UNB), the rules defined for each country participating in Odette are to be applied.
For Sweden, the Mechanical engineering Association has defined the following structures, one for the Physical and two for the Logical Address.

Physical address (SSID & SFID)
O094200009999999999XXXXXX
Odette identifier 1 character = O for Odette
0942 4 characters = ICD code for the Swedish National Tax Board
00009999999999 14 characters = Organization identifier company
XXXXXX 6 characters = Internal code/company

*SSID is used as identification in the OFTP session startup and SFID is used for file control during the file sending/receiving session. SSID & SFID can differ and there could be more than one SFID per SSID (This is the case when there is a connection via a Van service).

Logical address (UNB)
O094200009999999999XXXXXX
0942 4 characters = ICD code for the Swedish National Tax Board
00009999999999 14 characters = Organization identifier company
XXXXXX 6 characters = Internal code/company

The codification rules recommended in ODDC020 are based on the ISO standard 6523 : Data Interchange - Structure for the identification of Organisations.

This unique identification of a party codification system is named **ICD** (International code designator) and is allocated by the BSI on behalf of ISO.

*BSI = British standards institution

Detailed application

Here follows a detailed example of the relevant service segments (UNB, UNH, UNT and UNZ). The example refers to the delivery schedule from the Volvo Truck Corporation (VTC).

The syntax follows the same principles when dealing with the applications of dispatch advice and invoices. The difference is that the sender and receiver change places, and also that other application references are used. For more detailed information see message description.

Segment: **UNB** Seq. No.: 1 Level: 0 **Message header**
Status: M Max. Occ.: 1
Counter: 0010

Name: **Message header**

Description of segment:

UN/EDIFACT			Implementation	
	Name	St Format	St Format	Use / Remarks
UNB				
S001	Syntax Identifier	M		
0001	Syntax Identifier	M a4	M a4	Format UNOA, UNOB or UNOC. UNO, standing for Edifact syntax, followed by a code for character A, B or C
0002	Syntax version number	M n1	M n1	Syntax version
S002	Interchange sender	M		
0004	Sender identification	M an..35	M an..24	Logical address of the sender (for details see page 4)
0007	Partner identification code qualifier	C an..4	D an2	
0008	Address for reverse routing	C an..14	D an..14	
S003	Interchange recipient	M	M	
0010	Recipient identification	M an..35	M an..24	Logical address of the recipient (for details see page 4)
0007	Partner identification code qualifier	C an..4	D an2	
0014	Routing address	C an..14	D an..14	
S004	Date/Time of preparation	M	M	
0017	Date of preparation	M n6	M n6	The date when the interchange was prepared
0019	Time of preparation	M n4	M n4	The time when the interchange was prepared
0020	Interchange control reference	M an..14	M an..14	Unique serial no./ recipient and interchange type.
S005	Recipient's reference, password	C	N	not used
0022	Recipient's reference, password	C an..14	N	not used
0025	Recipient's reference qualifier	C an2	N	not used
0026	Application reference	C an..14	D	To be used after special agreement
0029	Processing priority code	C a1	N	not used
0031	Acknowledgement request	C n1	N	not used
0032	Communication agreement ID	C an..32	N	not used
0035	Test indicator	C n1	D n1	Insert 1 during the test period.

Remark: Volvo Group requires all EDI partners to have unique UNB ID per each supplier's entity. For details see page 4 and 6

Example:

UNB+UNOA:1+09420000556013970O:30:001001+09420000556677889 9:30:YYYYYY+1300124:1735+1++++++1'

Logical address (UNB 0004/0010)
Only logical address itself or logical address with the qualifier (UNB 0007) and internal code (UNB 0008/0014) produce a unique global identity for the sender or recipient. It is important that the logical address is based on the recommendations specified by the national Odette organization (see page 4).

Qualifier (UNB 0007)
Refers to the logical address (0004/0010). A level of significance is given to the logical address, depending on the value allocated to the qualifier. A value of OD or 30 shows that Odette's rules apply to the logical address.

Logical addresses with the qualifier OD are in accordance with the former rules for the logical address. This qualifier is replaced by qualifier 30 when the software or the network restricts the use of the qualifier to 30, in this case a special agreement has to be established.
Volvo will use the latter qualifier for new installations.

Internal code per company (UNB 0008/0014)

Can be used to address a unit/business process within a company.

Examples of logical addresses:

LOGICAL ADDRESS UNB 0004/0010 using qualifier
UNB 007 = OD 094200009999999999YYYYYY

where, 0942 = Code for the Swedish National Tax Board
00009999999999 = National Tax Board company code
YYYYYY = Internal code per company

UNB+UNOA:1+094200009999999999YYYYYY:OD+094200008888888888YYYYYY:OD+130120:0355+8644753'

LOGICAL ADDRESS UNB 0004/0010 using qualifier
UNB 0007 =30 094200009999999999

where,0942 = Code for the Swedish National Tax Board
00009999999999 = National Tax Board company code
UNB 0008/0014 using qualifier UNB 0007 = 30 YYYYYY = Internal code per company

UNB+UNOA:1+094200009999999999:30:YYYYYY+094200008888888888:30:YYYYYY+130120:0355+8644753'

UNH, MESSAGE HEADER M (M)

The beginning of every message in a transferred data file must have a UNH segment. The introduction for the DELJIT message would look like this: UNH+214500001+DELJIT:D:04B:UN:GMI061'

0062 MESSAGE REFERENCE NUMBER **M an..14**

Unique Serial number within the interchange. If the same type of message occurs several times during the transfer, each new occurrence of the message will get the next serial no. In the sequence.

S009 MESSAGE IDENTIFIER **M (M)**

0065 Message type **M an..6 (M an..6)**

type of message being transmitted

0052 Message version number **M an..3 (M an..3)**

Current version of the message.

0054 Message Release number **M an..3 (M an..3)**

0051 Controlling agency **M an..2 (M an..2)**

UN for United Nations

0057 Associated Assigned Code **R an..6 (C an..6)**

UNT, MESSAGE TRAILER M(M)

Every message in the transmission is concluded with a trailer segment.
This segment contains the following information: UNT+657+1'

0074 NUMBER OF SEGMENTS IN THE MESSAGE M n..6 (M n..6)

No. of segments in the message (incl. UNH and UNT).

0062 MESSAGE REFERENCE NUMBER M an..14 (M an..14)

Unique serial number within the interchange.
Shall be identical to 0062 in UNH (see above).

UNZ, INTERCHANGE TRAILER M(M)

Every transmission is concluded with a trailer segment.
This segment contains the following information: UNZ+2+1'

0036 INTERCHANGE CONTROL COUNT M n..6 (M n..6)

No. of messages in the transmission (irrespective of message type).

0020 INTERCHANGE CONTROL REFERENCE M an..14

Shall be identical to 0020 in UNB (see above).