

SECTION

# VII

## General Message Guidelines

*Version 4.0*



***EASEE-gas/Edig@s Workgroup***

***Document version: 2***



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## 1 INTRODUCTION

The following rules are applicable for all the messages contained in this version of the *Edig@s* Message Implementation Guidelines:

### 1.1 EDIG@S DOCUMENT UNIQUENESS

An Edig@s document shall be identified by the identification of the Sender of the message and the Document Identifier. Each document shall have a new identification which shall be unique over time.

### 1.2 TIME IDENTIFICATION

*Edig@s* strongly recommends using UTC as the standard time metrology in the messages as recommended in the CBP 2003-002/01. When parties involved are located in different time zones this will largely simplify the correct definition and understanding of the time indications. Additionally the annual switch to and from daylight saving time does not affect UTC.

To identify UTC in an EDIFACT message the first DTM segment shall be:

DTM+Z05:0:805' whereby:

- Qualifier Z05 (= Time definition) in C507:2005;
- The offset from UTC in tag 2380. Since UTC is used this offset = 0.
- Qualifier 805 (= Hour, indication of number of hours) in C507:2379.

There is no need to make any further reference to UTC in the rest of any Edig@s messages that are used.

In the case of XML dates and times the standardised format from ISO 8601 shall be used.

**ATTENTION:**

**It is mandatory that all times included in a message are provided with the same time definition.**

### 1.3 VALUES FOR HOUR DEFINITION

The identification of an hourly period in the *Edig@s* messages is done according to the following rules:

- Values for hours range from **00h** to **23h**
  - I.e.: the last hour of a day is from 23h00 till 00h00
  - the first hour of the next day is from 00h00 till 01h00
  - It is thus clear that the first hour in a combination is always inclusive and the last hour of a combination is always exclusive.
- Values for minutes range from **00** to **59**
  - E.g.: 0300, 0301, 0302, ..., 0358, 0359, 0400

## 1.4 DAYLIGHT SAVING TIME

As indicated above the use of UTC, as strongly recommended by *Edig@s*, makes the messages independent of any impact due to Daylight Saving Time. However on the change to daylight saving time (summertime) the day in question has only 23 hours. On contrary on the change from daylight saving time (wintertime) the day in question has 25 hours.

Switch to daylight saving time e.g. CEST	
	UTC
1 <sup>st</sup> hour	05000600
2 <sup>nd</sup> hour	06000700
...	...
20 <sup>th</sup> hour	00000100
21 <sup>st</sup> hour	01000200
22 <sup>nd</sup> hour	02000300
23 <sup>rd</sup> hour	03000400

Switch from daylight saving time e.g. CET	
	UTC
1 <sup>st</sup> hour	04000500
2 <sup>nd</sup> hour	05000600
...	...
20 <sup>th</sup> hour	23000000
21 <sup>st</sup> hour	00000100
22 <sup>nd</sup> hour	01000200
23 <sup>rd</sup> hour	02000300
24 <sup>th</sup> hour	03000400
25 <sup>th</sup> hour	04000500

## 1.5 DTM AT HEADER LEVEL

In each *Edig@s* EDIFACT message, except for APERAK and CONTRL, 3 (three) DTM segments must be used at header level.

The first DTM segment must always indicate the time metrology that is used for the whole message, e.g. UTC (Controlled Universal Time), GMT (Greenwich Mean Time), etc.

The second DTM must always contain the date and time of issuance of the message (DTM-C507:2005 = 137).

The third DTM must be used to define the period that is relevant for the data contained in the message (e.g. Gasday definition).

## 1.6 CHANGING PREVIOUSLY SENT MESSAGES

If a complete message is being changed the procedure is rather straightforward in so far as the original message is completely replaced by the new one.

- If only specific parts of a message have to be changed then a completely new message is transmitted, including the changed **and** unchanged elements.

## 1.7 UNITS USED IN MESSAGES

In line with the EASEE-Gas Recommendation "CBP Harmonisation of Units" *Edig@s* recommends the use of the following unit standards in the *Edig@s* messages

Pressure:	bar
Energy:	kWh (with a combustion reference temperature of 25°C)
Volume:	m3 (at 0°C and 1.01325 bar) (normal m3)
Gross Calorific Value:	kWh/m3 (normal m3), with a combustion reference temperature of 25°C

In case other unit references or scales are used within *Edig@s* messages, a bilateral operating agreement between the sending and receiving parties shall state the references used. No conversion parameters shall be included in the

*Edig@s* message in case other references are used for pressure, energy, volume or Gross Calorific Value.

## 1.8 CODE VALUES

When coded entries are required, the valid code values can either be found:

- In the segment description when only one code value is allowed (in the template)
- In a restricted code list immediately after the segment description (in the template)
- In the *Edig@s* code list if the code list is not restricted.

The definition of the various code values is only provided in the relevant list in the *Edig@s* Code list.

**Attention:**

Missing code values should be reported to the *Edig@s* Workgroup who will arrange for adequate action. See the *Edig@s* Maintenance Procedure.

## 1.9 SYNTAX VERSION USED

The *Edig@s* messages must be used with EDIFACT Syntax (ISO 9735) version 3 **but only in combination with character set A.**

## 1.10 EXAMPLES

Examples are added to illustrate how message templates can be implemented. Those examples are fictitious and DO NOT necessarily represent an actual operational situation. Under actual operational conditions those messages may be more complex while involving more information. Since this example is only illustrative it MAY NEVER be used as a basis for programming or implementing this message.

## 1.11 FLOW DIRECTION CONVENTION

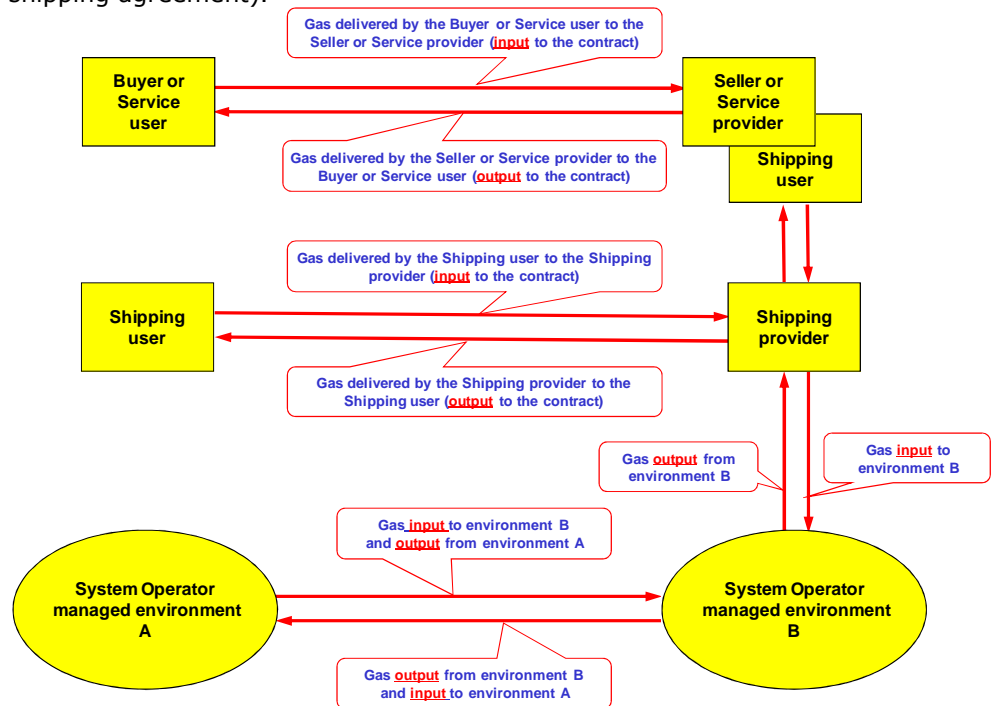
An Input quantity is the quantity entering a system (pipeline, storage, ...) operated by a System Operator (Transmission System Operator (TSO), Storage System Operator (SSO), ....)

An Output quantity is the quantity exiting a system (pipeline, storage, ...) operated by a System Operator (TSO, SSO, ....)

In all messages exchanged between System Operator and Shipper, Input and Output are related to system operated by the System Operator (i.e. the System Operator is the "Master")

In all messages exchanged between System Operators, each System Operator declares Input and Output in relation to his system (for instance: Input quantities sent from TSO1 to TSO2 with a DELORD-message will become Output quantities in the corresponding DELRES-message sent from TSO2 to TSO1 and vice versa)

In case the quantities do not directly relate to a system operated by a System Operator, for instance under Gas Sales Agreements or Service Agreements, Input quantities are quantities put into the contract and Output quantities are quantities delivered out of the contract. Quantities provided by a Seller to a Buyer are Output quantities (delivered out of the sales agreement). Quantities provided by a Shipping user to a Shipping provider are Input Quantities (into the shipping agreement).



**FIGURE 1 INPUT/OUTPUT MESSAGE DIRECTION**

## 1.12 EDIG@S INTERCHANGE

For a standardised implementation of the *Edig@s* EDIFACT messages the following interchange related rules should be followed:

- *Edig@s* interchanges may only contain ONE message, i.e. one UNH/UNT pair. Interchanges containing more than one message will be rejected.
- *Edig@s* only uses the standard separators as defined in the EDIFACT Syntax Rules and therefore the use of the service segment 'UNA – Service String Advice' is redundant. Interchanges containing a message with other than the standard separators will be rejected. For more information on the standard EDIFACT separators as used by *Edig@s*.
- All *Edig@s* interchange segment headers (UNB) and footers (UNZ) shall respect the following formats:

UNB – M		INTERCHANGE HEADER - To start, identify and specify an interchange.		
S001:0001	M	a4	Syntax identifier	Coded identification of the agency controlling a syntax and syntax level used in an interchange. <b>UNOA</b>
S001:0002	M	n1	Syntax version number	Version number of the syntax identified in the syntax identifier(0001) <b>3</b>
S002:0004	M	an..35	Sender identification	Name or coded representation of the sender of a data interchange. <b>Sender identification code</b>
S002:0007	M	an..4	Partner identification code qualifier	Qualifier referring to the source of codes for the identifiers of interchanging partners. <b>See restricted code list below</b>
S002:0008	C	an..14	Address for reverse routing	Address specified by the sender of an interchange to be included by the recipient in the response interchanges to facilitate internal routing. <b>NOT USED</b>
S003:0010	M	an..35	Recipient identification	Name or coded representation of the recipient of a data interchange. <b>Recipient identification code</b>
S003:0007	M	an..4	Partner identification code qualifier	Qualifier referring to the source of codes for the identifiers of interchanging partners. <b>See restricted code list below</b>
S003:0014	C	an..14	Routing address	Address specified by the recipient of an interchange to be included by the sender and used by the recipient for routing of received interchanges inside his organization. <b>NOT USED</b>
S004:0017	M	n6	Date of preparation	Local date when an interchange or a functional group was prepared. <i>Date interchange is issued in format YYMMDD</i>
S004:0019	M	n4	Time of preparation	Local time of day when an interchange or a functional group was prepared. <i>Time interchange is issued in format HHMM</i>
0020	M	an..14	INTERCHANGE CONTROL REFERENCE	Unique reference assigned by the sender to an interchange. <i>Unique reference of interchange assigned by sender.</i>
S005:0022	C	an..14	Recipient's reference/password	Unique reference assigned by the recipient to the data interchange or a password to the recipient's system or to a third party network as specified in the partners interchange agreement. <b>NOT USED</b>
S005:0025	C	an2	Recipient's reference/ password qualifier	Qualifier for the recipient's reference or password. <b>NOT USED</b>
0026	C	an..14	APPLICATION REFERENCE	Identification of the application area assigned by the sender, to which the messages in the interchange relate e.g. the message identifier if all the messages in the interchange are of the same type. <b>NOT USED</b>
0029	C	a1	PROCESSING PRIORITY CODE	Code determined by the sender requesting processing priority for the interchange. <b>NOT USED</b>
0031	C	n1	ACKNOWLEDGEMENT REQUEST	Code determined by the sender for acknowledgement of the interchange. <b>NOT USED</b>
0032	C	an..35	COMMUNICATIONS AGREEMENT ID	Identification by name or code of the type of agreement under which the interchange takes place. <b>NOT USED</b>
0035	C	n1	TEST INDICATOR	Indication that the interchange is a test. <i>See restricted code list below</i>
<b>Remarks</b>		<i>There is one mandatory occurrence of UNB per interchange.</i>		
<b>Example</b>		UNB+UNOA:3+21X-BUYER-CODE-7:305+21X-SELLER-CODEL:305+030527:1145+2003009876'		



Restricted code list for UNB-S002:0007	
305	Assigned by an ETSO Issuing Office (EIC) (Recommended)
501	Assigned by EASEE-gas/Edig@s
14	Assigned by GS1 (EAN)
ZSO	Assigned by System Operator
Restricted code list for UNB-0035	
1	Test

UNZ – M	INTERCHANGE TRAILER – To end and check the completeness of an interchange			
0036	M	n..6	INTERCHANGE CONTROL COUNT	The count either of the number of messages or, if used, of the number of functional groups in an interchange. One of these counts shall appear. <i>Total number of messages in the interchange</i>
0020	M	an..14	INTERCHANGE CONTROL REFERENCE	Unique reference assigned by the sender to an interchange. <i>Must be identical to UNB-0020</i>
<b>Remarks</b>	<i>There is one mandatory occurrence of UNZ at the end of an interchange.</i>			
<b>Example</b>	<b>UNZ+1+2003009876'</b>			

### 1.13 QUANTITY ASSIGNMENT

All quantities assigned to data element 6060 shall only be expressed as a numeric value using the characters in the range 0 to 9 in addition to a single decimal sign. Only a negative decimal sign is permitted.  
In addition all quantities with a unit of measure such as Kilowatts shall not contain a decimal sign since the sign is not an integral part of the quantity value and is generally used merely to express an additional concept.  
Negative values are permissible for quantities with a unit of measure such as temperature since the sign is an integral part of the quantity value and expresses no additional concept.

### 1.14 MEASURE ASSIGNMENT

All values assigned to data element 6314 shall respect the same rules defined for Quantity assignment.

### 1.15 ZERO QUANTITY VALUES

If a quantity has a value of zero then the following rules shall be followed to define the direction of the zero value:

1. If the complete time series is input then the zero quantity shall be input
2. If the complete time series is output then the zero quantity shall be output
3. If the time series is a mix of input and output then the zero quantity may be indifferently input or output.

In the case of debit and credit zero values the same basic rules shall apply, namely:

1. If the complete time series is debit then the zero quantity shall be debit
2. If the complete time series is credit then the zero quantity shall be credit
3. If the time series is a mix of debit and credit then the zero quantity may be indifferently debit or credit.

### 1.16 DECIMAL MARK

The decimal mark is the point (".").

### 1.17 INTERNAL AND EXTERNAL SHIPPER ACCOUNT DEFINITIONS

An Internal Shipper Account corresponds to an account known to the System Operator responsible for the area covered.

An External Shipper Account corresponds to an account known to a System Operator and not directly under its area of responsibility.

## 1.18 DEBIT AND CREDIT DEFINITION

A debit refers to a quantity that decreases a balance account.

A credit refers to a quantity that increases a balance account.

In the case where a balance value is provided, a debit balance value refers to a balance amount that is owed to the owner of the account.

In the case where a balance value is provided, a credit balance value refers to a balance amount that is due by the owner of the account.

## 1.19 USE OF THE LIN SEGMENT

The LIN segment, barring a change in the DTM or the QTY direction, is required to be repeated if there is a change in all other LIN segment group content.

## 1.20 RULES CONCERNING THE DATE AND TIME FORMAT

All times in Edig@s messages must be expressed in UTC.

The date and time must be expressed in the following manner depending on the syntax implementation:

1. For XML messages:

- The Date and time must be expressed respecting ISO 8601 in the following manner YYYY-MM-DDTHH:MM:SSZ.
- Periods must be expressed as follows  
YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.

2. For Edifact messages:

- UTC is expressed as DTM+Z05:0:805' to indicate that the times are in UTC.
- The Date and time must be expressed in the DTM segment in the following manner: DTM+137:YYYYMMDDHHMM:203' to provide the date and time.
- Periods must be expressed in the DTM segment in the following manner DTM+Z01:YYYYMMDDHHMMYYYYMMDDHHMM:719'.

## 1.21 RULES CONCERNING THE USE OF A PARTICULAR CODING SCHEME FOR PARTY IDENTIFICATIONS

For international trade all party identifications shall respect the CBP 2007-003/01 "Company's identifier encoding". The recommended coding scheme shall in this case always be the Energy Identification Coding scheme (EIC).

For internal trade it is recommended to use the same coding scheme but local rules may dictate the use of other schemes.

## 1.22 EDIG@S PACKAGES

With the introduction of version 4.0 of the Edig@s, the concept of a "Package" has been developed.

An Edig@s package provides a homogeneous set of messages that support the processes defined within the scope of the package.

Each message within a package is at a given version in its evolution.

Each package is identified by the following "EGASxx" where xx corresponds to a one character version number and a one character release number (e.g. EGAS40).

Parties opting to use the *Edig@s* standard should always implement the most recently published package. All parties should make provisions to be able to handle at least two versions of the standard, one being the latest published package.

Which package will be used between two parties should be agreed bilaterally in the Operational Agreement.

Within the package a message may evolve to cater for corrections or minor evolutions. Depending on the nature of the message evolutions the package release identification may change (i.e. the last character in the package identification).

An Edig@s revision of a package will only occur at a minimum of two years.

## 1.23 MULTIPLE VERSIONS OF EDIG@S MESSAGES

In order to be usable a standard needs to evolve and to adapt to changing operating environments as well as to evolving and new market requirements. This is why there are multiple versions of an *Edig@s* message.

Edig@s shall only make changes or evolutions to the last version of a message that has been published on the *Edig@s* website.

New requirements resulting in a structural change of an existing message model will result in a new model being issued and a new version of the message being released in the current package.

### 1.23.1 Identification of a version in UN/EDIFACT messages

The UNH segment of each *Edig@s* message provides the information that enable a given message version to be clearly identified. The following fields of the UNH segment are providing this information:

1. (UNH-S009:0065) Provides the identification of the message in question
2. (UNH-S009:0052) provides the version of the message in question. A message is assigned a version number that is unique throughout the lifespan of the message. Thus the message identification and its version shall always uniquely identify message structure content.
3. (UNH-S009:0051) shall always be equal to "EG" indicating that it is an Edig@s document structure.
4. (UNH-S009:0057) shall define the Edig@s package that the message belongs in. This indicates under what general conditions that the message is being provided.

### 1.23.2 Identification of a version in XML documents

The XML document attributes Version and Release shall provide the information that enables a given message version to be clearly identified:

1. Version shall provide the Edig@s package that the message belongs in (i.e. the same value that is to be found in UNH-S009:0057).
2. Release provides the version of the message in question (i.e. the same value that is to be found in UNH-S009:0052).

The name of the XML document provides the same information as the name identified in the UN/EDIFACT UNH segment S009:0065.

Consequently the same information is available in both the UN/EDIFACT messages and the XML documents to clearly identify the Message Implementation Guide used to describe the message.

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## 2 DOCUMENT CHANGE LOG

Version	Date	Description
1	2009-04-27	Document issued
2	2009-10-13	Clarifications to quantity assignment and measurement assignment and minor editorial corrections