

SECTION

II

Infrastructure Messages

10

INSTRN

Instruction Message

Version 4.0



EASEE-gas/Edig@s Workgroup

Document version: 1

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Please note that as of version 5 of the Edig@s message set;
only the XML syntax shall be supported
This is in compliance with the EASEE-gas CBP 2007-005/01

1 INTRODUCTION

This document provides the definition of the Edig@s Instructions and Instruction response – INSTRN - message to be used in Electronic Data Interchange (EDI) between Gas Companies.

It is strongly recommended to read the Introduction to the Edig@s MIG before implementing a template since it contains a number of general rules that are applicable for all the Edig@s messages.

1.1 FUNCTIONAL DEFINITION

An instruction message can be used in two forms:

- As an *instruction* that is sent by the System Operator to a plant operator to provide instructions of for the operation of the plant.
- As an *instruction response* that is sent by the plant operator to the System Operator acknowledging the instruction request message and providing information on the action that has been taken

The current definition of the message, as described in this guideline reflects its use in the current Gas Industry procedure. It does not however preclude the use of this message between other parties than those indicated in this description. The criteria for the use of the message should be its functionality rather than the parties involved.

1.2 PRINCIPLES

The INSTRN message is used to exchange set point information for steering the gasflow on a regular basis.

1.3 FIELD OF APPLICATION

The INSTRN message is used by a System Operator to send the nominated flow setpoints to a Plant Operator.

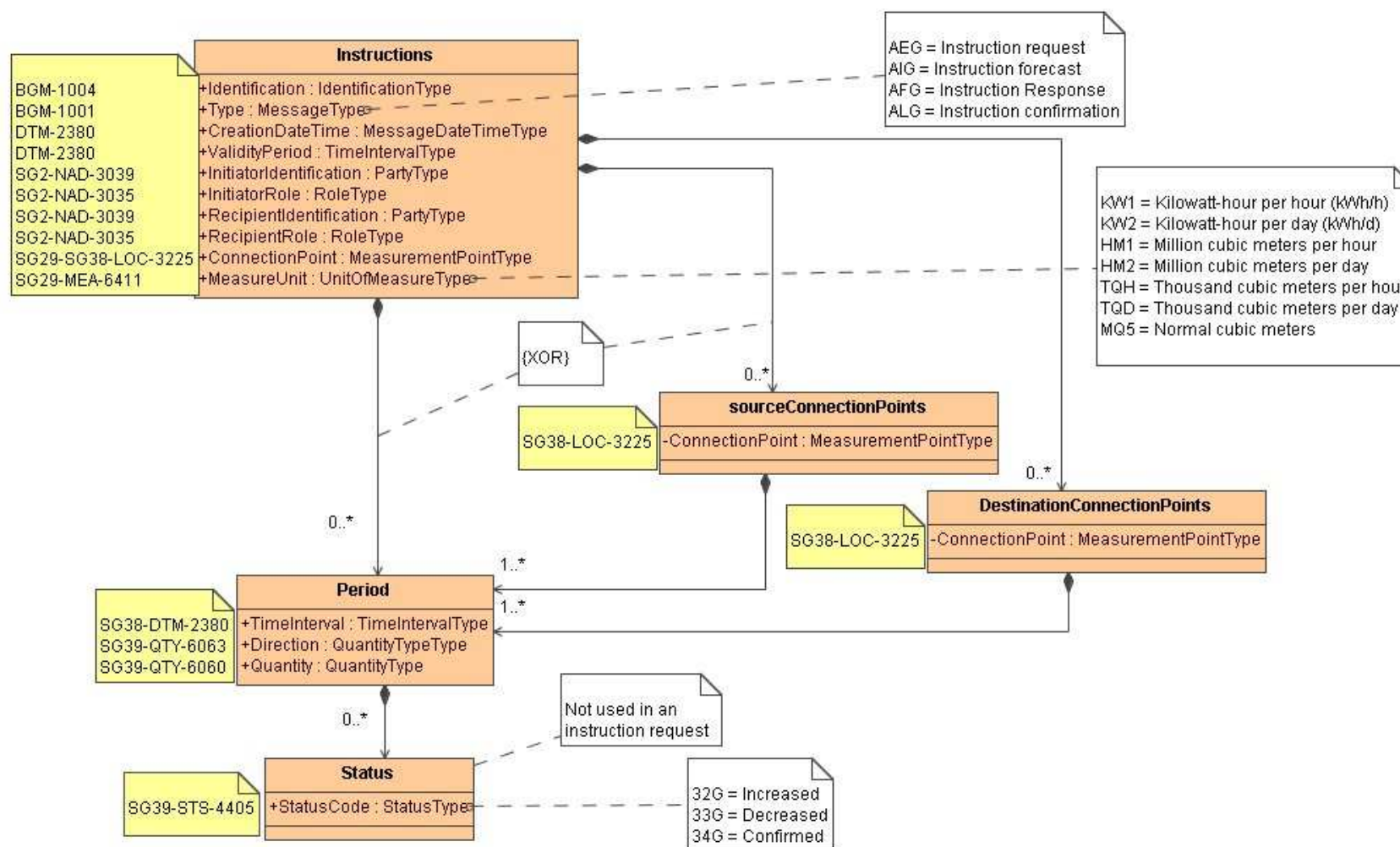
It is also used by a Plant Operator to send the calculated best effort setpoints to a System Operator.

1.4 REFERENCES

The content of the INSTRN messages are based on the definition of terms and codes as agreed by the Edig@s Workgroup.

2 INFORMATION MODEL FOR INSTRN

2.1 INFORMATION MODEL STRUCTURE



2.2 INFORMATION MODEL DESCRIPTION

2.2.1 Rules governing the Instructions Document Class

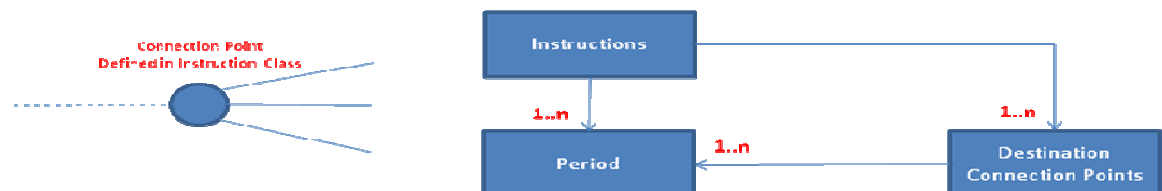
An Instructions document may address a single Connection Point or multiple connection points. The following three diagrams describe the different possibilities for the use of the model:

1. *An unspecified source and destination*



In this case only the *Period* class related directly with the *Instructions* class shall be used to provide the time series information. This is the general case.

2. *An unspecified source with multiple destinations*

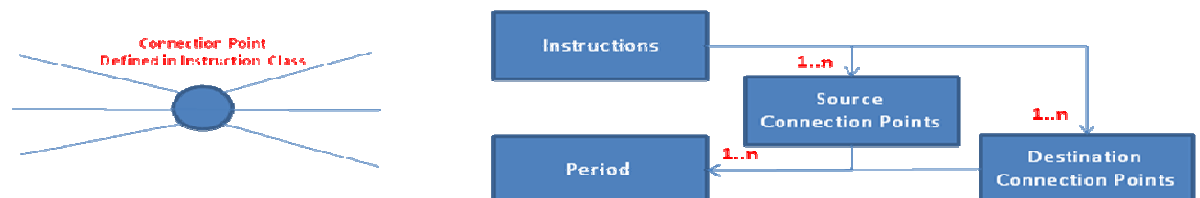


In this case the *Period* class related to the *Instructions* class shall be used to provide the time series information entering the Connection Point.

The *Destination Connection Points* class shall be used to identify the connection point for each destination.

The *Period* class related to the *Destination Connection Points* class shall be used to provide the time series information for each destination connection point.

3. *Multiple specified sources with one or multiple destinations*



In this case there is no *Period* class related to the *Instructions* class.

The *Source Connection Points* class shall be used to identify the connection point for each source.

The *Period* class related to the *Source Connection Points* class shall be used to provide the time series information for each source connection point.

The *Destination Connection Points* class shall be used to identify the connection point for each destination.

The *Period* class related to the *Destination Connection Points* class shall be used to provide the time series information for each destination connection point.

Note: the possibility of multiple source connection points and a single destination point uses this same possibility with only one *Destination Connection Points* class.

2.2.1.1 IDENTIFICATION

ACTION	DESCRIPTION
Definition of element	Unique identification of the document describing the instructions document.
Description	<p>An Instructions document must have a unique identification assigned by the initiator of the document to be sent to a recipient.</p> <p>The identification must take the following form: INSTRN followed by the date in the form YYYYMMDD followed by the letter "A" followed by a 5 character sequential number (e.g. 00001) providing the unique identification of the document. Example "INSTRN20090101A00001".</p> <p>The sender must guarantee that this identification is unique over time</p>
Size	The identification of a Instructions document may not exceed 35 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None

2.2.1.2 TYPE

ACTION	DESCRIPTION
Definition of element	The type of the document being sent.
Description	<p>This identifies the type of Instructions Document that is being sent.</p> <p>The following types of Instructions Document are currently permitted:</p> <p>AEG =Instruction Request. An instruction sent by the System Operator to a Plant Operator to provide instructions of for the operation of the plant.</p> <p>AIG = Instruction forecast. an instruction sent by the System Operator to a plant operator to provide a forecast of instructions for the operation of the plant</p> <p>AFG = Instruction Response. an instruction reply sent by the plant operator to the System Operator acknowledging the instruction request message and providing information on the action that has been taken.</p> <p>ALG = Instruction confirmation. A confirmation to an instruction response containing the confirmed values that will be taken into consideration.</p>
Size	A type may not exceed 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

2.2.1.3 CREATIONDATETIME

ACTION	DESCRIPTION
Definition of element	Date and time of the creation of the Document.
Description	The date and time that the document was prepared for transmission by the application of the initiator.
Size	Refer to section 1.20 of the Edig@s General Guidelines for information on the attribute structure.
Applicability	This information is mandatory.
Dependence requirements	None.

2.2.1.4 VALIDITYPERIOD

ACTION	DESCRIPTION
Definition of element	The start and end date and time of the period of validity covered in the document.
Description	This information provides the start and end date and time of the period of validity of the document.
Size	Refer to section 1.20 of the Edig@s General Guidelines for information on the attribute structure.
Applicability	This information is mandatory.
Dependence requirements	None.

2.2.1.5 INITIATORIDENTIFICATION – CODINGScheme

ACTION	DESCRIPTION
Definition of element	Identification of the party who has initiated the document.
Description	The initiator of the document is identified by a unique coded identification. This code identifies the party that is the "owner" of the information being transmitted in the document. The codification scheme used for the coded identification is indicated by the coding scheme attribute and should indicate either the code "321" if it is an Edig@s code or the code "305" if it is an EIC code.
Size	The maximum length of an initiator's identification is 16 alphanumeric characters. The maximum length of the coding scheme code is 3 alphanumeric characters.
Applicability	Both the identification and the coding scheme are mandatory.
Dependence requirements	None.

2.2.1.6 INITIATORROLE

ACTION	DESCRIPTION
Definition of element	Identification of the role that the party who has initiated the document is playing.
Description	The role being played by the initiator of the document for this transmission. In the case of the transmission of an Instructions document this shall always be equal to "ZSO" for "System Operator". In the case of the transmission of an Instructions Response this shall always be equal to "ZSZ" for "Plant Operator".
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

2.2.1.7 RECIPIENTIDENTIFICATION – CODINGScheme

ACTION	DESCRIPTION
Definition of element	Identification of the party who is receiving the document.
Description	The recipient of the document is identified by a unique coded identification. The codification scheme used for the coded identification is indicated by the coding scheme attribute and should indicate either the code "321" if it is an Edig@s code or the code "305" if it is an EIC code.
Size	The maximum length of a recipient's identification is 16 alphanumeric characters. The maximum length of the coding scheme code is 3 alphanumeric characters.
Applicability	Both the identification and the coding scheme are mandatory.
Dependence requirements	None.

2.2.1.8 RECIPIENTROLE

ACTION	DESCRIPTION
Definition of element	Identification of the role that the party who receives the document is playing.
Description	The role being played by the recipient of the document for this transmission. In the case of the transmission of an Instructions document this shall always be equal to "ZSZ" for "Plant Operator". In the case of the transmission of an Instructions Response this shall always be equal to "ZSO" for "System Operator".
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

2.2.1.9 CONNECTIONPOINT – CODINGScheme

ACTION	DESCRIPTION
Definition of element	The identification of the Connection Point that is the subject of this document.
Description	The identification of the connection point within a System Operator's system for which the document is referencing. The codification scheme used for the coded identification is indicated by the coding scheme attribute and should indicate either the code "321" if it is an Edig@s code, the code "305" if it is an EIC code, the code "9" if it is a GS1 code or the code "ZSO" if it is a System Operator code.
Size	The maximum length of the connection point identification is 16 alphanumeric characters. The maximum length of the coding scheme is 3 alphanumeric characters
Applicability	Both the connection point identification and the coding scheme are mandatory.
Dependence requirements	None.

2.2.1.10 MEASUREUNIT

ACTION	DESCRIPTION																
Definition of element	The unit of measure which is applied to all the quantities in the time series of the document.																
Description	<p>The unit of measurement used for all the quantities expressed within a time series.</p> <p>The following are the codes recommended for use:</p> <table> <tr> <td>KW1</td><td>Kilowatt-hour per hour (kWh/h)</td></tr> <tr> <td>KW2</td><td>Kilowatt-hour per day (kWh/d)</td></tr> <tr> <td>HM1</td><td>Million cubic meters per hour</td></tr> <tr> <td>HM2</td><td>Million cubic meters per day</td></tr> <tr> <td>TQH</td><td>Thousand cubic meters per hour</td></tr> <tr> <td>TQD</td><td>Thousand cubic meters per day</td></tr> <tr> <td>MQ6</td><td>Normal cubic meters per hour</td></tr> <tr> <td>MQ7</td><td>Normal cubic meters per day</td></tr> </table>	KW1	Kilowatt-hour per hour (kWh/h)	KW2	Kilowatt-hour per day (kWh/d)	HM1	Million cubic meters per hour	HM2	Million cubic meters per day	TQH	Thousand cubic meters per hour	TQD	Thousand cubic meters per day	MQ6	Normal cubic meters per hour	MQ7	Normal cubic meters per day
KW1	Kilowatt-hour per hour (kWh/h)																
KW2	Kilowatt-hour per day (kWh/d)																
HM1	Million cubic meters per hour																
HM2	Million cubic meters per day																
TQH	Thousand cubic meters per hour																
TQD	Thousand cubic meters per day																
MQ6	Normal cubic meters per hour																
MQ7	Normal cubic meters per day																
Size	The maximum length of this information is 3 alphanumeric characters.																
Applicability	This information is mandatory.																
Dependence requirements	None.																

2.2.2 Rules governing the Source Connection Points Class

The class Source Connection Points shall only be used if there are multiple source connection points. In the case it is used, the association between the Instructions Class and the Period Class shall is not permitted.

2.2.2.1 CONNECTIONPOINT – CODINGScheme

ACTION	DESCRIPTION
Definition of element	The identification of a source Connection Point.
Description	<p>The identification of a source connection point within a System Operator's system.</p> <p>If a source connection point is provided the association between the Instructions Class and the Period Class must not be used.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute and should indicate either the code "321" if it is an Edig@s code, the code "305" if it is an EIC code, the code "9" if it is a GS1 code or the code "ZSO" if it is a System Operator code.</p>
Size	<p>The maximum length of the connection point identification is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme is 3 alphanumeric characters</p>
Applicability	Both the connection point identification and the coding scheme are mandatory
Dependence requirements	None.

2.2.3 Rules governing the Destination Connection Points Class

The Destination Connection Points class is only necessary if there are multiple Destinations. It may also be used in the case of multiple source connection points and a single destination connection point.

2.2.3.1 CONNECTIONPOINT – CODINGScheme

ACTION	DESCRIPTION
Definition of element	The identification of a destination Connection Point.
Description	The identification of a destination connection point within a System Operator's system. The codification scheme used for the coded identification is indicated by the coding scheme attribute and should indicate either the code "321" if it is an Edig@s code, the code "305" if it is an EIC code, the code "9" if it is a GS1 code or the code "ZSO" if it is a System Operator code.
Size	The maximum length of the connection point identification is 16 alphanumeric characters. The maximum length of the coding scheme is 3 alphanumeric characters
Applicability	Both the connection point identification and the coding scheme are mandatory.
Dependence requirements	None.

2.2.4 Rules governing the Period Class

There must always be a Period class.

If there is only one Source Connection point the Period class is associated directly with the Instructions Class.

If there are multiple source connection points the direct association between the Instructions class and the Period class is not permitted.

2.2.4.1 TIMEINTERVAL

ACTION	DESCRIPTION
Definition of element	The start and end date and time of the time interval of the period in question.
Description	This information provides the start and end date and time of the period being reported. The Time Interval shall cover a whole gas day of 24 hours.
Size	Refer to section 1.20 of the Edig@s General Guidelines for information on the attribute structure.
Applicability	This information is mandatory.
Dependence requirements	None.

2.2.4.2 DIRECTION

ACTION	DESCRIPTION
Definition of element	Identifies how the energy flow is to be seen from the perspective of the System Operator's area.
Description	This identifies the direction of the energy flow. Intended codes are: Z02 = Input Z03 = Output
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

2.2.4.3 QUANTITY

ACTION	DESCRIPTION
Definition of element	The quantity for the connection point within the time interval in question.
Description	This information defines the quantity for the connection point within the time interval period. A decimal point value may be used to express values that are inferior to the defined unit of measurement. The decimal mark that separates the digits forming the integral part of a number from those forming the fractional part. (ISO 6093) shall always be a period ("."). All quantities are non-signed values.
Size	The maximum length of this information is 17 numeric characters (decimal mark and sign, if used, included). All leading zeros are to be suppressed. The number of decimal places identifying the fractional part of the quantity depends on local market rules.
Applicability	This information is mandatory.
Dependence requirements	None.

2.2.5 Rules governing the Status Class**2.2.5.1 STATUSCODE.**

ACTION	DESCRIPTION
Definition of element	The status of given quantity within a time interval.
Description	This information provides status of the quantity for the being reported. Currently only one of the following status values are permitted: 32G = Increased 33G = Decreased 34G = Confirmed
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is dependant.
Dependence requirements	This information is only provided in the case of an Instruction Response document.

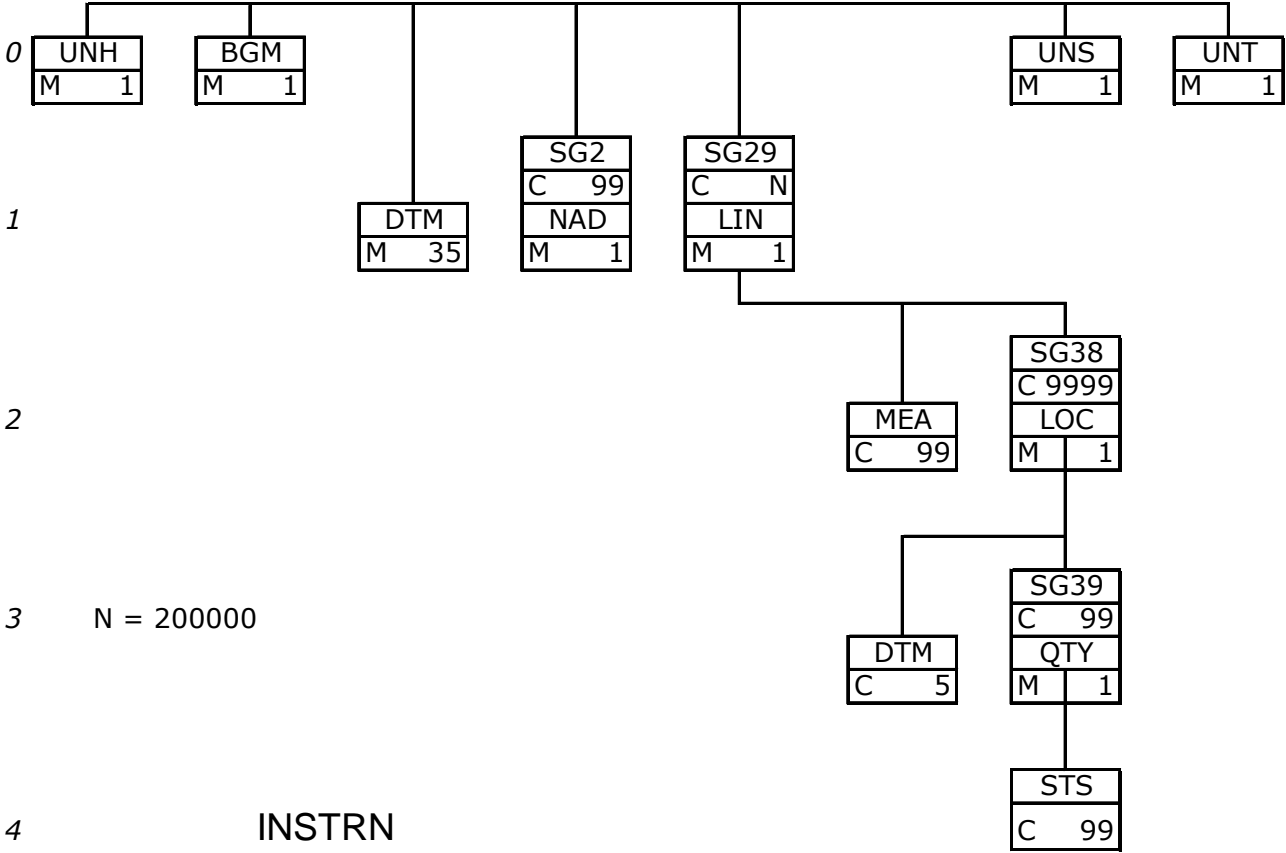
3 EDIFACT IMPLEMENTATION OF INSTRN

Note: The Information Model Description in section 2 shall always take precedence if there is any contradictory information provided in this section.

3.1 EDIG@S SUBSET OF THE UN/EDIFACT ORDERS D.08B BRANCHING DIAGRAM

The INSTRN templates are based on the UN/EDIFACT ORDERS message. This structure illustrates how the segments will be used in this template.

Level



3.2 EDIFACT TEMPLATE DESCRIPTION

This template is applicable when the INSTRN message is used for the following purpose(s):

Message purpose	BGM-1001 =
Instruction Request: an instruction sent by the System Operator to a plant operator to provide instructions for the operation of the plant	AEG
Instruction Forecast: an instruction sent by the System Operator to a plant operator to provide a forecast of instructions for the operation of the plant	AIG
Instruction Response: an instruction reply sent by the plant operator to the System Operator acknowledging the instruction request message and providing information on the action that has been taken	AFG
Instruction Confirmation: A confirmation to an instruction response containing the confirmed values that will be taken into consideration.	ALG

The segments are shown in abbreviated form. For a full description of the segments refer to the description as found in section V Segment Directory.

HEADER SECTION

The content of UN/EDIFACT Interchange segments UNB/UNZ are defined in the general introduction. The basic principle for an [Edig@s](#) Interchange being that there shall be only one UN/EDIFACT Message per Interchange.

UNH – M		0010 - MESSAGE HEADER – To head, identify and specify a Message		
0062	M	an..14	MESSAGE REFERENCE NUMBER	Unique message reference assigned by the sender.
S009:0065	M	an..6	Message type	Code identifying a type of message and assigned by its controlling agency. INSTRN (=Instructions Message)
S009:0052	M	an..3	Message version number	Version number of a message type. 1 (=Message Implementation guide version number)
S009:0054	M	an..3	Message release number	Release number within the current message type version number (0052). 0
S009:0051	M	an..2	Controlling agency	Code to identify the agency controlling the specification, maintenance and publication of the message type. EG (=Edig@s)
S009:0057	M	an..6	Association assigned code	A code assigned by the association responsible for the design and maintenance of the message type concerned, which further identifies the message. EGAS40 (=Edig@s subset identification)
0068	N	an..35	COMMON ACCESS REFERENCE	Reference serving as a key to relate all subsequent transfers of data to the same business case or file. NOT USED
S010:0070	N	n..2	Sequence of transfers	Number assigned by the sender indicating the numerical sequence of one or more transfers. NOT USED
S010:0073	N	a1	First and last transfer	Indication used for the first and last message in a sequence of the same type of message relating to the same topic. NOT USED
Remarks		<i>There is one mandatory occurrence of UNH per message.</i>		
Example		UNH+1+INSTRN:1:0:EG:EGAS40'		

BGM-M		BEGINNING OF MESSAGE – To indicate the type and function of a message and to transmit the identifying number.		
C002:1001	M	An..3	Document name code	Code specifying the document name. <i>See restricted code list below</i>
C002:1131	N	An..3	Code list identification code	Code identifying a user or association maintained code list NOT USED
C002:3055	M	An..3	Code list responsible agency	Code identifying a user or association maintained code list. 321 (=Edig@s)
C002:1000	N	An..35	Document name	Name of a document. NOT USED
C106:1004	M	An..35	Document identifier	To identify a document. <i>See section 2.2.1.1</i>
C106:1056	N	An..9	Version identifier	To identify a version. NOT USED
C106:1060	N	An..6	Revision identifier	To identify a revision NOT USED
1225	M	An..3	MESSAGE FUNCTION CODE	Code indicating the function of the message. 9 (=Original)
4343	N	An..3	RESPONSE TYPE CODE	Code specifying the type of acknowledgment required or transmitted. NOT USED
Remarks		<i>There is one mandatory occurrence of BGM per message.</i>		
Attention		<i>The following structure for the message number in BGM-1004 is mandatory in the Edig@s messages: 6 character message code + a unique identification</i>		
Example		BGM+AEG::321+INSTRN20090101A00001+9'		

Restricted code list for BGM-1001	
AEG	Instruction Request
AIG	Instruction forecast
AFG	Instruction Response
ALG	Instruction confirmation

DTM - M	
Remarks	There are 3 mandatory occurrences of DTM at message header level in the Edig@s messages. For more details regarding the mandatory use of DTM at header level in the Edig@s messages see the Introduction to the Edig@s MIG.

DTM.1 - M	DATE/TIME/PERIOD - To specify date, and/or time, or period. It identifies the time definition			
C507:2005	M	an..3	Date or time or period function code qualifier	Code qualifying the function of a date, time or period. Z05 (=Time definition)
C507:2380	M	an..35	Date or time or period text	The value of a date, a date and time, a time or of a period in a specified representation. 0 (=UTC)
C507:2379	M	an..3	Date or time or period format code	Code specifying the representation of a date, time or period. 805 (=Hour)
Remarks	All times indicated in this message must be expressed according to this same metrology. Recommendation: Edig@s strongly recommends using UTC as the standard time metrology. See also the Introduction to the Edig@s MIG.			
Example	DTM+Z05:0:805'			

DTM.2 - M	DATE/TIME/PERIOD - To specify date, and/or time, or period. It identifies the date and time of the message			
C507:2005	M	an..3	Date or time or period function code qualifier	Code qualifying the function of a date, time or period. 137 (=Document/message date/time)
C507:2380	M	an..35	Date or time or period text	The value of a date, a date and time, a time or of a period in a specified representation. <i>Date/time in format as indicated in C507:2379</i>
C507:2379	M	an..3	Date or time or period format code	Code specifying the representation of a date, time or period. 203 (=CCYMMDDHHMM)
Remarks				
Example	DTM+137:200309051506:203'			

DTM.3 - M	DATE/TIME/PERIOD - To specify date, and/or time, or period. It identifies the (validity) period covered by the message			
C507:2005	M	an..3	Date or time or period function code qualifier	Code qualifying the function of a date, time or period. Z01 (=Period identification)
C507:2380	M	an..35	Date or time or period text	The value of a date, a date and time, a time or of a period in a specified representation. <i>Date/time in format as indicated in C507:2379</i>
C507:2379	M	an..3	Date or time or period format code	Code specifying the representation of a date, time or period. 719 (=CCYMMDDHHMMCCYMMDDHHMM)
Remarks				
Example	DTM+Z01:200309090400200309160400:719'			

SG2 – M	NAD
Remarks	<i>Two NAD segments are mandatory, one to identify the issuer of the message and one to identify the recipient of the message</i>

NAD - M		NAME AND ADDRESS – To specify the name/address and their related function, either by C082 only and/or unstructured by C058 or structured by C080 thru 3207.		
		This Identifies the issuer and recipient of the message		
3035	M	an..3	PARTY FUNCTION CODE QUALIFIER	Code giving specific meaning to a party. <i>See restricted qualifier code list below</i>
C082:3039	M	an..35	Party identifier	Code specifying the identity of a party.
C082:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C082:3055	M	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. <i>See restricted qualifier code list below</i>
C058:3124	N	an..35	Name and address description	Free form description of a name and address line. NOT USED
C058:3124	N	an..35	Name and address description	Free form description of a name and address line. NOT USED
C058:3124	N	an..35	Name and address description	Free form description of a name and address line. NOT USED
C058:3124	N	an..35	Name and address description	Free form description of a name and address line. NOT USED
C058:3124	N	an..35	Name and address description	Free form description of a name and address line. NOT USED
C080:3036	N	an..35	Party name	Name of a party. NOT USED
C080:3036	N	an..35	Party name	Name of a party. NOT USED
C080:3036	N	an..35	Party name	Name of a party. NOT USED
C080:3036	N	an..35	Party name	Name of a party. NOT USED
C080:3036	N	an..35	Party name	Name of a party. NOT USED
C080:3045	N	an..3	Party name format code	Party name format code NOT USED
C059:3042	N	an..35	Street and number or post office box identifier x	To identify a street and number and/or Post Office box number. NOT USED
C059:3042	N	an..35	Street and number or post office box identifier x	To identify a street and number and/or Post Office box number. NOT USED
C059:3042	N	an..35	Street and number or post office box identifier x	To identify a street and number and/or Post Office box number. NOT USED
C059:3042	N	an..35	Street and number or post office box identifier x	To identify a street and number and/or Post Office box number. NOT USED
3164	N	an..35	CITY NAME	Name of a city. NOT USED
C819:3229	N	an..9	Country subdivision identifier	To identify a country subdivision, such as state, canton, county, prefecture. NOT USED
C819:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. Not used NOT USED
C819:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C819:3228	N	an..70	Country subdivision name	Name of a country subdivision, such as state, canton, county, prefecture. NOT USED
3251	N	an..17	POSTAL IDENTIFICATION CODE	Code specifying the postal zone or address. NOT USED
3207	N	an..3	COUNTRY IDENTIFIER	Identification of the name of the country or other geographical entity as defined in ISO 3166-1 and UN/ECE Recommendation 3. NOT USED
Remarks				
Example		NAD+ZSO+21X--GREENGAS--9::305'		

Restricted qualifier code list for NAD-3035 for issuers of a message	
ZSO	System Operator
ZSZ	Plant Operator

Restricted qualifier code list for NAD-C082-3055	
305	Assigned by ETSO (EIC) - Recommended
321	Assigned by Edig@s

DETAIL SECTION

SG29 - M		LIN- SG38		
Remarks		<i>The mandatory segment group 29 (LIN-loop) must only appear once in the message. The segment group consists of:</i> <ul style="list-style-type: none"> ➤ LIN to uniquely identify the line item – (mandatory) ➤ MEA to provide the unit of measure of all the quantities in the document (mandatory) ➤ SG38-[LOC-DTM-SG39] to provide a line item related to the connection point and quantity and date/time/period information relevant for that connection point – (mandatory) <i>ATTENTION: The LIN segment shall only appear once per message.</i>		
LIN - M		LINE ITEM – To identify a line item and configuration. Starts each new occurrence of the LIN-Loop		
1082	M	n..6	LINE ITEM IDENTIFIER	To identify a line item. 1
1229	N	an..3	ACTION CODE	Code specifying the action to be taken or already taken. NOT USED
C212:7140	N	an..35	Item identifier	To identify an item. NOT USED
C212:7143	N	an..3	Item type identification code	Coded identification of an item type. NOT USED
C212:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. Not used NOT USED
C212:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C289:5495	N	an..3	Sub-line indicator code	Code indicating a sub-line item. NOT USED
C289:1082	N	an..6	Line item identifier	To identify a line item. NOT USED
1222	N	n..2	CONFIGURATION LEVEL NUMBER	To specify a level within a configuration. NOT USED
7083	N	an..3	CONFIGURATION OPERATION CODE	Code specifying the configuration operation. NOT USED
Remarks		LIN-1082 shall always have the identification "1".		
Example		LIN+1'		

MEA-M		MEASUREMENTS – To specify physical measurements, including dimension tolerances, weights and counts. Provides the unit of measure of all quantities in the document.		
6311	M	an..3	MEASUREMENT PURPOSE CODE QUALIFIER	Code qualifying the purpose of the measurement. SV (=Specification value)
C502:6313	N	an..3	Measured attribute code	Code specifying the attribute measured. NOT USED
C502:6321	N	an..3	Measurement significance code	Code specifying the significance of a measurement. NOT USED
C502:6155	N	an..17	Non-discrete measurement name code	Code specifying the name of a non-discrete measurement. NOT USED
C502:6154	N	an..70	Non-discrete measurement name	Name of a non-discrete measurement. NOT USED
C174:6411	M	an..8	Measurement unit code	Code specifying the unit of measurement. <i>See restricted qualifier code list below</i>
C174:6314	N	an..18	Measure	To specify the value of a measurement. NOT USED
C714:6162	N	n..18	Range minimum quantity	To specify the minimum value of a range. NOT USED
C714:6152	N	n..18	Range maximum quantity	To specify the maximum value of a range. NOT USED
C714:6432	N	n..2	Significant digits quantity	Count of the number of significant digits. NOT USED
7383	N	an..3	SURFACE OR LAYER CODE	Code specifying the surface or layer of an object. NOT USED
Remarks		MEA is used to provide the measurement unit for the whole message.		
Example		MEA+SV++KW1'		

Recommended qualifier code list for QTY-C186:6411	
KW1	Kilowatt-hour per hour (kWh/h)
KW2	Kilowatt-hour per day (kWh/d)
HM1	Million cubic meters per hour
HM2	Million cubic meters per day
TQH	Thousand cubic meters per hour
TQD	Thousand cubic meters per day

MQ5	Normal cubic meters
SG38 – M	LOC - DTM – SG39
Remarks	<p>The mandatory segment group 38 will be repeated as many times as required to cover the whole period with a maximum of 9999 occurrences per LIN-loop. The segment group consists of:</p> <ul style="list-style-type: none"> ➤ LOC to identify the single connection point that is being referenced in the document – (mandatory) ➤ DTM to specify relevant date/time/period information – (mandatory) ➤ SG39 to provide the quantity and status information relevant for this connection point – (mandatory) <p>Only one DTM and SG39 occurrence are allowed per LOC loop.</p>

LOC-M		LOCATION – To identify a place or a location and/or related locations. Identifies the connection point relevant for the quantities in this LIN-loop		
3227	M	an..3	LOCATION FUNCTION CODE QUALIFIER	Code identifying the function of a location. Z19 (= connection point)
C517:3225	M	an..35	Location identification	To identify a location. Use relevant code from one of the restricted code lists below to identify the single connection point being referenced in the document.
C517:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C517:3055	M	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. See restricted code list below
C517:3224	N	an..256	Location name	Name of the location. NOT USED
C519:3223	N	an..35	First related location identifier	To identify a first related location. NOT USED
C519:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. Not used NOT USED
C519:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C519:3222	N	an..70	First related location name	Name of first related location. NOT USED
C553:3233	N	an..35	Second related location identifier	To identify a second related location. NOT USED
C553:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. Not used NOT USED
C553:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C553:3232	N	an..70	Second related location name	Name of the second related location. NOT USED
5479	N	an..3	RELATION CODE	Code specifying a relation. NOT USED
Remarks	There shall always be a LOC segment with the qualifier Z19 to identify the connection point that is the subject of the document.			
Example	LOC+Z19+DEESS::321'			

Restricted code list for LOC-3227	
Z19	Connection point (principal connection point)
Z22	Source connection point
Z23	Destination connection point

Restricted code list for LOC-C517:3055	
9	GS1
305	Assigned by ETSO (EIC)
321	Assigned by Edig@s
ZSO	Assigned by System Operator

DTM-M		DATE/TIME/PERIOD - To specify date, and/or time, or period. Identifies the date/time/period for the preceding quantity		
C507:2005	M	an..3	Date or time or period function code qualifier	Code qualifying the function of a date, time or period. 2 (=Delivery date/time requested)
C507:2380	M	an..35	Date or time or period text	The value of a date, a date and time, a time or of a period in a specified representation. <i>Period in format as indicated in C507:2379</i>
C507:2379	M	an..3	Date or time or period format code	Code specifying the representation of a date, time or period. 719 (=CCYYMMDDHHMMCCYYMMDDHHMM)
Remarks		DTM can be repeated only 1 time per LOC in segment group 38.		
Example		DTM+2:200309150400200309160400:719'		

SG39 - M		QTY-STs		
Remarks		<p>The mandatory segment group 39 may be repeated up to 99 times as required to cover the requirements for indicating the quantities and their status information for the connection point within the DTM period. The segment group consists of:</p> <ul style="list-style-type: none"> ➤ QTY to provide the quantity for the connection point. There is at least one quantity per connection point – (mandatory) ➤ STS to provide any status information for the quantity in question – (conditional). This is only used in the case of an instruction response message 		

QTY -M		QUANTITY - To specify a pertinent quantity.		
C186:6063	M	an..3	Quantity type code qualifier	Code qualifying the type of quantity. <i>See restricted qualifier code list below</i>
C186:6060	M	an..35	Quantity	Alphanumeric representation of a quantity. <i>Actual quantity</i>
C186:6411	M	an..8	Measurement unit code	Code specifying the unit of measurement. Not used.
Remarks		There is only one QTY per LOC in segment group 38.		
Example		QTY+Z03:6782'		

Restricted qualifier code list for QTY-C186:6063	
Z02	Input quantity
Z03	Output quantity

STS-C	Status – To specify the status of an object or service, including its category and the reason(s) for the status.			
C601:9015	M	an..3	Status category code	Code specifying the category of a status. 08G (=Status category)
C601:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C601:3055	M	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. 321 (=Edig@s)
C555:4405	M	an..3	Status description code	Code specifying a status. <i>See restricted code list below</i>
C555:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C555:3055	M	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. 321 (=Edig@s)
C555:4404	N	an..35	Status description	Free form description of a status. NOT USED
C556:9013	N	an..3	Status reason description code	Code specifying the reason for a status. NOT USED
C556:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C556:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C556:9012	N	an..256	Status reason description	Free form description of the status reason. NOT USED
C556:9013	N	an..3	Status reason description code	Code specifying the reason for a status. NOT USED
C556:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C556:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C556:9012	N	an..256	Status reason description	Free form description of the status reason. NOT USED
C556:9013	N	an..3	Status reason description code	Code specifying the reason for a status. NOT USED
C556:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C556:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C556:9012	N	an..256	Status reason description	Free form description of the status reason. NOT USED
C556:9013	N	an..3	Status reason description code	Code specifying the reason for a status. NOT USED
C556:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C556:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C556:9012	N	an..256	Status reason description	Free form description of the status reason. NOT USED
C556:9013	N	an..3	Status reason description code	Code specifying the reason for a status. NOT USED
C556:1131	N	an..17	Code list identification code	Code identifying a user or association maintained code list. NOT USED
C556:3055	N	an..3	Code list responsible agency code	Code specifying the agency responsible for a code list. NOT USED
C556:9012	N	an..256	Status reason description	Free form description of the status reason. NOT USED
Remarks	<i>This is only possible in the Instruction Response document instance</i>			
Example	STS+08G::321+30G::321'			

Restricted qualifier code list for STS-C555:4405	
32G	Increased
33G	Decreased
34G	Confirmed

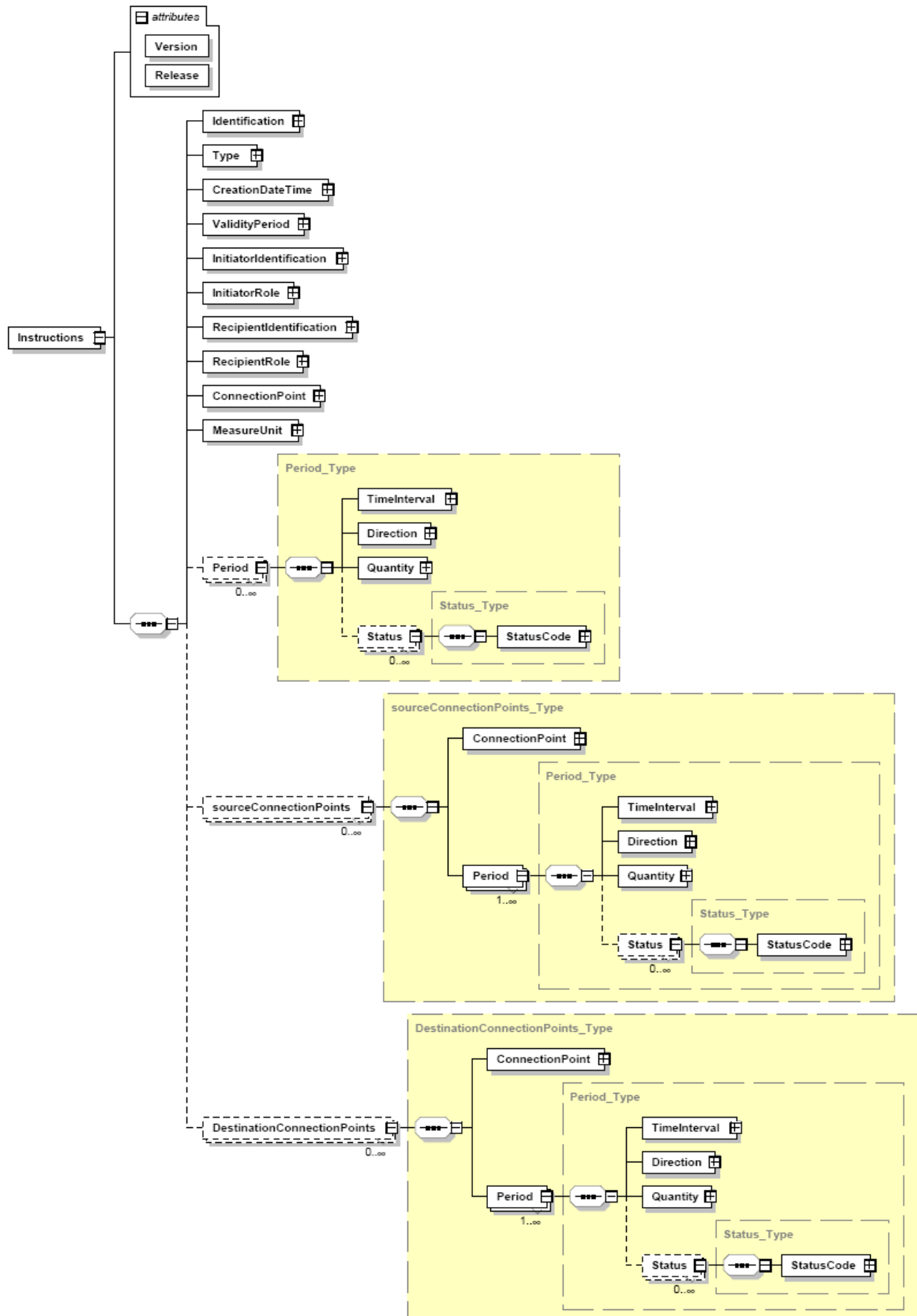
UNS - M		SECTION CONTROL – To separate header, detail and summary sections of a message. Separates the Detail and the Summary sections		
0081	M	a1	Section identification	Separates sections in a message. S (=Detail/Summary section separation)
Remarks	There is one mandatory occurrence of UNS at the end of the header or detail section in the message. There is one mandatory occurrence of UNS at the end of the detail section in the message. The following segments can only contain summary information and may not carry new information			
Example	UNS+S'			

SUMMARY SECTION

UNT - M		MESSAGE TRAILER – To end and check the completeness of a Message		
0074	M	n..6	NUMBER OF SEGMENTS IN THE MESSAGE	Control count of number of segments in a message. <i>Total number of segments in message (including UNH & UNT)</i>
0062	M	an..14	MESSAGE REFERENCE NUMBER	Unique message reference assigned by the sender. <i>Must be identical to UNH-0062</i>
Remarks	There is one mandatory occurrence of UNT at the end of the message.			
Example	UNT+175+1'			

4 XML IMPLEMENTATION OF INSTRN

4.1 XML STRUCTURE



4.2 XML SCHEMA

4.2.1 Introduction

All electronic documents using this Implementation guide Specification shall complete the document Version and Release attributes as follows:

- Version: "EGAS40". This corresponds to the Edig@s package identification.
- Release: "1". This corresponds to the Message Implementation Guide Version number.

4.2.2 Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:ecc="core-cmpts.xsd" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
elementFormDefault="qualified" attributeFormDefault="unqualified" ecc:VersionRelease="1.0">
  <xsd:import namespace="core-cmpts.xsd" schemaLocation="../cclib/core-cmpts.xsd"/>
  <!--
      EDIGAS Document Automatically generated from a UML class diagram using XMI.
      Generation tool version 1.7
  -->
```

```

  <xsd:element name="Instructions">
    <xsd:complexType>
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
      <xsd:sequence>
        <xsd:element name="Identification" type="ecc:IdentificationType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="Type" type="ecc:MessageType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="CreationDateTime"
type="ecc:MessageDateTimeType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ValidityPeriod" type="ecc:TimeIntervalType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="InitiatorIdentification" type="ecc:PartyType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="InitiatorRole" type="ecc:RoleType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="RecipientIdentification" type="ecc:PartyType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="RecipientRole" type="ecc:RoleType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

```



```

        </xsd:element>
        <xsd:element name="ConnectionPoint"
type="ecc:MeasurementPointType">
            <xsd:annotation>
                <xsd:documentation/>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="MeasureUnit" type="ecc:UnitOfMeasureType">
            <xsd:annotation>
                <xsd:documentation/>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="Period" type="Period_Type" minOccurs="0"
maxOccurs="unbounded"/>
        <xsd:element name="sourceConnectionPoints"
type="sourceConnectionPoints_Type" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="DestinationConnectionPoints"
type="DestinationConnectionPoints_Type" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
        <xsd:attribute name="Version" type="xsd:string" use="required"/>
        <xsd:attribute name="Release" type="xsd:string" use="required"/>
    </xsd:complexType>
</xsd:element>
<xsd:complexType name="Period_Type">
    <xsd:annotation>
        <xsd:documentation/>
    </xsd:annotation>
    <xsd:sequence>
        <xsd:element name="TimeInterval" type="ecc:TimeIntervalType">
            <xsd:annotation>
                <xsd:documentation/>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="Direction" type="ecc:QuantityTypeType">
            <xsd:annotation>
                <xsd:documentation/>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="Quantity" type="ecc:QuantityType">
            <xsd:annotation>
                <xsd:documentation/>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="Status" type="Status_Type" minOccurs="0"
maxOccurs="unbounded"/>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Status_Type">
    <xsd:annotation>
        <xsd:documentation/>
    </xsd:annotation>
    <xsd:sequence>
        <xsd:element name="StatusCode" type="ecc:StatusType">
            <xsd:annotation>
                <xsd:documentation/>
            </xsd:annotation>
        </xsd:element>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="sourceConnectionPoints_Type">
    <xsd:annotation>
        <xsd:documentation/>
    </xsd:annotation>
    <xsd:sequence>
        <xsd:element name="ConnectionPoint" type="ecc:MeasurementPointType">
            <xsd:annotation>

```

```
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Period" type="Period_Type" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="DestinationConnectionPoints_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="ConnectionPoint" type="ecc:MeasurementPointType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Period" type="Period_Type" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
</xsd:schema>
```



5 DOCUMENT CHANGE LOG

Package	Version	Date	Description
4.0	0	2009-04-27	Initial release