UNITED
NATIONS

E

Economic and Social
Council

Distr.
RESTRICTED

TRADE/WP.4/R.1186/Rev.1
31 January 1997

ENGLISH ONLY

ECONOMIC COMMISSION FOR EUROPE

COMMITTEE ON THE DEVELOPMENT OF TRADE

Working Party on the Facilitation of
International Trade Procedures
(Item 3 of the provisional agenda
of the Meeting of Experts on Data
Elements and Automatic Data Interchange (GE.1)
Fifty-fifth session, 19-20 March 1997)

TRADE DATA INTERCHANGE PROTOCOLS

Development of United Nations Standard Messages (UNSMs)

(Item 3.2.15 of the Programme of work)

SYNTAX AND SERVICE REPORT MESSAGE (CONTRL)

* * *

Submitted by the Syntax Development Group (SDG) *

This document contains a revised version of the Syntax and Service Report message (CONTRL) for Version 3 of ISO 9735. The message was approved for Status 2 in March 1996.

The Group of Experts is invited to:

- approve this document.

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GE.97-

UN/EDIFACT

UNITED NATIONS STANDARD MESSAGE (UNSM)

Syntax and service report message

Message Type : CONTRL
Version : D
Release : 3
Contr. Agency: UN

Revision : 1
Date : 97-03-17

SOURCE: Syntax Development Group (SDG)

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0. INTRODUCTION

This specification provides the definition of the Syntax and service report message (CONTRL) to be used in Electronic Data Interchange (EDI) between trading partners involved in administration, commerce and transport.

1. SCOPE

1.1 Functional Definition

CONTRL is a message syntactically acknowledging or rejecting, with error indication, a received interchange, functional group or message.

A CONTRL message can be used to:

a) acknowledge or reject a received interchange, functional group or message and list any errors contained therein, or

b) indicate only the receipt of an interchange.

1.2 Field of Application

The Syntax and service report message may be used for both national and international applications. It is based on universal practice related to administration, commerce and transport, and is not dependent on the type of business or industry.

This specification of CONTRL can be used for version 1, 2, or 3 of the EDIFACT syntax (ISO 9735).

1.3 Principles

This specification of CONTRL can be used for version 1, 2, or 3 of the EDIFACT syntax (ISO 9735).

The sender (A) of an EDIFACT interchange can in segment UNB request a response from the recipient (B) that the interchange has been received, is syntactically correct, that the service segments are semantically correct and that the recipient supports those functions requested in the service segments. Alternatively, the request can be specified in an Interchange Agreement (IA) between the interchanging partners.

The interchange sent from A to B is called the subject interchange.

The response is sent from the recipient (B) of the subject interchange to the sender of the subject interchange (A) as one or two CONTRL messages.

A CONTRL message indicates
- the action taken by the recipient as the result of a syntactical check of the subject interchange, or alternatively
- only receipt of the interchange.

In the first case, the action (acknowledgement or rejection, see section 3) indicates the result of a syntactical check of the complete received interchange. The action may be indicated for the complete interchange, or it may be indicated for individual parts of it. Thus, some messages or functional groups may be acknowledged and others may be rejected. The CONTRL message must indicate the action for all parts of the subject interchange.

In the second case, only receipt of the subject interchange is indicated, see clause 3.

During a syntactical check, the interchange, or part of it, is checked for compliance with:
- the EDIFACT syntax rules (ISO 9735),including rules for use of service segments,
- the syntactical aspects in specifications for the message type(s) received, and
- any additional agreements between partners regarding use of the syntax rules. Such agreements shall be conformant with ISO 9735.

CONTRL shall not be used to report errors, or the action taken, at the application level, i.e. reports related to the semantic information contained in user segments. Thus, acknowledgement indicated by means of CONTRL does not imply that the business content of a message has been accepted or can be complied with.

A recipient may choose to acknowledge an interchange, or part of it, even if it contains syntactical errors. These errors may also be reported. The definition of a non-fatal error is determined by the recipient. The recipient may for example, choose to acknowledge a data element exceeding the specified maximum length.

CONTRL messages may be generated by the recipient of the subject interchange or by a third party acting on behalf of the recipient. In this case, the UNB of the interchange containing the CONTRL messages will contain the same sender and receiver identifications as the subject interchange, only reversed. Alternatively, one CONTRL message rejecting the complete interchange may be generated by a third party, for example a network service, to indicate non-delivery. In this case, the UNB of the CONTRL message will contain a sender identification of the third party.

Partners may agree that a CONTRL message rejecting an erroneous subject interchange, or part of it, shall always be sent even if acknowledgement has not been requested in the subject interchange UNB segment.

A CONTRL message shall only be generated if the originator of the subject interchange supports the receipt of the CONTRL message. Support for receipt of CONTRL messages is indicated either by the acknowledgement request in the subject interchange UNB segment or in an IA.

A CONTRL message shall never be sent in a functional group.

Note: A CONTRL message rejecting the subject interchange may be sent if the actual recipient is different from the one identified in the subject interchange UNB segment. The CONTRL message shall be sent to the originator of the subject interchange, unless there is an agreement with a third party to send it to the third party. The CONTRL message shall not be sent unless the originator of the subject interchange is known to accept CONTRL messages from the originator of the CONTRL message. In some cases it may be necessary to generate the CONTRL manually, or notify the subject interchange originator by other means than CONTRL. Notification by other means than CONTRL would be necessary, for example, if the subject interchange contained only CONTRL messages (see 1.3.7).

1.3.1 Relations between CONTRL and the subject interchange

A maximum of two CONTRL messages may be sent in response to a received interchange. The first, which is optional, indicates only the receipt of the subject interchange. The second reports the action taken after the syntax check of the subject interchange. The action code in the UCI segment will indicate if the message is of the first or second type, see 5.5.

If a request for acknowledgement is indicated in the subject interchange UNB, then the second type of CONTRL message must be sent to report the results of a syntax check of the subject interchange. The optionality of the first message implies that, if any CONTRL message is sent at all, the second type of CONTRL message must always be sent, while the first type is sent at the discretion of the subject interchange receiver. The first type may only be sent if agreed in an IA. The UCI segment in CONTRL messages of the first type shall not be used to report any errors, i.e. only a message of the second type shall be sent when there is a need to report errors by means of the UCI segment.

A CONTRL message can only report the action taken for one subject interchange, i.e. it may not refer to several subject interchanges, or to parts of several subject interchanges.

The structure of CONTRL is based on five segments (UCI, UCF,

UCM, UCS and UCD), each containing a reference to a part of the subject interchange. The parts of the subject interchange are:
- the UNA, UNB and UNZ segments, referenced in the UCI segment
- the UNG and UNE segments, referenced in the UCF segment
- a complete message, referenced in the UCM segment
- a segment in a message, referenced in the UCS segment
- a simple, composite or component data element, referenced in the UCD segment.

These parts of the subject interchange are called referenced-levels.

Each of the five mentioned segments in CONTRL contains a data element indicating the action taken for the referenced part, and optionally data elements used for error reporting. Each of the five segments is called a reporting-level.

Segment groups 1 and 3 shall not be used in a CONTRL message acknowledging only the receipt of an interchange. If the subject interchange contains functional groups, only segment group 3 is used in the CONTRL message. If functional groups are not used, only segment group 1 is used in the CONTRL message.

When there is a need to send a UCM-group (segment group 1 or 4), no more than one UCM-group shall be sent per received message.

All reporting-levels shall be in the same order as their corresponding referenced-levels in the subject interchange.

1.3.2 Action codes usage

The referenced-levels of the subject interchange that may be acknowledged or rejected are those referenced by the UCI, UCF and UCM segments, i.e.
- the UNA, UNB and UNZ segments
- the UNG and UNE segments
- a complete message.

The CONTRL message also provides the means to acknowledge or reject a complete interchange or a complete functional group, without referencing messages or functional groups contained in it.

The action (acknowledgement or rejection) is indicated by a code in the UCI, UCF and UCM segments, see code list 0083. This code may indicate the action for the corresponding referenced-level, and in some cases also for its lower levels (in the interchange hierarchy, cf. Figure 1 in ISO 9735).

A referenced-level in the subject interchange is said to be explicitly reported if the CONTRL message contains a corresponding segment that references that level. Explicit reporting of a lower referenced-level requires that all

referenced-levels above are acknowledged.

A referenced-level is said to be implicitly reported if the action taken for the level is reported by a UCI or UCF segment referencing a higher level in the subject interchange. Thus, for example, a functional group and all messages within it are implicitly rejected if the action code in the UCI segment indicate rejection of the complete subject interchange. Also, a message is implicitly acknowledged when the action code in UCI or UCF indicates acknowledgement of messages at the next lower level, and no UCM rejecting the message is present.

Action codes 4 and 7 are only used in CONTRL messages reporting the action after complete check of the interchange. Action code 8 is only used in CONTRL messages indicating the receipt of an interchange.

1.3.3 Reporting of syntactical errors

Errors can be reported at all reporting-levels of CONTRL by means of data elements in the segment constituting the reporting-level. These data elements identify the error's position in the subject interchange and indicate its nature.

The UCI, UCF and UCM segments can only report one error. If more than one error is detected at a level referenced by one of these segments, the receiver of the subject interchange is free to choose which error to report. Several CONTRL messages shall not be sent in order to report several errors.

Errors may be reported even if the referenced-level (including erroneous parts) is acknowledged. Users should be aware that some syntactical errors could change the semantics of data, and that the receiver of the subject interchange is responsible for any consequences when data with syntactic errors are acknowledged.

It is recommended that errors are identified as precisely as possible. If a precise error code can be defined, a more general (and imprecise) error code shall not be used. Similarly, the position of the error shall be identified as precisely as possible by using the lowest possible reporting-level.

No "copying" of error codes from a lower to a higher reporting-level shall occur. It would otherwise, for example, be possible to report a data element error by an error code in UCD, and repeat the same error code in UCM. In this case, the error code identifying the error shall only appear in UCD. The same rule applies at all reporting-levels.

Identification of an error's exact position and nature on receipt of the CONTRL message will often require access to the subject interchange in the format it was transferred.

| 1.3.4 Errors in data elements that are copied from the subject interchange to the CONTRL message

The CONTRL message contains several mandatory data elements that are copied from the subject interchange. If the data element in the subject interchange is missing or is syntactically invalid, a syntactically valid CONTRL message can not be generated. The error must then be reported by other means than CONTRL, unless all parties processing the CONTRL message has agreed in an IA that copying of erroneous data elements into the CONTRL message is permitted. The omission of mandatory data elements may also be permitted by an IA.

1.3.5 Redundant reporting of action

If action code 7 is used in UCI, it is not an error if UCM or UCF segments are sent acknowledging a message or functional group. Similarly, redundant UCM segments may acknowledge messages in a functional group when the code is used in UCF.

1.3.6 Re-transmission

| The conditions which determine the requirements to re-send an interchange, functional group or a message must be agreed between the interchanging partners outside the scope of CONTRL.

1.3.7 Acknowledgement or rejection of CONTRL messages

No CONTRL, or other message types in UN/EDIFACT, shall be sent in response to a received CONTRL message. Errors in received CONTRL messages must be reported by other means than CONTRL.

If one or more CONTRL messages are contained in an interchange being responded to, the CONTRL messages generated as a response to that received interchange shall be generated as if no CONTRL messages were contained in the received interchange.

CONTRL messages shall not be sent in response to received interchanges that contain only CONTRL messages.

If CONTRL messages are mixed with other message types in an interchange, an implicit acknowledgement or rejection received for parts of that interchange does not apply to the CONTRL messages.

1.3.8 Support of the CONTRL message type

Requirements for support for submission and receipt of the CONTRL message type should be agreed between partners.

All parties requesting acknowledgement by means of the Acknowledgement request data element in UNB must support receipt of the CONTRL message type.

All parties supporting receipt of the CONTRL message type shall be able to understand all information at all reporting-levels in CONTRL, and be able to identify the parts of the subject interchange that are acknowledged or rejected. The party shall be able to receive CONTRL messages where implicit reporting is used.

All parties supporting submission of the CONTRL message type shall be able to check all parts of the interchange and generate all the reporting-levels of CONTRL. Support for a
| reporting-level implies that errors are reported at the reporting-level corresponding to the referenced-level where the error occurred.

Support for generation of segment group 3 in CONTRL is not required if an IA prohibits the use of functional groups. A party supporting receipt of CONTRL must support reception of segment group 3 if he submits interchanges with functional groups.

2. REFERENCES

See UNTDID, Part 4, Chapter 2.6 UN/ECE UNSM - General Introduction, Section 1.

3. TERMS AND DEFINITIONS

| 3.1 Standard terms and definitions

See UNTDID, Part 4, Chapter 2.6 UN/ECE UNSM - General Introduction, Section 2.

| 3.2 Message terms and definitions

Acknowledgement

Acknowledgement implies that the recipient of the subject interchange

- has received the acknowledged part of the interchange, and
- has checked that there are no fatal syntactic errors in the acknowledged part that prevents further processing of it, and
- has checked that all acknowledged (parts of) service segments are semantically correct (if no errors are reported), and
- will comply with the actions requested in the acknowledged (parts of the) service segments, and
- has accepted liability for notifying the sender by other means than sending a CONTRL message if
  - any syntactic or semantic errors as described above, are later detected in the relevant part, or
  - the part can not be processed for some other reason after the part has been acknowledged in a submitted CONTRL message,
- has taken reasonable precautions in order to ensure that such errors are detected and that the sender is notified.

Indication of interchange receipt

Indication of interchange receipt implies that the recipient of the subject interchange

- has received the interchange, and
- acknowledges the parts of the interchange that have been checked in order to assure that the data elements copied into the reporting UCI segment are syntactically correct, and
- has accepted liability for notifying the sender of acknowledgement or rejection of the other parts of the interchange, and
- has taken reasonable precautions in order to ensure that the sender is so notified.

Rejection

Rejection implies that the recipient of the subject interchange

- can not acknowledge the interchange, or relevant part of it, for reasons indicated in the CONTRL message, and
- will not take any further action on business information contained in the rejected part of the interchange.

To report

To indicate the action (acknowledgement or rejection) taken for an subject interchange or part of it.

| Reporting-level

A reporting-level is a segment in CONTRL in which reporting of a corresponding referenced-level takes place. The reporting-levels are UCI, UCF, UCM, UCS and UCD.

Referenced-level

The structure of CONTRL is based on five segments (UCI, UCF, UCM, UCS and UCD) that contain a reference to a part of the subject interchange. The parts of the subject interchange are:

- the UNA, UNB and UNZ segments, referenced in the UCI segment
- the UNG and UNE segments, referenced in the UCF segment
- a complete message, referenced in the UCM segment
- a segment in a message, referenced in the UCS segment
- a simple, composite or component data element, referenced in the UCD segment

These parts of the subject interchange are called
| referenced-levels.

Subject interchange

The interchange that a CONTRL message is returned in response to.

4. MESSAGE DEFINITION

4.1 Data Segment Clarification

This section should be read in conjunction with the Segment Table which indicate mandatory, conditional and repeating requirements.

The corresponding information for data elements in the segments is given in 5.2.

0010 UNH, Message header
A service segment starting and uniquely identifying a message. The message type code for Syntax and service report message is CONTRL.

Note: Syntax and service report messages conforming to this document must contain the following data in segment UNH, composite S009:

Data element	0065	CONTRL
	0052	D
	0054	3
	0051	UN

0020 UCI, Interchange response
A segment identifying the interchange being responded to (the subject interchange). It also indicates interchange receipt, acknowledgement or rejection (action taken) of the UNA, UNB and UNZ segments, and identifies any error related to these segments.
Depending on the action code, it may also indicate the action taken on the functional groups and messages within that interchange.
The subject interchange is identified by copying its Interchange sender, Interchange recipient, and Interchange control reference data elements into the identical data elements in this segment. An erroneous or missing UNA, UNB or UNZ segment may be identified. If no segment is identified, the error relates the complete interchange, unless the error code identifies some other position.

0030 Segment group 1: UCM-SG2
A group of segments sent in response to a message in the subject interchange identified in the UCI segment. This segment group is only used if the subject interchange does not contain functional groups.

0040 UCM, Message response
A segment identifying a message in the subject interchange, indicating that message's acknowledgement or rejection (action taken), and identifying any error related to the UNH and UNT segments.
The message is identified by copying its Message identifier and Message reference number data elements into the

identical data elements in this segment. An erroneous or missing UNH or UNT segment may be identified. If no segment is identified and segment group 2 is not present, the error relates to the complete message, unless the error code identifies some other position.

0050 Segment group 2: UCS-UCD
A group of segments sent in response to a segment containing one or more errors, and which was part of the message identified by the UCM segment in segment group 1.

0060 UCS, Segment error indication
A segment identifying a segment in the message, indicating that this segment contains an error, and identifying any error related to the complete segment.

0070 UCD, Data element error indication
A segment identifying an erroneous simple, composite or component data element in the segment identified by the UCS segment in segment group 2, and identifying the nature of the error.

0080 Segment group 3: UCF-SG4
A group of segments sent in response to a functional group in the subject interchange identified in the UCI segment. This segment group is only used if the subject interchange contains functional groups.

0090 UCF, Functional group response
A segment identifying a functional group in the subject interchange. It also indicates acknowledgement or rejection (action taken) of the UNG and UNE segments, and identifies any error related to these segments. Depending on the action code, it may also indicate the action taken on the messages within that functional group.
The functional group is identified by copying its
| Application sender's identification, Application recipient's
| identification, and Functional group reference number data elements into the identical data elements in this segment.
An erroneous or missing UNG or UNE segment may be
| identified. If no segment is identified, the error relates the complete functional group, unless the error code identifies some other position.

0100 Segment group 4: UCM-SG5
A group of segments sent in response to a message in the functional group identified in segment group 3.

0110 UCM, Message response
A segment identifying a message in the subject interchange, indicating that message's acknowledgement or rejection (action taken), and identifying any error related to the UNH and UNT segments.
The message is identified by copying its Message

| identifier and Message reference number data elements into the identical data elements in this segment. An erroneous or missing UNH or UNT segment may be identified. If no segment is identified and segment group 5 is not present, the error relates to the complete message, unless the error code identifies some other position.

0120 Segment group 5: UCS-UCD
A group of segments sent in response to a segment containing one or more errors, and which was part of the message identified by the UCM segment in segment group 4 .

0130 UCS, Segment error indication
A segment identifying a segment in the message, indicating that this segment contains an error, and identifying any error related to the complete segment.

0140 UCD, Data element error indication
A segment identifying an erroneous simple, composite or component data element in the segment identified by the UCS segment in segment group 5, and identifying the nature of the error.

0150 UNT, Message trailer
A service segment ending a message, giving the total number of segments in the message and the control reference number of the message.

4.2 Data segment index (Alphabetical sequence by tag)

UCD Data element error indication
UCF Functional group response
UCI Interchange response
UCM Message response
UCS Segment error indication
UNH Message header
UNT Message trailer

4.3 Message structure

4.3.1 Segment table

Pos	Tag	Name	S	R
0010	UNH	Message header	M	1
0020	UCI	Interchange response	M	1
0030		——— Segment group 1 ———	C	999999
0040	UCM	Message response	M	1
0050		——— Segment group 2 ———	C	999
0060	UCS	Segment error indication	M	1
0070	UCD	Data element error indication	C	99
0080		——— Segment group 3 ———	C	999999
0090	UCF	Functional group response	M	1
0100		——— Segment group 4 ———	C	999999
0110	UCM	Message response	M	1
0120		——— Segment group 5 ———	C	999
0130	UCS	Segment error indication	M	1
0140	UCD	Data element error indication	C	99
0150	UNT	Message trailer	M	1

5. DIRECTORIES

5.1 Introduction

This specification of CONTRL makes use of segments, composite data elements, data elements and codes that are specific to CONTRL. They are specified in the following subsections. These segments, composite data elements, data elements and codes are not available for use in user messages.

In addition, the CONTRL message makes use of segments, composite data elements, data elements and codes specified in ISO 9735. The specifications used shall be those in the version of ISO 9735 which is used for the interchange containing the CONTRL message. The specifications contained in ISO 9735, version 2 and 3 are reproduced in the following subsections. Differences between version 1 and 2 are also indicated.

Code lists for data elements specified in ISO 9735 can be found in the UN Trade Data Interchange Directory, UNTDID.

5.2 Segments

5.2.1 Index of segments by tag

Tag	Name
UCD	Data element error indication
UCF	Functional group response
UCI	Interchange response
UCM	Message response
UCS	Segment error indication
UNH	Message header
UNT	Message trailer

5.2.2 Index of segments by name

Tag	Name
UCD	Data element error indication
UCF	Functional group response
UCI	Interchange response
UNH	Message header
UCM	Message response
UNT	Message trailer
UCS	Segment error indication

5.2.3 Segment specifications

UCD DATA ELEMENT ERROR INDICATION

Function: To identify an erroneous simple, composite or component data element, and to identify the nature of the error.

010	0085	SYNTAX ERROR, CODED	M	an..3
020	S011	DATA ELEMENT IDENTIFICATION	M	
	0098	Erroneous data element position in segment	M	n..3
	0104	Erroneous component data element position	C	n..3

UCF FUNCTIONAL GROUP RESPONSE

Function: To identify a functional group in the subject interchange and to indicate acknowledgement or rejection (action taken) of the UNG and UNE segments, and to identify any error related to these segments. Depending on the action code, it may also indicate the action taken on the messages within that functional group.

```
 010   0048  FUNCTIONAL GROUP REFERENCE NUMBER                M  an..14

   020   S006  APPLICATION SENDER'S IDENTIFICATION            M
         0040   Sender identification                         M  an..35
         0007   Sender identification qualifier               C  an..4

|  030   S007  APPLICATION RECIPIENT'S IDENTIFICATION         M
         0044   Recipient's identification                    M  an..35
|        0007   Recipient's identification qualifier           C  an..4

   040   0083  ACTION, CODED                                   M  an..3

   050   0085  SYNTAX ERROR, CODED                             C  an..3

   060   0013  SERVICE SEGMENT TAG, CODED                     C  a3

   070   S011  DATA ELEMENT IDENTIFICATION                    C
         0098   Erroneous data element position in segment    M  n..3
         0104   Erroneous component data element position     C  n..3
```

```
         UCI   INTERCHANGE RESPONSE

         Function: To identify the subject interchange, to indicate
                   interchange receipt, to indicate acknowledgement or
                   rejection (action taken) of the UNA, UNB and UNZ
                   segments, and to identify any error related to these
                   segments. Depending on the action code, it may also
                   indicate the action taken on the functional groups and
                   messages within that interchange.

   010   0020  INTERCHANGE CONTROL REFERENCE                  M  an..14

   020   S002  INTERCHANGE SENDER                             M
         0004   Sender identification                         M  an..35
         0007   Identification code qualifier                 C  an..4
         0008   Address for reverse routing                   C  an..14

   030   S003  INTERCHANGE RECIPIENT                          M
|        0010   Recipient identification                       M  an..35
         0007   Identification code qualifier                 C  an..4
         0014   Routing address                               C  an..14

   040   0083  ACTION, CODED                                   M  an..3

   050   0085  SYNTAX ERROR, CODED                             C  an..3

   060   0013  SERVICE SEGMENT TAG, CODED                     C  a3

   070   S011  DATA ELEMENT IDENTIFICATION                    C
         0098   Erroneous data element position in segment    M  n..3
         0104   Erroneous component data element position     C  n..3
```

UCM MESSAGE RESPONSE

Function: To identify a message in the subject interchange, and to indicate that message's acknowledgement or rejection (action taken), and to identify any error related to the UNH and UNT segments.

010	0062	MESSAGE REFERENCE NUMBER	M	an..14
020	S009	MESSAGE IDENTIFIER	M	
	0065	Message type	M	an..6
	0052	Message version number	M	an..3
	0054	Message release number	M	an..3
	0051	Controlling agency	M	an..2
	0057	Association assigned code	C	an..6
030	0083	ACTION, CODED	M	an..3
040	0085	SYNTAX ERROR, CODED	C	an..3
050	0013	SERVICE SEGMENT TAG, CODED	C	a3
060	S011	DATA ELEMENT IDENTIFICATION	C	
	0098	Erroneous data element position in segment	M	n..3
	0104	Erroneous component data element position	C	n..3

UCS SEGMENT ERROR INDICATION

Function: To identify either a segment containing an error or a missing segment, and to identify any error related to the complete segment.

010	0096	SEGMENT POSITION IN MESSAGE	M	n..6
020	0085	SYNTAX ERROR, CODED	C	an..3

UNH MESSAGE HEADER

Function: To head, identify and specify a message.

Note: S009 as specified in version 1 of ISO 9735 is described in 5.3.3.

010	0062	MESSAGE REFERENCE NUMBER	M	an..14
020	S009	MESSAGE IDENTIFIER	M	
	0065	Message type	M	an..6
	0052	Message version number	M	an..3
	0054	Message release number	M	an..3
	0051	Controlling agency	M	an..2

	0057	Association assigned code	C	an..6
030	0068	COMMON ACCESS REFERENCE	C	an..35
040	S010	STATUS OF THE TRANSFER	C	
	0070	Sequence of transfers	M	n..2
	0073	First and last transfer	C	a1

UNT MESSAGE TRAILER

Function: To end and check the completeness of a message.

010	0074	NUMBER OF SEGMENTS IN THE MESSAGE	M	n..6
020	0062	MESSAGE REFERENCE NUMBER	M	an..14

5.3 Composite Data Elements

5.3.1 Index of composite data elements by tag

Tag	Name
S002	Interchange sender
S003	Interchange recipient
S006	Application sender's identification
S007	Application recipient's identification
S009	Message identifier
S010	Status of the transfer
S011	Data element identification

5.3.2 Index of composite data elements by name

Tag	Name
S007	Application recipient's identification
S006	Application sender's identification
S011	Data element identification
S003	Interchange recipient
S002	Interchange sender
S009	Message identifier
S010	Status of the transfer

5.3.3 Composite data element specifications

S002 INTERCHANGE SENDER

Desc: Identification of the sender of the interchange.

010	0004	Sender identification	M	an..35
020	0007	Identification code qualifier	C	an..4

030	0008	Address for reverse routing	C	an..14

S003 INTERCHANGE RECIPIENT

Desc: Identification of the recipient of the interchange.

010	0010	Recipient identification	M	an..35
020	0007	Identification code qualifier	C	an..4
030	0014	Routing address	C	an..14

S006 APPLICATION SENDER'S IDENTIFICATION

Desc: Identification of the sender's division, department etc. from which a group of messages is sent.

010	0040	Sender identification	M	an..35
020	0007	Sender identification qualifier	C	an..4

| S007 APPLICATION RECIPIENT'S IDENTIFICATION

Desc: Identification of the recipient's division, department etc. for which a group of messages is intended.

010	0044	Recipient's identification	M	an..35
020	0007	Recipient's identification qualifier	C	an..4

S009 MESSAGE IDENTIFIER

Desc: Identification of the type, version etc. of the message being interchanged.

010	0065	Message type	M	an..6
020	0052	Message version number	M	an..3
030	0054	Message release number	M	an..3
040	0051	Controlling agency	M	an..2
050	0057	Association assigned code	C	an..6

Note: The content of S009 was specified as follows in version 1 of ISO 9735:

010	0065	Message type	M	an..6
020	0052	Message version number	M	n..3
030	0054	Message release number	C	n..3
040	0051	Controlling agency	C	an..2
050	0057	Association assigned code	C	an..6

S010 STATUS OF THE TRANSFER

Desc: Statement that the message is one in a sequence of transfers relating to the same topic.

010	0070	Sequence of transfers	M	n..2
020	0073	First and last transfer	C	a1

S011 DATA ELEMENT IDENTIFICATION

Desc: Identification of the position for an erroneous data element. This can be the position of a simple or composite data element in the definition of a segment or a component data element in the definition a composite data element.

010	0098	Erroneous data element position in segment	M	n..3
020	0104	Erroneous component data element position	C	n..3

5.4 Data Elements

5.4.1 Index of data elements by tag

	Tag	Name
	0004	Sender identification
*	0007	Identification code qualifier
	0008	Address for reverse routing
	0010	Recipient identification
	0013	Service segment tag, coded
	0014	Routing address
	0020	Interchange control reference
	0040	Sender identification
	0044	Recipient's identification
	0048	Functional group reference number
	0051	Controlling agency
	0052	Message version number
	0054	Message release number
	0057	Association assigned code
	0062	Message reference number
	0065	Message type
	0068	Common access reference
	0070	Sequence of transfers
	0073	First and last transfer
|	0074	Number of segments in the message
	0083	Action, coded
	0085	Syntax error, coded
	0096	Segment position in message
	0098	Erroneous data element position in segment
	0104	Erroneous component data element position

* This data element was named in three different ways in versions 1, 2 and 3 of ISO 9735.

5.4.2 Index of data elements by name

Tag	Name
0083	Action, coded
0008	Address for reverse routing
0057	Association assigned code
0068	Common access reference
0051	Controlling agency
0104	Erroneous component data element position
0098	Erroneous data element position in segment
0073	First and last transfer
0048	Functional group reference number
* 0007	Identification code qualifier
0020	Interchange control reference
0062	Message reference number
0065	Message type
0054	Message release number
0052	Message version number
0074	Number of segments in the message
0010	Recipient identification
0044	Recipient's identification
0014	Routing address
0096	Segment position in message
0004	Sender identification
0040	Sender identification
0070	Sequence of transfers
0013	Service segment tag, coded
0085	Syntax error, coded

* This data element was named in three different ways in versions 1, 2 and 3 of ISO 9735.

5.4.3 Data element specifications

0004 Sender identification

Desc: Name or coded representation of the sender of a data interchange.

Repr: an..35

0007 Identification code qualifier

Desc: Qualifier referring to the source of codes for the identifiers of interchanging partners.

Repr: an..4

0008 Address for reverse routing

Desc: Address specified by the sender of an interchange to be included by the recipient in the response interchanges to facilitate internal routing.

Repr: an..14

0010 Recipient identification

Desc: Name or coded representation of the recipient of a data interchange.

Repr: an..35

0013 Service segment tag, coded

Desc: Code identifying a service segment.

Repr: a3

0014 Routing address

Desc: 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.

Repr: an..14

0020 Interchange control reference

Desc: Unique reference assigned by the sender to an interchange.

Repr: an..14

0040 Sender identification

Desc: Name or code identifying the originating division, department etc. within the sender's organization.

Repr: an..35

0044 Recipient's identification

Desc: Name or code identifying the division, department etc. within the recipient's organization for which the group of messages is intended.

Repr: an..35

0048 Functional group reference number

Desc: Reference number for the functional group assigned by and unique within the sender's division, department etc.

Repr: an..14

0051 Controlling agency

Desc: Code identifying the agency controlling the specification, maintenance and publication of the message type.

Repr: an..2

0052 Message version number

Desc: Version number of a message type.

Repr: an..3

Note: The representation of 0052 was specified as n..3 in version 1 of ISO 9735.

0054 Message release number

Desc: Release number within the current message type version number (0052).

Repr: an..3

Note: The representation of 0054 was specified as n..3 in version 1 of ISO 9735.

0057 Association assigned code

Desc: Code, assigned by the association responsible for the design

and maintenance of the message type concerned, which further identifies the message.
Repr: an..6

0062 Message reference number

Desc: Unique message reference assigned by the sender.

Repr: an..14

0065 Message type

Desc: Code identifying a type of message and assigned by its controlling agency.

Repr: an..6

0068 Common access reference

Desc: Reference serving as a key to relate all subsequent transfers of data to the same business case or file.

Repr: an..35

0070 Sequence of transfers

Desc: Number assigned by the sender indicating that the message is an addition or change of a previously sent message relating to the same topic.

Repr: n..2

0073 First and last transfer

Desc: Indication used for the first and last message in a sequence of the same type of message relating to the same topic.

Repr: a1

| 0074 Number of segments in the message

Desc: Control count of number of segments in a message.

Repr: n..6

0083 Action, coded

Desc: A code indicating acknowledgement, or rejection (the action taken) of a subject interchange, or part of the subject interchange.

Repr: an..3

0085 Syntax error, coded

| Desc: A code indicating the syntax error detected.

Repr: an..3

0096 Segment position in message

Desc: The numerical count position of a specific segment that is within the actual received message. The numbering starts with, and includes, the UNH segment as segment number 1. To identify a segment that contains an error, this is the numerical count position of that segment. To report that a segment is missing, this is the numerical count position of the last segment that was processed before the position where the missing segment was expected to be. A missing segment group is denoted by identifying the first segment in the group as missing.

Repr: n..6

| 0098 Erroneous data element position in segment

Desc: The numerical count position of the simple or composite data element in error. The segment code and each following simple or composite data element defined in the segment description shall cause the count to be incremented. The segment tag has position number 1.

Repr: n..3

0104 Erroneous component data element position

Desc: The numerical count position of the component data element in error. Each component data element position defined in the composite data element description shall cause the count to be incremented. The count starts at 1.

Repr: n..3

5.5 Code Lists

0013 Service segment tag, coded

Desc: Code identifying a service segment.

Repr: a3

UNA	Service string advice
UNB	Interchange header segment
UNE	Functional group trailer segment
UNG	Functional group header segment
UNH	Message header segment
UNT	Message trailer segment
UNZ	Interchange trailer segment

0083 Action, coded

Desc: A code indicating acknowledgement, or rejection (the action taken) of a subject interchange, or part of the subject interchange.

Repr: an..3

4 This level and all lower levels rejected
The corresponding referenced-level and all its lower referenced-levels are rejected. One or more errors are reported at this reporting-level or a lower reporting-level.

7 This level acknowledged, next lower level acknowledged if not explicitly rejected
The corresponding referenced-level is acknowledged. All messages or functional groups at the next lower referenced-level are acknowledged except those explicitly reported as rejected at the next lower reporting-level in this CONTRL message.

8 Interchange received
Indication of interchange receipt, see clause 3.

0085 Syntax error, coded

Desc: A code indicating the syntax error detected.

Repr: an..3

2 Syntax version or level not supported

Notification that the syntax version and/or level is not supported by the recipient.

7 Interchange recipient not actual recipient
Notification that the Interchange recipient (S003) is different from the actual recipient.

12 Invalid value
Notification that the value of a simple data element, composite data element or component data element does not conform to the relevant specifications for the value.

13 Missing
Notification that a mandatory (or otherwise required) service or user segment, data element, composite data element or component data element is missing

14 Value not supported in this position
Notification that the recipient does not support use of the specific value of an identified simple data element, composite data element or component data element in the position where it is used. The value may be valid according to the relevant specifications and may be supported if it is used in another position.

15 Not supported in this position
Notification that the recipient does not support use of the segment type, simple data element type, composite data element type or component data element type in the specific in the identified position.

16 Too many constituents
Notification that the identified segment contained to many data elements or that the identified composite data element contained too many component data elements.

17 No agreement
No agreement exists that allows receipt of an interchange, functional group or message with the value of the identified simple data element, composite data element or component data element.

18 Unspecified error
Notification that an error has been identified, but the nature of the error is not reported.

19 Invalid decimal notation
Notification that the character indicated as decimal notation in UNA is invalid, or the decimal notation used in a data element is not consistent with the one indicated in UNA.

20 Character invalid as service character
Notification that a character advised in UNA is invalid as service character.

21 Invalid character(s)
Notification that one or more character(s) used in the interchange is not a valid character as defined by the syntax level indicated in UNB. The invalid character is part of the referenced-level, or followed immediately after the identified part of the interchange.

22 Invalid service character(s)
Notification that the service character(s) used in the interchange is not a valid service character as advised

in UNA or not one of the service characters in the syntax level indicated in UNB or defined in an interchange agreement. If the code is used in UCS or UCD, the invalid character followed immediately after the identified part of the interchange.

23 Unknown Interchange sender
Notification that the Interchange sender (S002) is unknown.

24 Too old
Notification that the received interchange or functional group is older than a limit specified in an IA or determined by the recipient.

25 Test indicator not supported
Notification that a test processing could not be performed for the identified interchange, functional group or message.

26 Duplicate detected
Notification that a possible duplication of a previously received interchange, functional group or message has been detected. The earlier transmission may have been rejected.

27 Security function not supported
Notification that a security function related to the referenced-level or data element is not supported.

28 References do not match
Notification that the control reference in UNB/UNG/UNH does not match the one in UNZ/UNE/UNT.

29 Control count does not match number of instances received
Notification that the number of functional groups/messages/segments does not match the number given in UNZ/UNE/UNT.

30 Functional groups and messages mixed
Notification that individual messages and functional groups have been mixed at the same level in the interchange.

31 More than one message type in group
Notification that different message types are contained in a functional group.

32 Lower level empty
Notification that the interchange did not contain any messages or functional groups, or a functional group did not contain any messages.

33 Invalid occurrence outside message or functional group
Notification that an invalid segment or data element occurred in the interchange, between messages or between functional groups. Rejection is reported at the level above.

34 Nesting indicator not allowed
Notification that explicit nesting has been used in a message where it shall not be used.

35 Too many segment repetitions
Notification that a segment was repeated too many times.

36 Too many segment group repetitions
Notification that a segment group is repeated to many times.

37 Invalid type of character(s)
Notification that one or more numeric characters were used in an alphabetic (component) data element or that one or more alphabetic characters were used in a numeric (component) data element.

38 Missing digit in front of decimal sign
Notification that a decimal sign is not preceded by one or more digits.

39 Data element too long
Notification that the length of the data element received exceeded the maximum length specified in the data element description.

40 Data element too short
Notification that the length of the data element received is shorter than the minimum length specified in the data element description.

41 Permanent communication network error
Notification that a permanent error was reported by the communication network used for transfer of the interchange. Re-transmission of an identical interchange with the same parameters at network level will not succeed.

42 Temporary communication network error
Notification that a temporary error was reported by the communication network used for transfer of the interchange. Re-transmissions of an identical interchange may succeed.

43 Unknown interchange recipient
Notification that the interchange recipient is not known by a network provider.

ANNEX A

Examples of use of action codes in CONTRL

(This annex is an integral part of the message definition.)

| The tables below describe several example cases. The following is described for each case:
- the action taken,
- the error that occurred, if any
- the action codes used in the UCI, UCF and UCM segments.

Each example focuses on a part of the subject interchange, or the whole interchange. It is assumed that the other parts of the interchange are correct, if not otherwise stated.

The first table gives examples where functional groups are used, the second gives examples where they are not used.

| Legend:
| - = Segment not used (unless redundant reporting occurs)
| 4, 7, 8 = Action code used in the segment indicated in the column header

	Examples where functional groups are used	Type of error and comments	UCI	UCF	UCM
1	Message rejected, one or more other messages in the functional group are acknowledged.	Error in user data.	7	7	4
2	Message acknowledged.	Error in other message(s) in the group.	7	7	-
3	All messages in the group are rejected.	Some error in the messages.	7	7	4
4	The whole group is rejected.	Error at group level.	7	4	-
5	The whole group is acknowledged.	No errors in group. Other group in error.	7	-	-
6	The whole interchange is rejected.	Error at interchange level.	4	-	-

7	The whole interchange is acknowledged.	No errors in interchange.	7	-	-
8	Indication of interchange receipt, see clause 3. No messages or groups are reported in this CONTRL message.	No errors in checked parts.	8	-	-

	Examples where functional groups are not used	Type of error and comments	UCI	UCF	UCM
9	Message rejected, one or more other messages in the interchange are acknowledged.	Error in user data.	7	-	4
10	Message acknowledged, other messages in the interchange are rejected.	Error in the other message(s).	7	-	-
11	All messages in the interchange are rejected.	Some error in the messages.	7	-	4
12	Message acknowledged, other messages in the interchange are acknowledged or rejected. Redundant reporting of the message.	Error in zero or more other messages.	7	-	7
13	Indication of interchange receipt, see clause 3. No messages are reported in this CONTRL message.	No errors in checked parts.	8	-	-
14	The whole interchange is rejected.	Error at interchange level.	4	-	-
15	The whole interchange is acknowledged.	No errors in interchange.	7	-	-

ANNEX B

Use of error codes

(This annex is an integral part of the message definition.)

| The table below describes at which reporting-level an error code may be used.

Legend:
x = may be used
- = shall not be used

No	Code name	UCI	UCF	UCM	UCS	UCD
2	Syntax version or level not supported	x	-	-	-	-
7	Interchange recipient not actual recipient	x	-	-	-	-
12	Invalid value	x	x	x	x	x
13	Missing	x	x	x	x	x
14	Value not supported in this position	x	x	x	x	x
15	Not supported in this position	x	x	x	x	x
16	Too many constituents	x	x	x	x	x
17	No agreement	x	x	x	-	-
18	Unspecified error	x	x	x	x	x
19	Invalid decimal notation	x	-	-	-	x
20	Character invalid as service character	x	-	-	-	-
21	Invalid character(s)	x	x	x	x	x
22	Invalid service character(s)	x	x	x	x	x
23	Unknown Interchange sender	x	-	-	-	-
24	Too old	x	x	-	-	-

25	Test indicator not supported	x	x	x	-	-
26	Duplicate detected	x	x	x	-	-
27	Security function not supported	x	x	x	x	x
28	References do not match	x	x	x	-	-
29	Control count does not match number of instances received	x	x	x	-	-
30	Functional groups and messages mixed	x	x	x	-	-
31	More than one message type in group	-	x	x	-	-
32	Lower level empty	x	x	-	-	-
33	Invalid occurrence outside message or functional group	x	x	-	-	-
34	Nesting indicator not allowed	-	-	x	x	x
35	Too many segment repetitions	-	-	-	x	-
36	Too many segment group repetitions	-	-	-	x	-
37	Invalid type of character(s)	x	x	x	-	x
38	Missing digit in front of decimal sign	-	-	-	-	x
39	Data element too long	x	x	x	-	x
40	Data element too short	x	x	x	-	x
41	Permanent communication network error	x	-	-	-	-
42	Temporary communication network error	x	-	-	-	-
43	Unknown interchange recipient	x	-	-	-	

ANNEX C

Use of code values in data element 0013 Service segment tag, coded

(This annex is an integral part of the message definition.)

The code values that may be used in data element 0013 depends on the segment where 0013 is used, as follows:

Segment	Allowed code values in 0013
UCI	UNA, UNB and UNZ
UCF	UNG and UNE
UCM	UNH and UNT

ANNEX D

Conditions for presence of conditional segments/data elements

(This annex is an integral part of the message definition.)

When an error is reported, data element 0085 shall be present in the segment in CONTRL that references the position of the error.

If data element 0013 or S011 is present in a segment, data element 0085 shall be present.

When an error is reported, data elements 0013 and S011 shall be present in the segment in CONTRL referencing the position of the error, unless the error position is identified by the associated data element 0085.

Data element 0013 shall be present if composite S011 is present in a segment.

Data element 0104 shall only be present if an error in a component data element is reported.

Those simple, composite or component elements that may be copied into CONTRL from the subject interchange shall be present if they were present in the subject interchange.