

INTERNATIONAL STANDARD



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Electronic data interchange for administration, commerce and transport (EDIFACT) — Application level syntax rules

iTeh STANDARD PREVIEW

*Échange de données informatisé pour l'administration, le commerce et le transport
(EDIFACT) — Règles de syntaxe au niveau de l'application*

ISO 9735:1988

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 9735 was prepared by UN/ECE *Trade Division* (as EDIFACT) and was adopted, under a special "fast-track procedure", by Technical Committee ISO/TC 154, *Documents and data elements in administration, commerce and industry*, in parallel with its approval by the ISO member bodies.

Annexes A and B form an integral part of this International Standard. Annex C is for information only.

Amended reprint, 1990

This amended reprint has been prepared to correct two ambiguities in the original text.

These concern segments UNG, S008, and UNH, S009. The convention for assigning message version number and message release number includes the last two digits of the year. In order to avoid compression of leading zeroes in these fields, which is a normal procedure in many computer programs when the data type is specified to be numeric, and which would consequently distort the data, the data types for message version number and message release number have been changed from numeric (n) to alphanumeric (an). Additionally, experience has shown that the footnote which appeared on page 17 of the 1988 edition has been misunderstood and in order to provide clarification, the footnote has now been deleted and the status of the message release number (0054) and controlling agency (0051) has been changed from conditional to mandatory.

In order to allow time for users to change their systems, and to provide a specific date for implementation of the changes, this amended and reprinted first edition will become effective six months after the date of publication, i.e. 1 May 1991.

Introduction

This international Standard includes, in a condensed form, the rules on application level for the structuring of the user data and of the associated service data in the interchange of messages in an open environment. These rules have been agreed by the United Nations Economic Commission for Europe (UN/ECE) as syntax rules for Electronic Data Interchange For Administration, Commerce and Transport (EDIFACT) and are part of the ECE Trade Data Interchange Directory which also includes Message Design Guidelines^{*)}. The Guidelines should be used in conjunction with this International Standard.

The service specifications and protocols for Open Systems Interconnection (OSI) based on the Reference Model in ISO 7498 and issued by ISO, CCITT, CEN/CENELEC etc. may be followed for the communication of messages based on this International Standard. Such specifications and protocols are outside the scope of this International Standard.

Functional error indication/correction can be handled by special service messages following the syntax rules in this International Standard.

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^{*)} Presently ECE Draft.

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Electronic data interchange for administration, commerce and transport (EDIFACT) — Application level syntax rules

1 Scope

This International Standard gives syntax rules for the preparation of messages to be interchanged between partners in the fields of administration, commerce and transport.

NOTE — Users of this International Standard should note that the syntax rules specified herein are part of the United Nations Trade Data Interchange Directory (UNTDID). They may be used in any application, but messages using these syntax rules may only be referred to as EDIFACT messages if they comply with other rules and directories in UNTDID and if they have been approved by the United Nations Economic Commission for Europe (UN/ECE).

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2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 31-0 : 1981, *General principles concerning quantities, units and symbols*.

ISO 646 : 1983, *Information processing — ISO 7-bit coded character set for information interchange*.

ISO 2382-1 : 1984, *Data processing — Vocabulary — Part 01: Fundamental terms*.

ISO 2382-4 : 1987, *Data processing — Vocabulary — Part 04: Organization of data*.

ISO 6523 : 1984, *Data interchange — Structures for the identification of organizations*.

ISO 6937-2 : 1983, *Information processing — Coded character sets for text communication — Part 2: Latin alphabetic and non-alphabetic graphic characters*.

ISO 7372 : 1986, *Trade data interchange — Trade Data Elements Directory*.

ISO 7498 : 1984, *Information processing systems — Open Systems Interconnection — Basic Reference Model*.

ISO 8859 : 1987, *Information processing — 8 bit single-byte coded graphic character sets —*

Part 1: Latin alphabet No. 1.

Part 2: Latin alphabet No. 2.

3 Definitions

For the purpose of this International Standard, the definitions in annex A apply.

4 Syntax levels

This International Standard specifies syntax levels A and B which are identical in all respects except for the character sets used. As requirements for additional syntactical features appear, further levels may be added.

Unless interchange partners agree to use other or additional characters, level A shall use only the character set specified in 5.1, and level B only the character set specified in 5.2.

The conditional Service String Advice, UNA, (see annex B) provides the capability to specify the separator and other service characters used in the interchange in case they differ from those in clause 5.

5 Character sets

For the characters in the sets below, the 7-bit codes in the basic code table in ISO 646 shall be used, unless the corresponding 8-bit codes in ISO 6937 and ISO 8859 or other bit codes are specifically agreed between the interchanging partners. See clause 4.

5.1 Level A character set

Letters, upper case	A to Z
Numerals	0 to 9
Space character	
Full stop	.
Comma	,
Hyphen/minus sign	-
Opening parenthesis	(
Closing parenthesis)
Oblique stroke (slash)	/
Equals sign	=
<div>iTeh STANDARD PREVIEW (standards.itech.ai) ISO 9735:1988 https://standards.itech.ai/catalog/standards/sist/d9b9f4d6-f6cf-4730-abec-20f1fac6c84f/iso-9735-1988</div>	
Apostrophe	' Reserved for use as segment terminator
Plus sign	+ Reserved for use as segment tag and data element separator
Colon	:
Question mark	? Reserved for use as release character

? immediately preceding one of the characters ' + : ? restores their normal meaning. For example, 10? + 10 = 20 means 10 + 10 = 20. Question mark is represented by ??.

The following characters are part of the level A character set but cannot be used internationally in telex transmissions.

Exclamation mark	!
Quotation mark	“
Percentage sign	%
Ampersand	&
Asterisk	*
Semi-colon	;
Less-than sign	<
Greater-than sign	>

5.2 Level B character set

This character set is not intended for transmission to telex machines.

Letters, upper case	A to Z
Letters, lower case	a to z
Numerals	0 to 9
Space character	
Full stop	.
Comma	,
Hyphen/minus sign	-
Opening parenthesis	(
Closing parenthesis)
Oblique stroke (slash)	/
Apostrophe	'
Plus sign	+
Colon	:
Equals sign	=
Question mark	?
Exclamation mark	!
Quotation mark	"
Percentage sign	%
Ampersand	&
Asterisk	*
Semi-colon	;
Less-than sign	<
Greater-than sign	>

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Information separator	IS 4	segment terminator	ISO 9735:1988
Information separator	IS 3	data element separator	https://standards.iteh.ai/catalog/standards/sist/d9b9fd6-f6cf-4730-abec-20f1ac6c847/iso-9735-1988
Information separator	IS 1	component data element separator	

6 Structures

6.1 Interchange structure

The Service String Advice, UNA, and the service segments UNB to UNZ shall appear in the order stated below in an interchange. There may be several functional groups or messages within an interchange and several messages in a functional group. A message consists of segments. The structures for segments and for data elements therein are shown in 6.2 and 6.3. The contents of the service segments are shown in annex B. See also figure 1.

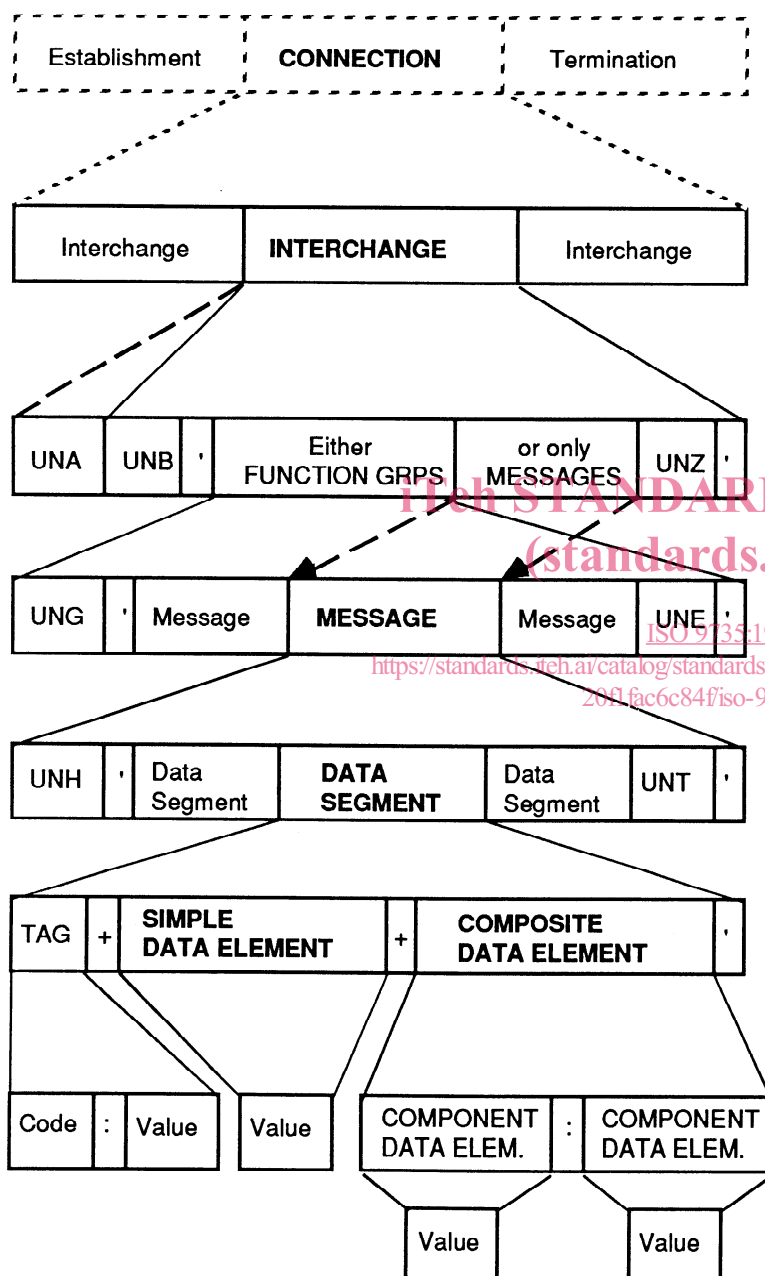
An interchange consists of:

Service String Advice	UNA	Conditional
Interchange Header	UNB	Mandatory
Functional Group Header	UNG	Conditional
Message Header	UNH	Mandatory
User Data Segments		As required
Message Trailer	UNT	Mandatory
Functional Group Trailer	UNE	Conditional
Interchange Trailer	UNZ	Mandatory

In addition to the above service segments, the service segment UNS can, when required, be used to divide a message into sections. See annex B.

EXAMPLES illustrating segment sequences:

- a) A single message within a functional group: UNA UNB UNG UNH... Data Segments...UNT UNE UNZ
- b) A single message without functional grouping: UNA UNB UNH... Data Segments...UNT UNZ
- c) A single message without functional grouping and without UNA: UNB UNH ... Data Segments...UNT UNZ



A CONNECTION contains one or more interchanges. The technical protocols for establishment, maintenance and termination etc. are not part of this International Standard.

An INTERCHANGE contains:

- UNA, Service String Advice, if used
- UNB, Interchange Header
- Either only Functional Groups, if used, or only Messages
- UNZ, Interchange Trailer

A FUNCTIONAL GROUP contains:

- UNG, Functional Group Header
- Messages of the same type
- UNE, Functional Group Trailer

A MESSAGE contains:

- UNH, Message Header
- Data Segments
- UNT, Message Trailer

A SEGMENT contains:

- A segment Tag
- Simple data elements or
- Composite data elements or both as applicable

A SEGMENT TAG contains:

- A segment code and, if explicit indication, repeating and nesting value(s). See 8.1 and clause 9.

A SIMPLE DATA ELEMENT contains:

- A single data element value

A COMPOSITE DATA ELEMENT contains:

- Component data elements

A COMPONENT DATA ELEMENT contains:

- A single data element value

UNA, UNB, UNZ, UNG, UNE, UNH and UNT are Service Segments; see 6.1 and annex B. In the diagram, the level A separators/terminators have been used; see 5.1.

Figure 1 – Hierarchical structure of an Interchange

6.2 Order of segments and groups of segments within a message

A message structure diagram and the order of the segments following the processing rules in the ECE Message Design Guidelines is shown in annex C.

6.3 Segment structure

Segment Tag, composed of	Mandatory
Segment Code	Mandatory component data element
Component data element separator	Conditional
Nesting and repeating indication	Conditional component data element(s)
Data element separator	Mandatory
Simple or composite data elements	Mandatory or conditional as specified in the relevant segments directory; see 6.4
Segment Terminator	Mandatory

6.4 Data element structure

Simple Data Element, or	Mandatory or conditional as specified in the relevant
Composite Data Element with	segments directory
Component data elements and	
Component data element separators	Mandatory (see restriction below)
Data element separator	Mandatory (see restriction below)

There shall be no component data element separator after the last component data element in a composite data element and no data element separator after the last data element in a segment.

7 Compressing

In data elements for which the Data Elements Directory specifies variable length and there are no other restrictions, insignificant character positions shall be suppressed. In the case of insignificant characters, leading zeroes and trailing spaces shall be suppressed.

Note, however, that a single zero before a decimal sign is significant (see 10.1) and that a zero may be significant (e.g. to indicate a temperature) if so stated in the data elements specification.

When compressing messages, the rules below shall be followed.

In the following examples of the rules, "Tag" represents a segment tag, "DE" a data element and "CE" a component data element. The separators in level A in 5.1 are used.

7.1 Exclusion of segments

Conditional segments containing no data shall be omitted (including their segment tags).

7.2 Exclusion of data elements by omission

Data elements are identified by their sequential positions within the segment as stated in the Segment Directory. If a conditional data element is omitted and is followed by another data element, its position shall be indicated by retention of its data element separator.

Tag+DE+DE+++DE+DE+DE '

||

These two data elements are omitted