
**Electronic data interchange for
administration, commerce and transport
(EDIFACT) — Application level syntax rules
(Syntax version number: 4, Syntax release
number: 1) —**

**Part 1:
Syntax rules common to all parts**

*Échange de données informatisé pour l'administration, le commerce et le
transport (EDIFACT) — Règles de syntaxe au niveau de l'application
(numéro de version de syntaxe: 4, numéro d'édition de syntaxe: 1) —
Partie 1: Règles de syntaxe communes à l'ensemble des parties*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this part of ISO 9735 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 9735-1 was prepared by Technical Committee ISO/TC 154, *Processes, data elements and documents in commerce, industry and administration* in collaboration with UN/CEFACT through the Joint Syntax Working Group (JSWG).

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This second edition cancels and replaces the first edition (ISO 9735-1:1998) to which one new feature to the EDIFACT syntax, version 4 has been added: Syntax release identification. However ISO 9735:1988 and its Amendment 1:1992 are provisionally retained for the reasons given in clause 2.

Furthermore, for maintenance reasons the Syntax service directories have been removed from this and all other parts of ISO 9735. They are now consolidated in a new part, ISO 9735-10.

At the time of publication of ISO 9735-1:1998, ISO 9735-10 had been allocated as a part for "Security rules for interactive EDI". This was subsequently withdrawn because of lack of user support, and as a result, all relevant references to the title "Security rules for interactive EDI" have been removed in this second edition of ISO 9735-1.

Definitions from all parts of the ISO 9735 series have been consolidated and included in this part of ISO 9735.

The Introduction has also been updated to summarize the new feature and all other changes.

Together with ISO 9735-2, this part of ISO 9735 is an enhancement of ISO 9735:1988 and its Amendment 1:1992.

ISO 9735 consists of the following parts, under the general title *Electronic data interchange for administration, commerce and transport (EDIFACT) — Application level syntax rules (Syntax version number: 4, Syntax release number: 1)*:

- Part 1: Syntax rules common to all parts
- Part 2: Syntax rules specific to batch EDI
- Part 3: Syntax rules specific to interactive EDI
- Part 4: Syntax and service report message for batch EDI (message type — CONTRL)
- Part 5: Security rules for batch EDI (authenticity, integrity and non-repudiation of origin)
- Part 6: Secure authentication and acknowledgement message (message type — AUTACK)

- *Part 7: Security rules for batch EDI (confidentiality)*
- *Part 8: Associated data in EDI*
- *Part 9: Security key and certificate management message (message type — KEYMAN)*
- *Part 10: Syntax service directories*

Further parts may be added in the future.

Annex A forms a normative part of this part of ISO 9735. Annexes B, C and D are for information only.

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Introduction

This part of ISO 9735 includes the rules at the application level for the structuring of data in the interchange of electronic messages in an open environment, based on the requirements of either batch or interactive processing. 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 United Nations Trade Data Interchange Directory (UNTDID) which also includes both batch and interactive Message Design Guidelines.

This part of ISO 9735 may be used in any application, but messages using these rules may only be referred to as EDIFACT messages if they comply with other guidelines, rules and directories in the UNTDID. For UN/EDIFACT messages, the message design rules for batch or interactive usage apply, as appropriate. These rules are maintained in the UNTDID.

Communications specifications and protocols are outside the scope of this part of ISO 9735.

A previous version of ISO 9735 was published in 1988 as a single part. The current version of ISO 9735 consists of multiple parts and incorporates enhancements to extend its application.

This part of ISO 9735 is a re-draft of corresponding sections in the previous version of ISO 9735. It consists of the rules common to all parts of ISO 9735, and includes the definitions for all parts.

The basic syntax rules specified in this part remain unchanged from the previous version, with the exception that the coverage of character repertoires has been extended, and two new techniques have been introduced (the provision for “dependency notes” and the introduction of a service repetition character, to support the capability of permitting multiple occurrences (repeats) of stand-alone and/or composite data elements). Both of these techniques are used in other parts of the current version of ISO 9735, and are available for specification in EDIFACT messages which utilize this International Standard.

In addition, enhancements have been made to the batch interchange; group; and message header segments (UNB; UNG; and UNH).

Character repertoires: Because of the widening use of ISO 9735, it has become necessary to extend its coverage to include all character repertoires covered by ISO 8859, parts 1-9; the code extension techniques covered by ISO 2022 (with certain restrictions on its use within an interchange); and partial use of the techniques covered by ISO/IEC 10646-1.

Dependency notes: These provide a formal notation to express relationships in EDIFACT message, segment and composite data element specifications.

Repeating data elements: The specification of multiple occurrences of a message within a group or within an interchange; a group within an interchange; and a segment group and/or a segment within a message, which existed in the previous version of ISO 9735, has been extended in the current version. The additional capability for the specification of multiple occurrences of a stand-alone data element and/or of a composite data element within a segment has been introduced.

UNB - Interchange header segment: This segment has been enhanced to permit the identification of the service code list directory version number; identification of the character encoding scheme; and internal sub-identification of the sender and recipient. In addition, to conform to year 2000 requirements, the date format in this segment has been extended.

UNG - Group header segment: This segment has been renamed and its function changed to permit one or more message types and/or packages to be contained in the group. As a result, certain data elements, which are now redundant, have been marked for deletion. In addition, to conform to year 2000 requirements, the date format in this segment has been extended.

UNH - Message header segment: This segment has been enhanced to permit the identification of a message subset; of a related message implementation guideline; and of a related scenario.

Segment collision prevention: An addition has been made to permit the prevention of collision, by use of the UGH/UGT segment group. This technique shall be used in a message specification when it is not otherwise possible to ensure unambiguous identification of each message segment upon receipt.

Syntax release identification: An addition has been made to permit the identification of specific releases related to the syntax version number. This will facilitate the publication of minor changes to the standard (if required in the future).

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Electronic data interchange for administration, commerce and transport (EDIFACT) — Application level syntax rules (Syntax version number: 4, Syntax release number: 1) —

Part 1: Syntax rules common to all parts

1 Scope

This part of ISO 9735 specifies common syntax rules for the formatting of batch and interactive messages to be interchanged between computer application systems. It includes the terms and definitions for all parts of ISO 9735.

2 Conformance

Whereas this part shall use a version number of “4” in the mandatory data element 0002 (Syntax version number), and shall use a release number of “01” in the conditional data element 0076 (Syntax release number), each of which appear in the segment UNB (Interchange header), interchanges continuing to use the syntax defined in the earlier published versions shall use the following Syntax version numbers, in order to differentiate them from each other and from this part:

- ISO 9735:1988: *Syntax version number: 1*
- ISO 9735:1988 (amended and reprinted in 1990): *Syntax version number: 2*
- ISO 9735:1988 and its Amendment 1:1992: *Syntax version number: 3*
- ISO 9735:1998: *Syntax version number: 4*

Conformance to a standard means that all of its requirements, including all options, are supported. If all options are not supported, any claim of conformance shall include a statement which identifies those options to which conformance is claimed.

Data that is interchanged is in conformance if the structure and representation of the data conforms to the syntax rules specified in this part of ISO 9735.

Devices supporting this part of ISO 9735 are in conformance when they are capable of creating and/or interpreting the data structured and represented in conformance with the standard.

Conformance shall be based on this part of ISO 9735, on ISO 9735-10, and at least either ISO 9735-2 or ISO 9735-3.

When identified in this part of ISO 9735, provisions defined in related standards shall form part of the conformance criteria.

3 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 9735. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 9735 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO/IEC 646:1991, *Information technology — ISO 7-bit coded character set for information interchange*

ISO/IEC 2022:1994, *Information technology — Character code structure and extension techniques*

ISO/IEC 2382-1:1993, *Information technology — Vocabulary — Part 1: Fundamental terms*

ISO/IEC 2382-4:1999, *Information technology — Vocabulary — Part 4: Organization of data*

ISO 6093:1985, *Information processing — Representation of numerical values in character strings for information interchange*

ISO/IEC 6429:1992, *Information technology — Control functions for coded character sets*

ISO/IEC 6523-1:1998, *Information technology — Structure for the identification of organizations and organization parts — Part 1: Identification of organization identification schemes*

ISO 7498-2:1989, *Information processing systems — Open Systems Interconnection — Basic Reference Model — Part 2: Security Architecture*

ISO/IEC 9594-8:1998, *Information technology — Open Systems Interconnection — The Directory: Authentication framework*

ISO 9735-2:2002, *Electronic data interchange for administration, commerce and transport (EDIFACT) — Application level syntax rules (Syntax version number: 4, Syntax release number: 1) — Part 2: Syntax rules specific to batch EDI*

ISO 9735-3:2002, *Electronic data interchange for administration, commerce and transport (EDIFACT) — Application level syntax rules (Syntax version number: 4, Syntax release number: 1) — Part 3: Syntax rules specific to interactive EDI*

ISO 9735-10:2002, *Electronic data interchange for administration, commerce and transport (EDIFACT) — Application level syntax rules (Syntax version number: 4, Syntax release number: 1) — Part 10: Syntax service directories*

ISO/IEC 10646-1:2000, *Information technology — Universal Multiple-Octet Coded Character Set (UCS) — Part 1: Architecture and Basic Multilingual Plane*

ISO/IEC 11770-1:1996, *Information technology — Security techniques — Key management — Part 1: Framework*

ITU-T Recommendation F.400/X.400:1999, *Message handling system and service overview*

4 Terms and definitions

For the purposes of all parts of ISO 9735, the following terms and definitions apply.

NOTE 1 When a word or phrase appears in italics within a definition, this means that a definition for this term is given in this clause.

NOTE 2 The terms are classified alphabetically; an identifier is added at the end of each definition, in square brackets, to facilitate the comparison between different linguistic versions. For example the English term “Alphabetic character set” is called in French “Jeu de caractères alphabétiques”, and will not appear at the same alphabetic place in the two versions of the syntax; the identifier in brackets nevertheless remains “[1]”.

4.1

alphabetic character set

character set that contains letters and/or *ideograms*, and may contain other *graphic characters* except digits [1]

4.2

alphanumeric character set

character set that contains letters, digits and/or *ideograms*, and may contain other *graphic characters* [2]

4.3

asymmetric algorithm

cryptographic algorithm employing a *public key* and a *private key* which together form an asymmetric key set [3]

4.4

attribute

characteristic of an entity [4]

4.5

authentication

See *data origin authentication* [5]

4.6

batch EDI

electronic data interchange in which no strong requirements exist for formalized data exchange using query and response between the parties [6]

4.7

business

series of processes, each having a clearly understood purpose, involving more than one *organization*, realized through the exchange of information and directed towards some mutually agreed upon goal, extending over a period of time [7]

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4.8

certificate

public key of a user, together with some other information, rendered unforgeable by a signature with the *private key* of the *certification authority* which issued it [8]

[ISO/IEC 9594-8:1998, 3.3.3]

4.9

certification authority

authority trusted by one or more users to create and assign *certificates* [9]

[ISO/IEC 9594-8:1998, 3.3.8]

4.10

certification path

ordered sequence of *certificates* of objects in the Directory Information Tree which, together with the *public key* of the initial object in the path, can be processed to obtain that of the final object in the path [10]

[ISO/IEC 9594-8:1998, 3.3.9]

4.11

character

member of a set of elements used for the organization, control, or representation of *data* [11]

[ISO/IEC 10646-1:2001, 4.6]

4.12

character repertoire

set of *graphic characters* of a *coded character set*, considered independently of its encoding [12]

4.13

code extension

techniques for the *encoding* of *characters* that are not included in the *character repertoire* of a given *coded character set* [13]

4.14

code list

complete set of *data element values* of a coded *simple data element* [14]

4.15

code list directory

listing of identified and specified *code lists* [15]

4.16

coded character set

set of unambiguous rules that establishes a *character set* and the one-to-one relationship between the *characters* of the set and their bit combinations [16]

[ISO/IEC 6429:1992]

4.17

component data element

simple data element used within a *composite data element* [17]

4.18

component data element separator

service character used to separate the *component data elements* within a *composite data element* [18]

4.19

composite data element

identified, named and structured set of functionally related *component data elements*, as described in a *composite data element specification* [19]

NOTE In *transfer*, a composite data element is a specific ordered set of one or more *component data element(s)* in conformance with a *composite data element specification*.

4.20

composite data element directory

listing of identified and named *composite data elements* with their *composite data element specification* [20]

4.21

composite data element specification

description of a *composite data element* in a *composite data element directory*, including the specification of the position and *status* of the *component data elements* constituting the *composite data element* [21]

4.22

conditional

type of *status*, used in a *message specification*, *segment specification*, or *composite data element specification*, to specify that a *segment group*, *segment*, *composite data element*, *stand-alone data element* or *component data element* is used optionally or when the appropriate conditions occur [22]

4.23

confidentiality

property that information is not made available or disclosed to unauthorized individuals, entities or processes [23]

[ISO 7498-2:1989, 3.3.16]

4.24**control character**

a *character* whose purpose is to effect format, to control data transmission, or to perform other control functions [24]

NOTE A control character, although it is not a graphic character, may have a graphic representation.

[ISO/IEC 2382-4:1999, 04.04.01]

4.25**credential**

data that serves to establish the claimed identity of an entity [25]

[ISO 7498-2:1989, 3.3.17]

4.26**cryptography**

discipline which embodies principles, means, and methods for the transformation of data in order to hide its information content, prevent its undetected modification and/or prevent its unauthorized use [26]

[ISO 7498-2:1989, 3.3.20]

4.27**data**

reinterpretable representation of information in a formalized manner suitable for communication, interpretation or processing [27]

[ISO/IEC 2382-1:1993, 01.01.02]

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4.28**data element**

unit of *data* described in a *data element specification* [28]

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NOTE There are two classes of data element: *simple data elements* and *composite data elements*.

4.29**data element directory**

listing of identified, named and specified *simple data elements* (*simple data element directory*) or *composite data elements* (*composite data element directory*) [29]

4.30**data element separator**

service character used to separate from each:

- non repeating stand-alone data elements; or
- composite data elements in a segment; or
- a set of occurrences of a repeating data element; or
- a null set of occurrences of a repeating data element,
 - where a set of occurrences of a *repeating data element* is a *repeating data element* having one or more of its occurrences (up to a maximum specified number) present in a *transfer*; and
 - where a null set of occurrences of a *repeating data element* is a *repeating data element* for which none of its specified occurrences are present in a *transfer* [30]