UN / EDIFACT
関連規則Ⅰ（改訂版）
（英 語 版）

行政、商業および運輸のための電子データ交換 ー アプリケーションレベル・シンタックス規則

第１部：全ての部分に共通のシンタックス規則及び各部分のシンタックスサービスディレクトリ（R. 1241）

第２部：バッチＥＤＩ固有のシンタックス規則（R. 1242）

第３部：対話型ＥＤＩ固有のシンタックス規則（R. 1243）

第８部：ＥＤＩ関連データのシンタックス規則（R. 1248）

JASTPRO

財団法人　日本貿易関係手続簡易化協会

はじめに

UN/EDIFACT は、行政、商業および運輸に関する電子データ交換のための国連規則集であり、構造化されたデータの、特に商業やサービスの取引に関する独立したコンピュータ（アプリケーション）間における電子交換のための国際的に合意された規格、ディレクトリおよび指針のセットで構成されると、定義されている。

UN/EDIFACT アプリケーションレベル・シンタックス規則は、１９８７年３月の UN/ECE/WP.4（国連欧州経済委員会/貿易手続簡易化作業部会）において採択され、同年９月の ISO（世界標準化機構）/TC154 において国際規格 ISO 9735 として承認されたものである。以来、早くも１０年を経過し、EDI（電子データ交換）環境も大きく変化してきている。UN/EDIFACT は、国際的に合意された EDI のための唯一の規格として、EC（電子商取引）や CALS（継続的な調達とライフサイクルの支援）の幅広い分野で使用されつつある。また、インターネットの出現により SMEs（中小企業）のための簡便な「ライト EDI」や「シンプル EDI」のためのツールとしても期待されている。

環境の変化に伴い、ユーザー側よりは、対話型 EDI のシンタックス、図形等オブジェクトデータの伝送、さらにはセキュリティに関するもの等々の要求が出てきた。これらのユーザー要求に応えるために UN/ECE/WP.4（１９９７年３月から WP.4 を発展的に解消してセンター組織としての CEFACT[1] となった）の下にあるデータエレメントと自動データ交換に関する専門家会議（通称 GE.1）では、シンタックス開発グループを設け、研究・開発を続けてきた。

その結果、開発された新しい ISO 9735 は、ユーザー要求に応える形で、現在のところ下記の１０部で構成となっている。国連における開発作業と、ISO での国際規格化のための手続はほぼ並行して進められており、開発状況は別表一覧表の通りである。

ISO 9735-1 - *全ての部分に共通のシンタックス規則及び各部分のシンタックスサービスディレクトリ*
ISO 9735-2 - *バッチ EDI 固有のシンタックス規則*
ISO 9735-3 - *対話型 EDI 固有のシンタックス規則*

[1] CEFACT (Center for the Facilitation of Procedures and Practices for Administration, Commerce and Transport：行政、商業及び運輸のための手続と実務簡易化センター)

ISO 9735-4 - *バッチ EDI 用シンタックス及びサービス報告メッセージ（メッセージ種別 – CONTRL）*

ISO 9735-5 - *バッチ EDI 用セキュリティ規則（確実性、完全性及び発信人の非否認性）*

ISO 9735-6 - *確実性と受信確認の確保メッセージ（メッセージ種別 – AUTACK）*

ISO 9735-7 - *バッチ EDI 用セキュリティ規則（機密性）*

ISO 9735-8 - *EDI 関連データ*

ISO 9735-9 - *セキュリティ鍵と認証管理メッセージ（メッセージ種別 – KEYMAN）*

ISO 9735-10 - *対話型 EDI 用セキュリティ規則 I*

以降の部分が将来追加される場合がある。

１９９７年３月には、上記の内第１，２，３，８の４部が GE.1 で承認され、現行国際規格の改訂版としてファーストトラック処理を求めて ISO へ提出された。ISO/TC154 の P メンバーによる投票は、１９９７年５月末に締め切られ、結果は承認となったが、いくつかの重要なコメントに対処するための編集会議を経て、現在編集後のバージョンがサイドの投票に掛かっているところであり、１９９８年２月中にその最終版の承認が予定されている。

また、１９９８年１月開催の JSWG[2] でも下記の２つの重要な変更が加えられている；

① ２０００年問題に対応するために UNB および UNG セグメントで使用する日付データエレメント 0017 を n6 (YYMMDD) から n8 (CCYYMMDD) に変更する。

② セグメント衝突防止策
本件については日本からの要望である。SDG、JTAG[3] とも本件はメッセージ設計上の問題であるとしてシンタックス上の対策を避けていたが、今回正式にシンタックス規則第１部にその防止策を盛り込むこととなった。

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[2] JSWG (Joint Syntax Working Group：従来の GE.1 の下における SDG を発展的に解消して、ISO と国連の合同で設立されたシンタックス作業グループ)

[3] JTAG (Joint Technical Assessment Group：JRT 内の組織で各地域合同による技術評価グループ)

上記２点とも ISO/TC154 で現在行われている再投票に遅延を与えることなく、今回のシンタックス規則第４版への技術的変更（Technical Corrigendum）として発行される予定である。

今回、「UN/EDIFACT 関連規則 I」（新 ISO 9735 第１，２，３及び８部を収録）の改訂版を出版するに当たり、利用者の便宜を考慮して、同時にこれらの英文版を出版することとした。これらのカバーページは、国連の正式文書としての R 番号付であるが、内容は、SDG の編集会議において改訂されたものと差し替えてある。UN/EDIFACT 利用者の参考になれば幸いである。

ご意見等お気づきの点があればご遠慮なく下記へお寄せいただきたい。
インターネット e-mail : jastpro@ red.an.egg.or.jp

平成１０年２月
（財）日本貿易関係手続簡易化協会
（文責：UN/EDIFACT アジア担当ラポータ伊東健治）

ISO 9735 （第４版）開発状況 (1998年1月22日現在)

Part	表題	UN/ECE WP.4 による処理			ISO による処理						
		WP.4/CEFACT による承認	UN/SDG による作業の完了	R.-文書	投票開始日	投票完了日	投票結果	編集会議	FDIS の投票開始日	FDIS の投票完了日	投票結果
1	全ての部分に共通のシンタックス規則及び各部分のシンタックスサービスディレクトリ	March 96	July 96	R.1241 (plus Corr.1)	28th Nov 96	31st May 97*)	承認	97年7月末	25th Dec 97	25th Feb 98	
2	バッチ EDI 固有のシンタックス規則	March 96	July 96	R.1242	28th Nov 96	31st May 97*)	承認	97年7月末	25th Dec 97	25th Feb 98	
3	対話型 EDI 固有のシンタックス規則	March 96	July 96	R.1243 (plus Corr.1)	28th Nov 96	31st May 97*)	承認	97年7月末	25th Dec 97	25th Feb 98	
4	バッチ EDI 用シンタックス及びサービス報告メッセージ (メッセージタイプ – CONTRL)	September 97	June 97	R.1244/Rev.1	22nd Jan 98	22nd June 98	—	—	—	—	
5	バッチ EDI 用セキュリティ規則 (確実性、完全性及び発信人の非否認性)	September 96	January 97	R.1245/Rev.1	1st May 97	1st Oct 97	承認	15-17 Dec 97	—	—	
6	確実性と受信確認の確保メッセージ (メッセージタイプ – AUTACK)	September 96	January 97	R.1246/Rev.1	1st May 97	1st Oct 97	承認	15-17 Dec 97	—	—	
7	バッチ EDI 用セキュリティ規則 (機密性)	September 97	June 97	R.1251/Rev.2	22nd Jan 98	22nd June 98	—	—	—	—	
8	EDI 関連データ	March 96	July 96	R.1248	28th Nov 96	31st May 97*)	承認	97年7月末	25th Dec 97	25th Feb 98	
9	セキュリティ鍵と認証管理メッセージ (メッセージタイプ – KEYMAN)	March 97	January 97	R.1249	19th Jun 97	19th Nov 97	承認	15-17 Dec 97	—	—	
10	対話型 EDI 用セキュリティ規則	98年3月会期にて	June 97	R.1284/Rev.1	—	—	—	—	—	—	

*) カナダの要請により投票の締め切りが１ヶ月延長された。(当初の投票締め切り日は、97年4月28日であった。)

備考: この投票期間の延長は、カナダのみに適用され、他の ISO/TC154 の全ての Pメンバーには適用されない。

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ECONOMIC COMMISSION FOR EUROPE

COMMITTEE FOR TRADE, INDUSTRY AND ENTERPRISE DEVELOPMENT
Centre for the Facilitation of Procedures and Practices
for Administration, Commerce and Transport (CEFACT)
Meeting of Experts on Data Elements
and Automatic Data Interchange (GE.1)
Fifty-fourth session, 16-17 September 1998
Item 2 of the provisional agenda

ELECTRONIC DATA INTERCHANGE FOR ADMINISTRATION, COMMERCE AND TRANSPORT - (EDIFACT) APPLICATION LEVEL SYNTAX RULES

Part 1: Syntax rules common to all parts, together with syntax service directories for each of the parts

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Submitted by the Syntax Development Group

The following note should appear on the cover page:

This document is not for implementation. It has been submitted into the "fast track" standards approval process of the International Organization for Standardization (ISO). Upon its approval as an ISO standard, it will be published as soon as possible by CEFACT for implementation.

* Submitted by the secretariat, at the request of GE.1 at its September 1997 session (see TRADE/CEFACT/GE.1/1997/11, paragraph 25.

ISO 9735-1

1997-10-01

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

(Syntax version number: 4)

Part 1:
Syntax rules common to all parts, together with syntax service directories for each of the parts

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Contents

Foreword

(To be amended as necessary, according to ISO procedures)

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 approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75% approval by the member bodies voting.

Version 4 of this International Standard ISO 9735 was prepared by the UN/ECE Trade Division (as UN/EDIFACT) and was adopted, under the "fast-track procedure" as an existing standard, by Technical Committee ISO TC 154, *Documents and data elements in administration; commerce and industry.*

ISO 9735 consists (currently) of the following parts, under the general title *Electronic data interchange for administration, commerce and transport (EDIFACT) - Application level syntax rules:*

- *ISO 9735-1* - *Syntax rules common to all parts, together with syntax service directories for each of the parts*
- *ISO 9735-2* - *Syntax rules specific to batch EDI*
- *ISO 9735-3* - *Syntax rules specific to interactive EDI*
- *ISO 9735-4* - *Syntax and service report message for batch EDI (message type - CONTRL)*
- *ISO 9735-5* - *Security rules for batch EDI (authenticity, integrity and non-repudiation of origin)*
- *ISO 9735-6* - *Secure authentication and acknowledgement message (message type - AUTACK)*
- *ISO 9735-7* - *Security rules for batch EDI (confidentiality)*
- *ISO 9735-8* - *Associated data in EDI*
- *ISO 9735-9* - *Security key and certificate management message (message type - KEYMAN)*

ISO 9735-10 - Security rules for interactive EDI

Further parts may be added in the future.

In this Part, annexes A, B and C form an integral part of this International Standard. Annexes D and E are for information only.

Introduction

This International Standard 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 shall comply with the message design rules for batch or interactive usage as applicable. These rules are maintained in the UNTDID.

Communications specifications and protocols are outside the scope of this standard.

Previous versions of ISO 9735 were specified as a single part. This version of ISO 9735 consists of multiple parts and incorporates enhancements to extend the application of this International Standard.

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 and service directories 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 this version of ISO 9735, and are available for specification in EDIFACT messages which utilise 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 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 this 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.

UNG - Group header segment: This segment has been re-named 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.

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.

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

Part 1:
Syntax rules common to all parts, together with syntax service directories for each of the 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 definitions and service directories for all parts comprising ISO 9735.

2 Conformance

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 International Standard.

Devices supporting this International Standard 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 Part 1, and at least either Part 2 or Part 3 of this International Standard.

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

3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. 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 639	Codes for the representation of names of languages
ISO 646	Information processing - ISO 7-bit coded character set for information interchange
ISO 2022	Information technology - ISO 7-bit and 8-bit coded character sets - code extension techniques

ISO 2382-1	Data processing - Vocabulary; Part 1: Fundamental terms
ISO 2382-4	Data processing - Vocabulary; Part 4: Organisation of data
ISO 6093	Information processing - Representation of numerical values in character strings for information interchange
ISO 6429	Information processing - Control functions for 7-bit and 8-bit coded character sets
ISO 6523	Information technology - Structure for the identification of organizations and organization parts
ISO 8601	Data elements and interchange formats - Information interchange - Representation of dates and times in information interchange
ISO 10646-1	Information technology - Universal Multiple-Octet Coded Character Set (UCS); Part 1: Architecture and basic multilingual plane

4 Definitions

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

5 Service characters

The service characters are the component data element separator, data element separator, release character, repetition separator, and segment terminator.

The component data element separator, data element separator, repetition separator, and segment terminator delineate various syntax structures as defined in clause 7.

The purpose of the release character is to allow the use of a character that would otherwise be interpreted as a service character. The character immediately following the release character in a interchange shall not be interpreted as a service character.

When used, the release character is not counted in the length of the data element value.

NOTE - Using default service characters shown below, 10?+10=20 appearing in a data transfer shall be interpreted on receipt as 10+10=20. A question mark in a data element value is represented in transfer as ??.

5.1 Default service characters

The default service characters reserved for use in this International Standard are:

Name	Graphic Representation	Functionality
Colon	:	component data element separator
Plus sign	+	data element separator
Question mark	?	release character
Asterisk	*	repetition separator
Apostrophe	'	segment terminator

5.2 UNA, service string advice

The conditional service string advice (UNA) provides the capability to specify the service characters used in the interchange (see annex B). The UNA service string advice shall be used if the service characters differ from the defaults (see clause 5.1). Its use is optional if the default characters are used.

When used, the service string advice shall appear immediately before the interchange header segment.

6 Character repertoires

The character encoding specified in basic code table of ISO 646 (7-bit coded character set for information interchange) shall be used for the interchange service string advice (if used) and up to and including the composite data element S001 'Syntax identifier' in the interchange header.

The character repertoire used for the characters in an interchange shall be identified from the code value of data element 0001 in S001 'Syntax identifier' in the interchange header (see Annex D). The character repertoire identified does not apply to objects and/or encrypted data.

The default encoding technique for a particular repertoire shall be the encoding technique defined by its associated character set specification.

If the default option is not used, a code value for the data element 0133 'Character encoding, coded' in the interchange header shall be used.

Code extension technique (ISO 2022) may only be used in an interchange after the composite data element S001 'Syntax identifier' in the interchange header.

The code extension technique and its target graphic characters shall only be used for:

- plain language (textual) data elements, with a representation of alphabetic or alphanumeric.

The technique shall not be used, for example, for any:

- segment tag, or
- service character, or
- data element with a representation of numeric.

Characters used to indicate code extension shall not be counted in the length of a data element, and shall not be used as service characters.

In calculating data element length, one graphic character shall be counted as one character, irrespective of the number of bytes/octets required to encode it.

7 Syntax structures

The definitions in this clause specify logical syntax structures. Rules to be applied for their usage are defined in clause 8.

7.1 Interchange structure

An interchange shall be started either by a service string advice or by an interchange header, shall be identified by an interchange header, shall be terminated by an interchange trailer, and shall contain at least one group, or one message or one package. There may be more than one group or message and/or package within an interchange, each identified by its own header and terminated by its own trailer. Messages within an interchange or within a group may comprise one or more message types.

An interchange shall contain only:

- Messages, or
- Packages, or
- Messages and Packages, or
- Groups containing messages, or
- Groups containing packages, or
- Groups containing messages and packages.

7.2 Group structure

A group is a conditional structure which is located between the interchange header and trailer and which comprises one or more messages and/or packages.

A group shall be started and identified by a group header, shall be terminated by a group trailer, and shall contain at least one message or package.

7.3 Message structure

A message comprises an ordered set of segments (see annex E). Segments may be grouped. Each segment's position, status, and maximum number of occurrences shall be stated in the message specification.

A given segment within a message specification shall have a status of mandatory or conditional.

A message specification shall ensure unambiguous identification of each message segment upon receipt. Identification shall be possible on the basis of the segment tag and the segment's position in the transferred message. Identification shall not depend on a segment's status or maximum number of occurrences.

A message shall be started and identified by a message header, shall be terminated by a message trailer, and shall contain at least one additional segment.

7.4 Segment group structure

A segment group comprises an ordered set of segments: a trigger segment and at least one more segment or segment group. The trigger segment shall be the first segment in the segment group, shall have a status of mandatory and a maximum number of occurrences of one. Each segment group's position, status, and maximum number of occurrences within the message structure shall be stated in the message specification.

A segment group may contain one or more dependent segment groups. When a segment group is contained within and directly subordinate to another segment group, the subordinate segment group is referred to as the child, and the other segment group is referred to as the parent.

A given segment group within a message specification shall have a status of mandatory or conditional.

7.5 Segment structure

A segment comprises an ordered set of stand-alone data elements and/or composite data elements, each of which are permitted to repeat, if so stated in the segment specification. Each stand-alone or composite data element's position, status and maximum number of occurrences within the segment structure shall be stated in the segment specification. A segment shall be started and identified by a segment tag which references a specific segment specification. A segment shall contain at least one data element in addition to the segment tag.

A given data element within a segment specification shall have a status of mandatory or conditional.

7.6 Segment tag structure

A segment tag is a simple data element.

Segment tags starting with the letter "U" (e.g. UNB, UIH) shall be reserved for service segments.

7.7 Composite data element structure

A composite data element comprises an ordered set of two or more component data elements. Each component data element's position and status within the composite data element structure shall be stated in the composite data element specification.

A given component data element within a composite data element specification shall have a status of mandatory or conditional.

7.8 Simple data element structure

A simple data element contains a single data element value.

A simple data element is used either as a stand-alone data element or as a component data element. A stand-alone data element occurs in a segment outside a composite data element. A component data element occurs within a composite data element.

Each simple data element's data value representation shall be stated in the data element specification.

7.9 Package structure

A package shall be started and identified by an object header, shall be terminated by an object trailer, and shall contain one object.

8 Inclusion and exclusion

The rules in this clause shall be applied when a message is prepared for transfer. Under these rules, in certain circumstances, segment groups, segments, data elements, and characters within a data element value, shall be present, while in other circumstances shall be omitted.

8.1 Determination of presence

A simple data element is considered present if its data element value contains at least one character.

A composite data element is considered present if at least one of its component data elements is present.

A segment is considered present if its segment tag is present.

A segment group is considered present if its trigger segment is present.

8.2 Inclusion of segment groups

A mandatory segment group which is not contained within another segment group shall be present.

A mandatory child segment group shall be present if its parent segment group is present.

A single occurrence of a segment group having a status of mandatory is sufficient to satisfy the mandatory requirement.

8.3 Exclusion of segment groups

If a segment group is omitted, all of its segments and any dependent segment groups contained within it, regardless of their status, shall also be omitted.

8.4 Inclusion of segments

Segments shall appear in the order stated in the message specification.

A segment shall be terminated by a segment terminator.

A mandatory segment which is not in a segment group shall be present.

A mandatory segment contained in a segment group shall be present if the segment group is present.

A single occurrence of a segment having a status of mandatory is sufficient to satisfy the mandatory requirement.

Using a fictitious segment tag of ABC as an example, a mandatory segment defined as containing only conditional data elements for which no data is present at the time of transfer, shall be transferred in the form ABC'.

8.5 Exclusion of segments

A conditional segment for which only the segment tag is present shall be omitted in its entirety.

8.6 Inclusion of data elements

Data elements shall appear in the order stated in the segment specification.

Adjacent non-repeating data elements in the same segment shall be separated by a data element separator.

Adjacent occurrences of the same repeating data element in a segment shall be separated by a repetition separator.

Adjacent component data elements in the same composite data element shall be separated by a component data element separator.

A mandatory stand-alone data element in a segment shall be present if the segment is present.

A mandatory composite data element in a segment shall be present if the segment is present.

A mandatory component data element in a composite data element shall be present if the composite data element is present.

A single occurrence of a repeating data element having a status of mandatory is sufficient to satisfy the mandatory requirement.

8.7 Exclusion of data elements

In the figures in the following sub-clauses, "Tag" represents a segment tag, "DE" represents a composite data element or stand-alone data element, and "CE" represents a component data element. The default service characters are used.

8.7.1 Exclusion of composite data elements and stand-alone data elements

If a non-repeating composite data element or stand-alone data element is omitted and is followed by a another composite data element or stand-alone data element in the same segment, its position shall be indicated by retention of the data element separator which would normally follow it. This rule also applies if all occurrences of a repeating data element are omitted.

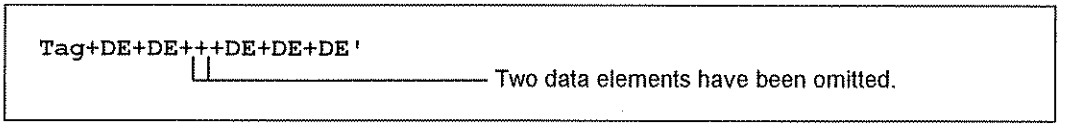

Figure 1 - Exclusion of non-repeating data elements within a segment

If one or more non-repeating composite data elements or stand-alone data elements at the end of a segment are omitted, the data element separators which would normally follow them shall also be omitted.

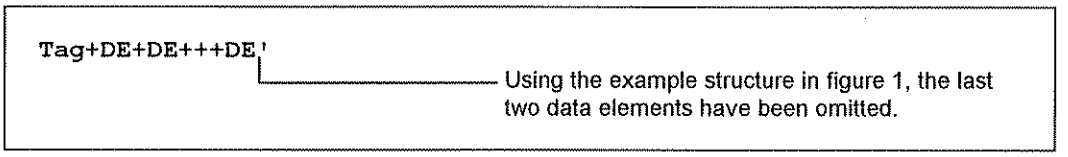

Figure 2 - Exclusion of non-repeating data elements at the end of a segment

8.7.2 Exclusion of component data elements

If a component data element is omitted and is followed by another component data element in the same composite data element, its position shall be indicated by retention of the component data element separator which would normally follow it.

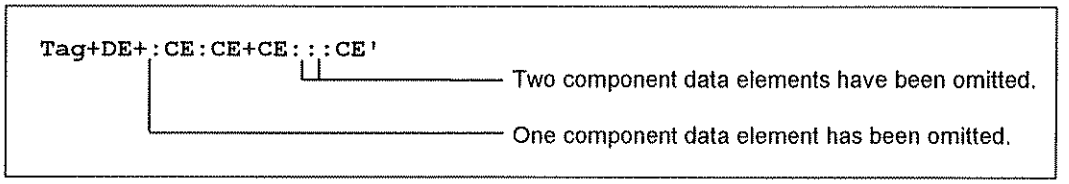

Figure 3 - Exclusion of component data elements within a composite data element

If one or more component data elements at the end of a composite data element are omitted, the component data element separators which would normally follow them shall also be omitted.

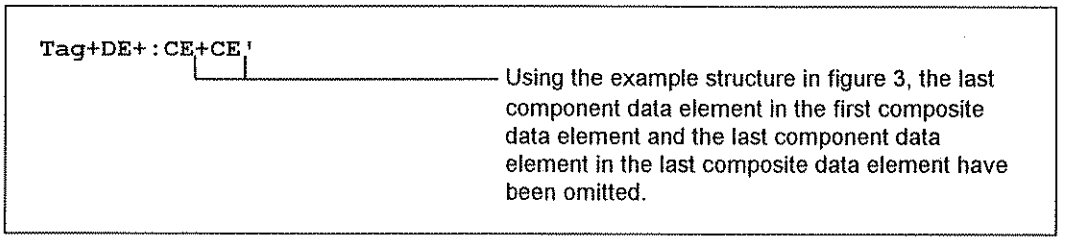

Figure 4 - Exclusion of component data elements at the end of a composite data element

8.7.3 Exclusion of occurrences of repeating data elements

The position of an occurrence of a repeating data element may be significant, for example, to transfer array data.

In such a case, if an occurrence of a repeating data element is omitted and is followed by another occurrence of the same repeating data element, its position shall be indicated by retention of the repetition separator which would normally follow it.

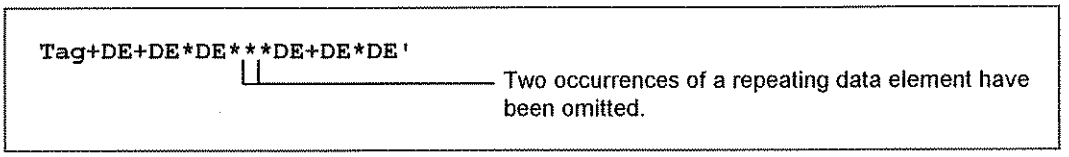

Figure 5 - Exclusion of occurrences within a repeating data element

If one or more occurrences of a repeating data element at the end of a repeating data element are omitted, the repetition separators which would normally follow them shall also be omitted.

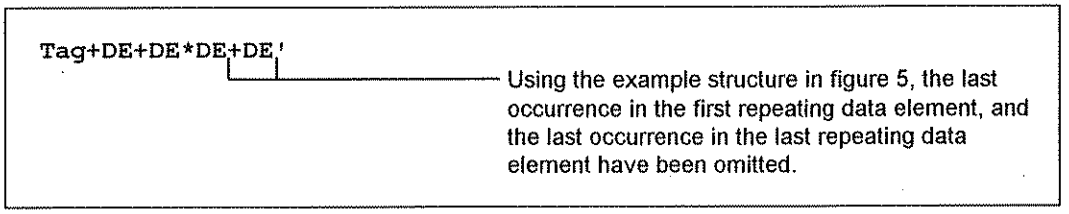

Figure 6 - Exclusion of occurrences at the end of a repeating data element

9 Suppression of characters within data elements

In variable length data elements, insignificant characters shall be suppressed (i.e. omitted from the transfer), while significant characters shall be present.

9.1 Insignificant characters

In variable length numeric data elements, leading zeroes shall be suppressed. Nevertheless, a single zero before a decimal mark is allowed. In variable length alphabetic and alphanumeric data elements, trailing spaces shall be suppressed.

9.2 Significant zeroes

Significant zeroes shall not be suppressed. A single zero may be significant, for example, to indicate a temperature or tax rate. Trailing zeroes following the decimal mark may be significant to indicate precision.

9.3 Significant spaces

Significant spaces shall not be suppressed. Leading and embedded spaces may be significant.
A data element value containing only space(s) shall not be allowed.

10 Representation of numeric data element values

For the purposes of this standard, the representation of numeric data element values shall be any of the representations as specified by ISO 6093 (which excludes the use of triad separators), with the following exceptions:

- The encoding specified in ISO 646 shall not be required.
- For variable length numeric fields, the rules for suppression apply (see clause 9).
- The space character and plus sign shall not be allowed.
- The length of a numeric data element value shall not include the minus sign (-), the decimal mark (. or ,), or the exponent mark (E or e) and its exponent.
- When a decimal mark is transferred, there shall be at least one digit after the decimal mark.

The full stop or the comma is allowed to represent the decimal mark for a single numerical value.

Examples using decimal marks:

Allowed (full stop):	2 and 2.00 and 0.5 and .5
Not allowed (full stop):	1. and 0. and .
Allowed (comma):	2 and 2,00 and 0,5 and ,5
Not allowed (comma):	1, and 0, and ,

11 Dependency notes

11.1 General

If required, dependency notes shall be used in the message, segment specification, or composite data element to express relationships.

In a dependency note, a list is defined as two or more entities (where an entity can be a segment group; a segment; a composite data element; a stand-alone data element or a component data element).

Any entity may be subject to more than one dependency note.

11.2 Dependency notes in the message specification

Dependency notes in the message specification are used to describe the relationship between segments, between segment groups, or between segments and segment groups. These entities shall be at the same hierarchical level and within the same parent structure.

11.3 Dependency notes in the segment specification

Dependency notes in the segment specification are used to describe the relationship between stand-alone data elements, between stand-alone data elements and composite data elements, or between composite data elements. These entities shall be in the same segment.

Dependency notes shall not be used to describe a relationship between stand-alone data elements and component data elements, or to describe a relationship between composite data elements and component data elements.

11.4 Dependency notes in the composite data element specification

Dependency notes in the composite data element specification are used to describe the relationship between component data elements. These entities shall be in the same composite data element.

11.5 Notation for dependency notes

The notation for dependency notes comprise a dependency identifier followed by a list, in parenthesis, of position identifiers separated by commas e.g. D3(030, 060, 090). The position identifier identifies an entity by its position number in its parent entity. The dependency identifier identifies the type of dependency between the entities in the list.

A list shall contain at least two position identifiers. The order of position identifiers in a list may be different from that implied by their value.

Dependency identifiers are described below.

D1 ONE AND ONLY ONE
One and only one of the entities in the list shall be present.

D2 ALL OR NONE
If one entity in the list is present, the rest shall be present.

D3 ONE OR MORE
At least one of the entities in the list shall be present.

D4 ONE OR NONE
No more than one entity in the list shall be present.

D5 IF FIRST, THEN ALL
If the first entity in the list is present, then all of the others shall be present. It is permissible that one or more of the entities not specified as the first entity in the list may be present, without requiring the first entity to be present.

D6 IF FIRST, THEN AT LEAST ONE MORE
If the first entity in the list is present, then at least one more shall be present. It is permissible that one or more of the entities not specified as the first entity in the list may be present, without requiring the first entity to be present.

D7 IF FIRST, THEN NONE OF THE OTHERS
If the first entity in the list is present, then none of the others shall be present.

Annex A
(normative)

Definitions

NOTES:

1. When a word or phrase appears in italics within a definition, this means that a definition exists in this annex for this word or phrase.

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 caracteres alphabetique", and will not appear at the same alphabetic place in the two versions of the syntax; the identifier in brackets shall nevertheless remain "[1]".

3. Where ISO standards are referenced, the definitions have been taken from the referenced standard.

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

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

A.3 **attribute:** A characteristic of an entity. [3]

A.4 **batch EDI:** *electronic data interchange* in which no strong requirements exist for formalised data exchange using query and response between the parties. [4]

A.5 **business:** A series of processes, each having a clearly understood purpose, involving more than one *organisation*, realised through the exchange of information and directed towards some mutually agreed upon goal, extending over a period of time. [5]

A.6 **character:** A member of a set of elements used for the organisation, control, or representation of *data*. (ISO 10646-1) [6]

A.7 **character repertoire:** The set of *graphic characters* of a *coded character set*, considered independently of its encoding. [7]

A.8 **code extension:** The techniques for the *encoding* of *characters* that are not included in the *character repertoire* of a given *coded character set*. [8]

A.9 **code list:** The complete set of *data element values* of a coded *simple data element*. [9]

A.10 **code list directory:** A listing of identified and specified *code lists*. [10]

A.11 **coded character set:** A 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. (ISO 6429) [11]

A.12 **component data element:** A *simple data element* used within a *composite data element*. [12]

A.13 **component data element separator:** A *service character* used to separate the *component data elements* within a *composite data element*. [13]

A.14 **composite data element:** An identified, named and structured set of functionally related *component data elements*, as described in a *composite data element specification*. 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*. [14]

A.15 **composite data element directory:** A listing of identified and named *composite data elements* with their *composite data element specification.* [15]

A.16 **composite data element specification:** The 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.* [16]

A.17 **conditional:** A 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. [17]

A.18 **control character:** A *character* whose occurrence in a particular context specifies a control function. (ISO 2382-4) [18]

A.19 **data:** A reinterpretable representation of information in a formalised manner suitable for communication, interpretation or processing. (ISO 2382-1) [19]

A.20 **data element:** A unit of *data* described in a *data element specification.* There are two classes of data element: *simple data elements* and *composite data elements.* [20]

A.21 **data element directory:** A listing of identified, named and specified *simple data elements* (*simple data element directory*) or *composite data elements* (*composite data element directory*). [21]

A.22 **data element separator:** A *service character* used to separate from each:
- a non *repeating stand-alone data elements*; or
- a *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.* [22]

A.23 **data element specification:** The specification of a *composite data element* in a *composite data element directory* (*composite data element specification*), or of a *simple data element* in a *simple data element directory* (*simple data element specification*). [23]

A.24 **data element value:** A specific instance of a *simple data element*, represented as specified in a *simple data element specification* and, if the *simple data element* is coded, in a *code list.* [24]

A.25 **data value representation:** The types of *characters* allowed (e.g. alphabetic, numeric) and conditions of length relating to the *data element values* of a *simple data element.* [25]

A.26 **decimal mark:** The *character* that separates the digits forming the integral part of a number from those forming the fractional part. (ISO 6093) [26]

A.27 **default service characters:** The set of *characters* used as *service characters* in circumstances where a different set is not defined in the *service string advice.* [27]

A.28 **dependency identifier:** An *identifier* used in a *dependency note* to specify the type of dependency between the entities listed in the *dependency note.* [28]

A.29 **dependency note:** A note used: i. in a *message specification* to express relationships between *segment groups* or between *segments*; ii. in a *segment specification* to express relationships between *data elements*; iii. in a *composite data element specification* to express relationships between *component data elements.* [29]

A.30 **dialogue:** A two-way conversation between an *initiator* and *responder* within an *I-EDI transaction.* It is formally composed of a pair of interchanges. [30]

A.31 **EDI (Electronic Data Interchange):** The electronic transfer from computer application to computer application of commercial or administrative transactions using an agreed standard to structure the transaction or message data. [31]

A.32 **encoding**: The representation of a *character* as a bit combination. [32]

A.33 **exponent mark:** A *control character* used to indicate that the *character(s)* that follow it are to be interpreted as an exponent. E or e is the exponent mark. [33]

A.34 **graphic character:** A *character*, other than a *control character*, that has a visual representation and is normally produced by writing, printing or displaying. (ISO 2382-4) [34]

A.35 **group:** A group of *messages* (of one or more *message types)* and/or *packages* (each containing an *object*), headed by a *group header* and ending with a *group trailer.* [35]

A.36 **group header:** The *service segment* heading and identifying a *group.* [36]

A.37 **group trailer:** The *service segment* ending a *group.* [37]

A.38 **I-EDI (Interactive EDI):** The exchange of pre-defined and structured data within a *dialogue*, which conforms to the syntax of Parts 1 and 3 of ISO 9735 for some *business* purpose, between a pair of co-operating processes, in a timely manner. [38]

A.39 **I-EDI transaction:** An instance of a *scenario*. It consists of one or more *dialogues.* [39]

A.40 **identifier:** A *character* or group of *characters* used to identify or name an item of *data* and possibly to indicate certain properties of that *data.* [40]

A.41 **ideogram:** In a natural language, a *graphic character* that represents a concept and associated sound elements. Example; A Chinese ideogram or a Japanese Kanji. [41]

A.42 **initiator:** The application which starts the *dialogue* and/or *I-EDI transaction.* [42]

A.43 **interchange:** A sequence of *messages* and/or *packages*, of the same or of different types, starting with the *interchange header* (or with the *service string advice* if used), and ending with the *interchange trailer.* [43]

A.44 **interchange header:** The *service segment* starting and uniquely identifying an *interchange.* [44]

A.45 **interchange trailer:** The *service segment* ending an *interchange.* [45]

A.46 **mandatory:** A 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* shall be used at least one time. [46]

A.47 **message:** An identified, named and structured set of functionally related *segments*, covering the requirements for a specific type of transaction (e.g. invoice), as described in a *message specification*; a message starts with a *message header* and ends with a *message trailer.* In *transfer*, a message is a specific ordered set of *segments* in conformance with a *message specification.* [47]

A.48 **message body:** An identified, named and structured set of functionally related *segments*, covering the requirements for a specific type of transaction (e.g. invoice), as described in a *message specification,* excluding the *message header* and the *message trailer.* [48]

A.49 **message directory:** A listing of identified and named *messages* each with its *message specification.* [49]

A.50 **message header:** The *service segment* starting and uniquely identifying a *message.* [50]

A.51 **message specification:** The description of a *message* in a *message directory*, including the specification of the position, *status* and maximum number of occurrences of the *segments* and *segment groups* constituting the *message.* [51]

A.52 **message trailer:** The *service segment* ending a *message.* [52]

A.53 **message type:** Code identifying a type of *message* . [53]

A.54 **numeric character set:** A character set that contains digits and may contain *control characters* and *special characters* but not letters. (ISO 2382-4) [54]

A.55 **object:** A stream of bits grouped in octets (which may be associated with an EDIFACT *message*). [55]

A.56 **object header:** The *service segment* starting and uniquely identifying an *object.* [56]

A.57 **object trailer:** The *service segment* ending an *object.* [57]

A.58 **organisation:** A unique framework of authority within which a person or persons act, or are designated to act, towards some purpose. (ISO 6523) [58]

A.59 **package:** An *object* plus its associated header and trailer segments. [59]

A.60 **parent-child relationship:** A relationship between two entities, one ("child") being contained within and directly subordinated to the other ("parent"). [60]

A.61 **position identifier:** An *identifier* used in a *dependency note* to identify an entity (*segment group*, *segment*, or *data element*) by its position in the parent entity. [61]

A.62 **qualifier:** A *simple data element* whose *data element value*, extracted from a *code list*, gives specific meaning to the function of another *data element* or a *segment.* [62]

A.63 **release character:** A *character* indicating that the *character* immediately following it shall be passed to the application as received. [63]

A.64 **repeating data element:** A *composite data element* or *stand-alone data element* having a maximum occurrence of greater than one in the *segment specification.* [64]

A.65 **repetition separator:** A *service character* used to separate adjacent occurrences of a *repeating data element.* [65]

A.66 **responder:** An application replying to an *initiator.* [66]

A.67 **scenario:** A formal specification of a class of *business* activities having the same *business* goal. [67]

A.68 **segment:** An identified, named and structured set of functionally related *composite data elements* and/or *stand-alone data elements*, as described in a *segment specification*; a segment starts with the *segment tag* and ends with the *segment terminator.* In *transfer*, a segment is a specific ordered set of one or more *composite data element(s)* and/or *stand-alone data element(s)* in conformance with a *segment specification* and the syntax rules for *transfer.* [68]

A.69 **segment directory:** A listing of identified and named *segments* with their *segment specification.* [69]

A.70 **segment group:** An identified hierarchical set of *segments* and/or *segment groups* within a *message.* [70]

A.71 **segment specification:** The description of a *segment* in a *segment directory*, including the specification of the position, *status* and maximum number of occurrences of the *data elements* constituting the *segment.* [71]

A.72 **segment tag:** A *simple data element* uniquely identifying a *segment*, by reference to a *segment directory.* [72]

A.73 **segment terminator:** A *service character* indicating the end of a *segment.* [73]

A.74 **service character:** A *character* reserved for syntactical use; the service characters are the *component data element separator*, the *data element separator*, the *release character*, the *repetition separator* and the *segment terminator.* [74]

A.75 **service composite data element:** A *composite data element* used in *service segments.* A service *composite data element specification* contains only *service simple data elements.* [75]

A.76 **service data element:** A *service simple data element* or a *service composite data element.* [76]

A.77 **service message:** A *message* used to exchange service information relating to the use of EDIFACT syntax rules or security. A service *message specification* contains only *service segments.* [77]

A.78 **service segment:** A *segment* used i. in *service messages*; ii. to control the *transfer* of *data*. A service *segment specification* contains only *service composite data elements* and/or *service simple data elements.* [78]

A.79 **service simple data element:** A *simple data element* used only in *service segments* and/or *service composite data elements.* [79]

A.80 **service string advice:** An optional string of *characters* used at the beginning of an *interchange* to specify the *service characters* used in the *interchange.* [80]

A.81 **simple data element:** A *data element* containing a single *data element value*. There are two uses of a simple data element: within a *composite data element* (*component data element*); and within a *segment* outside a *composite data element* (*stand-alone data element).* [81]

A.82 **simple data element directory:** A listing of identified and named *simple data elements* with their simple *data element specification.* [82]

A.83 **simple data element specification:** The set of attributes characterising a *simple data element* in a *simple data element directory.* [83]

A.84 **special character:** A *graphic character* that is not a letter, digit, or blank *character*, and usually not an ideogram. (ISO 2382-4) [84]

A.85 **stand-alone data element:** A *simple data element* used within a *segment* without being in a *composite data element.* [85]

A.86 **status:** An *attribute* of a *segment*, a *composite data element* or a *simple data element* identifying the rules for the presence or absence of the *segment/data element* in the usage of a *message.* The types of status are *conditional* and *mandatory.* [86]

A.87 **string:** A sequence of elements of the same nature, such as *characters*, considered as a whole. (ISO 2382-4) [87]

A.88 **transfer:** The communication of information from one partner to another. [88]

A.89 **trigger segment:** The *segment* starting a *segment group.* [89]

Annex B
(normative)

UNA service string advice

The service string advice shall begin with the upper case characters UNA immediately followed by six characters in the order shown below. The space character shall not be used in positions 010, 020, 040, 050 or 060. The same character shall not be used in more than one position of the UNA.

POS	REP	S	Name	Remarks
010	an1	M	COMPONENT DATA ELEMENT SEPARATOR	
020	an1	M	DATA ELEMENT SEPARATOR	
030	an1	M	DECIMAL MARK	The character transferred in this position shall be ignored by the recipient. Retained to maintain upward compatibility with earlier versions of the syntax.
040	an1	M	RELEASE CHARACTER	
050	an1	M	REPETITION SEPARATOR	
060	an1	M	SEGMENT TERMINATOR	

Legend:

POS	The 3 numeric sequential number of the character in the service string
REP	The representation of the service string character an1 = 1 alphanumeric character
S	The status of the service string character M = Mandatory
Name	Name of the service string advice character
Remarks	Additional remarks

Annex C
(normative)

Service directories
(service segments, service composite data elements and service simple data elements)

C.1 Service segment directory

C.1.1 Service segment specification legend:

Function — The function of the segment

POS — The sequential position number of the stand-alone data element or composite data element in the segment table

TAG — The tags for all service segments contained in the segment directory shall start with the letter "U". The tags of all service composite data elements start with the letter "S", and the tags of all service simple data elements start with the figure "0"

Name — Name of a COMPOSITE DATA ELEMENT in capital letters
Name of a STAND-ALONE DATA ELEMENT in capital letters
Name of a component data element in small letters

S — The status of the stand-alone data element or composite data element in the segment, or of the components in the composite (where M = Mandatory and C = Conditional)

R — The maximum number of occurrences of a stand-alone data element or composite data element in the segment

Repr. — Data value representation of the stand-alone data element or component data elements in the composite:

a	alphabetic characters
n	numeric characters
an	alphanumeric characters
a3	3 alphabetic characters, fixed length
n3	3 numeric characters, fixed length
an3	3 alphanumeric characters, fixed length
a..3	up to 3 alphabetic characters
n..3	up to 3 numeric characters
an..3	up to 3 alphanumeric characters

C.1.2 Dependency note identifiers

Code	Name
D1	One and only one
D2	All or none
D3	One or more
D4	One or none
D5	If first, then all
D6	If first, then at least one more
D7	If first, then none of the others

See clause 11.5 for the definition of the dependency note identifiers

C.1.3 Index of service segments by tag

TAG	Name
UIB	Interactive interchange header
UIH	Interactive message header
UIR	Interactive status
UIT	Interactive message trailer
UIZ	Interactive interchange trailer
UNB	Interchange header
UNE	Group trailer
UNG	Group header
UNH	Message header
UNO	Object header
UNP	Object trailer
UNS	Section control
UNT	Message trailer
UNZ	Interchange trailer

C.1.4 Index of service segments by name

TAG	Name
UNG	Group header
UNE	Group trailer
UIB	Interactive interchange header
UIZ	Interactive interchange trailer
UIH	Interactive message header
UIT	Interactive message trailer
UIR	Interactive status
UNB	Interchange header
UNZ	Interchange trailer
UNH	Message header

UNT	Message trailer
UNO	Object header
UNP	Object trailer
UNS	Section control

C.1.5 Service segment specifications

UIB INTERACTIVE INTERCHANGE HEADER

Function: To head and identify an interchange.

POS	TAG	Name	S	R	Repr.	Notes
010	S001	SYNTAX IDENTIFIER	M	1		3
	0001	Syntax identifier	M		a4	
	0002	Syntax version number	M		an1	
	0080	Service code list directory version number	C		an..6	
	0133	Character encoding, coded	C		an..3	
020	S302	DIALOGUE REFERENCE	C	1		1,2,4,5 8
	0300	Initiator control reference	M		an..35	
	0303	Initiator reference identification	C		an..35	
	0051	Controlling agency, coded	C		an..3	
	0304	Responder control reference	C		an..35	
030	S303	TRANSACTION REFERENCE	C	1		1,8
	0306	Transaction control reference	M		an..35	
	0303	Initiator reference identification	C		an..35	
	0051	Controlling agency, coded	C		an..3	
040	S018	SCENARIO IDENTIFICATION	C	1		
	0127	Scenario identification	M		an..14	
	0128	Scenario version number	C		an..3	
	0130	Scenario release number	C		an..3	
	0051	Controlling agency, coded	C		an..3	
050	S305	DIALOGUE IDENTIFICATION	C	1		2
	0311	Dialogue identification	M		an..14	
	0342	Dialogue version number	C		an..3	
	0344	Dialogue release number	C		an..3	
	0051	Controlling agency, coded	C		an..3	
060	S002	INTERCHANGE SENDER	C	1		5
	0004	Interchange sender identification	M		an..35	
	0007	Identification code qualifier	C		an..4	
	0008	Interchange sender internal identification	C		an..35	
	0042	Interchange sender internal sub-identification	C		an..35	
070	S003	INTERCHANGE RECIPIENT	C	1		
	0010	Interchange recipient identification	M		an..35	
	0007	Identification code qualifier	C		an..4	
	0014	Interchange recipient internal identification	C		an..35	
	0046	Interchange recipient internal sub-identification	C		an..35	
080	S300	DATE AND/OR TIME OF INITIATION	C	1		
	0338	Event date	C		n..8	
	0314	Event time	C		an..15	
	0336	Time offset	C		n4	
090	0325	DUPLICATE INDICATOR	C	1	a1	6
100	0035	TEST INDICATOR	C	1	n1	7

DEPENDENCY NOTES:

1. D5(030, 020) If first, then all

2. D5(050, 020) If first, then all

OTHER NOTES:

3. S001/0002, shall be '4' to indicate this version of the syntax.

4. S302/0304, when provided by the responder, shall be returned by the initiator throughout the dialogue.

5. S002/0004, may be same as S302/0303 for initiator of transaction.

6. 0325, only used if the interchange is a duplicate transfer.

7. 0035, set by the initiator if the dialogue is a test. Applies to every subsequent message and service segment in the dialogue. Otherwise not used.

8. Dialogue and transaction control can be accomplished through the dialogue (S302) and transaction (S303) references. Optionally, if another means of control is chosen, these two composite data elements need not be utilised.

UIH INTERACTIVE MESSAGE HEADER

Function: To head, identify and specify a message.

POS	TAG	Name	S	R	Repr.	Notes
010	S306	INTERACTIVE MESSAGE IDENTIFIER	M	1		
	0065	Message type	M		an..6	
	0052	Message version number	M		an..3	
	0054	Message release number	M		an..3	
	0113	Message type sub-function identification	C		an..6	
	0051	Controlling agency, coded	C		an..3	
	0057	Association assigned code	C		an..6	
020	0340	INTERACTIVE MESSAGE REFERENCE NUMBER	C	1	an..35	1,5
030	S302	DIALOGUE REFERENCE	C	1		2,4,5
	0300	Initiator control reference	M		an..35	
	0303	Initiator reference identification	C		an..35	
	0051	Controlling agency, coded	C		an..3	
	0304	Responder control reference	C		an..35	
040	S301	STATUS OF TRANSFER - INTERACTIVE	C	1		
	0320	Sender sequence number	C		n..6	
	0323	Transfer position, coded	C		a1	
	0325	Duplicate indicator	C		a1	
050	S300	DATE AND/OR TIME OF INITIATION	C	1		
	0338	Event date	C		n..8	
	0314	Event time	C		an..15	
	0336	Time offset	C		n4	
060	0035	TEST INDICATOR	C	1	n1	3

NOTES:

1. The value in 0340 shall be unique within the interchange (except for a duplicate transfer).

2. The value(s) in S302 shall be identical to the value(s) in S302 in the preceding UIB.

3. 0035, when used, test applies to the message only.

4. Dialogue control can be accomplished through the dialogue reference (S302). Optionally, if another means of control is chosen, this composite data element need not be utilised.

5. A combination of 0340 and S302 may be used to identify uniquely a message.

UIR INTERACTIVE STATUS

Function: To report the status of the dialogue.

POS	TAG	Name	S	R	Repr.	Notes
010	0331	REPORT FUNCTION, CODED	M	1	an..3	
020	S307	REPORT REASON	C	9		
	0333	Report reason, coded	C		an..3	
	0332	Report reason text	C		an..70	
	0335	Report language, coded	C		an..3	
030	S302	DIALOGUE REFERENCE	C	1		
	0300	Initiator control reference	M		an..35	
	0303	Initiator reference identification	C		an..35	
	0051	Controlling agency, coded	C		an..3	
	0304	Responder control reference	C		an..35	
040	S300	DATE AND/OR TIME OF INITIATION	C	1		
	0338	Event date	C		n..8	
	0314	Event time	C		an..15	
	0336	Time offset	C		n4	
050	0340	INTERACTIVE MESSAGE REFERENCE NUMBER	C	1	an..35	1,2
060	0800	PACKAGE REFERENCE NUMBER	C	1	an..35	1,3

DEPENDENCY NOTES:

1. D1(050, 060) One and only one

OTHER NOTES:

2. 0340, the value shall be identical to the value in 0340 in the UIH of a message received by the sender of the UIR within the same dialogue.

3. 0800, the value shall be identical to the value in 0800 in the UNO received by the sender of the UIR within the same dialogue.

UIT INTERACTIVE MESSAGE TRAILER

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

POS	TAG	Name	S	R	Repr.	Notes
010	0340	INTERACTIVE MESSAGE REFERENCE NUMBER	C	1	an..35	1
020	0074	NUMBER OF SEGMENTS IN A MESSAGE	C	1	n..10	

NOTES:

1. 0340, the value shall be identical to the value in 0340 in the corresponding UIH segment.

UIZ INTERACTIVE INTERCHANGE TRAILER

Function: To end and check the completeness of an interchange.

POS	TAG	Name	S	R	Repr.	Notes
010	S302	DIALOGUE REFERENCE	C	1		1
	0300	Initiator control reference	M		an..35	
	0303	Initiator reference identification	C		an..35	
	0051	Controlling Agency, coded	C		an..3	
	0304	Responder control reference	C		an..35	
020	0036	INTERCHANGE CONTROL COUNT	C	1	n..6	
030	0325	DUPLICATE INDICATOR	C	1	a1	2

NOTES:

1. S302, the value shall be identical to the value in the responder's dialogue reference in S302 in the UIB segment.

2. 0325, only used if the interchange is a duplicate transfer.

UNB INTERCHANGE HEADER

Function: To identify an interchange.

POS	TAG	Name	S	R	Repr.	Notes
010	S001	SYNTAX IDENTIFIER	M	1		1
	0001	Syntax identifier	M		a4	
	0002	Syntax version number	M		an1	
	0080	Service code list directory version number	C		an..6	
	0133	Character encoding, coded	C		an..3	
020	S002	INTERCHANGE SENDER	M	1		2
	0004	Interchange sender identification	M		an..35	
	0007	Identification code qualifier	C		an..4	
	0008	Interchange sender internal identification	C		an..35	
	0042	Interchange sender internal sub-identification	C		an..35	
030	S003	INTERCHANGE RECIPIENT	M	1		2
	0010	Interchange recipient identification	M		an..35	
	0007	Identification code qualifier	C		an..4	
	0014	Interchange recipient internal identification	C		an..35	
	0046	Interchange recipient internal sub-identification	C		an..35	
040	S004	DATE AND TIME OF PREPARATION	M	1		
	0017	Date	M		n6	
	0019	Time	M		n4	
050	0020	INTERCHANGE CONTROL REFERENCE	M	1	an..14	2
060	S005	RECIPIENT REFERENCE/PASSWORD DETAILS	C	1		
	0022	Recipient reference/password	M		an..14	
	0025	Recipient reference/password qualifier	C		an2	
070	0026	APPLICATION REFERENCE	C	1	an..14	
080	0029	PROCESSING PRIORITY CODE	C	1	a1	
090	0031	ACKNOWLEDGEMENT REQUEST	C	1	n1	
100	0032	INTERCHANGE AGREEMENT IDENTIFIER	C	1	an..35	
110	0035	TEST INDICATOR	C	1	n1	

NOTES:

1. S001/0002, shall be '4' to indicate this version of the syntax.

2. The combination of the values carried in data elements S002, S003 and 0020 shall be used to identify uniquely the interchange, for the purpose of acknowledgement.

UNE GROUP TRAILER

Function: To end and check the completeness of a group

POS	TAG	Name	S	R	Repr.	Notes
010	0060	GROUP CONTROL COUNT	M	1	n..6	
020	0048	GROUP REFERENCE NUMBER	M	1	an..14	1

NOTES:

1. 0048, the value shall be identical to the value in 0048 in the corresponding UNG segment.

UNG GROUP HEADER

Function: To head, identify and specify a group of messages and/or packages, which may be used for internal routing and which may contain one or more message types and/or packages.

POS	TAG	Name	S	R	Repr.	Notes
010	0038	MESSAGE GROUP IDENTIFICATION	C	1	an..6	1,2,4
020	S006	APPLICATION SENDER IDENTIFICATION	C	1		5
	0040	Application sender identification	M		an..35	
	0007	Identification code qualifier	C		an..4	
030	S007	APPLICATION RECIPIENT IDENTIFICATION	C	1		5
	0044	Application recipient identification	M		an..35	
	0007	Identification code qualifier	C		an..4	
040	S004	DATE AND TIME OF PREPARATION	C	1		3
	0017	Date	M		n6	
	0019	Time	M		n4	
050	0048	GROUP REFERENCE NUMBER	M	1	an..14	5
060	0051	CONTROLLING AGENCY, CODED	C	1	an..3	1,2,4
070	S008	MESSAGE VERSION	C	1		1,2,4
	0052	Message version number	M		an..3	
	0054	Message release number	M		an..3	
	0057	Association assigned code	C		an..6	
080	0058	APPLICATION PASSWORD	C	1	an..14	

DEPENDENCY NOTES:

1. D2(010, 060, 070) All or none

OTHER NOTES:

2. This data element is only used if the following conditions apply:
   i) the group contains messages only, and
   ii) the messages are of a single message type.

3. S004, if S004 is not present in UNG, the date and time of preparation is the same as indicated for the interchange in S004 in UNB.

4. This data element will be deleted from the UNG segment in the next version of the standard. Therefore its use in UNG is not recommended.

5. The combination of the values carried in data elements S006, S007 and 0048 shall be used to identify uniquely the group within its interchange, for the purpose of acknowledgement.

UNH MESSAGE HEADER

Function: To head, identify and specify a message.

POS	TAG	Name	S	R	Repr.	Notes
010	0062	MESSAGE REFERENCE NUMBER	M	1	an..14	2
020	S009	MESSAGE IDENTIFIER	M	1		1,2
	0065	Message type	M		an..6	
	0052	Message version number	M		an..3	
	0054	Message release number	M		an..3	
	0051	Controlling agency, coded	M		an..3	
	0057	Association assigned code	C		an..6	
	0110	Code list directory version number	C		an..6	
	0113	Message type sub-function identification	C		an..6	
030	0068	COMMON ACCESS REFERENCE	C	1	an..35	
040	S010	STATUS OF THE TRANSFER	C	1		
	0070	Sequence of transfers	M		n..2	
	0073	First and last transfer	C		a1	
050	S016	MESSAGE SUBSET IDENTIFICATION	C	1		1
	0115	Message subset identification	M		an..14	
	0116	Message subset version number	C		an..3	
	0118	Message subset release number	C		an..3	
	0051	Controlling agency, coded	C		an..3	
060	S017	MESSAGE IMPLEMENTATION GUIDELINE IDENTIFICATION	C	1		1
	0121	Message implementation guideline identification	M		an..14	
	0122	Message implementation guideline version number	C		an..3	
	0124	Message implementation guideline release number	C		an..3	
	0051	Controlling agency, coded	C		an..3	
070	S018	SCENARIO IDENTIFICATION	C	1		
	0127	Scenario identification	M		an..14	
	0128	Scenario version number	C		an..3	
	0130	Scenario release number	C		an..3	
	0051	Controlling agency, coded	C		an..3	

NOTES:

1. Data element S009/0057 is retained for upward compatibility. The use of S016 and/or S017 is encouraged in preference.

2. The combination of the values carried in data elements 0062 and S009 shall be used to identify uniquely the message within its group (if used) or if not used, within its interchange, for the purpose of acknowledgement.

UNO OBJECT HEADER

Function: To head, identify and specify an object.

POS	TAG	Name	S	R	Repr.	Notes
010	0800	PACKAGE REFERENCE NUMBER	M	1	an..35	1
020	S020	REFERENCE IDENTIFICATION	M	99		2
	0813	Reference qualifier	M		an..3	
	0802	Reference identification number	M		an..35	
030	S021	OBJECT TYPE IDENTIFICATION	M	99		3
	0805	Object type qualifier	M		an..3	
	0809	Object type attribute identification	C		an..256	
	0808	Object type attribute	C		an..256	
	0051	Controlling agency, coded	C		an..3	
040	S022	STATUS OF THE OBJECT	M	1		
	0810	Length of object in octets of bits	M		n..18	
	0814	Number of segments before object	C		n..3	
	0070	Sequence of transfers	C		n..2	
	0073	First and last transfer	C		a1	
050	S302	DIALOGUE REFERENCE	C	1		4
	0300	Initiator control reference	M		an..35	
	0303	Initiator reference identification	C		an..35	
	0051	Controlling agency, coded	C		an..3	
	0304	Responder control reference	C		an..35	
060	S301	STATUS OF TRANSFER - INTERACTIVE	C	1		4
	0320	Sender sequence number	C		n..6	
	0323	Transfer position, coded	C		a1	
	0325	Duplicate indicator	C		a1	
070	S300	DATE AND/OR TIME OF INITIATION	C	1		4
	0338	Event date	C		n..8	
	0314	Event time	C		an..15	
	0336	Time offset	C		n4	
080	0035	TEST INDICATOR	C	1	n1	4

NOTES:

1. The value in 0800 shall be unique within the interchange (except for a duplicate transfer).

2. One mandatory occurrence of S020 shall identify the Object Identification Number.

3. One occurrence of S021 is mandatory and shall be used for file format identification.

4. Data elements S302, S301, S300 and 0035 are for interactive EDI use only:
   - The value(s) in S302 shall be identical to the value(s) in S302 in the preceding UIB.
   - 0035, when used, test applies to the message or package only.

UNP OBJECT TRAILER

Function: To end and check the completeness of an object.

POS	TAG	Name	S	R	Repr.	Notes
010	0810	LENGTH OF OBJECT IN OCTETS OF BITS	M	1	n..18	1
020	0800	PACKAGE REFERENCE NUMBER	M	1	an..35	2

NOTES:

1. 0810, shall be identical to the value in data element 0810 in UNO.

2. 0800, shall be identical to the value in data element 0800 in UNO.

UNS SECTION CONTROL

Function: To separate header, detail and summary sections of a message.

Note: To be used by message designers only when required to avoid ambiguities.

POS	TAG	Name	S	R	Repr.	Notes
010	0081	SECTION IDENTIFICATION	M	1	a1	

UNT MESSAGE TRAILER

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

POS	TAG	Name	S	R	Repr.	Notes
010	0074	NUMBER OF SEGMENTS IN A MESSAGE	M	1	n..10	
020	0062	MESSAGE REFERENCE NUMBER	M	1	an..14	1

NOTES:

1. 0062, the value shall be identical to the value in 0062 in the corresponding UNH segment.

UNZ INTERCHANGE TRAILER

Function: To end and check the completeness of an interchange.

POS	TAG	Name	S	R	Repr.	Notes
010	0036	INTERCHANGE CONTROL COUNT	M	1	n..6	
020	0020	INTERCHANGE CONTROL REFERENCE	M	1	an..14	1

NOTES:

1. 0020, the value shall be identical to the value in 0020 in the corresponding UNB segment.

C.2 Service composite data element directory

C.2.1 Service composite data element specification legend:

POS — The sequential position number of the component data element in the composite data element

TAG — The tags of all service composite data elements contained in the composite data element directory start with the letter "S", and the tags of all service simple data elements start with the figure "0"

Name — Name of a component data element in small letters

S — The status of the component data element in the composite data element (where M = Mandatory and C = Conditional)

Repr. — Data value representation of the component data elements in the composite:

a	alphabetic characters
n	numeric characters
an	alphanumeric characters
a3	3 alphabetic characters, fixed length
n3	3 numeric characters, fixed length
an3	3 alphanumeric characters, fixed length
a..3	up to 3 alphabetic characters
n..3	up to 3 numeric characters
an..3	up to 3 alphanumeric characters

Desc. — Description of the composite data element

C.2.2 Dependency note identifiers

Code	Name
D1	One and only one
D2	All or none
D3	One or more
D4	One or none
D5	If first, then all
D6	If first, then at least one more
D7	If first, then none of the others

See clause 11.5 for the definition of the dependency note identifiers

C.2.3 Index of service composite data elements by tag

TAG	Name
S001	Syntax identifier
S002	Interchange sender
S003	Interchange recipient
S004	Date and time of preparation
S005	Recipient reference/password details
S006	Application sender identification
S007	Application recipient identification
S008	Message version
S009	Message identifier
S010	Status of the transfer
S016	Message subset identification
S017	Message implementation guideline identification
S018	Scenario identification
S020	Reference identification
S021	Object type identification
S022	Status of the object
S300	Date and/or time of initiation
S301	Status of transfer - interactive
S302	Dialogue reference
S303	Transaction reference
S305	Dialogue identification
S306	Interactive message identifier
S307	Report reason

C.2.4 Index of service composite data elements by name

TAG	Name
S007	Application recipient identification
S006	Application sender identification
S004	Date and time of preparation
S300	Date and/or time of initiation
S305	Dialogue identification
S302	Dialogue reference
S306	Interactive message identifier
S003	Interchange recipient
S002	Interchange sender
S009	Message identifier
S017	Message implementation guideline identification
S016	Message subset identification
S008	Message version
S021	Object type identification
S005	Recipient reference/password details

S020	Reference identification
S307	Report reason
S018	Scenario identification
S022	Status of the object
S010	Status of the transfer
S301	Status of transfer - interactive
S001	Syntax identifier
S303	Transaction reference

C.2.5 Service composite data element specifications

S001 SYNTAX IDENTIFIER

Desc: Identification of the agency controlling the syntax, the syntax level and version number, and the service code directory.

POS	TAG	Name	S	Repr.	Notes
010	0001	Syntax identifier	M	a4	
020	0002	Syntax version number	M	an1	
030	0080	Service code list directory version number	C	an..6	
040	0133	Character encoding, coded	C	an..3	

S002 INTERCHANGE SENDER

Desc: Identification of the sender of the interchange.

POS	TAG	Name	S	Repr.	Notes
010	0004	Interchange sender identification	M	an..35	
020	0007	Identification code qualifier	C	an..4	
030	0008	Interchange sender internal identification	C	an..35	
040	0042	Interchange sender internal sub-identification	C	an..35	

S003 INTERCHANGE RECIPIENT

Desc: Identification of the recipient of the interchange.

POS	TAG	Name	S	Repr.	Notes
010	0010	Interchange recipient identification	M	an..35	
020	0007	Identification code qualifier	C	an..4	
030	0014	Interchange recipient internal identification	C	an..35	
040	0046	Interchange recipient internal sub-identification	C	an..35	

S004 DATE AND TIME OF PREPARATION

Desc: Date and time of preparation of the interchange.

POS	TAG	Name	S	Repr.	Notes
010	0017	Date	M	n6	
020	0019	Time	M	n4	

S005 RECIPIENT REFERENCE/PASSWORD DETAILS

Desc: Reference or password as agreed between the communicating partners.

POS	TAG	Name	S	Repr.	Notes
010	0022	Recipient reference/password	M	an..14	
020	0025	Recipient reference/password qualifier	C	an2	

S006 APPLICATION SENDER IDENTIFICATION

Desc: Sender identification of for example a division, branch or application computer system/process.

POS	TAG	Name	S	Repr.	Notes
010	0040	Application sender identification	M	an..35	
020	0007	Identification code qualifier	C	an..4	

S007 APPLICATION RECIPIENT IDENTIFICATION

Desc: Recipient identification of for example a division, branch or application computer system/process.

POS	TAG	Name	S	Repr.	Notes
010	0044	Application recipient identification	M	an..35	
020	0007	Identification code qualifier	C	an..4	

S008 MESSAGE VERSION

Desc: Specification of the version and release numbers of all of the messages of a single type in the group.

POS	TAG	Name	S	Repr.	Notes
010	0052	Message version number	M	an..3	
020	0054	Message release number	M	an..3	
030	0057	Association assigned code	C	an..6	

S009 MESSAGE IDENTIFIER

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

POS	TAG	Name	S	Repr.	Notes
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, coded	M	an..3	
050	0057	Association assigned code	C	an..6	
060	0110	Code list directory version number	C	an..6	
070	0113	Message type sub-function identification	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.

POS	TAG	Name	S	Repr.	Notes
010	0070	Sequence of transfers	M	n..2	
020	0073	First and last transfer	C	a1	

S016 MESSAGE SUBSET IDENTIFICATION

Desc: Identification of a message subset by its identifier, version, release and source.

POS	TAG	Name	S	Repr.	Notes
010	0115	Message subset identification	M	an..14	
020	0116	Message subset version number	C	an..3	
030	0118	Message subset release number	C	an..3	
040	0051	Controlling agency, coded	C	an..3	

S017 MESSAGE IMPLEMENTATION GUIDELINE IDENTIFICATION

Desc: Identification of a message implementation guideline by its identifier, version, release and source.

POS	TAG	Name	S	Repr.	Notes
010	0121	Message implementation guideline identification	M	an..14	
020	0122	Message implementation guideline version number	C	an..3	
030	0124	Message implementation guideline release number	C	an..3	
040	0051	Controlling agency, coded	C	an..3	

S018 SCENARIO IDENTIFICATION

Desc: Identification of a scenario.

POS	TAG	Name	S	Repr.	Notes
010	0127	Scenario identification	M	an..14	
020	0128	Scenario version number	C	an..3	
030	0130	Scenario release number	C	an..3	
040	0051	Controlling agency, coded	C	an..3	

S020 REFERENCE IDENTIFICATION

Desc: Identification of the reference relating to the object.

POS	TAG	Name	S	Repr.	Notes
010	0813	Reference qualifier	M	an..3	
020	0802	Reference identification number	M	an..35	

S021 OBJECT TYPE IDENTIFICATION

Desc: Identification of the attribute related to the object type.

POS	TAG	Name	S	Repr.	Notes
010	0805	Object type qualifier	M	an..3	
020	0809	Object type attribute identification	C	an..256	1
030	0808	Object type attribute	C	an..256	1
040	0051	Controlling agency, coded	C	an..3	

DEPENDENCY NOTES:

1. D3(020, 030) One or more

S022 STATUS OF THE OBJECT

Desc: Identification of the length and if required the transfer status of the object.

POS	TAG	Name	S	Repr.	Notes
010	0810	Length of object in octets of bits	M	n..18	
020	0814	Number of segments before object	C	n..3	
030	0070	Sequence of transfers	C	n..2	
040	0073	First and last transfer	C	a1	

S300 DATE AND/OR TIME OF INITIATION

Desc: Date and/or time of event initiation.

POS	TAG	Name	S	Repr.	Notes
010	0338	Event date	C	n..8	
020	0314	Event time	C	an..15	1
030	0336	Time offset	C	n4	1

DEPENDENCY NOTES:

1. D5(030, 020) If first, then all

S301 STATUS OF TRANSFER - INTERACTIVE

Desc: Identifies the sequence of the message/package within the sender's interchange and the position in a multi-message and/or package transfer.

POS	TAG	Name	S	Repr.	Notes
010	0320	Sender sequence number	C	n..6	1
020	0323	Transfer position, coded	C	a1	2
030	0325	Duplicate indicator	C	a1	3

NOTES:

1. 0320, starts at 1 and is incremented by 1 for each message and package within an interchange.

2. 0323, only used where more than one message or package is contained in a single query or response.

3. 0325, only used if a duplicate transfer.

S302 DIALOGUE REFERENCE

Desc: Unique reference for the dialogue between co-operating parties within the interactive EDI transaction.

POS	TAG	Name	S	Repr.	Notes
010	0300	Initiator control reference	M	an..35	
020	0303	Initiator reference identification	C	an..35	1
030	0051	Controlling agency, coded	C	an..3	1
040	0304	Responder control reference	C	an..35	

DEPENDENCY NOTES:

1. D5(030, 020) If first, then all

C.3 Service simple data element directory

The service code directory forms part of the UN Trade Data Interchange Directory (UNTDID). The most recent UNTDID should be used to reference the code values for the coded data elements in the following simple data element directory.

C.3.1 Service simple data element specification legend:

Tag — The tags of all service simple data elements contained in the simple data element directory start with figure "0".

Name — Name of a simple data element

Desc. — Description of the simple data element

Repr. — Data value representation of the simple data element:

a	alphabetic characters
n	numeric characters
an	alphanumeric characters
a3	3 alphabetic characters, fixed length
n3	3 numeric characters, fixed length
an3	3 alphanumeric characters, fixed length
a..3	up to 3 alphabetic characters
n..3	up to 3 numeric characters
an..3	up to 3 alphanumeric characters

C.3.2 Index of service simple data elements by tag

TAG	Name
0001	Syntax identifier
0002	Syntax version number
0004	Interchange sender identification
0007	Identification code qualifier
0008	Interchange sender internal identification
0010	Interchange recipient identification
0014	Interchange recipient internal identification
0017	Date
0019	Time
0020	Interchange control reference
0022	Recipient reference/password
0025	Recipient reference/password qualifier
0026	Application reference
0029	Processing priority code
0031	Acknowledgement request
0032	Interchange agreement identifier
0035	Test indicator
0036	Interchange control count
0038	Message group identification

0040 Application sender identification
0042 Interchange sender internal sub-identification
0044 Application recipient identification
0046 Interchange recipient internal sub-identification
0048 Group reference number
0051 Controlling agency, coded
0052 Message version number
0054 Message release number
0057 Association assigned code
0058 Application password
0060 Group control count
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 a message
0080 Service code list directory version number
0081 Section identification
0110 Code list directory version number
0113 Message type sub-function identification
0115 Message subset identification
0116 Message subset version number
0118 Message subset release number
0121 Message implementation guideline identification
0122 Message implementation guideline version number
0124 Message implementation guideline release number
0127 Scenario identification
0128 Scenario version number
0130 Scenario release number
0133 Character encoding, coded
0135 Service segment tag, coded
0300 Initiator control reference
0303 Initiator reference identification
0304 Responder control reference
0306 Transaction control reference
0311 Dialogue identification
0314 Event time
0320 Sender sequence number
0323 Transfer position, coded
0325 Duplicate indicator
0331 Report function, coded
0332 Report reason text
0333 Report reason, coded
0335 Report language, coded

0336	Time offset
0338	Event date
0340	Interactive message reference number
0342	Dialogue version number
0344	Dialogue release number
0800	Package reference number
0802	Reference identification number
0805	Object type qualifier
0808	Object type attribute
0809	Object type attribute identification
0810	Length of object in octets of bits
0813	Reference qualifier
0814	Number of segments before object

C.3.3 Index of service simple data elements by name

TAG	Name
0031	Acknowledgement request
0058	Application password
0044	Application recipient identification
0026	Application reference
0040	Application sender identification
0057	Association assigned code
0133	Character encoding, coded
0110	Code list directory version number
0068	Common access reference
0051	Controlling agency, coded
0017	Date
0311	Dialogue identification
0344	Dialogue release number
0342	Dialogue version number
0325	Duplicate indicator
0338	Event date
0314	Event time
0073	First and last transfer
0060	Group control count
0048	Group reference number
0007	Identification code qualifier
0300	Initiator control reference
0303	Initiator reference identification
0340	Interactive message reference number
0032	Interchange agreement identifier
0036	Interchange control count
0020	Interchange control reference
0010	Interchange recipient identification

0014 Interchange recipient internal identification
0046 Interchange recipient internal sub-identification
0004 Interchange sender identification
0008 Interchange sender internal identification
0042 Interchange sender internal sub-identification
0810 Length of object in octets of bits
0038 Message group identification
0121 Message implementation guideline identification
0124 Message implementation guideline release number
0122 Message implementation guideline version number
0062 Message reference number
0054 Message release number
0115 Message subset identification
0118 Message subset release number
0116 Message subset version number
0065 Message type
0113 Message type sub-function identification
0052 Message version number
0814 Number of segments before object
0074 Number of segments in a message
0808 Object type attribute
0809 Object type attribute identification
0805 Object type qualifier
0800 Package reference number
0029 Processing priority code
0022 Recipient reference/password
0025 Recipient reference/password qualifier
0802 Reference identification number
0813 Reference qualifier
0331 Report function, coded
0335 Report language, coded
0332 Report reason text
0333 Report reason, coded
0304 Responder control reference
0127 Scenario identification
0130 Scenario release number
0128 Scenario version number
0081 Section identification
0320 Sender sequence number
0070 Sequence of transfers
0080 Service code list directory version number
0135 Service segment tag, coded
0001 Syntax identifier
0002 Syntax version number
0035 Test indicator

0019	Time
0336	Time offset
0306	Transaction control reference
0323	Transfer position, coded

C.3.4 Service simple data element specifications

0001 SYNTAX IDENTIFIER

Desc: Coded identification of the agency controlling the syntax, and of the character repertoire used in an interchange.

Repr: a4

Note 1: The data value consists of the letters 'UN', upper case, identifying the syntax controlling agency, directly followed by an a2 code identifying the character repertoire used.

0002 SYNTAX VERSION NUMBER

Desc: Version number of the syntax.

Repr: an1

Note 1: Shall be '4' to indicate this version of the syntax.

0004 INTERCHANGE SENDER IDENTIFICATION

Desc: Name or coded identification of the sender of the interchange.

Repr: an..35

Note 1: Organisation code or name as agreed between interchange partners.
Note 2: If coded representation is used, its source may be specified by the qualifier in data element 0007.

0007 IDENTIFICATION CODE QUALIFIER

Desc: Qualifier referring to the identification code.

Repr: an..4

Note 1: A qualifier code may refer to an organisation identification as in ISO 6523.

0008 INTERCHANGE SENDER INTERNAL IDENTIFICATION

Desc: Identification of (for example, a division, branch or computer system/process) specified by the sender of interchange, to be included if agreed, by the recipient in response interchanges, to facilitate internal routing.

Repr: an..35

0010 INTERCHANGE RECIPIENT IDENTIFICATION

Desc: Name or coded identification of the recipient of the interchange.

Repr: an..35

Note 1: Organisation code or name as agreed between interchange partners.
Note 2: If coded representation is used, its source may be specified by the qualifier in data element 0007.

0014 INTERCHANGE RECIPIENT INTERNAL IDENTIFICATION

Desc: Identification of (for example, a division, branch or computer system/process) specified by the recipient of interchange, to be included if agreed, by the sender in response interchanges, to facilitate internal routing.

Repr: an..35

0017 DATE

Desc: Local date when an interchange or a group was prepared.

Repr: n6

Note 1: Format is YYMMDD.

0019 TIME

Desc: Local time of day when an interchange or a group was prepared.

Repr: n4

Note 1: Format is HHMM in 24 hour clock.

0020 INTERCHANGE CONTROL REFERENCE

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

Repr: an..14

0022 RECIPIENT REFERENCE/PASSWORD

Desc: Reference or password to the recipient's system or to a third party network as specified in the partners' interchange agreement.

Repr: an..14

Note 1: To be used as specified in the partners' interchange agreement. It may be qualified by data element 0025.

0025 RECIPIENT REFERENCE/PASSWORD QUALIFIER

Desc: Qualifier for the recipient's reference or password.

Repr: an2

Note 1: To be used as specified in the partners' interchange agreement.

0026 APPLICATION REFERENCE

Desc: Identification of the application area assigned by the sender, to which the messages in the interchange relate e.g. the message type, if all the messages in the interchange are of the same type.

Repr: an..14

Note 1: Identification of the application area (e.g. accounting, purchasing) or of the message type, as applicable.

0029 PROCESSING PRIORITY CODE

Desc: Code determined by the sender requesting processing priority for the interchange.

Repr: a1

Note 1: To be used as specified in the partners' interchange agreement.

0031 ACKNOWLEDGEMENT REQUEST

Desc: Code requesting acknowledgement for the interchange.

Repr: n1

Note 1: Used if the sender requests that a message related to syntactical correctness be sent by the recipient in response.
Note 2: For UN/EDIFACT a specific message (Syntax and service report - CONTRL) is defined for this purpose.

0032 INTERCHANGE AGREEMENT IDENTIFIER

Desc: Identification by name or code of the type of agreement under which the interchange takes place.

Repr: an..35

Note 1: Name or code to be specified in the partners' interchange agreement.

0035 TEST INDICATOR

Desc: Indication that the structural level containing the test indicator is a test.

Repr: n1

0036 INTERCHANGE CONTROL COUNT

Desc: The number of messages and packages in an interchange or, if used, the number of groups in an interchange.

Repr: n..6

0038 MESSAGE GROUP IDENTIFICATION

Desc: Identification of the single message type in the group.

Repr: an..6

Note 1: This data element will be deleted from the next version of the standard. Therefore its use is not recommended.

0040 APPLICATION SENDER IDENTIFICATION

Desc: Name or coded identification of the application sender (for example, a division, branch or computer system/process).

Repr: an..35

0042 INTERCHANGE SENDER INTERNAL SUB-IDENTIFICATION

Desc: Sub-level of sender internal identification, when further sub-level identification is required.

Repr: an..35

0044 APPLICATION RECIPIENT IDENTIFICATION

Desc: Name or coded identification of the application recipient (for example, a division, branch or computer system/process).

Repr: an..35

0046 INTERCHANGE RECIPIENT INTERNAL SUB-IDENTIFICATION

Desc: Sub-level of recipient internal identification, when further sub-level identification is required.

Repr: an..35

0048 GROUP REFERENCE NUMBER

Desc: Unique reference number for the group within an interchange.

Repr: an..14

0051 CONTROLLING AGENCY, CODED

Desc: Code identifying a controlling agency.

Repr: an..3

0052 MESSAGE VERSION NUMBER

Desc: Version number of a message type.

Repr: an..3

0054 MESSAGE RELEASE NUMBER

Desc: Release number within the current message version number.

Repr: an..3

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

0058 APPLICATION PASSWORD

Desc: Password to the recipient's division, department or sectional application system/process.

Repr: an..14

0060 GROUP CONTROL COUNT

Desc: The number of messages and packages in the group.

Repr: n..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

Note 1: In UNSMs (United Nations Standard Messages), the representation is a6.

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 the transfer sequence of a message related to the same topic. The message could be an addition or a change to an earlier transfer related to the same topic.

Repr: n..2

Note 1: The first message in the sequence shall be assigned as number 1.

0073 FIRST AND LAST TRANSFER

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

Repr: a1

0074 NUMBER OF SEGMENTS IN A MESSAGE

Desc: The number of segments in a message body, plus the message header segment and message trailer segment.

Repr: n..10

0080 SERVICE CODE LIST DIRECTORY VERSION NUMBER

Desc: Version number of the service code list directory.

Repr: an..6

0081 SECTION IDENTIFICATION

Desc: Identification of the separation of sections of a message.

Repr: a1

0110 CODE LIST DIRECTORY VERSION NUMBER

Desc: Version number of the code list directory.

Repr: an..6

0113 MESSAGE TYPE SUB-FUNCTION IDENTIFICATION

Desc: Code identifying a sub-function of a message type.

Repr: an..6

Note 1: The code qualifies the message type data element (0065) to allow the recipient to identify a specific sub-function of a message.

0115 MESSAGE SUBSET IDENTIFICATION

Desc: Coded identification of a message subset, assigned by its controlling agency.

Repr: an..14

0116 MESSAGE SUBSET VERSION NUMBER

Desc: Version number of the message subset.

Repr: an..3

0118 MESSAGE SUBSET RELEASE NUMBER

Desc: Release number within the message subset version number.

Repr: an..3

0121 MESSAGE IMPLEMENTATION GUIDELINE IDENTIFICATION

Desc: Coded identification of the message implementation guideline, assigned by its controlling agency.

Repr: an..14

0122 MESSAGE IMPLEMENTATION GUIDELINE VERSION NUMBER

Desc: Version number of the message implementation guideline.

Repr: an..3

0124 MESSAGE IMPLEMENTATION GUIDELINE RELEASE NUMBER

Desc: Release number within the message implementation guideline version number.

Repr: an..3

0127 SCENARIO IDENTIFICATION

Desc: Code identifying scenario.

Repr: an..14

0128 SCENARIO VERSION NUMBER

Desc: Version number of a scenario.

Repr: an..3

0130 SCENARIO RELEASE NUMBER

Desc: Release number within the scenario version number.

Repr: an..3

0133 CHARACTER ENCODING, CODED

Desc: Coded identification of the character encoding used in the interchange.

Repr: an..3

Note 1: To be used as specified in the partners' interchange agreement, for the purpose of identifying the character repertoire encoding technique used in the interchange (when the default encoding defined by the character repertoire's associated character set specification is not used).

0135 SERVICE SEGMENT TAG, CODED

Desc: Code identifying a service segment.

Repr: an..3

0300 INITIATOR CONTROL REFERENCE

Desc: A reference assigned by the dialogue initiator.

Repr: an..35

0303 INITIATOR REFERENCE IDENTIFICATION

Desc: Organisation code or name assigned by the party that initiated the transaction or dialogue.

Repr: an..35

0304 RESPONDER CONTROL REFERENCE

Desc: A reference assigned by the dialogue responder.

Repr: an..35

0306 TRANSACTION CONTROL REFERENCE

Desc: A reference assigned by the transaction initiator.

Repr: an..35

0311 DIALOGUE IDENTIFICATION

Desc: Code identifying a dialogue.

Repr: an..14

0314 EVENT TIME

Desc: Time of event.

Repr: an..15

Note 1: Format is HHMMSS... with up to 9 more digits of precision. A 'Z' as the last character indicates UTC time. (ISO 8601)

0320 SENDER SEQUENCE NUMBER

Desc: Identification of the sequence number of the message or package within the sender interchange.

Repr: n..6

0323 TRANSFER POSITION, CODED

Desc: Indication of the position of a transfer.

Repr: a1

0325 DUPLICATE INDICATOR

Desc: Indication that the structure is a duplicate of a previously sent structure.

Repr: a1

0331 REPORT FUNCTION, CODED

Desc: Coded value identifying type of status or error report.

Repr: an..3

0332 REPORT REASON TEXT

Desc: Textual explanation of the reason for the status or error report.

Repr: an..70

0333 REPORT REASON, CODED

Desc: Code identifying the reason for the status or error report.

Repr: an..3

0335 REPORT LANGUAGE, CODED

Desc: Coded identification of language.

Repr: an..3

Note 1: The code list for this data element is maintained by ISO (ISO 639).

0336 TIME OFFSET

Desc: UTC (Universal Co-ordinated Time) offset from event time.

Repr: n4

Note 1: Format is HHMM. Shall be prefixed with '-' for negative offsets. (ISO 8601)

0338 EVENT DATE

Desc: Date of event.

Repr: n..8

Note 1: Format is YYMMDD or CCYYMMDD.

0340 INTERACTIVE MESSAGE REFERENCE NUMBER

Desc: Unique interactive message reference assigned by the sender.

Repr: an..35

0342 DIALOGUE VERSION NUMBER

Desc: Version number of a dialogue.

Repr: an..3

0344 DIALOGUE RELEASE NUMBER

Desc: Release number of a dialogue.

Repr: an..3

0800 PACKAGE REFERENCE NUMBER

Desc: Unique package reference number assigned by the sender.

Repr: an..35

0802 REFERENCE IDENTIFICATION NUMBER

Desc: Reference number to identify a message, message group and/or interchange, which relates to the object.

Repr: an..35

0805 OBJECT TYPE QUALIFIER

Desc: Qualifier referring to the type of object.

Repr: an..3

0808 OBJECT TYPE ATTRIBUTE

Desc: The attribute applying to the object type.

Repr: an..256

0809 OBJECT TYPE ATTRIBUTE IDENTIFICATION

Desc: Coded identification of the attribute applying to the object type.

Repr: an..256

0810 LENGTH OF OBJECT IN OCTETS OF BITS

Desc: Count of the number of octets of bits in the object.

Repr: n..18

Note 1: The count shall exclude the segment terminator of the preceding EDIFACT structured segment and the first character ('U') of the following EDIFACT structured segment.

0813 REFERENCE QUALIFIER

Desc: Code giving specific meaning to a reference identification number.

Repr: an..3

0814 NUMBER OF SEGMENTS BEFORE OBJECT

Desc: A count of the number of segments appearing between the UNO segment and the start of the object.

Repr: n..3

Annex D
(informative)

Service code directory

The service code directory is maintained by the UN/ECE and is part of the UN Trade Data Interchange Directory (UNTDID) and as such is not reproduced in this International Standard. The most recent version of the service code directory should be used to reference the code values for the coded data elements in the simple data element directory (see annex C within this part). The UNTDID is updated and published at regular intervals.

Annex E
(informative)

Order of segments and groups of segments within a message

E.1 General

Segments used in a message appear in the sequence (top to bottom) specified in the message segment table.

In the message segment table, segments are indicated by their tags. The requirement for their inclusion in the message i.e. their status, is indicated by the letter M for mandatory or C for conditional. The number of times a segment may occur in each instance is indicated directly thereafter. This may be followed by any associated dependency note identifier(s).

In the message segment table, segment groups are indicated by their segment group number. The requirement for their inclusion in the message i.e. their status, is indicated by the letter M for mandatory or C for conditional. The number of times a segment group may occur in each instance is indicated directly thereafter. This may be followed by any associated dependency note identifier(s).

E.2 Segment groups

Two or more segments can be grouped, as shown in figure 1. The trigger segment of each segment group appears in the message segment table immediately following the segment group identification (i.e. segment group 1, 2 etc.). All other segments within the segment group follow in sequence, with the last segment in the group identified by the boundary lines specifying the extent of the segment group.

A segment group can contain another dependent segment group or groups (e.g. segment group 2 contains a dependent segment group 3 in the figure), and, as can be seen in the figure, a segment can terminate two (or more) segment groups, as indicated by the segment group boundary lines (segment LLL in the figure.)

In the figure, segment group 2 is the parent of segment group 3, and segment group 3 is the parent of segment group 4.

E.2.1 Figure 1

```
--------------------------------------------------------------------------------

POS    TAG    Name                                        S   R              Notes

0010   Uxx    Message header                              M   1
0020   AAA    Segment AAA name                            M   1
0030   BBB    Segment BBB name                            C   9
0040   CCC    Segment CCC name                            C   9

0050   ---------- Segment group 1 ------------------       C   999  --------+ 1
0060   DDD    Segment DDD name                            M   1            |
0070   EEE    Segment EEE name                            C   9            |
0080   FFF    Segment FFF name                            C   9            |
0090   GGG    Segment GGG name                            C   1    --------+

0100   ---------- Segment group 2 ------------------       C   9    --------+ 1
0110   HHH    Segment HHH name                            M   1            |
                                                                           |
0120   ---------- Segment group 3 ------------------       C   9    -------++
0130   III    Segment III name                            M   1           ||
0140   JJJ    Segment JJJ name                            C   9           ||
                                                                          ||
0150   ---------- Segment group 4 ------------------       C   9    ------+||
0160   KKK    Segment KKK name                            M   1          |||
0170   LLL    Segment LLL name                            C   9    ------+++
  .
  .
  .
  .
nnnn   Uxx    Message trailer                             M   1

DEPENDENCY NOTES:

1.  D1(0050, 0100) One and only one

--------------------------------------------------------------------------------
```

Figure 1 - Example message segment table

Legend

POS	The sequential position number of the segment or segment group in the message (in steps of 10 to permit later amendment to message structures)
TAG	The tag of the segment in the message
Name	The name of the segment in the message
S	The status (of the segment or segment group) i.e. M = Mandatory, C = Conditional
R	The maximum number of occurrences of the segment or segment group
Notes	The note number

E.2.2 Figure 1 Notes

1. An example of the processing/sequencing order of the segments (using the segment tags only) is as follows (with segment group 1 appearing twice, the other groups once, and with repeating segments shown as appearing once only):

   Uxx,AAA,BBB,CCC,DDD,EEE,FFF,GGG,DDD,EEE,FFF,GGG,HHH,III,JJJ,KKK,LLL,...Uxx

2. In the segment table and in the segment string shown above, the first "Uxx Message Header" would be "UNH" for batch EDI, and "UIH" for interactive EDI; the second "Uxx Message trailer" would be "UNT" for batch EDI and "UIT" for interactive EDI.

3. As is shown, dependency notes at the message level (note 1 in figure 1) can be specified in the message segment table (which in UN/EDIFACT form part of the message specification).

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and Automatic Data Interchange (GE.1)
Fifty-fourth session, 16-17 September 1998
Item 2 of the provisional agenda

ELECTRONIC DATA INTERCHANGE FOR ADMINISTRATION, COMMERCE AND TRANSPORT - (EDIFACT) APPLICATION LEVEL SYNTAX RULES

Part 2: Syntax rules specific to batch EDI

***

Submitted by the Syntax Development Group

The following note should appear on the cover page:

This document is not for implementation. It has been submitted into the "fast track" standards approval process of the International Organization for Standardization (ISO). Upon its approval as an ISO standard, it will be published as soon as possible by CEFACT for implementation.

* Submitted by the secretariat, at the request of GE.1 at its September 1997 session (see TRADE/CEFACT/GE.1/1997/11, paragraph 25.

ISO 9735-2

1997-10-01

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

(Syntax version number: 4)

Part 2:
Syntax rules specific to batch EDI

Contents

Foreword

(To be amended as necessary, according to ISO procedures)

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 approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75% approval by the member bodies voting.

Version 4 of this International Standard ISO 9735 was prepared by the UN/ECE Trade Division (as UN/EDIFACT) and was adopted, under the "fast-track procedure" as an existing standard, by Technical Committee ISO TC 154, *Documents and data elements in administration; commerce and industry.*

ISO 9735 consists (currently) of the following parts, under the general title *Electronic data interchange for administration, commerce and transport (EDIFACT) - Application level syntax rules:*

- *ISO 9735-1* - *Syntax rules common to all parts, together with syntax service directories for each of the parts*
- *ISO 9735-2* - *Syntax rules specific to batch EDI*
- *ISO 9735-3* - *Syntax rules specific to interactive EDI*
- *ISO 9735-4* - *Syntax and service report message for batch EDI (message type - CONTRL)*
- *ISO 9735-5* - *Security rules for batch EDI (authenticity, integrity and non-repudiation of origin)*
- *ISO 9735-6* - *Secure authentication and acknowledgement message (message type - AUTACK)*
- *ISO 9735-7* - *Security rules for batch EDI (confidentiality)*
- *ISO 9735-8* - *Associated data in EDI*
- *ISO 9735-9* - *Security key and certificate management message (message type - KEYMAN)*
- *ISO 9735-10* - *Security rules for interactive EDI*

Further parts may be added in the future.

Introduction

This International Standard 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 the 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, batch messages shall comply with the message design rules for batch usage. These rules are maintained in the UNTDID.

Communications specifications and protocols are outside the scope of this standard.

This part of ISO 9735 is a re-draft of corresponding sections in the previous version of ISO 9735. It is identical, except for minor changes to terminology, and for clarification of the use of segment groups.

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

Part 2:
Syntax rules specific to batch EDI

1 Scope

This part of ISO 9735 specifies syntax rules specifically for the formatting of batch messages to be interchanged between computer application systems. For the transfer of packages in a batch environment, see Part 8 of this International Standard.

2 Conformance

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 International Standard.

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

Conformance to this part shall include conformance to Part 1 of this International Standard.

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

3 Normative references

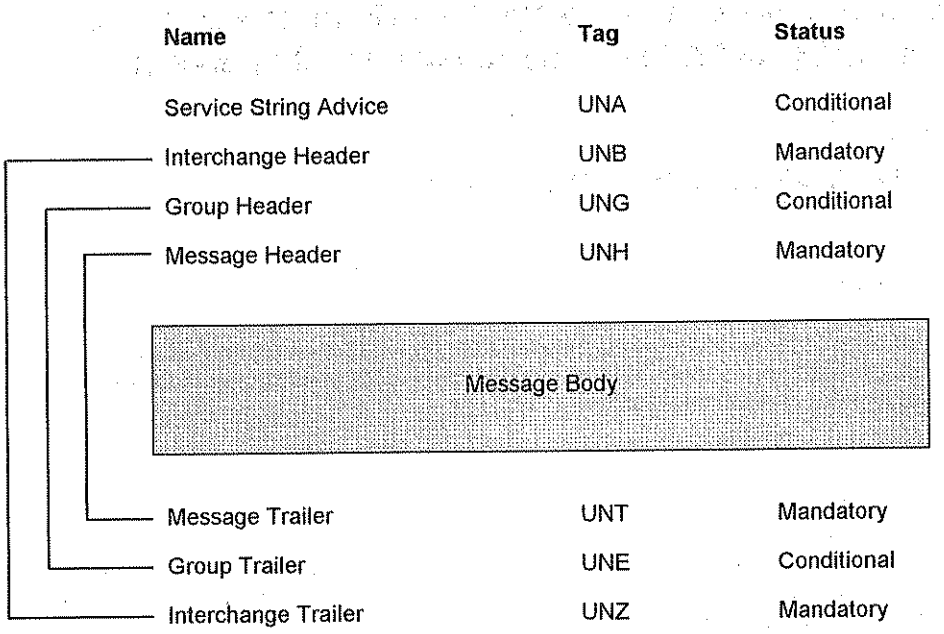
There are no other standards which, through reference in this text, constitute provisions of this part of this International Standard.

4 Definitions

For the purpose of this part of this International Standard, the definitions in Part 1 annex A apply.

5 Batch EDI interchange structure

The service string advice (if used) and the header and trailer service segments (excluding those used for security and associated data, which are defined in related parts of this International Standard), shall appear in a batch EDI interchange in the order shown below:



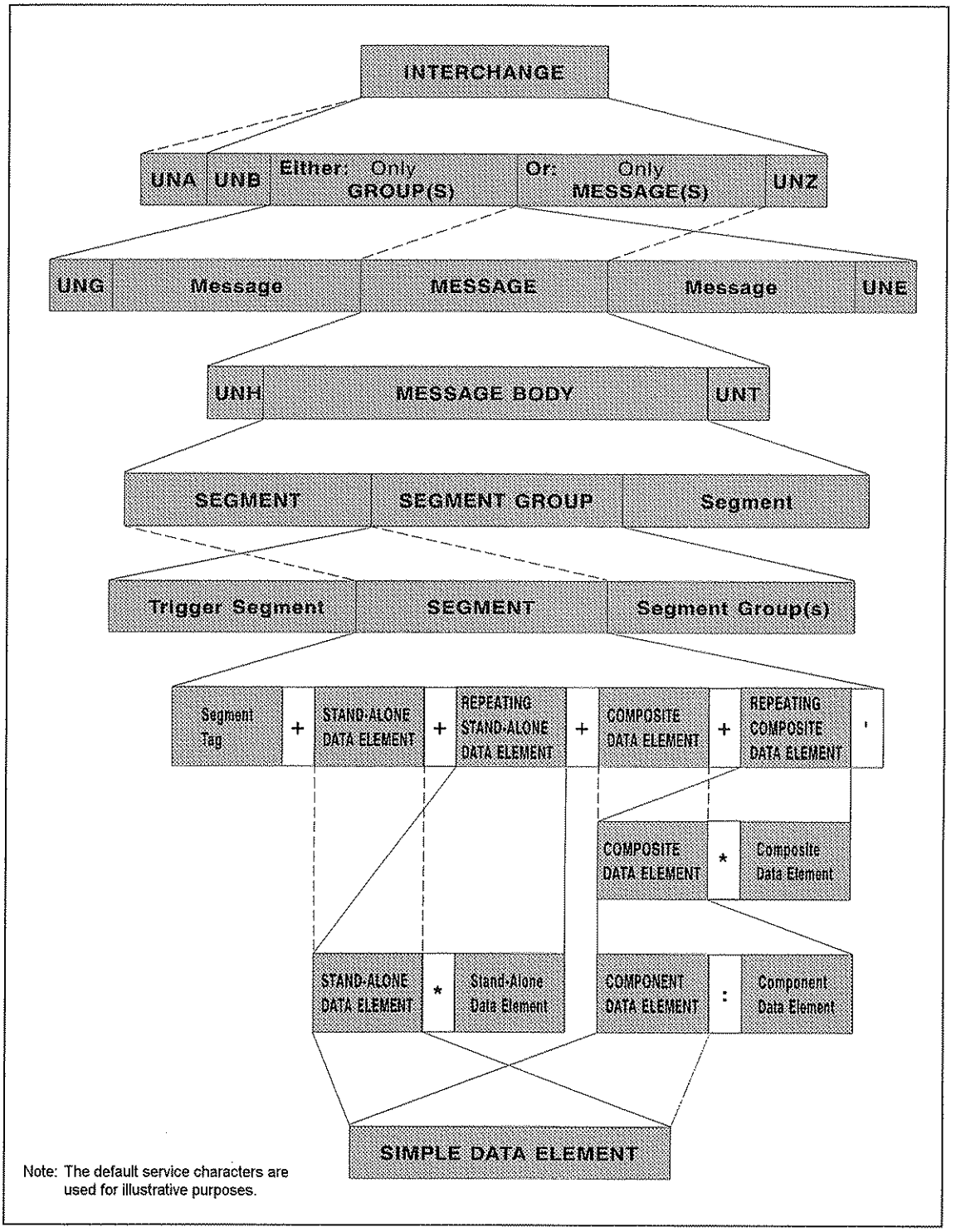
In the diagram above, the lines to the left show the pairing of header and trailer segments. For simplicity, an interchange containing only one group and one message is shown.

When used, the UNA service string advice applies only to the interchange which it precedes. For the specification of the UNA see Part 1 annex B.

For the specification of the header and trailer segments see Part 1 annex C.

NOTE - Segments for use in UN/EDIFACT messages are defined in the United Nations Trade Data Interchange Directory (UNTDID).

6 Batch EDI message within an interchange



Note: The default service characters are used for illustrative purposes.

Figure 1a - Batch EDI message within an interchange (Schematic)

An **INTERCHANGE** contains:
- UNA, Service String Advice, if used
- UNB, Interchange Header
- Either: Only group(s) Or: Only message(s)
- UNZ, Interchange Trailer

A **GROUP** contains:
- UNG, Group Header
- message(s)
- UNE, Group Trailer

A **MESSAGE** contains:
- UNH, Message Header
- a message body
- UNT, Message Trailer

A **MESSAGE BODY** contains:
- segment(s) and/or segment group(s)

A **SEGMENT GROUP** contains:
- a trigger segment
- segment(s) and possibly segment group(s)

A **SEGMENT** contains:
- a segment tag
- stand-alone data element(s) and/or composite data element(s) and/or repeating stand-alone data element(s) and/or repeating composite data element(s)

A **REPEATING STAND-ALONE DATA ELEMENT** is:
- one or more occurrences of the same stand-alone data element

A **REPEATING COMPOSITE DATA ELEMENT** is:
- one or more occurrences of the same composite data element

A **COMPOSITE DATA ELEMENT** contains:
- two or more component data elements

A **COMPONENT DATA ELEMENT** is:
- a simple data element

A **STAND-ALONE DATA ELEMENT** is:
- a simple data element

A **SIMPLE DATA ELEMENT** contains:
- a single data element value

Figure 1b - Batch EDI message within an interchange (Legend)

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for Administration, Commerce and Transport (CEFACT)
Meeting of Experts on Data Elements
and Automatic Data Interchange (GE.1)
Fifty-fourth session, 16-17 September 1998
Item 2 of the provisional agenda

ELECTRONIC DATA INTERCHANGE FOR ADMINISTRATION, COMMERCE AND TRANSPORT - (EDIFACT) APPLICATION LEVEL SYNTAX RULES

Part 3: Syntax rules specific to interactive EDI

***

Submitted by the Syntax Development Group

The following note should appear on the cover page:

This document is not for implementation. It has been submitted into the "fast track" standards approval process of the International Organization for Standardization (ISO). Upon its approval as an ISO standard, it will be published as soon as possible by CEFACT for implementation.

* Submitted by the secretariat, at the request of GE.1 at its September 1997 session (see TRADE/CEFACT/GE.1/1997/11, paragraph 25.

ISO 9735-3

1997-10-01

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

(Syntax version number: 4)

Part 3:
Syntax rules specific to interactive EDI

Contents

Foreword

(To be amended as necessary, according to ISO procedures)

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 approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75% approval by the member bodies voting.

Version 4 of this International Standard ISO 9735 was prepared by the UN/ECE Trade Division (as UN/EDIFACT) and was adopted, under the "fast-track procedure" as an existing standard, by Technical Committee ISO TC 154, *Documents and data elements in administration; commerce and industry.*

ISO 9735 consists (currently) of the following parts, under the general title *Electronic data interchange for administration, commerce and transport (EDIFACT) - Application level syntax rules:*

- *ISO 9735-1* - *Syntax rules common to all parts, together with syntax service directories for each of the parts*
- *ISO 9735-2* - *Syntax rules specific to batch EDI*
- *ISO 9735-3* - *Syntax rules specific to interactive EDI*
- *ISO 9735-4* - *Syntax and service report message for batch EDI (message type - CONTRL)*
- *ISO 9735-5* - *Security rules for batch EDI (authenticity, integrity and non-repudiation of origin)*
- *ISO 9735-6* - *Secure authentication and acknowledgement message (message type - AUTACK)*
- *ISO 9735-7* - *Security rules for batch EDI (confidentiality)*
- *ISO 9735-8* - *Associated data in EDI*
- *ISO 9735-9* - *Security key and certificate management message (message type - KEYMAN)*

ISO 9735-10 - Security rules for interactive EDI

Further parts may be added in the future.

In this Part, annexes A, B and C are for information only.

Introduction

This International Standard 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, interactive messages shall comply with the message design rules for interactive usage. These rules are maintained in the UNTDID.

Communications specifications and protocols are outside the scope of this standard.

This is a new part, which has been added to ISO 9735. It provides for the exchange of EDIFACT messages in an interactive (conversational) EDI environment.

Interactive EDI (I-EDI) is characterised by the following:

- a formalised association between the two parties using a dialogue,
- the ability, dynamically, to direct the course of the I-EDI transaction, depending upon the result of earlier exchanges within the dialogue,
- short response times,
- all the messages exchanged within one dialogue relate to the same business transaction,
- a transaction is a controlled set of dialogues which can take place between two or more parties.

These characteristics differentiate I-EDI from batch EDI which is specified in Part 2 (syntax rules specific to batch EDI).

For consistency and in order to simplify the implementation of the standard for those users who wish to utilise both batch and interactive processing, this Part 3 has been aligned as far as possible with Part 2.

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

Part 3:
Syntax rules specific to interactive EDI

1 Scope

This part of ISO 9735 specifies syntax rules specifically for the transfer of interactive messages to be interchanged between computer application systems. For the transfer of packages in an interactive environment, see Part 8 of this International Standard.

2 Conformance

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 International Standard.

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

Conformance to this part shall include conformance to Part 1 of this International Standard.

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

3 Normative references

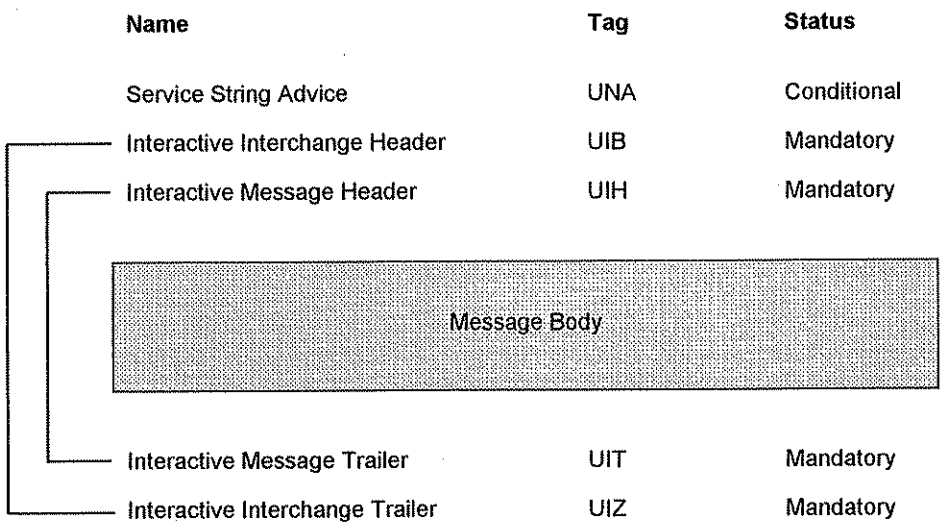
There are no other standards which, through reference in this text, constitute provisions of this part of this International Standard.

4 Definitions

For the purpose of this part of this International Standard, the definitions in Part 1 annex A apply.

5 I-EDI interchange structure

The service string advice (if used) and the header and trailer service segments shall appear in an I-EDI interchange in the order shown below:



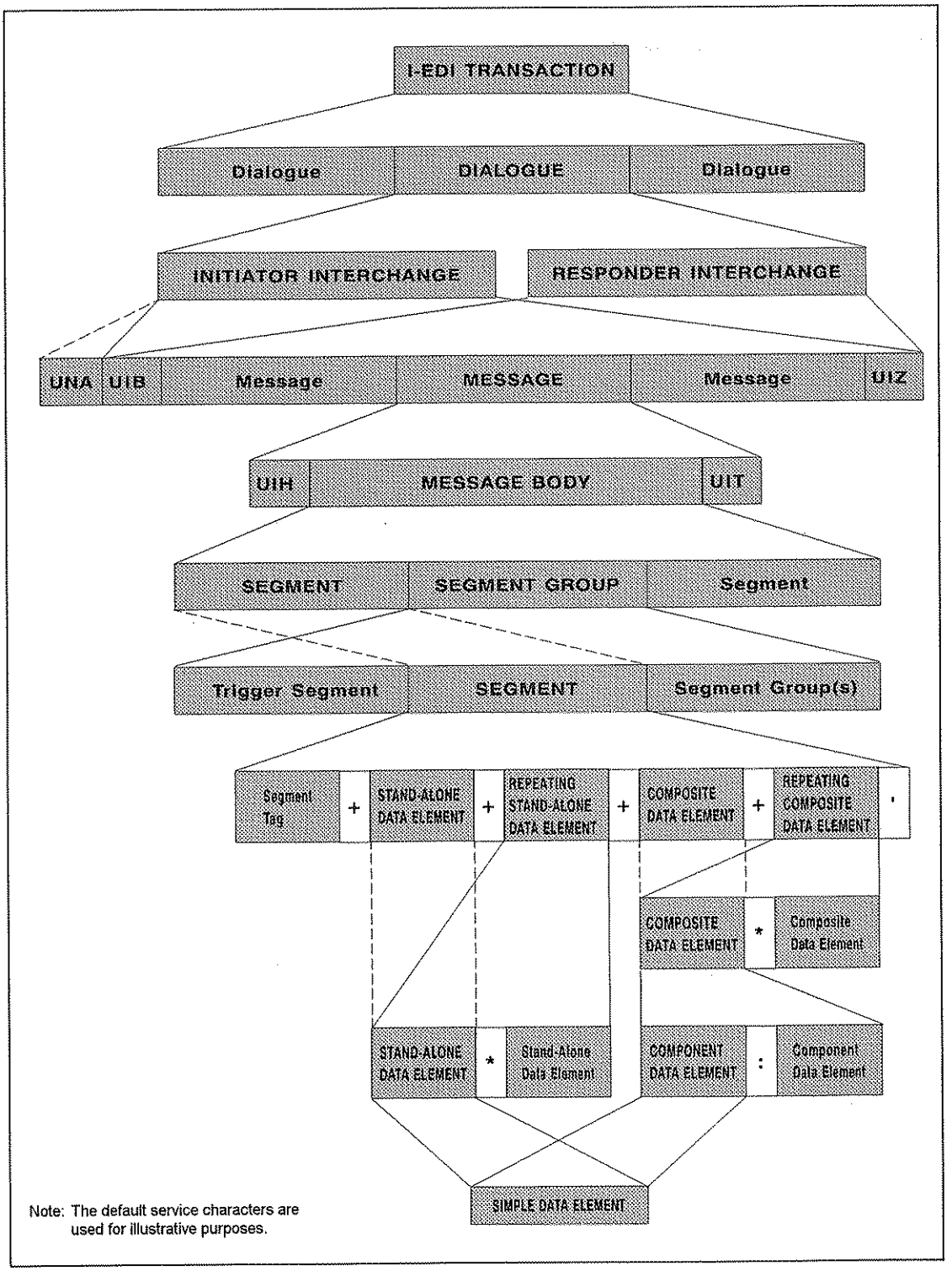
In the diagram above, the lines to the left show the pairing of header and trailer segments. For simplicity, an interchange containing only one message is shown.

For the specification of the service string advice see Part 1 annex B.

For the specification of the interactive header and trailer segments see Part 1 annex C.

NOTE - Segments for use in UN/EDIFACT messages are defined in the United Nations Trade Data Interchange Directory (UNTDID).

5.1 I-EDI message within a transaction



Note: The default service characters are used for illustrative purposes.

Figure 1a - I-EDI message within a transaction (Schematic)

An **I-EDI TRANSACTION** contains:
- Dialogue(s)

A **DIALOGUE** contains:
- an Initiator Interchange
- a corresponding Responder Interchange

An **INITIATOR INTERCHANGE** contains:
- UNA, Service String Advice, if used
- UIB, Interactive Interchange Header
- message(s), if used
- UIZ, Interactive Interchange Trailer

A **RESPONDER INTERCHANGE** contains:
- UIB, Interactive Interchange Header
- message(s), if used
- UIZ, Interactive Interchange Trailer

A **MESSAGE** contains:
- UIH, Interactive Message Header
- a message body
- UIT, Interactive Message Trailer

A **MESSAGE BODY** contains:
- segment(s) and/or segment group(s)

A **SEGMENT GROUP** contains:
- a trigger segment
- segments(s) and possibly segment group(s)

A **SEGMENT** contains:
- a segment tag
- stand-alone data element(s) and/or composite data element(s) and/or repeating stand-alone data elements and/or repeating composite data elements

A **REPEATING STAND-ALONE DATA ELEMENT** is:
- one or more occurrences of the same stand-alone data element

A **REPEATING COMPOSITE DATA ELEMENT** is:
- one or more occurrences of the same composite data element

A **COMPOSITE DATA ELEMENT** contains:
- two or more component data elements

A **COMPONENT DATA ELEMENT** is:
- a simple data element

A **STAND-ALONE DATA ELEMENT** is:
- a simple data element

A **SIMPLE DATA ELEMENT** contains:
- a single data element value

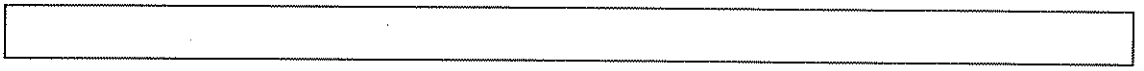


Figure 1b - I-EDI message within a transaction (Legend)

6 Dialogue control

An I-EDI transaction, which is an instance of a particular scenario, consists of one or more dialogues, occurring either concurrently or sequentially between two or more parties.

A dialogue consists of an interleaved pair of EDIFACT interchanges; an initiator interchange and a responder interchange.

The following transfers shall take place:

- An initiator begins a dialogue by sending an interchange header segment to a responder, optionally preceded by a UNA, and optionally followed by a message.
- The responder replies to the initiator with an interchange header segment, optionally followed by a message (note that the values of the UNA sent by the initiator also apply to the responder).
- The initiator sends a query message to the responder.
- The responder replies to the initiator with a response message.
- The initiator and responder exchange additional messages, as necessary.
- The initiator ends the dialogue by sending an interchange trailer segment to the responder, optionally preceded by a message.
- The responder replies to the initiator with an interchange trailer segment, optionally preceded by a message.

The following variations are possible:

For each message from the initiator to the responder there may be zero, one, or more than one message from the responder to the initiator, and vice-versa.

UIR service segments may be interleaved with messages.

A dialogue can be prematurely terminated at any time by either party, by using a UIR service segment.

A message or messages may be combined with:

- the interchange header or,
- the interchange trailer or,
- both the interchange header and the interchange trailer (a complete dialogue).

Whilst exchange of data controlled by the initiator is a common mode of operation for interactive applications, the I-EDI syntax does not exclude other modes of operation.

See annex A for examples.

The following is a flow diagram of two interchanges which together form a dialogue.

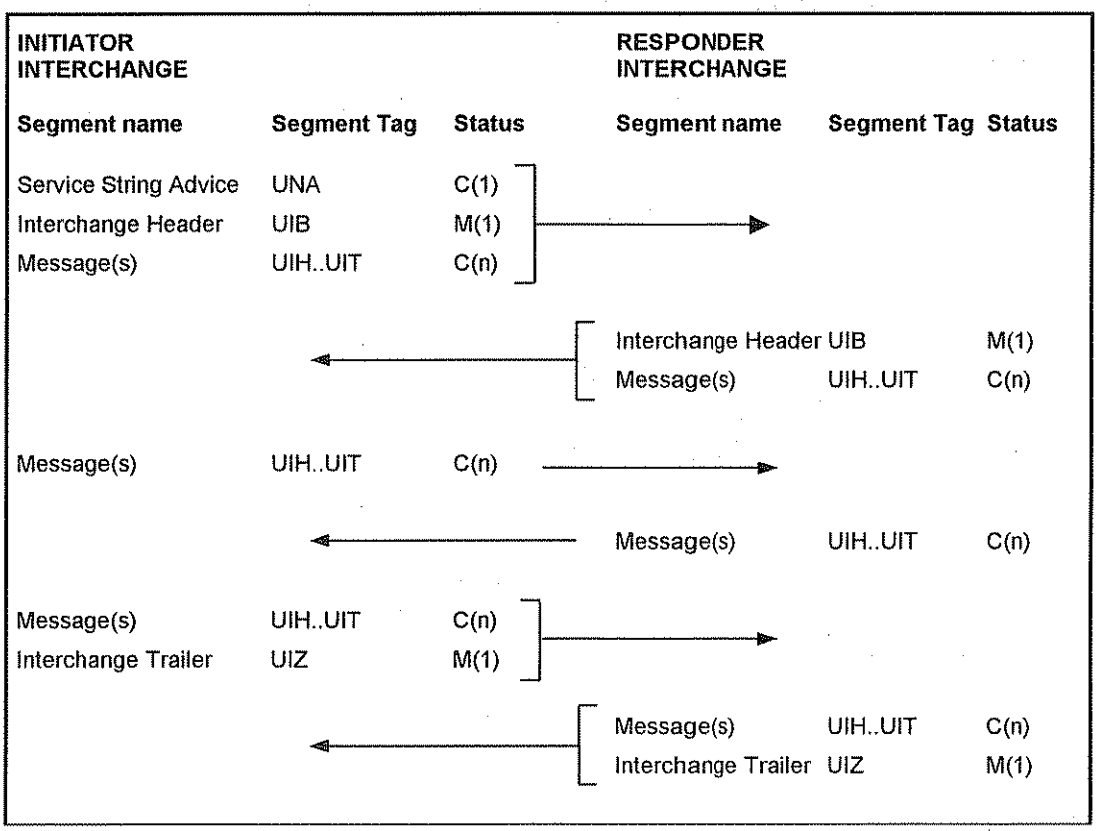


Figure 2 - Flow diagram of two I-EDI interchanges

The arrows in figure 2 indicate the direction of data flow. Note that UNA is only sent by initiator.

The status above indicates Mandatory (M) or Conditional (C), together with an indication of allowed repetition.

Annex A
(informative)
Examples illustrating segment sequences

Example a) Message pairs with first and final message combined with interchange header and trailer:

```
Initiator  UIB...UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIB...UIH...Segment(s) and/or Segment Group(s)...UIT
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
etc.
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT...UIZ
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT...UIZ
```

Example b) Message pairs with separate interchange header and trailer, and with UNA (Note that UNA is only sent by initiator, and therefore also applies to responder):

```
Initiator  UNA...UIB
Responder  UIB
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
etc.
Initiator  UIZ
Responder  UIZ
```

Example c) A single message combined with interchange header and trailer (a complete dialogue):

```
Initiator  UIB... UIH...Segment(s) and/or Segment Group(s)...UIT...UIZ
Responder  UIB... UIH...Segment(s) and/or Segment Group(s)...UIT...UIZ
```

Example d) Multi-message sequences with final message combined with interchange trailer:

```
Initiator  UIB
Responder  UIB
Initiator  UIH....Segment(s) and/or Segment Group(s)...UIT
Responder  UIH(F).Segment(s) and/or Segment Group(s)...UIT
           UIH(L).Segment(s) and/or Segment Group(s)...UIT

Initiator  UIH....Segment(s) and/or Segment Group(s)...UIT...UIZ
Responder  UIH....Segment(s) and/or Segment Group(s)...UIT...UIZ
```

Example e) Message pairs with separate interchange header and trailer, with UNA, and with embedded UIR pairs:

```
Initiator  UNA...UIB
Responder  UIB
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
etc.
Initiator  UIR...Report function, coded = 'n' (Query status) *
Responder  UIR...Report function, coded = 'n' (Status report) *
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
etc.
Initiator  UIZ
Responder  UIZ
```

Example f) Message pairs with separate interchange header and trailer, and with UNA. UIR used to report severe error detected by Responder:

```
Initiator  UNA...UIB
Responder  UIB
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIR...Report function, coded = 'n' (Abort dialogue) *
                 Reason code indicates problem area *
No further exchanges in this dialogue.
```

Example g) Dialogue unable to start. UIR used by Responder to report Start Dialogue Reject:

```
Initiator  UNA...UIB
Responder  UIR...Report function, coded = 'n' (Start dialogue reject) *
                 Reason code indicates problem area *
No further exchanges in this dialogue.
```

Example h) Message pairs with first and final message combined with interchange header and trailer, and using pause and continue:

```
Initiator  UIB...UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIB...UIH...Segment(s) and/or Segment Group(s)...UIT
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIR...Report function, coded = 'n' (Pause dialogue) *
                 Reason code indicates reason for pause; e.g. low resources *
No more data flows in dialogue until:-
Some time later...
Responder  UIR...Report function, coded = 'n' (Continue dialogue) *
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT
etc.
Initiator  UIH...Segment(s) and/or Segment Group(s)...UIT...UIZ
Responder  UIH...Segment(s) and/or Segment Group(s)...UIT...UIZ
```

* see Part 1 annex D for the applicable code values.

Annex B
(informative)

I-EDI functions, states and events

B.1 I-EDI functions

In the following sections, the word 'application' can mean either the main application program, or that part of the I-EDI handler which manages the I-EDI dialogue, depending upon the implementation. The word 'association' here refers to a logical relationship between two applications, not to any other meaning which may be used in other standards. Note that the following function points do not necessarily map to a single service segment or message.

Start dialogue request
Allows an application to pass sufficient information to a remote application to enable an association between the two applications to be initiated.

Start dialogue confirm
Allows the remote application to pass sufficient information to an initiating application to inform it that the association has been accepted.

Start dialogue reject
Allows the remote application to pass sufficient information to an initiating application to inform it that the association cannot be initiated.

Transfer data
Allows an application to pass business information to another application.

Request status
Allows an application to request status or control information from the other application, in the association.

Report status (reply)
Allows an application to send status or control information to the other application in the association. This can be sent as a reply to a request status, or as an unsolicited incident report.

Pause dialogue)
Allows an application to request that the dialogue be paused until the same application issues a continue dialogue.

Continue dialogue)
Allows an application to request that the dialogue that it has previously paused be continued.

Abort dialogue
Allows an application unconditionally to end an association when it is unable to continue with that association.

End dialogue request
Allows an application to request the other application in the association to close the association, typically at the normal end of a business transaction.

End dialogue confirm
Allows a responding application to confirm to the requesting application that the association is terminated.

Complete dialogue request
Allows an application to pass sufficient information to a remote application to enable an association between the two applications to be initiated, data to be sent, and the association termination requested in a single transfer.

Complete dialogue confirm
Allows the remote application to pass sufficient information to an initiating application to inform it that the association has been accepted, data has been returned, and the association has been terminated in a single transfer.

B.2 Data requirements

The following table indicates how the abstract I-EDI functions can be mapped to I-EDI service segments and messages. The S (Status) field indicates whether a segment is mandatory or conditional within an I-EDI function. The R field indicates the number of repetitions

Table 1 - Functions mapped to service segments

Functions	Segments	S	R
Start Dialogue Request	UNA	C	1
	UIB	M	1
	(UIH <data> UIT)	C	n
Start Dialogue Confirm	UIB	M	1
	(UIH <data> UIT)	C	n
Start Dialogue Reject	UIR	M	1
Transfer Data	UIH <data> UIT	M	n
Request Status	UIR	M	1
Report Status	UIR	M	1
Abort	UIR	M	1
End Dialogue Request	(UIH <data> UIT)	C	n
	UIZ	M	1
End Dialogue Confirm	(UIH <data> UIT)	C	n
	UIZ	M	1
Complete Dialogue Request	UNA	C	1
	UIB	M	1
	(UIH <data> UIT)	M	n
	UIZ	M	1
Complete Dialogue Confirm	UIB	M	1
	(UIH <data> UIT)	M	n
	UIZ	M	1

B.3 Sequencing of I-EDI functions

The I-EDI protocol is described in the following diagram and tables in terms of the states the protocol can be in, and the events which cause a transition from one state to another. As each event occurs the protocol "machine" moves automatically from state to state. The number of valid states the I-EDI protocol can be in is finite.

The dialogue state diagram (figure 3) shows the states of the I-EDI protocol, the events affecting the I-EDI protocol, and the transitions from state to state. This is further formalised as a state-event matrix (table 4) which is a two dimensional representation of the I-EDI protocol machine. The two dimensions are states and events, and the intersection of state and event gives the transition to the next state for that particular event; all other events are error conditions.

B.3.1 State

At any instant, the I-EDI protocol can be said to be in one of a finite number of states. The table below lists the valid states for the I-EDI protocol and describes the purpose of the state.

Table 2 - States

State	Description
IDLE	No association exists and no responses are outstanding
START_I	Waiting for 'Start Dialogue Confirm' from responder to initiator
DATA_I	Waiting for 'Transfer Data' from responder to initiator
DATA_R	Waiting for 'Transfer Data' from initiator to responder
REPORT_I	Waiting for 'Report Status' from responder to initiator
REPORT_R	Waiting for 'Report Status' from initiator to responder
STOP_I	Waiting for 'End Dialogue Confirm' from responder to initiator
CMPL_I	Waiting for 'Complete Dialogue Confirm' from responder to initiator

B.3.2 Event

The following table lists the valid events for the I-EDI protocol and describes the conditions attached to those events. These events are usually caused by data objects or control objects being transferred through the protocol handler.

Table 3 - Events

Event	Function	Direction
SD_REQ_I	Start Dialogue Request	From Initiator to Responder
SD_CNF_R	Start Dialogue Confirm	From Responder to Initiator
SD_REJ_R	Start Dialogue Reject	From Responder to Initiator
TR_DATA_I	Transfer Data	From Initiator to Responder
TR_DATA_R	Transfer Data	From Responder to Initiator
ED_REQ_I	End Dialogue Request	From Initiator to Responder
ED_CNF_R	End Dialogue Confirm	From Responder to Initiator
ABORT_I	Abort Dialogue	From Initiator to Responder
ABORT_R	Abort Dialogue	From Responder to Initiator
REQUEST_I	Request Status	From Initiator to Responder
REQUEST_R	Request Status	From Responder to Initiator
REP_ST_I	Report Status	From Initiator to Responder
REP_ST_R	Report Status	From Responder to Initiator
CD_REQ_I	Complete Dialogue Request	From Initiator to Responder
CD_CNF_R	Complete Dialogue Confirm	From Responder to Initiator

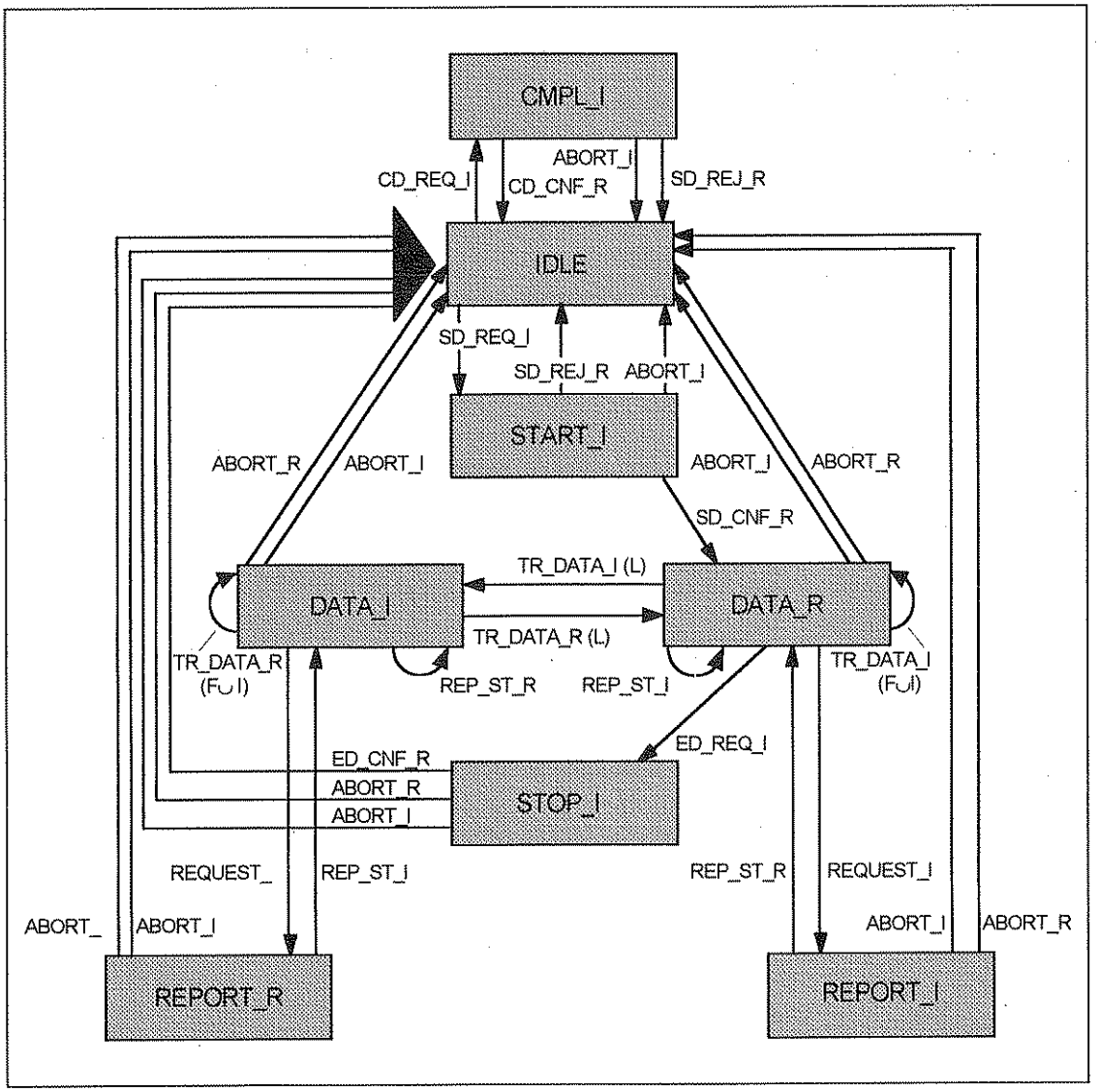


Figure 3 - Dialogue state diagram

Legend:	**Means**
(F ∪ I)	First or Intermediate message
(L)	Last message
_I suffix	Initiator
_R suffix	Responder

Table 4 - State-event matrix

State / Event	IDLE	START_I	DATA_I	DATA_R	STOP_I	CMPL_I	REPORT_I	REPORT_R
SD_REQ_I	START_I							
SD_CNF_R		DATA_R						
SD_REJ_R		IDLE				IDLE		
TR_DATA_I(F∪I)				DATA_R				
TR_DATA_I(L)				DATA_I				
TR_DATA_R(F∪I)			DATA_I					
TR_DATA_R(L)			DATA_R					
ED_REQ_I				STOP_I				
ED_CNF_R					IDLE			
ABORT_I		IDLE	IDLE*	IDLE	IDLE*	IDLE	IDLE*	IDLE
ABORT_R			IDLE	IDLE*	IDLE		IDLE	IDLE*
REQUEST_I				REPORT_I				
REQUEST_R			REPORT_R					
REP_ST_I				DATA_R				DATA_I
REP_ST_R			DATA_I				DATA_R	
CD_REQ_I	CMPL_I							
CD_CNF_R						IDLE		

Notes:

* Might not be possible if communication medium is half-duplex.

Annex C
(informative)

A model of the I-EDI process

C.1 Summary of I-EDI

Interactive EDI is a series of exchanges of information between the applications of independent parties in order to accomplish a joint task, where subsequent exchanges may depend upon the results of previous exchanges. Strict timing constraints frequently apply. Applications which are inherently interactive include airline reservation systems; healthcare pharmacy, claims submission and eligibility verification; and remote automated teller machines for banks.

Initially, Interactive EDI is aimed at those applications where the initiating party, sends data to the responder, and the responder sends data back in reply. This alternate exchange of data controlled by the initiator is by far the most common way of working among existing interactive applications, but the I-EDI syntax does not exclude other modes of working.

The definition of interactive EDI depends upon the definition of EDI in general. The approach taken towards EDI in this document has been based on the "Report on the Open-edi Conceptual Model" prepared by the EDI Special Working Group of ISO/IEC JTC 1. Characteristics of the "Open-edi Conceptual Model" include:

- Generalising EDI beyond trade.
- Defining EDI as "open" (available to all parties, according to standards and without requiring special bipartite agreements).
- Co-ordinating EDI with other international standards in communications, modelling and open environments.

Two major elements of the business context of EDI have made the development of interactive EDI necessary. The first is pressure from the market on many organizations (not just in the private sector) for more competitive, more responsive performance. Many fundamental processes must, in fact, be "re-modelled" to respond to these pressures. The second element is the desire for standard solutions, in contrast to the current proprietary (and therefore "non-Open-edi") situations.

The following guiding principles were adopted in defining I-EDI requirements:

- Ease of user implementation is paramount and standards should define their elements accordingly.
- Interactive EDI mechanisms should be fully compatible with and where possible identical to those for other forms of EDI.
- The required functions should be available no matter what communications methods are used.
- Wherever equivalent functions are available in the underlying communications protocols (e.g. X.25, OSI Transaction Processing) they may be used.
- EDI standards should be fully harmonised with all other relevant international standards.

The business and functional models, and the contents of the information required in interactive EDI service segments, have been described below, to present the characteristics and requirements of interactive EDI independently of an underlying architecture. It is recommended though, but not mandatory, that the relevant ISO protocols be used to carry I-EDI data.

C.2 Business requirements of Interactive EDI

- Enable consistent completion of a single business transaction between two or more business partners.
- Interactive conversational activities must be supported.
- Provide for the handling of high volumes of business information, in a timely manner .
- Provide the means for business information to be passed securely between business partners.

C.3 Functional requirements to support business requirements

Within a business transaction:

- Enable co-operation between applications.
- Enable multiple bilateral conversations.
- Enable the co-ordination of bilateral conversations.
- Enable cascading of bilateral conversations.
- Enable the two way exchange of I-EDI messages within a bilateral conversation.
- Provide efficient mechanisms to allow for sub-second response times.
- Support high transaction volumes through reduced overhead.
- Security shall be provided by common UN/EDIFACT security, or other standards.

C.4 Business model

The I-EDI dialogue is separate from and independent of, dialogue as a term used in other ISO documents.

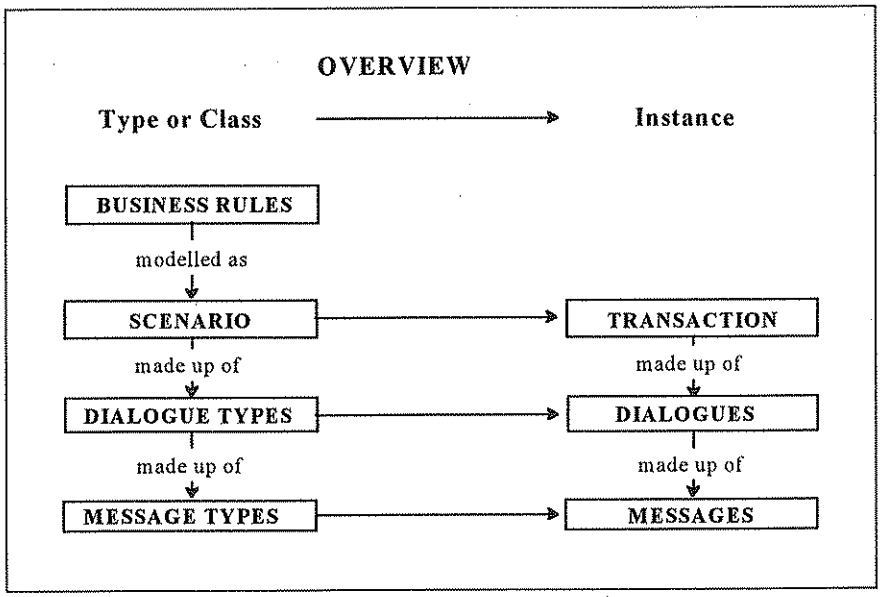


Figure C.1 - Overview of types and instances

A scenario is a formal specification of a group of business activities that take place between parties to achieve a particular business objective. A scenario models the relationships and interactions among the parties.

A *transaction* is an instance of a *scenario*. When roles are played in a *scenario* to execute an actual business transaction, a *transaction* is created. *Transactions* are outlined here simply to clarify the context of the *dialogue*.

In order to carry out a *transaction* the various parties involved in the business transaction communicate bilaterally using *dialogues* for the I-EDI part of the *transaction*. *Transactions* have the potential of grouping a number of *dialogues*. But many *scenarios* can be modelled which contain only a single *dialogue type* between two parties, an instance of which is a *transaction* containing only a single *dialogue* between two parties.

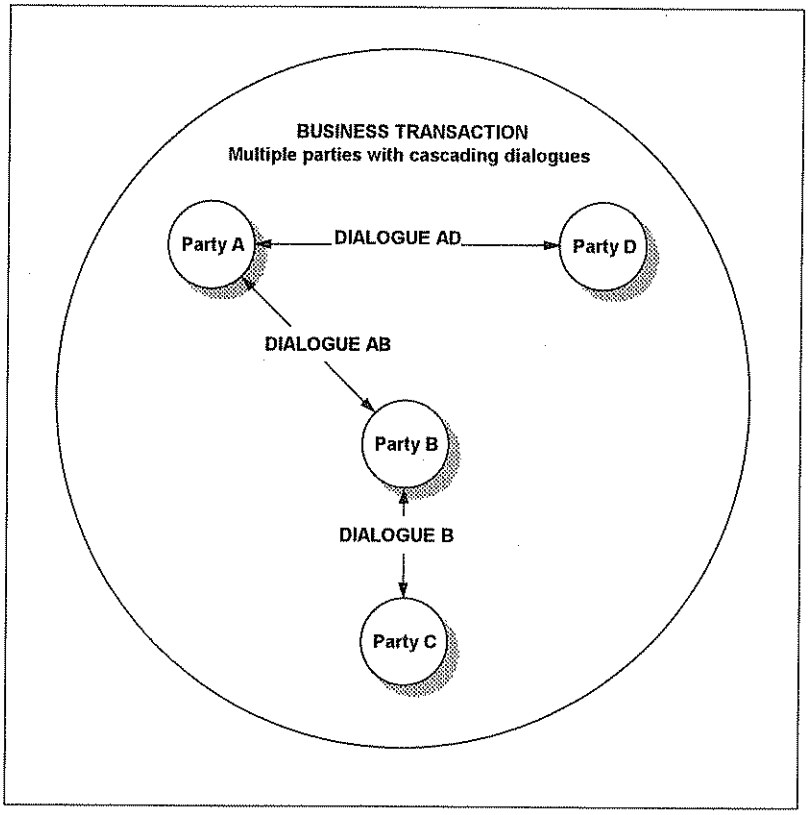


Figure C.2 - Illustration of a business transaction

Dialogues can be grouped together within the same transaction. Multiple dialogues can take place between the same or different pairs of parties.

C.5 Functional Model

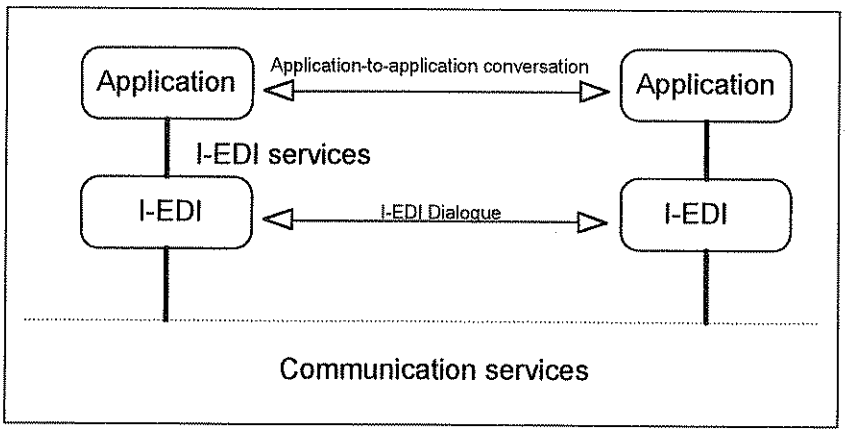


Figure C.3 - Dialogue

C.6 Minimum communication requirements

The communications must:

- be error free.
- deliver data in the order in which it was transmitted.
- allow bi-directional data flows.
- provide detection and reporting of lost logical associations.
- provide a persistent logical association between applications (e.g. session, conversation, etc.). Each I-EDI dialogue would then have its own unique logical association. If this requirement cannot be met, implementors will have to deal with problems associated with separators and character set recognition.

C.7 Data requirements

The following list is an attempt to provide a list of the data which are needed to perform the named functions. The list was used for modelling the service segments but the presence of a function here does not necessarily guarantee the existence of a unique service segment, as some service segments perform multiple functions.

Start dialogue request; (UNA, UIB and optional message)

- Separator characters
- Character set
- Syntax identifier
- Dialogue reference
- Business transaction reference
- Scenario identifier
- Dialogue identifier
- Sender identifier
- Recipient identifier
- Date and time
- Duplicate indicator
- Test indicator
- Security information

Start dialogue confirm; (UIB and optional message)

- Syntax identifier
- Dialogue reference
- Business transaction reference
- Scenario identifier
- Dialogue identifier
- Sender identifier
- Recipient identifier
- Date and time
- Duplicate indicator
- Test indicator
- Response information
- Security information

Send data; (Message = UIH, query or command, UIT)
- Message identifier or type
- Message reference
- Dialogue reference
- Status of transfer
- Date and time
- Test Indicator

Receive data; (Message = UIH, response, UIT)
- Message identifier or type
- Message reference
- Dialogue reference
- Status of transfer
- Date and time
- Test Indicator

Request status; (UIR)
- Dialogue reference
- Function (= Query)
- Date and time

Report status; (UIR)
- Dialogue reference
- Function (= Report)
- Reason code
- Other information from message in error
- Date and time

Start dialogue reject; (UIR)
- Dialogue reference
- Function (= Start dialogue reject)
- Reason code
- Other information from dialogue in error
- Date and time

Pause dialogue; (UIR)
- Dialogue reference
- Function (= Paused)
- Reason code
- Date and time

Continue dialogue; (UIR)
- Dialogue reference
- Function (= Continue)
- Date and time

Abort; (UIR)
- Dialogue reference
- Function (= Abort dialogue)
- Reason code
- Other Information from message in error
- Date and time

End dialogue request; (optional message and UIZ)
- Dialogue reference
- Control count of messages sent
- Duplicate indicator

End dialogue confirm; (optional message and UIZ)
- Dialogue reference
- Control count of messages sent

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Centre for the Facilitation of Procedures and Practices
for Administration, Commerce and Transport (CEFACT)
Meeting of Experts on Data Elements
and Automatic Data Interchange (GE.1)
Fifty-fourth session, 16-17 September 1998
Item 2 of the provisional agenda

ELECTRONIC DATA INTERCHANGE FOR ADMINISTRATION, COMMERCE AND TRANSPORT - (EDIFACT) APPLICATION LEVEL SYNTAX RULES

Part 8: Associated data in EDI

***

Submitted by the Syntax Development Group

The following note should appear on the cover page:

This document is not for implementation. It has been submitted into the "fast track" standards approval process of the International Organization for Standardization (ISO). Upon its approval as an ISO standard, it will be published as soon as possible by CEFACT for implementation.

* Submitted by the secretariat, at the request of GE.1 at its September 1997 session (see TRADE/CEFACT/GE.1/1997/11, paragraph 25.

ISO 9735-8

1997-10-01

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

(Syntax version number: 4)

Part 8:
Associated data in EDI

Contents

Foreword

(To be amended as necessary, according to ISO procedures)

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 approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75% approval by the member bodies voting.

Version 4 of this International Standard ISO 9735 was prepared by the UN/ECE Trade Division (as UN/EDIFACT) and was adopted, under the "fast-track procedure" as an existing standard, by Technical Committee ISO TC 154, *Documents and data elements in administration; commerce and industry.*

ISO 9735 consists (currently) of the following parts, under the general title *Electronic data interchange for administration, commerce and transport (EDIFACT) - Application level syntax rules:*

- *ISO 9735-1* - *Syntax rules common to all parts, together with syntax service directories for each of the parts*
- *ISO 9735-2* - *Syntax rules specific to batch EDI*
- *ISO 9735-3* - *Syntax rules specific to interactive EDI*
- *ISO 9735-4* - *Syntax and service report message for batch EDI (message type - CONTRL)*
- *ISO 9735-5* - *Security rules for batch EDI (authenticity, integrity and non-repudiation of origin)*
- *ISO 9735-6* - *Secure authentication and acknowledgement message (message type - AUTACK)*
- *ISO 9735-7* - *Security rules for batch EDI (confidentiality)*
- *ISO 9735-8* - *Associated data in EDI*
- *ISO 9735-9* - *Security key and certificate management message (message type - KEYMAN)*
- *ISO 9735-10* - *Security rules for interactive EDI*

Further parts may be added in the future.

Introduction

This International Standard 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 the 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 shall comply with the message design rules for batch or interactive usage as applicable. These rules are maintained in the UNTDID.

Communications specifications and protocols are outside the scope of this standard.

This is a new part, which has been added to ISO 9735. It provides an optional capability of associating a package of data, which contains an object bounded by EDIFACT service segments as envelopes.

The option permits the transfer within an EDIFACT interchange of data which can be created by other applications, such as STEP (Standard for The Exchange of Product model data), CAD (Computer Aided Design), etc., and which cannot be carried by means of an EDIFACT message.

Within an interchange, packages may be contained in groups, which may contain messages and packages, or only packages. Lastly, an interchange may contain solely a package (or packages).

Package(s) transferred in an EDIFACT interchange may or may not be related to an EDIFACT message (or messages) contained in the same or a different interchange.

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

Part 8:
Associated data in EDI

1 Scope

This part of ISO 9735 specifies syntax rules for associated data in EDI to be interchanged between computer application systems. This provides a method to transfer data which cannot be carried by means of either a batch or interactive EDIFACT message. The data may be created by other applications (such as STEP, CAD, etc.), and is referred to in this part as associated data.

2 Conformance

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 International Standard.

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

Conformance to this part shall include conformance to Part 1, and conformance to Part 2 or Part 3 of this International Standard.

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

3 Normative references

There are no other standards which, through reference in this text, constitute provisions of this part of this International Standard.

4 Definitions

For the purpose of this part of this International Standard, the definitions in Part 1 annex A apply.

5 Associated data within an EDI interchange

5.1 Associated data within a batch EDI interchange

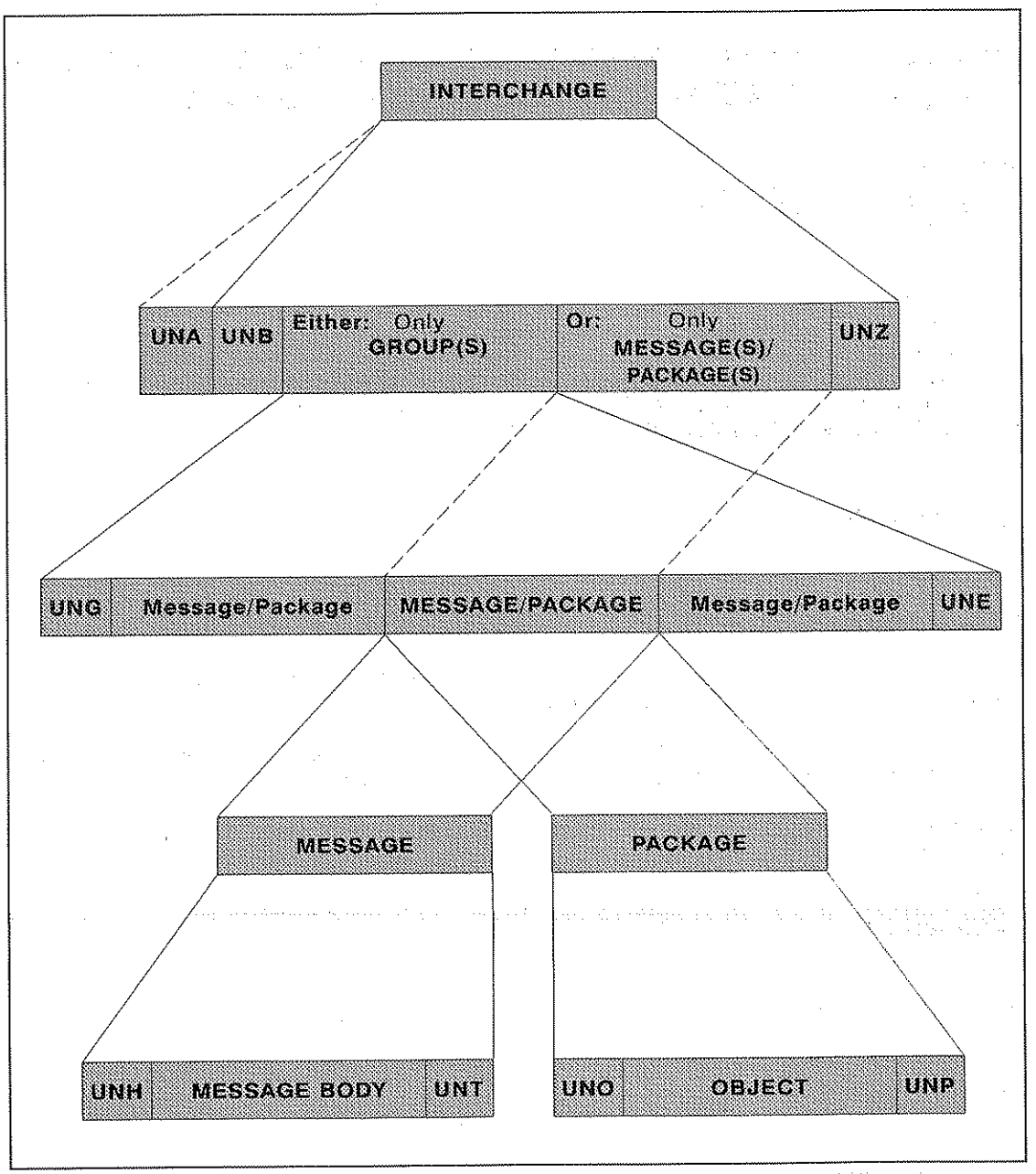


Figure 1a - Associated data within a batch EDI interchange (Schematic)

An **INTERCHANGE** contains:
- UNA, Service String Advice, if used.
- UNB, Interchange Header
- Either: Only group(s) Or: Only message(s) and/or package(s)
- UNZ, Interchange Trailer

A **GROUP** contains:
- UNG, Group Header
- message(s) and/or package(s)
- UNE, Group Trailer

A **MESSAGE** contains:
- UNH, Message Header
- a message body
- UNT, Message Trailer

A **PACKAGE** contains:
- UNO, Object Header
- an object
- UNP, Object Trailer

A **MESSAGE BODY** contains:
- segment(s) and/or segment group(s)

An **OBJECT** contains:
- a stream of octets

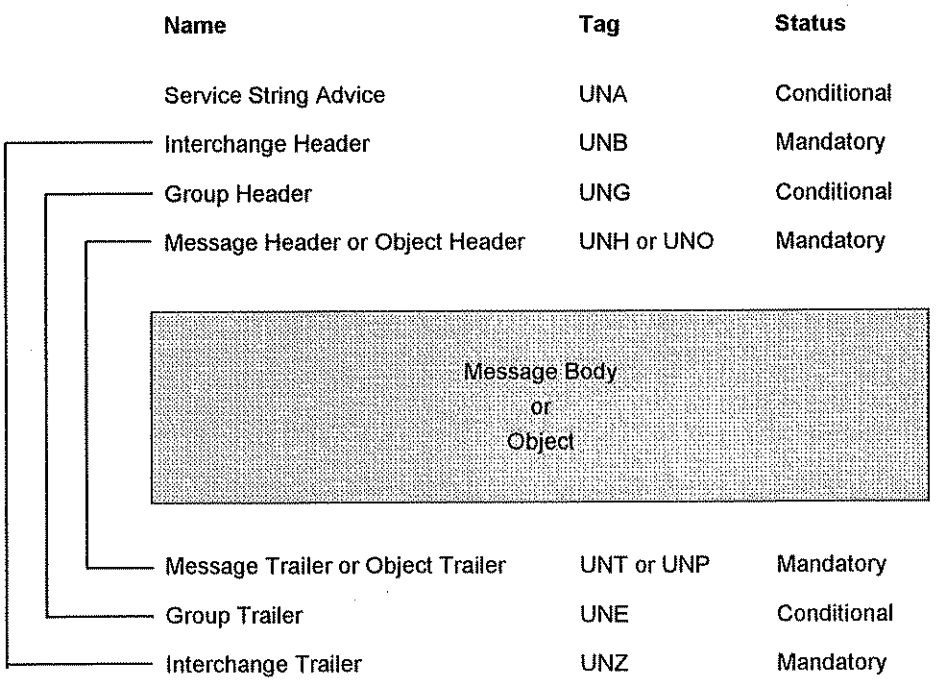
Figure 1b - Associated data within a batch EDI interchange (Legend)

5.1.1 Structures for batch EDI

An interchange shall contain only:

- Messages, or
- Packages, or
- Messages and Packages, or
- Groups containing messages, or
- Groups containing packages, or
- Groups containing messages and packages.

The service string advice (if used) and the header and trailer service segments shall appear in a batch EDI interchange in the order shown below:



In the diagram above, the lines to the left show the pairing of header and trailer segments. For simplicity, an interchange containing only one group and one message/package is shown.

For the specification of the service string advice see Part 1 annex B.

For the specification of the header and trailer segments see Part 1 annex C.

NOTE - Segments for use in UN/EDIFACT messages are defined in the United Nations Trade Data Interchange Directory (UNTDID).

5.2 Associated data within an interactive EDI interchange

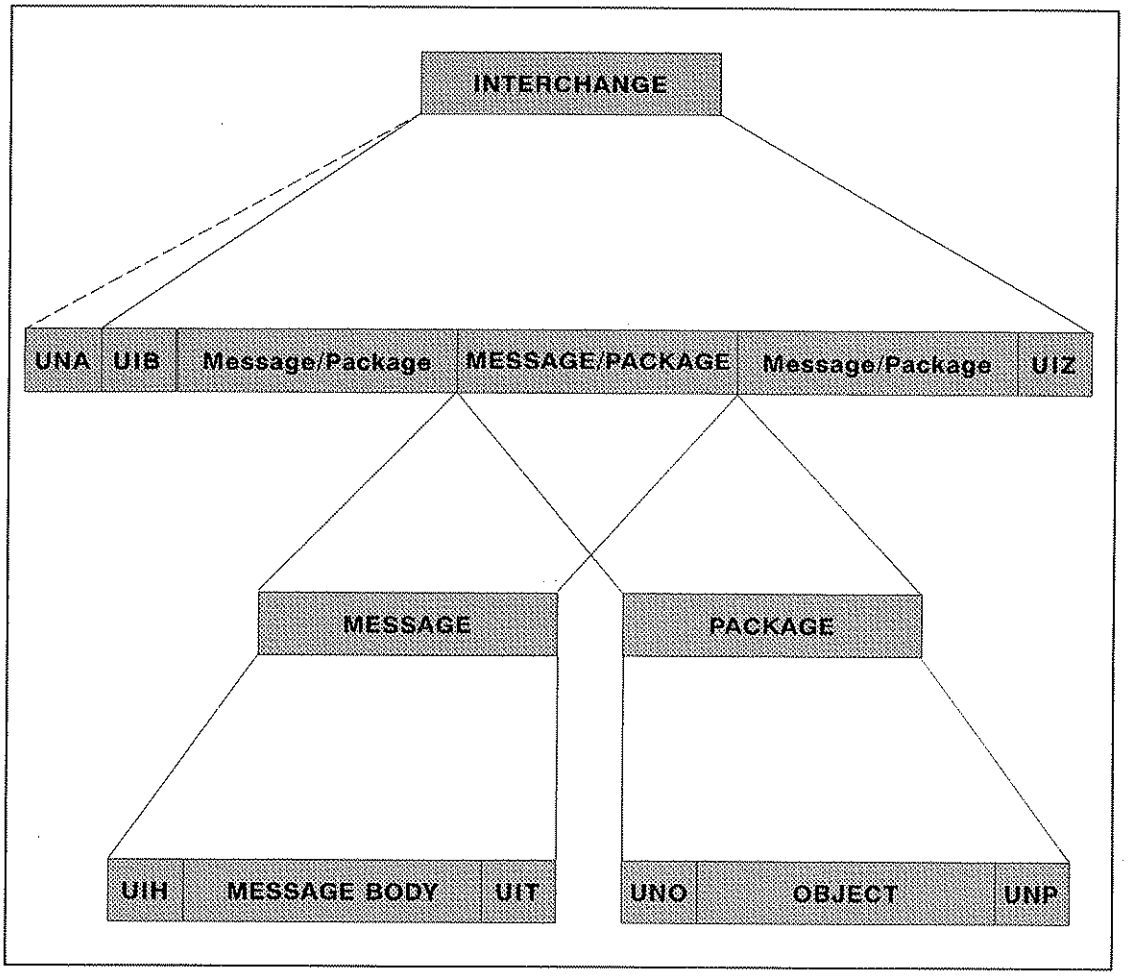


Figure 2a - Associated data within an interactive EDI interchange (Schematic)

An **INTERCHANGE** contains:
- UNA, Service String Advice, if used the Initiator interchange
- UIB, Interactive Interchange Header
- message(s)/package(s)
- UIZ, Interactive Interchange Trailer

A **MESSAGE** contains:
- UIH, Interactive Message Header
- a message body
- UIT, Interactive Message Trailer

A **PACKAGE** contains:
- UNO, Object Header
- an object
- UNP, Object Trailer

A **MESSAGE BODY** contains:
- segment(s) and/or segment group(s)

An **OBJECT** contains:
- a stream of octets

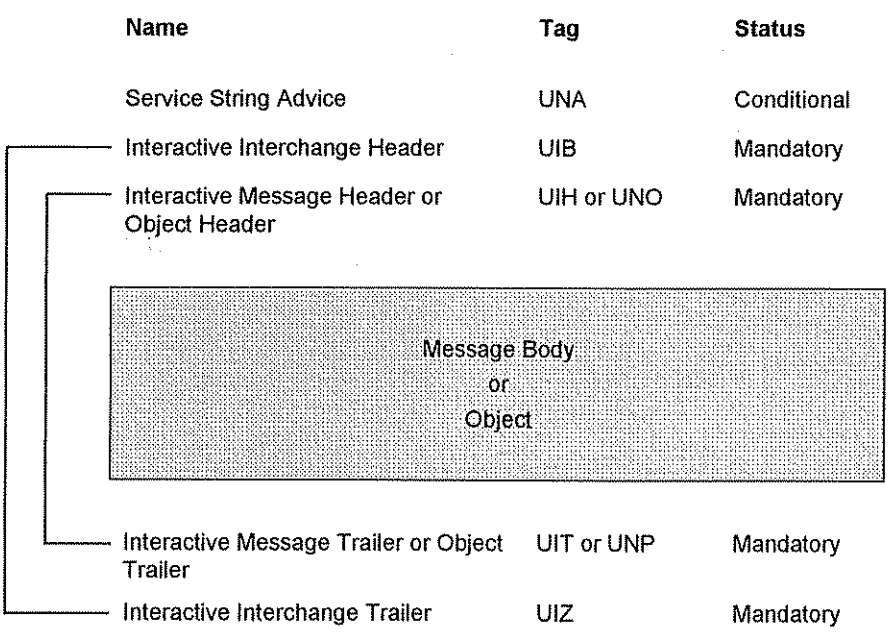
Figure 2b - Associated data within an interactive EDI interchange (Legend)

5.2.1 Structures for interactive EDI

An interactive interchange shall contain only:

- Messages, or
- Packages, or
- Messages and Packages.

The service string advice (if used) and the header and trailer service segments shall appear in an interactive EDI interchange in the order shown below:



In the diagram above, the lines to the left show the pairing of header and trailer segments. For simplicity, an interchange containing only one message/package is shown.

For the specification of the service string advice see Part 1 annex B.

For the specification of the interactive interchange; interactive message; and object; header and trailer segments, see Part 1 annex C.

NOTE - Segments for use in UN/EDIFACT messages are defined in the United Nations Trade Data Interchange Directory (UNTDID).

5.3 Package content

A package shall comprise an object header segment (UNO), an object, and an object trailer segment (UNP).

The character repertoire of an object is not governed by the character repertoire identified in the interchange header.

Data presented as an object shall not be governed by the syntax rules (e.g.. should any service characters appear in the object, they shall not be preceded by the syntax release character).

5.4 Object referencing

To convey objects within the interchange structure, there is a requirement to provide adequate referencing capabilities properly to relate the object(s) and the associated message(s).

Reference to the object following the UNO segment shall be made by specifying its object identification number in S020 of the UNO segment.

Note: For UN/EDIFACT messages an RFF segment shall be used to identify the object identification number attributable to one object. The object identification number assigned should be unique for a sufficient time to avoid any confusion. There may be many RFF segment occurrences used to identify all applicable objects.

本書ついてのお問い合わせ、またはご入手ご希望の際は、下記事務局へご連絡下さい。

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本書は財団法人日本海運振興会の補助金により作成したものです。

UN／EDIFACT 関連規則 I

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〒105-0012　東京都港区芝大門2-10-1
第一大門ビル
電　話　(03)3437-6135（代）
ﾌｧｸｼﾐﾘ　(03)3437-6136

internet：jastpro@red.an.egg.or.jp
