

English Version

Electronic invoicing - Part 3-4: Syntax binding for UN/EDIFACT INVOIC D16B

Facturation électronique - Partie 3-4 : Correspondance
syntaxique pour les factures - Schéma D16B
UN/EDIFACT

Elektronische Rechnungsstellung - Teil 3-4: Umsetzung
in die Syntax UN/EDIFACT INVOIC D16B

This Technical Specification (CEN/TS) was approved by CEN on 22 December 2019 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (CEN/TS 16931-3-4:2020) has been prepared by Technical Committee CEN/TC 434 “Electronic invoicing”, the secretariat of which is held by NEN.

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

This document supersedes CEN/TS 16931-3-4:2017.

The only change compared to the previous edition is the addition of a new annex, Annex A. This Annex defines the code lists to be used.

This document is part of a set of documents, consisting of:

- EN 16931-1:2017+A1:2019, *Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice*
- CEN/TS 16931-2:2017, *Electronic invoicing - Part 2: List of syntaxes that comply with EN 16931-1*
- CEN/TS 16931-3-1:2017, *Electronic invoicing - Part 3 - 1: Methodology for syntax bindings of the core elements of an electronic invoice*
- CEN/TS 16931-3-2:2020, *Electronic invoicing - Part 3 - 2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note*
- CEN/TS 16931-3-3:2020, *Electronic invoicing - Part 3 - 3: Syntax binding for UN/CEFACT XML Cross Industry Invoice D16B*
- CEN/TS 16931-3-4:2020, *Electronic invoicing - Part 3 - 4: Syntax binding for UN/EDIFACT INVOIC D16B*
- CEN/TR 16931-4:2017, *Electronic invoicing - Part 4: Guidelines on interoperability of electronic invoices at the transmission level*
- CEN/TR 16931-5:2017, *Electronic invoicing - Part 5: Guidelines on the use of sector or country extensions in conjunction with EN 16931-1, including a methodology to be applied in the real environment*
- CEN/TR 16931-6:2017, *Electronic invoicing - Part 6: Result of the test of the European standard with respect to its practical application for an end user - Testing methodology*

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The European Commission estimates that “The mass adoption of e-invoicing within the EU would lead to significant economic benefits and it is estimated that moving from paper to e-invoices will generate savings of around EUR 240 billion over a six-year period”¹. Based on this recognition “The Commission wants to see e-invoicing become the predominant method of invoicing by 2020 in Europe.”

As a means to achieve this goal, Directive 2014/55/EU [5] on electronic invoicing in public procurement aims at facilitating the use of electronic invoices by economic operators when supplying goods, works and services to the public administration (B2G), as well as the support for trading between economic operators themselves (B2B). In particular, it sets out the legal framework for the establishment and adoption of a European standard (EN) for the semantic data model of the core elements of an electronic invoice (EN 16931-1).

In line with Directive 2014/55/EU [5], and after publication of the reference to EN 16931-1 in the Official Journal of the European Union, all contracting public authorities and contracting entities in the EU will be obliged to receive and process an e-invoice as long as:

- it is in conformance with the semantic content as described in EN 16931-1;
- it is represented in any of the syntaxes identified in CEN/TS 16931-2, in accordance with the request referred to in paragraph 1 of Article 3 of the Directive 2014/55/EU;
- it is in conformance with the appropriate mapping defined in the applicable subpart of CEN/TS 16931-3.

The semantic data model of the core elements of an electronic invoice – the core invoice model – as described in EN 16931-1 is based on the proposition that a limited, but sufficient set of information elements can be defined that supports generally applicable invoice-related functionalities.

This CEN Technical Specification CEN/TS 16931-3-4 defines the binding of the core elements of the invoice to the ISO 9735 syntax (UN/EDIFACT). Other subparts of this CEN Technical Specifications define the binding method (CEN/TS 16931-3-1) and map the core invoice model to other syntaxes such as ISO/IEC 19845 (UBL 2.1) (CEN/TS 16931-3-2) and the Cross Industry Invoice of UN/CEFACT XML (CEN/TS 16931-3-3).

By ensuring interoperability of electronic invoices, the European standard and its ancillary European standardization deliverables will serve to remove market barriers and obstacles to trade deriving from the existence of different national rules and standards – and thus contribute to the goals set by the European Commission

¹ See <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0712:FIN:en:PDF>.

1 Scope

This document specifies the mapping between the semantic model of an electronic invoice, included in EN 16931-1 and the ISO 9735 (UN/EDIFACT) syntax. For each element in the semantic model (including sub-elements or supplementary components such as Identification scheme identifiers) it is defined which element in the syntax is to be used to contain its information contents. Any mismatches between semantics, format, cardinality or structure are indicated.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9735 (all parts), *Electronic data interchange for administration, commerce and transport (EDIFACT) – Application level syntax rules*

EN 16931-1, *Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/ui>

3.1 electronic invoice

invoice that has been issued, transmitted and received in a structured electronic format which allows for its automatic and electronic processing

[SOURCE: Directive 2014/55/EU [5]]

3.2 semantic data model

structured set of logically interrelated information elements

3.3 information element

semantic concept that can be defined independent of any particular representation in a syntax

3.4 syntax

machine-readable language or dialect used to represent the information elements contained in an electronic document (e.g. an electronic invoice)

3.5 business term

label assigned to a given information element which is used as a primary reference

3.6**core invoice model**

semantic data model of the Core elements of an electronic invoice

3.7**core elements of an electronic invoice**

set of essential information elements that an electronic invoice may contain in order to enable cross-border interoperability, including the necessary information to ensure legal compliance

3.8**identifier**

character string used to establish the identity of, and distinguish uniquely, one instance of an object within an identification scheme from all other objects within the same scheme

Note 1 to entry: An identifier may be a word, number, letter, symbol, or any combination of those

3.9**identification scheme**

collection of identifiers applicable for a given type of object governed under a common set of rules

4 Syntax binding to UN/EDIFACT**4.1 Introduction**

UN/EDIFACT (ISO 9735) is a syntax for electronic data interchange for administration, commerce and transport. UN/EDIFACT constructs are character strings in which the content of data elements is separated by tags and delimiters. UN/EDIFACT has a hierarchical structure where the top level is referred to as an interchange, and lower levels contain multiple messages which consist of segments, which in turn consist of composites. The final iteration is an element which is derived from the United Nations Trade Data Element Directory (UNTDDED); these are normalized throughout the UN/EDIFACT standard².

The United Nations Economic Commission for Europe (UNECE), since the 1980s supported a number projects to enable trade based on electronic messaging – UN/CEFACT and specific Recommendations

In UN/CEFACT, standard messages using the UN/EDIFACT syntax (ISO 9735) were developed by various working groups across the globe to facilitate administration, commerce and transport. These messages mimicked standard paper documents used in everyday business transactions and were called United Nations Standard Message types (UNSMs). Today these UNSMs are the most widely used e-messages across the globe. UNSMs are built using the United Nations Trade Data Elements Directory (UNTDDED) with reusable elements, code sets, standard composites and segments which can be configured to meet the function of a particular message such as an Invoice.

In the IT UNECE Trade Facilitation process, formal guidance is provided by publishing Recommendations. These Recommendations cover a wide variety of topics but some are specific to electronic messaging.

For more information please refer to <http://www.unece.org/cefact/EDIFACT/welcome.html>

² <http://www.unece.org/fileadmin/DAM/trade/untdid/texts/d423.htm>