



BSI Standards Publication

## Electronic invoicing

---

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

## National foreword

This Published Document is the UK implementation of CEN/TS 16931-3-4:2020. It supersedes PD CEN/TS 16931-3-4:2017, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee IST/47/-/2, E-invoicing.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2020  
Published by BSI Standards Limited 2020

ISBN 978 0 539 05436 1

ICS 35.240.20; 35.240.63

**Compliance with a British Standard cannot confer immunity from legal obligations.**

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 May 2020.

### Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

---

TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**CEN/TS 16931-3-4**

April 2020

ICS 35.240.20; 35.240.60

Supersedes CEN/TS 16931-3-4:2017

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.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of 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 United Kingdom.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>		Page
<b>European foreword</b> .....		4
<b>Introduction</b> .....		5
<b>1</b>	<b>Scope</b> .....	6
<b>2</b>	<b>Normative references</b> .....	6
<b>3</b>	<b>Terms and definitions</b> .....	6
<b>4</b>	<b>Syntax binding to UN/EDIFACT</b> .....	7
<b>4.1</b>	<b>Introduction</b> .....	7
<b>4.2</b>	<b>Data types</b> .....	8
<b>4.3</b>	<b>Codes and identifiers</b> .....	11
<b>4.4</b>	<b>Mapping the Invoice model</b> .....	12
<b>4.5</b>	<b>Validation artefacts</b> .....	129
<b>5</b>	<b>Mismatches</b> .....	129
<b>5.1</b>	<b>Semantic level</b> .....	129
<b>5.2</b>	<b>Structural level</b> .....	129
<b>5.3</b>	<b>Cardinality level</b> .....	129
<b>Annex A (normative) Code lists</b> .....		130
<b>A.1</b>	<b>Introduction</b> .....	130
<b>A.2</b>	<b>Code lists</b> .....	130
<b>A.2.1</b>	<b>ISO 3166-1 — Country Codes</b> .....	130
<b>A.2.2</b>	<b>ISO 4217 — Currency codes</b> .....	130
<b>A.2.3</b>	<b>ISO/IEC 6523 — Identifier scheme code</b> .....	131
<b>A.2.4</b>	<b>UNTDID 1001 — Document type</b> .....	132
<b>A.2.5</b>	<b>UNTDID 1153 — Reference code qualifier</b> .....	133
<b>A.2.6</b>	<b>VAT Identifier</b> .....	134
<b>A.2.7</b>	<b>VAT Category code</b> .....	134
<b>A.2.8</b>	<b>UNTDID 2005/ UNTDID 2475 — Event time code</b> .....	135
<b>A.2.9</b>	<b>UNTDID 4451 — Text subject qualifier</b> .....	135
<b>A.2.10</b>	<b>UNTDID 4461 — Payment means</b> .....	136
<b>A.2.11</b>	<b>UNTDID 5305 — Duty or tax or fee category</b> .....	136
<b>A.2.12</b>	<b>UNTDID 5189 — Allowance codes</b> .....	137
<b>A.2.13</b>	<b>UNTDID 7143 — Item type identification code</b> .....	138
<b>A.2.14</b>	<b>UNTDID 7161 — Charge codes</b> .....	138
<b>A.2.15</b>	<b>Mime type codes — Mime codes</b> .....	138
<b>A.2.16</b>	<b>CEF EAS — Electronic address scheme identifier</b> .....	139
<b>A.2.17</b>	<b>CEF VATEX — VAT exemption reason code</b> .....	139

<b>A.2.18 UN/ECE Recommendation N°20 and UN/ECE Recommendation N°21 — Unit codes.....</b>	<b>140</b>
<b>A.3 International registration authority for ISO/IEC 6523.....</b>	<b>140</b>
<b>A.4 UN/Cefact: new code request / code change request.....</b>	<b>148</b>
<b>Annex B (informative) Examples .....</b>	<b>152</b>
<b>B.1 Introduction .....</b>	<b>152</b>
<b>B.2 Invoice with multiple line items.....</b>	<b>152</b>
<b>B.3 IT equipment.....</b>	<b>167</b>
<b>B.4 Subscription.....</b>	<b>182</b>
<b>B.5 Domestic payment.....</b>	<b>186</b>
<b>B.6 Maximum content.....</b>	<b>191</b>
<b>B.7 Minimum content .....</b>	<b>202</b>
<b>B.8 Taxes .....</b>	<b>206</b>
<b>B.9 Electricity.....</b>	<b>210</b>
<b>B.10 Licenses.....</b>	<b>221</b>
<b>Bibliography .....</b>	<b>225</b>

## 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”<sup>1</sup>. 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

---

<sup>1</sup> 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