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Railway applications - Technical documents - Part 4: Data exchange

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.06.2023.	Date of Availability of the European standard is 07.06.2023.
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ICS 01.100.01, 35.240.60, 45.020

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15016-4

June 2023

ICS 01.100.01; 35.240.60; 45.020

Supersedes EN 15016-4:2006

English Version

Railway applications - Technical documents - Part 4: Data exchange

Applications ferroviaires - Documents techniques - Partie 4 : Échange des données

Bahnanwendungen - Technische Dokumente - Teil 4: Datenaustausch

This European Standard was approved by CEN on 7 May 2023.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 15016-4:2023) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2023, and conflicting national standards shall be withdrawn at the latest by December 2023.

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 EN 15016-4:2006.

The main changes compared to the previous edition are listed below:

— The scope has been changed to rolling stock because this is the typical application field.

— The data model has been completely revised to simplify the data exchange by focusing on the necessary data. Data tables for additional data have been introduced to enable a scalable use of the data model.

— The purpose of the data model is the structured exchange of item data. The same data model now also supports the structured exchange of technical document data.

— Rules have been specified to ensure and to check the consistency of the data model.

— A detailed application guide has been incorporated to ensure an easy implementation.

— Because the data exchange is handled by data processing systems an example for layout for a table of documents and an example for entries in a table of documents is superfluous and has therefore been deleted.

This document is part of the standard series “Railway applications — Technical documents”, which consists of the following parts:

— EN 15016-1: General principles;

— EN 15016-2: Parts lists;

— EN 15016-3: Handling of modifications of technical documents;

— EN 15016-4: Data exchange.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: 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, Türkiye and the United Kingdom.

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Introduction

In railway business, the parties require, as part of a contract, bill of material and technical documents. To support co-operation and effective data exchange of information between customers, suppliers and partners, it is necessary to have the data exchange precisely defined.

In European directives, the term "Technical Files" is mainly used to summarize types of documents, drawings, data, reports, etc.

Three main classes of data can be distinguished:

a) technical data and documents;

b) maintenance data and documents;

c) authorization documents, reports, assessments, and safety data.

This document will support the exchange of bill of material and technical documents between two parties.

The aim of this document is to improve cooperation with respect to time, quality, and costs for the whole railway sector (e.g. railway users, manufacturers, rail system operators, entities in charge of maintenance).

This document covers exclusively the specification of the data model of the data exchange process between two parties. Common project management or contractual arrangements aspects like data content or the handling of change management are not covered.

This document refers to EN, ISO or IEC standards dealing with data fields. In cases where ISO or IEC standards are not sufficiently precise, this document gives specific details. These additions to EN, ISO and IEC standards facilitate the exploitation and the administration of the data exchange.

These requirements have been drawn up in order to accommodate:

— the large variety of users;

— ease of transfer of documents;

— any specific series of documentation related to rolling stock.

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1 Scope

This document specifies the data exchange of technical documents such as bill of material, technical drawings and other related technical documents for rolling stock.

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.

EN 17343:2020, *Railway applications - General terms and definitions*

EN 15016-1:2023[1], *Railway applications - Technical documents - Part 1: General principles*

ISO 639-1, *Codes for the representation of names of languages — Part 1: Alpha-2 code*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17343:2020, EN 15016-1:2023[1] and the following apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
item
subject being considered

Note 1 to entry: The item may be an individual part, component, device, functional unit, equipment, subsystem, or system.

Note 2 to entry: The item may consist of hardware, software or any combination thereof.

[SOURCE: IEC 60050-192:2015, 192-01-01, modified — Note 3 to Note 5 to entry have been deleted, in Note 2 the term people has been deleted.]

3.2
bill of materials
BOM
documented formal hierarchical tabulation of the physical assemblies, subassemblies, and components needed to fabricate a product

Note 1 to entry: The BOM consists of items and therefore may include software.

[SOURCE: ISO/IEC/IEEE 24765:2017, 3.378, modified — Note 1 to entry added]

[1] Under preparation. Stage at the time of publication: prEN 15016-1:2023.

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