SLOVENSKI STANDARD
SIST EN 9300-210:2026

01-maj-2026

Aeronavtika - LOTAR - Dolgoročno arhiviranje in pridobivanje digitalne tehnične dokumentacije, kot so podatki o 3D, CAD in PDM - 210. del: Podatki o obvladovanju proizvodov v pogledu "kot je bilo zasnovano"

Aerospace series - LOTAR -LOng Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data - Part 210: Product management data in an "as designed" view

Luft- und Raumfahrt - LOTAR - Langzeit-Archivierung und -Bereitstellung digitaler technischer Produktdokumentationen, wie zum Beispiel von 3D-, CAD- und PDM-Daten - Teil 210: Produktmanagementdaten in einer "As Designed"-Ansicht

Série aérospatiale - LOTAR - Archivage Long Terme et récupération des données techniques produits numériques, telles que CAD 3D et PDM - Partie 210: Données de gestion des produits dans une vue « telle que conçue »

Ta slovenski standard je istoveten z: **EN 9300-210:2026**

ICS:

01.110	Tehnična dokumentacija za izdelke	Technical product documentation
35.240.30	Uporabniške rešitve IT v informatiki, dokumentiranju in založništvu	IT applications in information, documentation and publishing
49.020	Letala in vesoljska vozila na splošno	Aircraft and space vehicles in general

SIST EN 9300-210:2026 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 9300-210

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ICS 01.110

Supersedes

English Version

Aerospace series - LOTAR -LOng Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data - Part 210: Product management data in an "as designed" view

Série aérospatiale - LOTAR - Archivage long terme et récupération des données techniques produits numériques telles que CAO, 3D et PDM - Partie 210 : Données de gestion des produits dans une vue " conforme à la conception "

Luft- und Raumfahrt - LOTAR - Langzeit-Archivierung und -Bereitstellung digitaler technischer Produktdokumentationen, wie zum Beispiel von 3D-, CAD- und PDM-Daten - Teil 210: Produktmanagementdaten in einer "As Designed"-Ansicht

This European Standard was approved by CEN on 2 February 2026.

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

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

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European foreword

This document (EN 9300-210:2026) has been prepared by ASD-STAN.

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

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 August 2026, and conflicting national standards shall be withdrawn at the latest by August 2026.

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.

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 organizations 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.

Introduction

This document was prepared jointly by AIA, ASD-STAN, PDES, Inc. and the prostep ivip Association. The prostep ivip Association is an international non-profit association in Europe. For establishing leadership in IT-based engineering it offers a moderated platform to its nearly 200 members from leading industries, system vendors and research institutions. Its product and process data standardization activities at European and worldwide levels are well known and accepted. The prostep ivip Association sees this document and the related parts as a milestone of product data technology. PDES Inc is an international non-profit association in USA. The mission of PDES, Inc. is to accelerate the development and implementation of ISO 10303, enabling enterprise integration and PLM interoperability for member companies. PDES, Inc. gathers members from leading manufacturers, national government agencies, PLM vendors and research organizations. PDES, Inc. supports this document as an industry resource to sustain the interoperability of digital product information, ensuring and maintaining authentic longevity throughout their product lifecycle. Readers of this document should note that all standards undergo periodic revisions and that any reference made herein to any other standard implies its latest edition, unless otherwise stated. The Standards will be published under two different standards organizations using different prefixes. ASD-STAN will publish the standard under the number EN 9300–xxx. AIA will publish the standard under the number NAS 9300–xxx. The content in the EN 9300 and NAS 9300 documents will be the same. The differences will be noted in the reference documentation. For example, EN 9300 Geometric Dimensioning and Tolerancing will be referenced in ISO 1101 and ISO 16792, and for NAS 9300 the same information will be referenced in ASME Y 14.5M and ASME Y 14.41. The document formatting, etc., will follow that of the respective editorial rules of ASD-Stan and AIA.

This document provides the Fundamentals and Concepts and approaches of EN 9300 and referenced related standards with regard to the AIA-ASD LOTAR International Standards EN 9300-xxx structure. The EN 9300 top level Standard comprises multiple parts (i.e. −001, −002, −100, −200 etc.) based on business requirements and domain topic, (Basic Parts, Common Parts, Mechanical, Electrical etc.). This document is part of the Product Data Management series (EN 9300-2xx), which can be seen in Table 1.

The EN 9300-210 scope is the “as designed” data used for type certification.

1 Scope

1.1 In Scope

From Clause 8 to Clause 15, the scope includes:

— Management Information;

— Product Design;

— Change Management;

— Documents;

— Application of PDM-specific metadata (in accordance with EN 9300-021);

— Definition of PDM-specific metadata for Archive Information Packages (AIP) (Annex A).

Common Meta Data archive package requirements defined in accordance with EN 9300-021.

A visual representation of the scope of this document can be seen in Figure 1. An overview of the various parts in the EN 9300-200 series is provided in Table 1.

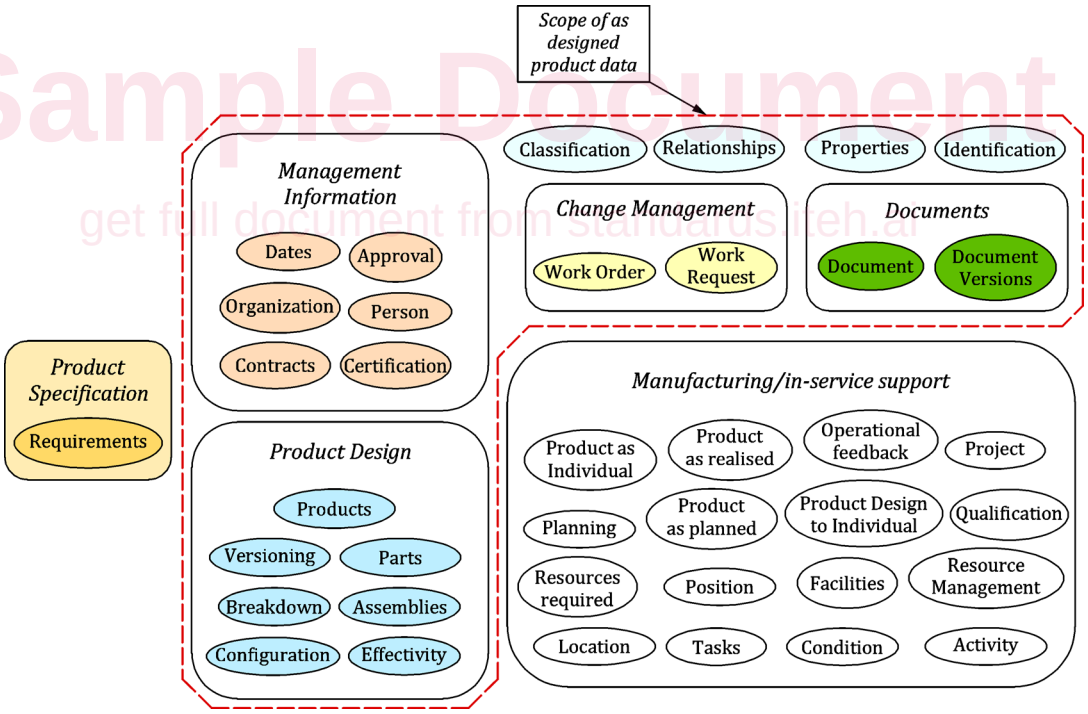

Figure 1 — Scope of EN 9300-210 As Designed

Table 1 — EN 9300 Part 200 series

Data domain specific part	Document Number
Product Management Data in an as designed view	EN 9300-210
Product Management Data in an as delivered/maintained view	EN 9300-230
Product Management Data In-development (including preliminary design review, critical design review, FAI, etc.)	EN 9300-240
Change documentation	EN 9300-250

This document does not attempt to specify how to create an OAIS/LOTAR information package. Nor does it address common issues in the archive domain, such as: snapshot vs. incremental archival methods (which are determined as part of the implementation of an archive system), or package-to-package linkages (Meta Data WG) or how to identify metadata for an archival package (Meta Data WG). Integration of PDM metadata with other domain and common metadata will be in EN 9300-021.

The scope of EN 9300-210 is same as the EN 9300-001.

1.2 Out of Scope

This document does not attempt to specify how to create an OAIS/LOTAR information package. Nor does it address common issues in the archive domain, such as: snapshot vs. incremental archival methods (which are determined as part of the implementation of an archive system), or package-to-package linkages (Meta Data WG) or how to identify metadata for an archival package (Meta Data WG). Integration of PDM metadata with other domain and common metadata will be in EN 9300-021.

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 9300-007, *Aerospace series — LOTAR — LOng Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data — Part 007: Terms and definitions*

3 Terms and definitions

For the purposes of this document, the terms, definitions and abbreviations given in EN 9300-007 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/

Within the context of EN 9300 series the terms “Shall” and “May” shall be used per the US. Code of Federal Regulations (CFR) Title 14 Aeronautics and Space, Chapter 1, Federal Aviation Administration (FAA), Department of Transportation (DoT), Part 1, Definitions, and abbreviations, paragraph 1.3:

— “shall” is used in an imperative sense;

— “may” is used in a permissive sense to state authority or permission to do the act prescribed, and the words “no person may…” or “a person may not…” means that no person is required, authorized, or permitted to do the act prescribed;

— “includes” means “includes but is not limited to”.

4 Acronyms

For the purposes of this document, the following acronyms apply:

AIA	Aerospace Industries Association
AIP	archive information packages
ASD-STAN	Association of Aerospace and Defence Industries of Europe – Standardization
BOM	bill of materials
CAD	computer-aided design
CAGE	Commercial and Government Entity
CFR	Code of Federal Regulations
DOT	Department of Transportation
DUNS	Data Universal Numbering System
ECCN	export control classification number
FAA	Federal Aviation Administration
FAI	first article inspection
GDPR	General Data Protection Regulation
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
ITAR	International Traffic in Arms Regulations
LOTAR	Long Term Archiving and Retrieval
MBOM	manufacturing bill of materials

5 Business Use Cases for Product Management Data in an “as designed” view

The scenarios and use cases used to support EN 9300-210 include:

— S1 – Evidence of the baseline for verification, certification, or product liability:

  — UC1.1 – Long term archiving of Type Design Configuration (certification);

  — UC1.2 – Acquisition/divestiture resulting in transfer of Product Definition Data and Type Design Data;

  — UC1.3 – Verification of design compliance to requirements;

  — UC1.4 – Ability to retrieve the design and verification data for the purpose of determining root cause as part of an investigation involving product liability;

  — UC1.5 – To support delivery of Type Design Configuration data to a customer;

  — UC1.6 – Transfer of Ownership;

  — UC1.7 – Change to Design;

— S2 – Reuse of design data as a starting baseline for design changes:

  — UC2.1 – Changes to Product Definition Data resulting in a major or minor change to the Type Design Data;

  — UC2.2 – To support the modification of existing product (e.g. for spares purposes).

6 Explanation of the diagrams

6.1 Reason for diagrams

There is a diversity of Product Lifecycle Management (PLM) systems. This diversity reflects the differences in terms and processes used to manage products. This document uses a simple diagramming technique to supplement the textual content that is easy to understand and can be created with presentation or drawing tools, which does not require expertise in formal modelling language.

The diagrams are based on graph theory and employ only two constructs: nodes and edges. This document shall use the terms items and connections for nodes and edges, respectively. The term “item” is a generic term for the object being represented (e.g. Design Item can be a CAD file, part, assembly, etc.). Edges (connections) are directional; generally representing the connection in natural language. This graph form is known as a “directed property graph”.

For example: “has part”. Thus a connection has “subject” side (the “from” side), and an “object” side (the “to” side). Lastly, the diagrams omit cardinality information in the interest of simplicity. Cardinality can easily be added once formal STEP models are developed. Individual diagrams are simplified so that they focus on their particular subject and will not show all potential relationships.

NOTE In order to keep the diagrams concise, a variant of graph theory called hyper graph theory is used where edges are permitted to connect to other edges (but not multiple nodes to multiple nodes).

6.2 Attributes

All nodes and edges (items and connections) have attributes. PLM systems are designed to be customized. Therefore, this document mostly focuses on the minimum attribution.

The minimum attribution (Meta Data) for an item can include:

— type: the kind of thing the data item represents. For example, a person, a part, a product, a document;

— name: the name or identifier (e.g. part number) assigned to the data and physical part as a unique identifier (used for human readable consumption) and is different from the system generated identifier for the object in the system;

— revision: the revision of the item as it undergoes changes;

— object ID: the internal (system) identity of the item that is unique within the system;

NOTE Typically, the triplet (type, name, revision) is also unique in a PLM system.

— timestamps: creation and modification;

— references to persons or systems acting as creator, modifier, and “owner”;

— status of item: especially whether it is (was) approved;

— description: an item often has a description, such as a title for a drawing item, or nomenclature for a part item.

The minimum attribution for a connection is:

— the ID of the connection itself;

— the type of the connection itself;

— the ID of the FROM item;

— the ID of the TO item;

— the change management effectivity timestamps:

  — Start: the date the connection was approved for use;

  — Stop: the date the connection was deprecated for use;

— the change management effectivity authorizations:

  — Start Authority: reference to the change document approving this connection;

  — Stop Authority: reference to the change document deprecating this connection;

— timestamps: creation and modification;

— references to persons or systems acting as creator, modifier, and “owner”.

6.3 Property Sheet Concept

Since these minimum attributes are not sufficient, the notion of a “property sheet” is used which is a container for the custom or PLM system-specific data that is needed. The name “property sheet” is intended to convey a simple enumeration of attribute names, values, data types (string, Boolean, number, date, etc.), and unit of measure. Such a set of properties shall be modelled in the diagrams as a node with an edge named “has property” connecting it to an item or connection having the properties. But that needlessly complicates the diagrams, since virtually any item or connection will have custom properties. The Property Sheet concept can also be used to achieve other goals of a PLM system:

— Ad hoc properties: In this case, an item or connection can have multiple sets of properties. The extra properties can provide attributes for a part that are unique to its part family. For example, a bolt can have additional attributes of head type, length, etc.; whereas a nut can have inner and outer diameter, lock nut indicator, etc.;

— Restricted properties: In this case, properties can be segregated when the values may be export controlled or are proprietary information;

— Value added properties: during the lifecycle of the part, extra attributes, such as supplier, cost, plant, etc. can be added by downstream business functions.

Figure 2 shows a visual depiction of the property sheet concept:

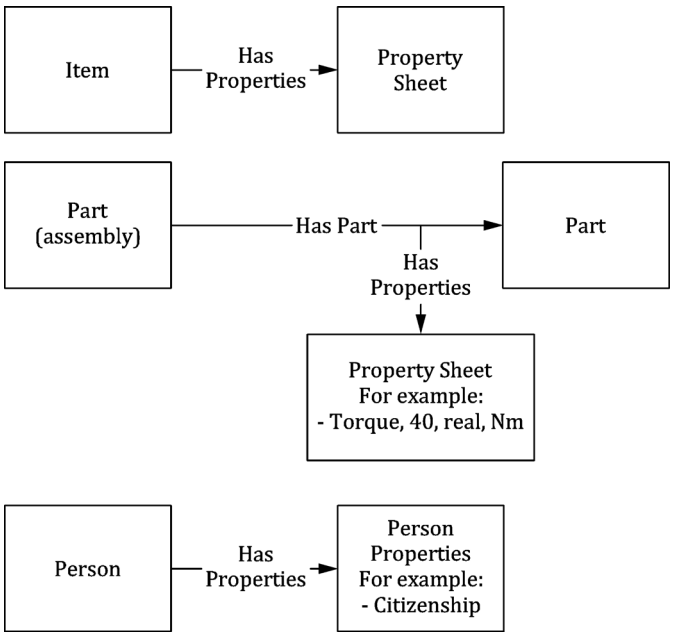

Figure 2 — Property sheet concept

A property sheet can be viewed a special kind of item with a type indicating the sort of properties it contains. Since most systems do not actually model properties this way, the revisions of its base item type and the properties can be synced, along with connections to change items.

7 A Word on Change

In general, PLM systems retain the complete history for a design. Changes to the data are stored and identified. Individual elements are identified, such as part number, document number; and versions of those elements are identified, e.g. rev A, B, or version 1.1, 1.2, etc.

— All released versions are retained.

— Every change is auditable (why, who, what, and when).

— Ideally, it should be possible to query the state of the PLM system at any time in the past and see:

  — what was current and approved at that time;

  — what was proposed or pending at that time;

  — relationships between versions (e.g. in a branch and merge scheme typically used for software) at a point in time.

In the following clauses, the reader will see statements to the effect that these objects are subject to change control. Change is a fundamental aspect of PLM and permeates all aspects of product data.

8 Management Information

This clause shows the nodes/items and edges/connections within Management Information, seen in Figure 3. Table 2 and Table 3 explain in detail the items/nodes and edges/connections, respectively.