

<b>STN</b>	<b>Letectvo a kozmonautika LOTAR Dlhodobá archivácia a získavanie digitálnej technickej dokumentácie výrobku ako 3D, CAD a PDM údaje Časť 002: Požiadavky</b>	<b>STN EN 9300-002</b>  31 1060
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Aerospace series - LOTAR -Long Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data  
- Part 002: Requirements

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

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English Version

## Aerospace series - LOTAR - Long Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data - Part 002: Requirements

Série aéronautique - LOTAR - Archivage Long Terme et récupération des données techniques produits numériques, telles que 3D, CAO et PDM - Partie 002 : Exigences

Luft- und Raumfahrt - LOTAR - Langzeit-Archivierung und -Bereitstellung digitaler technischer Produktdokumentationen, wie zum Beispiel von 3D-, CAD- und PDM-Daten - Teil 002: Anforderungen

This European Standard was approved by CEN on 5 June 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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**EN 9300-002:2018 (E)**

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## **European foreword**

This document (EN 9300-002:2018) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, 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 December 2018, and conflicting national standards shall be withdrawn at the latest by December 2018.

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.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**EN 9300-002:2018 (E)****Foreword**

This standard 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 standard 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 standard as an industry resource to sustain the interoperability of digital product information, ensuring and maintaining authentic longevity throughout their product lifecycle.

Readers of this standard 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 (i.e. for EN 9300 Geometric Dimensioning & Tolerancing will be referenced in ISO 1101 and ISO 16792, and for NAS 9300 the same information will be referenced in ASME Y14.5M and Y 14.41). The document formatting etc. will follow that of the respective editorial rules of ASD-Stan and AIA.

## **Executive summary**

Many companies are migrating their design processes from traditional hard-copy drawings and documents to using digital data. New processes are also needed to archive digital data and preserve access to it, in compliance with business and regulatory requirements appropriate to this new media. Some industries are required to archive data for the life of a product, which can be in excess of 50 years. Over these time periods, changes in technology impact the ability to retrieve and use product data. Organizations, which use digital product data, will need strategies and processes that maintain the usability of the data over multiple generations of technology.

Initially, this document sums up the main business requirements for long term archiving of digital product data.

Then, this document describes requirements for standardized processes (and associated technologies) that ensure product data are retrievable and usable for as long as needed. The archiving process is developed from the Open Archival Information System (OAIS) Reference Model (ISO 14721), which provides a conceptual framework for archive systems.

The archiving process is structured into sub processes for introducing new material into the archive (ingest), managing the data and metadata (data management), managing the physical systems (archive storage), retrieving information and providing it to users (access) and planning the evolution of the repositories (preservation planning). Specific requirements for the archiving of product data are put into this framework.

**EN 9300-002:2018 (E)****1 Scope**

This document is a part of the EN 9300 Series. This document addresses requirements for the long term archiving of digital product information, applicable to the international aerospace industry.

Data shall be available to meet regulatory, legal, contractual and business requirements.

Initially, this document sums up the main business requirements for long term archiving of digital product data. Although these requirements are not in themselves normative, when making data available over an extended period, it is a fundamental principle that the contextual data needed to interpret the data is also available.

This document uses the OAIS reference model to provide comparability with other approaches to keeping information available. However, OAIS is a standard reference model for comparison, not a standard for implementation. Consequently, this document defines requirements for processes (and associated technologies) intended to make data available for the life of a product, and does so in terms of the OAIS model.

In dealing with traditional media, the differences between substantial change and unimportant “surface” change are generally self-evident. For example, the yellowing of paper over time, or the encrustation of a gravestone with lichen do not lose the information contained, whereas the loss of pages of a document, or the erosion of the stone do so, and archiving focusses on the preservation of the medium. For digital product data, the medium is unimportant, but the content can be corrupted. The subject of the (many) remaining parts of this standard is the identification of the information that shall be uncorrupted if digital product data is to be usable in the future, and the consequent refinement of processes and procedures to insure this.

This document addresses, archiving of digital product data required for product definition, such as in three-dimensional representations a tolerances, material properties, manufacturing data, etc. specification call-outs, product structure and configuration control data, etc. Other parts of the EN 9300 standards will cover more specifically the long term archiving of, for example, composites, electrical systems, product analyses and product simulation information.

This document also addresses managing the evolution of technologies required to ensure the availability and usability of the data for the required archiving period.

This document is not intended to incorporate company specific requirements and does not dictate specific organizational structures within a company. This document does not specify a design or an implementation of an archive system. Actual implementations may distribute responsibilities or break out functionality differently.

This document assumes that all requirements for configuration management of the product data are in place and therefore are not specifically described in this document.

If an organization chooses to implement requirements beyond those outlined in this requirements document, those additional requirements shall not conflict or negatively impact the requirements contained in this document.

Purpose:

This document establishes legal and other business requirements for processes intended to preserve digital data. Data needs to be stored and maintained so that data is retrievable and usable for the required archiving period. In addition, for some business requirements, data needs to be authentically preserved and accessed.

This standard is intended to allow for different implementations based on a company’s specific business environment.

## **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 (all parts), *Aerospace series — LOTAR — LOng Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**