ICS 01.110, 35.240.10,
35.240.30, 49.020

SLOVENSKÁ TECHNICKÁ NORMA

Január 2019

STN	**Letectvo a kozmonautika LOTAR Dlhodobá archivácia a získavanie digitálnej technickej dokumentácie výrobku ako 3D, CAD a PDM údaje Časť 100: Spoločné pojmy pre dlhodobú archiváciu a získavanie technických informácií CAD 3D**	**STN EN 9300-100** 31 1060

Aerospace series - LOTAR - Long Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data - Part 100: Common concepts for Long term archiving and retrieval of CAD 3D mechanical information

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/18

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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 100: Common concepts for Long term archiving and retrieval of CAD 3D mechanical information

Série aérospatiale - LOTAR - Archivage Long Terme et récupération des données techniques produits numériques, telles que CAD 3D et PDM - Partie 100 : Concepts communs pour l'archivage long terme et la récupération des données CAD 3D méchanique

Luft- und Raumfahrt - LOTAR - Langzeit-Archivierung und -Bereitstellung digitaler technischer Produktdokumentationen, wie zum Beispiel von 3D-, CAD- und PDM-Daten - Teil 100: Allgemeine Konzepte für die Langzeitarchivierung und -Bereitstellung von 3D-CAD-Mechanik-Informationen

This European Standard was approved by CEN on 15 October 2017.

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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
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Page

Figures

Page

European foreword

This document (EN 9300-100:2018) 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 January 2019, and conflicting national standards shall be withdrawn at the latest by January 2019.

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.

Foreword

This European 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 European 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 European 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.

1 Scope

1.1 Introduction

This European Standard defines common fundamental concepts for Long Term Archiving and Retrieval of CAD mechanical information for elementary parts and assemblies. It details the “fundamentals and concepts” of EN 9300-003 in the specific context of Long Term Archiving of CAD mechanical models.

CAD mechanical information is divided into assembly structure and geometrical information, both including explicit and implicit geometrical representation, Geometric Dimensioning and Tolerancing with Form Features.

The EN 9300-1XX family is organized as a sequence of parts, each building on the previous in a consistent way, each adding a level of complexity in the CAD data model. This includes the detailing of relationships between the essential information for the different types of CAD information covered by the EN 9300-1XX family.

As technology matures additional parts will be released in order to support new requirements within the aerospace community.

1.2 In scope

The present part describes:

— the fundamentals and concepts for Long Term Archiving and Retrieval of CAD 3D mechanical information;

— the document structure of the EN 9300-1XX family, and the links between all these parts;

— the qualification methods for long term preservation of archived CAD mechanical information; more specially, principles for the CAD validation properties and for verification of the quality of the CAD archived file;

— specifications for the preservation planning of archived CAD information;

— specific functions for administration and monitoring of CAD archived mechanical models;

— the definition of Archive Information Packages for CAD data.

1.3 Out of Scope

The following are out of scope for this part:

— Long Term Archiving of CAD 2D drawings;

— other CAD business disciplines, such as piping, tubing, electrical harnesses, composite, sheet metal design, kinematics.

This version does not include:

— fundamental and concepts for parts EN 9300-120 version 2, EN 9300-125, 1 EN 9300-130.

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*

ISO 10303-203:2011, *Industrial automation systems and integration — Product data representation and exchange — Part 203: Application protocol: Configuration controlled 3D design of mechanical parts and assemblies*

ISO 10303-214:2010, *Industrial automation systems and integration — Product data representation and exchange — Part 214: Application protocol: Core data for automotive mechanical design processes*

ISO 10303-239:2005, *Industrial automation systems and integration — Product data representation and exchange — Part 239: Application protocol: Product life cycle support*

ISO 16792:2006, *Technical product documentation — Digital product definition data practices*

ISO 1101:2004, *Geometrical product specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out*