ICS 01.110 SLOVENSKÁ TECHNICKÁ NORMA Apríl 2024

STN	**Letectvo a kozmonautika LOTAR Dlhodobá archivácia a získavanie digitálnej technickej dokumentácie výrobku ako 3D, CAD a PDM údaje Časť 125: Explicitná štruktúra zostáv CAD s informáciami o grafickom výrobku a výrobe (PMI)**	**STN EN 9300-125** 31 1060

Aerospace series - LOTAR - LOng Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data - Part 125: Explicit CAD assembly structure with Graphic Product and Manufacturing Information (PMI)

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. 03/24

Obsahuje: EN 9300-125:2023

obsahuje farebné strany

138308

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 9300-125

November 2023

ICS 01.110

English Version

Aerospace series - LOTAR - LOng Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data - Part 125: Explicit CAD assembly structure with Graphic Product and Manufacturing Information (PMI)

Série aérospatiale - LOTAR - Archivage long terme et récupération des données techniques produits numériques telles que CAO, 3D et PDM - Partie 125 : Structure d'assemblage CAO explicite avec données graphiques de produit et de fabrication (PMI)

Luft- und Raumfahrt - LOTAR - Langzeit-Archivierung und - Bereitstellung digitaler technischer Produktdokumentationen, wie zum Beispiel von 3D , CAD und PDM-Daten - Teil 125: Eindeutige CAD-Baugruppenstruktur mit grafischen Produkt und Fertigungsinformationen (PMI)

This European Standard was approved by CEN on 22 December 2019.

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

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

Ref. No. EN 9300-125:2023 E

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European foreword

This document (EN 9300-125:2023) 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 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 May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

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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.

1 Scope

1.1 General

This document specifies the requirements for the long term digital preservation of the presentation of Product and Manufacturing Information (PMI) with their possible links to the 3D explicit shape and geometry of CAD assembly structure. The goal is to preserve this 3D information, without loss, with respect to the geometry produced by the original CAD system, following the principles laid down in EN 9300-003 'Fundamentals and Concepts'.

This will allow the retrieval of the assembly structure including the placement information.

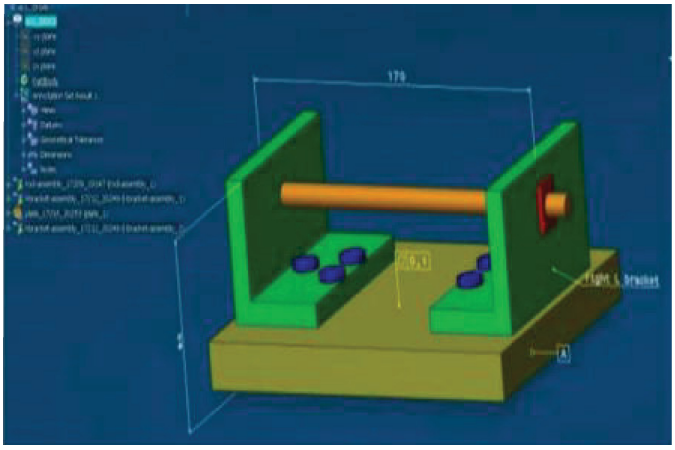

Figure 1 — Assembly structure and geometric assembly model with PMI

This document extends EN 9300-115 "Explicit CAD Assembly Structure" by including assembly level PMI.

PMI for the assembly structure can be recorded in the same file as the geometry, can be in a nested assembly structure or the PMI will be contained in its own separate file (Side-Car).

The PMI elements shall be presented on the graphic level only (i.e. polyline, tessellated).

1.2 Out of scope

The following is outside the scope:

— the archiving of assembly Form Features;

— semantic PMI representation is out of scope for this document;

— the geometry specified at assembly level is out of scope for this edition.

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 10303-21, *Industrial automation systems and integration — Product data representation and exchange — Part 21: Implementation methods: Clear text encoding of the exchange structure*

ISO 10303-242, *Industrial automation systems and integration — Product data representation and exchange — Part 242: Application protocol: Managed model-based 3D engineering*

ISO 10303-519, *Industrial automation systems and integration — Product data representation and exchange — Part 519: Application interpreted construct: Geometric tolerances*

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

Further applicable documents

CAx-IF Recommended Practices for the Representation and Presentation of Product & Manufacturing Information (PMI) (AP242)

CAx-IF Recommended Practices for User Defined Attributes (UDA)