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**Space data and information transfer systems - XML formatted  
data unit (XFDU) structure and construction rules**

空间数据与信息传输系统 XML格式化数据单元 (XFDU) 结构和构建规则  
**(English Translation)**

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## Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is modified to adopt ISO 13527:2010 "Spatial data and information transmission systems - XML formatted data unit (XFDU) structure".

and build rules.

See Appendix A.

The technical differences between this document and ISO 13527:2010, and the reasons therefor, are as follows.

---Delete the sections in Chapter 1 of ISO 13527.20101.2 concerning principle definitions, document structure, and references to ensure compliance.

Regulations for the Drafting of Standards in my country;

---The normative reference GB/T 42041-2022 (see Chapter 3) has been added to ensure that the terms and definitions used in this document are consistent.

The following editorial changes have been made to this document.

---The source information for terms referenced in Chapter 3 of GB/T 42041-2022 has been added;

---Informative Annex D "References" in ISO 13527.20101.2 has been deleted.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Aerospace Technology and Its Applications (SAC/TC425).

## 1 Scope

This document specifies the core wrapping structure and mechanism of XML Formatted Data Units (XFDUs), including the XFDU packaging structure, Complete XML schema.

This document applies to the transmission and archiving of mission data in the field of space data and information systems in the aerospace industry.

## 2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 42041-2022 Aerospace Terminology. Space Data and Information Transmission

### 3 Terms and Definitions

The terms and definitions defined in GB/T 42041-2022, as well as the following terms and definitions, apply to this document.

package

Use a specific combination scheme to encapsulate multiple files into a collection of single files.

metadata

Data that defines and describes data.

[Source. GB/T 42041-2022, 3.1.25] 3.3 component an object that is combined with other objects to form a member of a "collection" or "package".

list manifest

A metadata file containing components and their relationships.

**Note:** The information is designed using XML and stored as a component.

XML schema XML schema W3C specifications that use XML syntax to define XML documents.

Logical entities that encapsulate data and metadata (including software) in a single package using XML technology.