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Space data and information transfer systems — Standard formatted data units — Control Authority data structures

Systèmes de transfert des informations et données spatiales — Unités de données à structuration normalisée — Structures de données d'autorité de contrôle



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 15395 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 13, *Space data and information transfer systems*.

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Space data and information transfer systems — Standard formatted data units — Control Authority data structures

1 Scope

This International Standard specifies the requirements for Control Authority data structures for standard formatted data units for space data and information transfer systems.

2 Requirements

Requirements are the technical recommendations made in the following publication (reproduced on the following pages), which is adopted as an International Standard:

CCSDS 632.0-B-1, November 1994, *Recommendation for space data system standards — Standard formatted data units — Control Authority data structures*.

For the purposes of international standardization, the modifications outlined below shall apply to the following pages of publication CCSDS 632.0-B-1.

Pages i to v

This part contains information which is relevant to the CCSDS publication only.

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Add the following information to the references indicated:

[2] Document CCSDS 630.0-B-1, June 1993, is equivalent to ISO 13764:1996.

[4] Document CCSDS 620.0-B-2, May 1992, is equivalent to ISO 12175:1994.

[5] Document CCSDS 641.0-B-1, May 1992, is equivalent to ISO 14961:1997.

3 Revision of publication CCSDS 632.0-B-1

It has been agreed with the Consultative Committee for Space Data Systems that Subcommittee ISO/TC 20/SC 13 will be consulted in the event of any revision or amendment of publication CCSDS 632.0-B-1. To this end, NASA will act as a liaison body between CCSDS and ISO.

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Consultative Committee for Space Data Systems

RECOMMENDATION FOR SPACE
DATA SYSTEM STANDARDS

STANDARD FORMATTED DATA UNITS— CONTROL AUTHORITY DATA STRUCTURES

CCSDS 632.0-B-1
BLUE BOOK

November 1994



CCSDS RECOMMENDATION FOR SFDUs—CONTROL AUTHORITY DATA STRUCTURES

AUTHORITY

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This document has been approved for publication by the Management Council of the Consultative Committee for Space Data Systems (CCSDS) and represents the consensus technical agreement of the participating CCSDS Member Agencies. The procedure for review and authorization of CCSDS Recommendations is detailed in reference [1], and the record of agency participation in the authorization of this document can be obtained from the CCSDS Secretariat at the address below.

This document is published and maintained by:

CCSDS Secretariat
Program Integration Division (Code OI)
National Aeronautics and Space Administration
Washington, DC 20546, USA

CCSDS RECOMMENDATION FOR SFDUs—CONTROL AUTHORITY DATA STRUCTURES

STATEMENT OF INTENT

The Consultative Committee for Space Data Systems (CCSDS) is an organization officially established by the management of member space Agencies. The Committee meets periodically to address data systems problems that are common to all participants and to formulate sound technical solutions to these problems. Inasmuch as participation in the CCSDS is completely voluntary, the results of Committee actions are termed **Recommendations** and are not considered binding on any Agency.

This **Recommendation** is issued by, and represents the consensus of, the CCSDS Plenary body. Agency endorsement of this **Recommendation** is entirely voluntary. Endorsement, however, indicates the following understandings:

- Whenever an Agency establishes a CCSDS-related **standard**, this **standard** will be in accord with the relevant **Recommendation**. Establishing such a **standard** does not preclude other provisions which an Agency may develop.
- Whenever an Agency establishes a CCSDS-related **standard**, the Agency will provide other CCSDS Member Agencies with the following information:
 - The **standard** itself.
 - The anticipated date of initial operational capability.
 - The anticipated duration of operational service.
- Specific service arrangements shall be made via memoranda of agreement. Neither this **Recommendation** nor any ensuing **standard** is a substitute for a memorandum of agreement.

No later than five years from its date of issuance, this **Recommendation** will be reviewed by the CCSDS to determine whether it should: (1) remain in effect without change; (2) be changed to reflect the impact of new technologies, new requirements, or new directions; or, (3) be retired or canceled.

In those instances when a new version of a **Recommendation** is issued, existing CCSDS-related Agency **standards** and implementations are not negated or deemed to be non-CCSDS compatible. It is the responsibility of each Agency to determine when such **standards** or implementations are to be modified. Each Agency is, however, strongly encouraged to direct planning for its new and implementations towards the later version of the **Recommendation**.

CCSDS RECOMMENDATION FOR SFDUs—CONTROL AUTHORITY DATA STRUCTURES

FOREWORD

This Recommendation extends the standardization of the Standard Formatted Data Unit (SFDU) concept in support of the digital transfer of space-related information.

This Recommendation specifies standards for expressing selected data description attributes and for their packaging with the data description. The resulting packages, called Control Authority Data Structures (CADS), are used to submit data descriptions to Control Authority Offices for registration and revision and to disseminate data descriptions from Control Authority Offices.

Other aspects of the SFDU concept are described in the documents identified in the References section.

Through the process of normal evolution, it is expected that expansion, deletion, or modification to this document may occur. This Recommendation is therefore subject to CCSDS document management and change control procedures which are defined in reference [1].

CCSDS RECOMMENDATION FOR SFDUs—CONTROL AUTHORITY DATA STRUCTURES

At time of publication, the active Member and Observer Agencies of the CCSDS were

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- British National Space Centre (BNSC)/United Kingdom.
- Canadian Space Agency (CSA)/Canada.
- Central Research Institute of Machine Building (TsNIIMash)/Russian Federation.
- Centre National d'Etudes Spatiales (CNES)/France.
- Deutsche Forschungsanstalt für Luft- und Raumfahrt e.V. (DLR)/Germany.
- European Space Agency (ESA)/Europe.
- Instituto Nacional de Pesquisas Espaciais (INPE)/Brazil.
- National Aeronautics and Space Administration (NASA HQ)/USA.
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- Belgian Science Policy Office (SPO)/Belgium.
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- Swedish Space Corporation (SSC)/Sweden.
- United States Geological Survey (USGS)/USA.

CCSDS RECOMMENDATION FOR SFDUs—CONTROL AUTHORITY DATA STRUCTURES

DOCUMENT CONTROL

Document	Title	Date	Status/ Remarks
CCSDS 632.0-B-1	Recommendation for Space Data Systems Standards: Standard Formatted Data Units—Control Authority Data Structures, Issue 1	November 1994	Original Issue