



**INTERNATIONAL STANDARD ISO/IEC 18023-2:2006(E)**

**Information technology — SEDRIS —**

**Part 2:  
Abstract transmittal format**

*Technologies de l'information — SEDRIS —  
Partie 2: Format de transmission abstrait*

**ISO/IEC 18023-2:2006(E)**

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# Information technology — SEDRIS — Part 2: Abstract transmittal format

## ISO/IEC 18023-2

This document is Part 2 (Abstract transmittal format) of ISO/IEC 18023, SEDRIS. The full title is: *Information technology — Synthetic Environment Data Representation and Interchange Specification (SEDRIS) — Part 2: Abstract transmittal format*.

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The **Foreword** provides background on the standards process for this International Standard. The **Introduction** describes the purpose and design goals of this part of ISO/IEC 18023. This part of ISO/IEC 18023 contains the following clauses:

1. **Scope** specifies the technology area covered by this part of ISO/IEC 18023.
2. **Normative references** lists the normative references.
3. **Definitions** defines the terms used within this part of ISO/IEC 18023.
4. **Concepts** describes various fundamentals of this part of ISO/IEC 18023.
5. **Transmittal structure** defines the organization of a SEDRIS transmittal.
6. **Conformance** specifies the criteria by which implementations of this part of ISO/IEC 18023 can claim conformance.

The following informative annex is included in this part of ISO/IEC 18023:

- A. **Guidelines for encodings** provides advice on developing concrete encodings of SEDRIS transmittals.

[http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO\\_IEC\\_18023-2\\_Ed1.html](http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_IEC_18023-2_Ed1.html)

## Foreword

[ISO](#) (the International Organization for Standardization) and [IEC](#) (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, [ISO/IEC JTC 1](#).

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 18023 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 24, *Computer graphics, image processing and environmental data representation*, in collaboration with [The SEDRIS Organization](#). ISO/IEC 18023 consists of the following parts, under the general title *Information technology — Synthetic Environment Data Representation and Interchange Specification (SEDRIS)*:

- Part 1: Functional specification*
- Part 2: Abstract transmittal format*
- Part 3: Transmittal format binary encoding*

[http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO\\_IEC\\_18023-2\\_Ed1.html](http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_IEC_18023-2_Ed1.html)

# Introduction

## 0.1 Purpose

This part of ISO/IEC 18023 specifies the semantics and abstract syntax of SEDRIS transmittals. Specifying a single abstract syntax for all encodings permits conversion between SEDRIS transmittals encoded in different formats with minimal effort. This also enables implementations of the SEDRIS application program interface (API) to consistently interpret SEDRIS transmittals regardless of their encoding.

## 0.2 Design goals

This International Standard was developed to fulfill the following requirements. The design:

- a. is platform independent,
- b. completely represents the SEDRIS data representation model,
- c. supports lossless compression,
- d. allows the development of encodings that may be efficiently read and written,
- e. isolates the SEDRIS API from the encoding format of SEDRIS transmittals, and
- f. leverages existing standards.

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## 1 Scope

This part of ISO/IEC 18023 specifies the abstract syntax of a SEDRIS transmittal. Actual encodings (EXAMPLE binary encoding) are specified in other parts of ISO/IEC 18023.

[http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO\\_IEC\\_18023-2\\_Ed1.html](http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_IEC_18023-2_Ed1.html)

## 2 Normative references

The following referenced documents are indispensable for the application 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.

Identifier	Reference
I18023-1	<p><u><a href="http://standards.iec.ch/IEC/IEC_18023-1">ISO/IEC 18023-1:2006 <i>Information technology — Synthetic Environment Data Representation and Interchange Specification (SEDRIS) — Part 1: Functional specification</i></a></u></p> <p><u><a href="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_IEC_18023-1_Ed1.html">http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_IEC_18023-1_Ed1.html</a></u></p>

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