
Informacijska tehnologija – Mednarodni standardizacijski profil FOD112 – Dokument odprtega formata: slikovne aplikacije – Enostavna struktura dokumenta – Arhitektura vsebine rasterske grafike – 1. del: Profil uporabe dokumenta (DAP) (ISO/IEC ISP 12064-1:1995)

Information technology - International Standardized Profile FOD112 - Open Document Format: Image Applications - Simple Document Structure - Raster Graphics content architecture - Part 1: Document Application Profile (DAP) (ISO/IEC ISP 12064-1:1995)

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Technologies de l'information - Profil normalisé international FOD112 - Format de document ouvert: Applications d'image - Structure de document simple - Architecture des contenus des caracteres graphiques a raster - Partie 1: Profil du document d'application (DAP) (ISO/IEC ISP 12064-1:1995)

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EUROPEAN STANDARD
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Information technology - International Standardized Profile
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Part 1: Document Application Profile (DAP) (ISO/IEC ISP 12064-
1:1995)

Technologies de l'information - Profil normalisé
international FOD112 - Format de document ouvert:
Applications d'image - Structure de document simple -
Architecture des contenus des caractères graphiques à
raster - Partie 1: Profil du document d'application (DAP)
(ISO/IEC ISP 12064-1:1995)

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This European Standard was approved by CEN on 3 May 1998.

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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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of the International Standard from Technical Committee ISO/IEC/JTC 1 "Information technology" of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) has been taken over as an European Standard by the Technical Board of 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 November 1998, and conflicting national standards shall be withdrawn at the latest by November 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO/IEC ISP 12064-1:1995 has been approved by CEN as a European Standard without any modification.

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**Information technology — International
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Document Format: Image Applications —
Simple Document Structure — Raster
Graphics content architecture —
Part 1:
Document Application Profile (DAP)**

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*Technologies de l'information — Profil normalisé international
FOD112 — Format de document ouvert: Applications d'image —
Structure de document simple — Architecture des contenus des
caractères graphiques à raster —*

Partie 1: Profil du document d'application (DAP)



Reference number
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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.

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In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. In addition to developing International Standards, ISO/IEC JTC 1 has created a Special Group on Functional Standardization for the elaboration of International Standardized Profiles.

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An International Standardized Profile is an internationally agreed, harmonized document which identifies a standard or group of standards, together with options and parameters, necessary to accomplish a function or a set of functions.

Draft International Standardized Profiles are circulated to national bodies for voting. Publication as an International Standardized Profile requires approval by at least 75 % of the national bodies casting a vote.

International Standardized Profile ISO/IEC ISP 12064-1 was prepared with the collaboration of

- OSI Asia-Oceania Workshop (AOW);
- European Workshop for Open Systems (EWOS);
- Open Systems Environment Implementors' Workshop (OIW).

ISO/IEC ISP 12064 consists of the following part, under the general title *Information technology — International Standardized Profile FOD112 — Open Document Format: Image Applications — Simple Document Structure — Raster Graphics content architecture:*

- *Part 1: Document Application Profile (DAP)*

Further parts may be added to ISO/IEC ISP 12064.

Annexes A to C of this part of ISO/IEC ISP 12064 are for information only.

Introduction

The purpose of ISO/IEC ISP 12064 is to facilitate the interworking of basic image applications interchanging documents based on [ITU-T Rec. T.410 series | ISO/IEC 8613], Open Document Architecture (ODA) and Interchange Format. ISO/IEC ISP 12064 is suitable for interchanging documents in formatted form and has been defined in accordance with [ITU-T Rec. T.411 | ISO/IEC 8613-1]. The format of ISO/IEC ISP 12064 is in accordance with ISO/IEC TR 10000-1 and with the standardized proforma and notation defined in Annex F of [ITU-T Rec. T.411 | ISO/IEC 8613-1].

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Information technology — International Standardized Profile FOD112 — Open Document Format: Image Applications — Simple Document Structure — Raster Graphics content architecture

Part 1: Document Application Profile (DAP)

1 Scope

This part of ISO/IEC ISP 12064 specifies an interchange format suitable for transfer of structured documents between equipment designed for raster processing. The documents supported by this part of ISO/IEC ISP 12064 are based on a paradigm of an electronic engineering drawing or illustration. Such documents contain one or more pages. Each page consists of an image in the form of a bi-tonal raster graphics content. There is no restriction on the minimum size of the image.

This part of ISO/IEC ISP 12064 allows large format raster documents to be interchanged in a formatted form in accordance with [ITU-T Rec. T.410 series, ISO/IEC 8613].

It is assumed that, when negotiation is performed by the service using this part of ISO/IEC ISP 12064, all non-basic values are subject to negotiation.

This part of ISO/IEC ISP 12064 is independent of the processes carried out in an end system to create, edit, or reproduce raster documents. It is also independent of the means to transfer the document which, for example, may be by means of communication links or exchanged storage media.

The features of a document that can be interchanged using this part of ISO/IEC ISP 12064 fall into the following categories:

- a) Page format features - these concern how the layout of each page of a document will appear when reproduced;
- b) Raster graphics layout and imaging features - these concern how the document content will appear within pages of the reproduced document;
- c) Raster graphics coding - these concern the raster graphics representations and control functions that make up the document raster graphics content.

There are two DAP object identifiers supporting this part of ISO/IEC ISP 12064 with the only difference being in the encoding of the data stream. One uses the ASN.1 based ODIF encoding. The other uses the SGML/SDIF based ODL encoding. When this document refers to *this part of ISO/IEC ISP 12064*, it is referring to this specification regardless of which DAP identifier may be selected to create the data stream.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 12064. At the time of publication, the editions indicated were valid. All documents are subject to revision, and parties to agreements based on this part of ISO/IEC ISP 12064 are warned against automatically applying any more recent editions of the documents listed below, since the nature of references made by ISPs to such documents is that they may be specific to a particular edition. Members of IEC and ISO maintain registers of currently valid International Standards and ISPs, and ITU-T maintains published editions of its current Recommendations.

- [1] ISO/IEC 646 : 1991, *Information technology - ISO 7-bit coded character set for information interchange.*
- [2] ISO/IEC 2022 : 1994, *Information technology - Character code structure and extension techniques.*
- [3] ISO/IEC 6937: 1994, *Information technology - Coded graphic character set for text communication - Latin alphabetic.*
- [4] ISO/IEC 8613-1 : 1994, *Information technology - Open Document Architecture (ODA) and interchange format - Part 1: Introduction and general principles.* See also ITU-T Recommendation T.411 (1993).
- [5] ISO/IEC 8613-2:1995, *Information technology - Open Document Architecture (ODA) and interchange format - Part 2: Document structures.* See also ITU-T Recommendation T.412 (1993).
- [6] ISO/IEC 8613-4 : 1994, *Information technology - Open Document Architecture (ODA) and interchange format - Part 4: Document profile.* See also ITU-T Recommendation T.414 (1993).
- [7] ISO/IEC 8613-5 : 1994, *Information technology - Open Document Architecture (ODA) and interchange format - Part 5: Open document interchange format.* See also ITU-T Recommendation T.415 (1993).
- [8] ISO/IEC 8613-7 : 1994, *Information technology - Open Document Architecture (ODA) and interchange format - Part 7: Raster graphics content architectures.* See also ITU-T Recommendation T.417 (1993).
- [9] ISO/IEC 8824 : 1990, *Information technology - Open Systems Interconnection - Specification of Abstract Syntax Notation One (ASN.1).*
- [10] ISO/IEC 8825 : 1990, *Information technology - Open Systems Interconnection - Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).*
- [11] ISO 8879 : 1986, *Information processing - Text and office systems - Standard Generalized Markup Language (SGML).*
- [12] ISO 8879:1986/Amd.1:1988, *Information processing - Text and office systems - Standard Generalized Markup Language (SGML), Amendment 1.*
- [13] ISO 9069 : 1988, *Information processing - SGML support facilities - SGML Document Interchange Format (SDIF).*
- [14] ISO/IEC TR 10000-1 : 1992, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 1: Framework.*
- [15] ISO/IEC TR 10000-2 : 1994, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Principles and taxonomy for OSI Profiles.*
- [16] ITU-T Recommendation T.4 : 1988, *Standardization of Group 3 Facsimile Apparatus for Document Transmission.*

- [17] ITU-T Recommendation T.6 : 1988, *Facsimile Coding Schemes and Coding Control Functions for Group 4 Facsimile Apparatus*.

3 Definitions

For the purposes of this part of ISO/IEC ISP 12064, the following definitions apply.

The definitions given in [ITU-T Rec. T.411 | ISO/IEC 8613-1] are applicable to this part of ISO/IEC ISP 12064.

Constituent constraint names

Each constituent that may be included in a document that conforms to this part of ISO/IEC ISP 12064 has been given a unique name which serves to identify that constituent throughout this part of ISO/IEC ISP 12064.

The convention is that full names are used (i.e., no abbreviations are used), two or more words in a name are concatenated and each word begins with a capital. Examples of constituent names used in this part of ISO/IEC ISP 12064 are CompositePage, DocumentLayoutRoot, and SpecificBlock.

In clause 6, each constituent provided by this part of ISO/IEC ISP 12064 is underlined once at the point in the text at which the purpose of that constituent is defined. This also serves to identify all the constituents provided by this part of ISO/IEC ISP 12064.

The same constituent names are also used in the technical specification in clause 7 so that there is a one-to-one correspondence between the use of these names in clauses 6 and 7.

Although the constituent names relate to the purpose of the constituents, the semantics of constituents must not be implied from the actual names that are used. Also, these names do not appear in an interchanged document but a mechanism for identifying constituents in an interchange document is provided. Thus in an application using this part of ISO/IEC ISP 12064, the constituents may be known to the user by different names.

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4 Relationship with other profiles

The raster graphics content portion of this part of ISO/IEC ISP 12064 closely aligns with the FOD036 ISP. The primary exception is that this part of ISO/IEC ISP 12064 supports tiled raster graphics and the additional bit order mapping.

NOTE - Functionally, this part of ISO/IEC ISP 12064 is a functional superset of an ITU-T profile, ITU-T Recommendation T.503, A Document Application Profile for the Interchange of Group 4 Facsimile Documents.

5 Conformance

In order to conform to this part of ISO/IEC ISP 12064, a data stream representing a document must meet the requirements specified in 5.1.

The requirements for implementations that originate and/or receive data streams conforming to this part of ISO/IEC ISP 12064 are specified in 5.2.