

SLOVENSKI STANDARD
SIST EN ISO/IEC 8632-1:1994/A2:1997
01-december-1997

Information technology - Computer graphics - Metafile for the storage and transfer of picture description information - Part 1: Functional specification - Amendment 2: Application structuring extensions (ISO/IEC 8632-1:1992, Amendment 2:1995)

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Informationstechnik - Graphische Datenverarbeitung - Datei für die Speicherung und die Übertragung von Bildinformation - Teil 1: Funktionsbeschreibung - Änderung 2: Erweiterung für strukturierte Anwendungen (ISO/IEC 8632-1:1992, Änderung 2:1995)

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Technologies de l'information - Infographie - Métafichier de stockage et de transfert des informations de description d'images - Partie 1: Description fonctionnelle - Amendement 2: Extensions de structure d'application (ISO/IEC 8632-1:1992, Amendement 2:1995)

Ta slovenski standard je istoveten z: EN ISO/IEC 8632-1:1994/A2:1996

ICS:

35.140 Üæ } æ} æ\ æ\ æ\ æ\ æ\ æ Computer graphics

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EUROPEAN STANDARD

EN ISO/IEC 8632-1:1994/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 1996

ICS 35.140

Descriptors: See ISO document

English version

**Information technology - Computer graphics -
Metafile for the storage and transfer of picture
description information - Part 1: Functional
specification - Amendment 2: Application
structuring extensions (ISO/IEC 8632-1:1992,
Amendment 2:1995)**

Technologies de l'information - Infographie -
Métafichier de stockage et de transfert des
informations de description d'images - Partie
1: Description fonctionnelle - Amendement 2:
Extensions de structure d'application (ISO/IEC
8632-1:1992, Amendement 2:1995)

Informationstechnik - Graphische
Datenverarbeitung - Datei für die Speicherung
und Übertragung von Bildinformationen - Teil 1:
Funktionsbeschreibung - Änderung 2: Erweiterung
für strukturierte Anwendungen (ISO/IEC
8632-1:1992, Änderung 2:1995)



REPUBLICA SLOVENIJA
MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO
Urad RS za standardizacijo in meroslovje
LJUBLJANA
SIST. EN ISO/IEC 8632-1/A2
PREVZET PO METODI RAZGLASITVE

-12- 1997

This amendment 2 modifies the European Standard EN ISO/IEC 8632-1:1994. This amendment was approved by CEN on 1996-05-01. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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 this Amendment EN ISO/IEC 8632-1:1994/A2:1996 to the EN ISO/IEC 8632-1:1994 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 Amendment to the European Standard by Technical Board of CEN.

This Amendment to the European Standard EN ISO/IEC 8632-1:1994 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 1996, and conflicting national standards shall be withdrawn at the latest by November 1996.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this Amendment to the European Standard: Austria, Belgium, 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 Amendment to the International Standard ISO/IEC 8632-1:1992/Amendment 2:1995 has been approved by CEN as an Amendment to the European Standard without any modification.

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INTERNATIONAL
STANDARD

ISO/IEC
8632-1

Second edition
1992-10-01

AMENDMENT 2
1995-07-01

**Information technology — Computer graphics —
Metafile for the storage and transfer of picture
description information —**

Part 1:
Functional specification

AMENDMENT 2: Application structuring extensions

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Technologies de l'information — Infographie — Métafichier de stockage et de transfert des informations de description d'images —

Partie 1: Description fonctionnelle

AMENDEMENT 2: Extensions de structure d'application



Reference number
ISO/IEC 8632-1:1992/Amd.2:1995(E)

ISO/IEC 8632-1:1992/Amd.2:1995(E)**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. 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.

Amendment 2 to International Standard ISO/IEC 8632-1:1992 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 24, *Computer graphics and image processing*.

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Information technology - Computer graphics - Metafile for the storage and transfer of picture description information -

Part 1: Functional specification

AMENDMENT 2: Application structuring extensions

Pages ii-viii

Add the following to Contents:

- "4.3.5 Picture directory"
- "4.5.8 Application structure directory"
- "4.13 Application Structures"
- "4.13.1 Introduction
- 4.13.2 Location of and access to Application Structures
- 4.13.3 Nesting of Application Structures
- 4.13.4 Graphical Context of Application Structures
- 4.13.5 Application Structure Attributes"
- "5.2.18 BEGIN APPLICATION STRUCTURE
- 5.2.19 BEGIN APPLICATION STRUCTURE BODY
- 5.2.20 END APPLICATION STRUCTURE"
- "5.3.24 PICTURE DIRECTORY"
- "5.4.20 APPLICATION STRUCTURE DIRECTORY"
- "5.11 Application structure descriptor elements
- 5.11.1 APPLICATION STRUCTURE ATTRIBUTE"
- "I Formal grammar of the functional specification of Version 4 metafiles."

0 Introduction

Subclause 0.9 Versions, page xiii:

Change the 4th sentence to read:

"The following versions are currently defined: Version 1 (one); Version 2 (two); Version 3 (three); Version 4 (four)."

Change Note 1 by adding a sentence before the 1st sentence:

"A valid Version 3 metafile is also a valid Version 4 metafile."

Change Note 2 by adding a sentence after the final period:

"Version 4 metafiles are defined by ISO/IEC 8632:1992/Amd.2."

1 Scope

Clause 1, Page 1:

Replace the 2nd sentence of the 1st paragraph to read:

"The file format consists of an ordered set of elements that may be used to describe pictures in a way that is compatible between systems of different architectures, compatible with devices of differing capabilities and design, and meaningful to application constituencies."

Replace the 2nd sentence of the 2nd paragraph to read:

"The elements are organized into groups that delimit major structures (metafiles, pictures, and application structures), that specify the representations used within the metafile, that control the display of the picture, that perform basic drawing actions, that control the attributes of the basic drawing actions, that allow application-specific structuring to be overlaid on the graphic content, and that provide access to non-standard device capabilities."

Replace the 3rd paragraph with:

"The metafile is defined in such a way that, in addition to sequential access to the whole metafile, random access to individual pictures and individual context-independent application structures is well-defined. Applications which require random access to pictures and/or context-independent application structures within pictures may, within the metafile, define directories to these pictures and/or context-independent application structures. The metafile may then be opened and randomly accessed without interpreting the entire metafile."

3 Definitions

Subclause 3.1, page 9:

Add the following definition:

3.1.105 application structure: A sequence of metafile elements delimited by the BEGIN APPLICATION STRUCTURE and END APPLICATION STRUCTURE elements, containing

one BEGIN APPLICATION STRUCTURE BODY element, and optionally containing one or more APPLICATION STRUCTURE ATTRIBUTE elements."

Subclause 3.2, page 9:

Add the following abbreviation to the list of abbreviations:

"APS Application Structure"

4 Concepts

4.1 Introduction

Subclause 4.1, page 10:

Change 1st sentence to read:

"The objective of the Computer Graphics Metafile (CGM) is to provide for the description, storage, and communication of graphical information together with related, application-specific information in a device-independent manner."

Change the 2nd element class in the 1st paragraph to read:

"- Metafile Descriptor Elements, which describe the functional content, default conditions, identification, and characteristics of the CGM; and optionally, define a directory."

Change the 3rd element class in the 1st paragraph to read:

"- Picture Descriptor Elements, which set the interpretation modes of attribute elements for each picture and optionally, define a directory to the application structures contained in each picture."

Replace the 9th element class in the 1st paragraph with:

"-Segment elements, which enable the grouping of graphic objects for graphical operations such as copying.

-Application structure elements, which enable the grouping of elements for retrieval, electronic linking, and other specific application-dependent operations."

Add the following sentence after the last sentence of the 4th paragraph:

"In Version 4 metafiles, graphical output primitives, attributes, control elements, and application structure attributes may be grouped in application structures."

4.2 Delimiter Elements

Subclause 4.2, page 11:

Change the 1st sentence of the 5th paragraph to read:

"In Version 2, Version 3, and Version 4 metafiles, primitives may be grouped together to form a composite primitive known as a closed figure."

Change the 1st sentence of the 6th paragraph to read:

"In Version 2, Version 3, and Version 4 metafiles, groups of elements, called segments, are delimited by BEGIN SEGMENT and END SEGMENT."

Change the 1st sentence of the 7th paragraph to read:

"In Version 3 and Version 4 metafiles, a compound clipping and shielding region may be defined by line and filled-area elements occurring between BEGIN PROTECTION REGION and END PROTECTION REGION."

Change the 1st sentence of the 8th paragraph to read:

"In Version 3 and Version 4 metafiles, a tile array may be defined by tile elements occurring between BEGIN TILE ARRAY and END TILE ARRAY."

Add a new paragraph after the 10th (the last) paragraph as follows:

"In Version 4 metafiles, application structures consisting of groups of elements within picture bodies, are delimited by BEGIN APPLICATION STRUCTURE and END APPLICATION STRUCTURE. Between these delimiters the BEGIN APPLICATION STRUCTURE BODY element separates the APPLICATION STRUCTURE ATTRIBUTE elements in the application structure descriptor from the other elements contained in the application structure body."

4.3 Metafile descriptor elements

Subclause 4.3, page 11:

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Add the following element to the element list in the 1st paragraph:

"PICTURE DIRECTORY"

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Add a new Subclause 4.3.2.7 Version 4 set, page 16:

"4.3.2.7 Version 4 set

The Version 4 set may be used to indicate all the elements in Version 3 and the elements:

PICTURE DIRECTORY
APPLICATION STRUCTURE DIRECTORY
BEGIN APPLICATION STRUCTURE
BEGIN APPLICATION STRUCTURE BODY
END APPLICATION STRUCTURE
APPLICATION STRUCTURE ATTRIBUTE"

Add a new Subclause 4.3.5 Picture directory, page 21:

"4.3.5 Picture directory

The PICTURE DIRECTORY element contains locations of the pictures in a metafile. The picture directory contains a list of picture identifiers and their locations relative to the BEGIN METAFILE element. The picture directory may optionally contain the location of the APPLICATION STRUCTURE DIRECTORY element in each picture relative to the BEGIN METAFILE element. An interpreter wishing to randomly address a picture in a metafile with a picture directory need

only interpret the Metafile Descriptor and skip to the locations of the picture specified in the PICTURE DIRECTORY. The next element read will be the desired BEGIN PICTURE."

4.4 Picture descriptor elements

Subclause 4.4, page 21:

Add the following element to the element list in the 1st paragraph:

"APPLICATION STRUCTURE DIRECTORY"

Change the 1st sentence of the 3rd paragraph (the last) to read:

"In Version 2, Version 3, and Version 4 metafiles, some of the Picture Descriptor elements may appear within the picture body."

Add a new Subclause 4.4.10 Application structure directory, page 25.

"4.4.10 Application structure directory

The APPLICATION STRUCTURE DIRECTORY element contains the locations of the various application structures in a picture. The application structure directory contains a list of application structure identifiers and their locations relative to the BEGIN PICTURE element. APSs within a metafile containing multiple pictures can be accessed directly in two steps. First, the picture directory is used to locate a picture and possibly the application structure directory for the picture. 2nd, the APSs in the picture are located using the application structure directory."

4.5 Control elements

Subclause 4.5.2, page 25: <https://standards.iteh.ai/catalog/standards/sist/406fa394-7138-4262-8387-388faa8d4ea6/sist-en-iso-iec-8632-1-1994-a2-1997>

Change the 1st sentence of the 2nd paragraph to read:

"In Version 3 and Version 4 metafiles, primitives may also be clipped against more general regions as defined by BEGIN PROTECTION REGION and END PROTECTION REGION, and as controlled by PROTECTION REGION INDICATOR (see 4.5.4)."

4.6 Graphical primitive elements

Subclause 4.6.1.5, page 34:

Change the 1st sentence of the 1st paragraph to read:

"In Version 2, Version 3, and Version 4 metafiles, line clipping is controlled by the LINE CLIPPING MODE element, which can have one of the following values: 'locus', 'shape', or 'locus then shape'."

Subclause 4.6.2.3, page 35:

Change the 1st sentence of the 3rd paragraph to read:

"In Version 2, Version 3, and Version 4 metafiles, marker clipping is controlled by the MARKER CLIPPING MODE element, which can have one of the following values: 'locus', 'shape', or 'locus then shape'."

4.7 Attribute elements

Subclause 4.7.1.2, page 59:

Change Note 2 to read:

"Note 2 The LINE JOIN element is only permissible in Version 3 and Version 4 metafiles, therefore only the 'unspecified' style is available in Version 1 and Version 2 metafiles."

Change Note 3 to read:

"Note 3 The LINE TYPE CONTINUATION element is only permissible in Version 3 and Version 4 metafiles, therefore only the 'unspecified' style is available in Version 1 and Version 2 metafiles."

Subclause 4.7.2.2, page 61:

Change to read:

"There are no individual marker attributes in metafiles of Versions 1, 2, 3, and 4 -- all marker elements are bundled."

Subclause 4.7.3.2, page 76:

Change the 2nd sentence from the top of the page to read:

"Version 3 and Version 4 metafiles allow selection of one of several specific ways in which the text shall fit the box (see below)."

Subclause 4.7.3.2, page 77:

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Change the 1st sentence of Note 4 to read:

"4 The RESTRICTED TEXT TYPE element, which defines the way in which the text string is to fit the box, is only defined and permitted in Version 3 and Version 4 metafiles."

Subclause 4.7.5, page 87:

Change the last sentence of the 1st paragraph to read:

"All of these modes are permitted in Version 3 and Version 4 metafiles."

Subclause 4.7.6, page 89:

Change the last sentence on the page to read:

"COLOUR TABLE may appear in the picture body for metafiles of Version 1, 2, 3, and 4, as well as in the Picture Descriptor for Version 2, 3, and 4 metafiles."

4.11 Metafile states

Subclause 4.11, page 102:

Replace the 1st sentence in the next to the last paragraph with the following:

"The states in which each element is allowed for Version 1, Version 2, Version 3, and Version 4 metafiles are described in table 8."

Subclause 4.11, Table 8, pages 103 through 110:

Replace Table 8 with the following:

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