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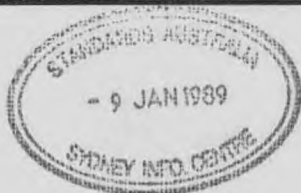


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**COMPUTER GRAPHICS—
METAFILE FOR THE STORAGE AND
TRANSFER OF PICTURE DESCRIPTION
INFORMATION**

**Part 1—FUNCTIONAL
SPECIFICATIONS**

(ISO Title: Information processing systems—Computer graphics—Metafile for the storage and transfer of picture description information—Part 1: Functional specification)



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AUSTRALIAN STANDARD

**COMPUTER GRAPHICS—
METAFILE FOR THE STORAGE AND
TRANSFER OF PICTURE DESCRIPTION
INFORMATION**

**Part 1
FUNCTIONAL SPECIFICATIONS**

(ISO Title: Information processing systems—Computer graphics—Metafile
for the storage and transfer of picture description information—
Part 1: Functional specification)

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PREFACE

This Standard was prepared by the Association's Committee on Information Processing Systems in response to rapid developments and growth of interest in computer related graphics. It is identical with, and has been reproduced from, International Standard ISO-8632—1987, drawn up by ISO TC 97, Information Processing Systems. 8632.1

The computer graphics metafile provides a file format suitable for the storage and retrieval of picture information. The file format consists of a set of elements that can be used to describe pictures in a way that is compatible between systems of different architectures and devices of different capabilities and design.

For the purpose of this Australian Standard, the text of the ISO Standard should be modified as follows:

- (a) *Terminology*—The words 'Australian Standard' should replace the words 'International Standard' wherever they apply.
- (b) *Cross-reference*—The references to International Standards should be replaced by reference to Australian Standards as follows:

<i>Reference to International Standards</i>		<i>Relevant Australian Standard</i>	
ISO		AS	
646	Information processing—ISO 7-bit coded character set for information interchange	1776	Information processing—7-bit coded character set for information interchange
2022	Information processing—ISO 7-bit and 8-bit coded character sets—Code extension techniques	1953	Information processing—ISO 7-bit and 8-bit coded character sets—Code extension techniques
7942	Information processing systems—Computer graphics—Graphical kernel systems (GKS) functional description	2880	Information processing systems—Computer graphics—Graphical kernel systems (GKS) functional description

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Computer graphics—Metafile for the storage and transfer of picture description information— Part 1—Functional specification

0 Introduction

0.1 Purpose

The Computer Graphics Metafile provides a file format suitable for the storage and retrieval of picture information. The file format consists of a set of elements that can be used to describe pictures in a way that is compatible between systems of different architectures and devices of differing capabilities and design.

0.2 Reasons for this International Standard

The main reasons for producing a standard computer graphics metafile are

- a) to allow picture information to be stored in an organized way on a graphical software system;
- b) to facilitate transfer of picture information between different graphical software systems;
- c) to enable picture information to be transferred between graphical devices;
- d) to enable picture information to be transferred between different computer graphics installations.

0.3 Design requirements

To reach these objectives, a number of design principles were adopted:

- a) The metafile should provide a suitable set of elements for the transfer of a wide range of pictorial information.
- b) The metafile should address the more usual and essential features found on graphical devices directly and should provide access to less common facilities via an escape mechanism.
- c) The design of the metafile should not preclude extension of ISO 8632 at a later stage to cover facilities beyond those included in this version of the Standard.
- d) The metafile should be usable from GKS (Graphical Kernel System - ISO 7942) with both metafile input and metafile output functions.
- e) ISO 8632 should address the needs of different applications that have conflicting requirements for size of metafile, speed of generation and interpretation, readability, editability and ease of transfer through different transport mechanisms.

0.4 Design criteria

The requirements of 0.3 were used to formulate the following criteria which were used to decide between different design possibilities.

- a) **Completeness:** In any area of ISO 8632, the functionality specified by ISO 8632 should be complete in itself.
- b) **Conciseness:** Redundant elements or parameters should be avoided.
- c) **Consistency:** Contradictory elements should be avoided.
- d) **Extensibility:** The ability to add new elements and generality to ISO 8632 should not be precluded.
- e) **Fidelity:** The minimal results and characteristics of elements should be well defined.