STANDARD

11072

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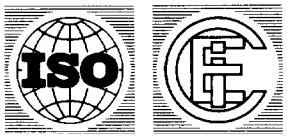
Information technology – Computer graphics – Computer Graphics Reference Model

Technologies de l'information – Infographie – Modèle de référence



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.

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.

International Standard ISO/IEC 11072 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology.*

Annexes A to D of this International Standard are for information only.

Introduction

The Computer Graphics Reference Model (CGRM) describes the conceptual framework for computer graphics. Computer graphics is the creation of, manipulation of, analysis of, and interaction with pictorial representations of objects and data using computers.

The main purpose of the CGRM is to define concepts that shall be used to develop computer graphics standards. Additional purposes are to explain relations between SC24 standards and to provide a forum whereby areas outside computer graphics can identify their relationships to computer graphics.

International Standards related to computer graphics include the following existing and emerging areas:

a) Open Systems Interconnection - Basic Reference Model;
b) Virtual Terminal Protocols and Terminal Management;
c) File Transfer, Access and Management Protocols;
d) Office Document Architecture and Interchange;
e) Text and Office Systems;
f) Exchange of Product Model Data;
g) Character Sets and Coding;
h) Open Distributed Processing;
i) Image Processing and Interchange.

This International Standard shall be the basis for the development of specific standards for computer graphics and will ensure their long term coherence based on objective rational foundations. Existing computer graphics standards will not necessarily fit precisely into the Reference Model. However, experience with current standards has significantly influenced the model.

Information technology – Computer graphics – Computer Graphics Reference Model

1 Scope

This International Standard, the Computer Graphics Reference Model (CGRM), defines a structure within which current and future International Standards for computer graphics shall be compared and their relationships described.

This International Standard defines a set of concepts and their inter-relationships which should be applicable to the complete range of future computer graphics standards.

This International Standard may be applied to:

a) verify and refine requirements for computer graphics;
b) identify needs for computer graphics standards and external interfaces;
c) develop models based on requirements for computer graphics;
d) define the architecture of new computer graphics standards;
e) compare computer graphics standards.

This International Standard does not define how computer graphics standards shall be defined and developed. It does not specify the functional descriptions of computer graphics standards, the bindings of those standards to programming languages, or the encoding of graphical information in any coding technique or interchange format. It is neither an implementation specification for systems incorporating computer graphics, nor a basis for appraising the conformance of implementations.