INTERNATIONAL STANDARD

ISO/IEC 9592-3

Second edition
1997-11-15

Information technology — Computer graphics and image processing — Programmer's Hierarchical Interactive Graphics System (PHIGS) —

Part 3:
Specification for clear-text encoding of archive file

Technologies de l'information — Infographie et traitement de l'image — Interface de programmation du système graphique hiérarchisé (PHIGS) —

Partie 3: Spécification du codage mode texte en clair du fichier d'archive

Reference number
ISO/IEC 9592-3:1997(E)

Contents

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 9592-3 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 24, *Computer graphics and image processing*.

This second edition cancels and replaces the first edition (ISO/IEC 9592-3:1989), which has been technically revised. It also incorporates Amendment 1:1992.

ISO/IEC 9592 consists of the following parts, under the general title *Information technology — Computer graphics and image processing — Programmer's Hierarchical Interactive Graphics System (PHIGS)*:

— *Part 1: Functional description*

— *Part 2: Archive file format*

— *Part 3: Specification for clear-text encoding of archive file*

Annex A of this part of ISO/IEC 9592 is for information only.

Introduction

The clear-text encoding of the PHIGS archive file provides a representation of the archive file syntax that is easy to type, edit, and read. It allows an archive file to be edited with any standard text editor, using the internal character code of the host computer system. The primary objectives are:

a) HUMAN EDITABLE: The clear-text encoding should be able to be hand-edited or, if desired, hand-constructed.

b) HUMAN-FRIENDLY: The clear-text encoding should be easy and natural for people to read and edit. Although what is easiest and most natural is a subjective judgement that varies among users, contributing factors such as ease of recognition, ease of remembering, avoidance of ambiguity, and prevention of mistyping have all been considered.

c) MACHINE-READABLE: The clear-text encoding should be able to be parsed by software.

d) USABLE IN A WIDE VARIETY OF EDITORS: The clear-text encoding should not have any features that make it difficult to edit in normal text editors.

e) INTERCHANGEABLE BETWEEN DIVERSE SYSTEMS: The clear-text encoding should be encoded in such a way as to maximize the set of systems which can utilize it. No assumptions should be made as to word size or arithmetic modes used to interpret the archive file.

f) USES STANDARDIZED ABBREVIATIONS: Where language encoding of other graphics standards have established standard abbreviations, or where common practice in the data processing and graphics industries has established well-known abbreviations, these abbreviations are used. In accordance with the principle of "least astonishment", this approach should minimize the time needed to learn to use this encoding.

This part of ISO/IEC 9592 draws extensively for its model of an archive file format on ISO 8632. The set of characters needed to implement the clear-text encoding is a subset of those included in national versions of ISO 646. Any character set that can be mapped to and from that subset may be used to implement the encoding.

Information technology – Computer graphics and image processing –

Programmer's Hierarchical Interactive Graphics System (PHIGS) – Part 3: Specification for clear-text encoding of archive file

1 Scope

This part of ISO/IEC 9592 specifies a clear-text encoding of the PHIGS archive file. For each of the archive file elements specified in ISO/IEC 9592-2, a clear text encoding is specified. This part of ISO/IEC 9592 specifies the overall format of the archive file and the means by which comments may be interspersed in the archive file.

This encoding of the PHIGS archive file allows archive files to be created and maintained in a form which is simple to type, easy to edit and convenient to read.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9592. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 9592 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 646:1991, *Information technology - ISO 7-bit coded character set for information interchange.*

ISO/IEC 2022:1994, *Information technology - Character code structure and extension techniques.*

ISO 6093:1985, *Information processing - Representation of numerical values in character strings for information interchange.*

ISO/IEC 8632:1992, *Information technology - Computer graphics - Metafile for the storage and transfer of picture description information*

- *Part 1 : Functional description*
- *Part 2 : Character encoding*
- *Part 3 : Binary encoding*
- *Part 4 : Clear text encoding*