AS ISO/IEC 9638.3:2025
ISO/IEC 9638-3:1994

Australian STANDARD®

STANDARDS Australia

Information technology — Computer graphics — Interfacing techniques for dialogues with graphical devices (CGI) — Language bindings

Part 3: Ada



AS ISO/IEC 9638.3:2025

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This page explains the meaning of the language and structure of this Standard.

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To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

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(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Standards Australia Committee IT-031, Modelling and Simulation.

The objective of this document is to specify a language independent standard interface between device-independent and device-dependent parts of a graphics system. For integration into a programming language, CGI is embedded in a language dependent layer obeying the particular conventions of that language. This document specifies such a language dependent layer for the Ada programming language.

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The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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 9638-3 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology,* Subcommittee 24, *Computer graphics and image processing.*

ISO/IEC 9638 consists of the following parts, under the general title *Information technology — Computer graphics — Interfacing techniques for dialogues with graphical devices (CGI) — Language bindings:*

— *Part 1 : FORTRAN*

— *Part 2: PASCAL*

— *Part 3: Ada*

Annexes A, B, C, D and E of this part of ISO/IEC 9638 are for information only.

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Introduction

The Computer Graphics Interface (CGI) (ISO/IEC 9636) is specified in a language independent manner and needs to be embedded in language dependent layers (language bindings) for use witb particular programming languages.

The purpose of this document is to define a standard binding of CGI to the Ada computer programming language.

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Information technology — Computer graphics — Interfacing techniques for dialogues with graphical devices (CGI) — Language bindings

Part 3: Ada

1 Scope

The Computer Graphics Interface (CGD (ISO/EEC 9636), specifies a language independent standard interface between device-independent and device-dependent parts of a graphics system. For integration into a programming language, CGI is embedded in a language dependent layer obeying the particular conventions of that language. This part of ISO/IEC 9638 specifies such a language dependent layer for the Ada programming language.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9638. 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 9638 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 8652:1987, *Programming Languages — Ada.*

ISO/IEC 9636-1:1991, *Information technology — Computer graphics — Interfacing techniques for dialogues with graphics devices (CGI) — Functional Specification — Part 1: Overview, profiles, and conformance.*

ISO/IEC 9636-2:1991, *Information technology — Computer graphics — Interfacing techniques for dialogues with graphics devices (CGI) — Functional Specification — Part 2: Control.*

ISO/EEC 9636-3:1991, *Information technology — Computer graphics — Interfacing techniques for dialogues with graphics devices (CGI) — Functional Specification — Part 3: Output.*

ISO/EEC 9636-4:1991, *Information technology — Computer graphics — Interfacing techniques for dialogues with graphics devices (CGI) — Functional Specification — Part 4: Segments.*

ISO/IEC 9636-5:1991, *Information technology — Computer graphics — Interfacing techniques for dialogues with graphics devices (CGI) — Functional Specification — Part 5: Input and echoing.*

ISO/IEC 9636-6:1991, *Information technology — Computer graphics — Interfacing techniques for dialogues with graphics devices (CGI) — Functional Specification — Part 6: Raster.*

ISO/IEC 9637-1:1992, *Information technology — Computer graphics — Interfacing techniques for dialogues with graphics devices(CGI) — Data stream binding — Part 1: Character encoding.*

ISO/IEC 9637-2:1992, *Information technology — Computer graphics — Interfacing techniques for dialogues with graphics devices(CGI) — Data stream binding — Part 2: Binary encoding.*

3 Principles

This binding supports the implementation independent aspects of the Ada standard except as discussed under multi-tasking. This binding does not assume that tbe compilo- supports any Ada language features

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