AS IEC 61131.3—2004
IEC 61131-3:2003

Australian Standard™

Programmable controllers

Part 3: Programming languages

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Programmable controllers

Part 3: Programming languages

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PREFACE

This Standard was prepared by the Standards Australia Committee IT-006, Information Technology for Industrial Automation to supersede AS 4163.3—1994, *Programmable controllers,* Part 3: *Programmable languages.*

This Standard is identical with, and has been reproduced from, IEC 61131-3:2003, *Programmable controllers*—Part 3: *Programming languages*.

The objective of this Standard is to specify syntax and semantics of programming languages for *programmable controllers* as defined in Part 1 of AS IEC 61131.

This Standard is Part 3 of AS IEC 61131 *Programmable controllers*, which consists of the following:

Part 1: General information
Part 2: Equipment requirements and tests
Part 3: Programming languages (this Standard)
Part 4: User guidelines
Part 5: Communications
Part 7: Fuzzy control programming
Part 8: Guidelines for the application and implementation of programming languages

AS IEC 61131 does not have a Part 6. A project to develop IEC 61131-6 *Programmable controller communications via field bus* was deleted in September 2000 by the IEC.

In this Standard, the following print types are used:

– requirements proper: in arial type;

– *test specifications: in italic type;*

– explanatory matter: in smaller arial type.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text ‘this part of IEC 61131’ should read ‘this part of AS IEC 61131’.

(c) A full point should be substituted for a comma when referring to a decimal marker.

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STANDARDS AUSTRALIA

Australian Standard

Programmable controllers

Part 3: Programming languages

1 General

1.1 Scope

This part of IEC 61131 specifies syntax and semantics of programming languages for *programmable controllers* as defined in part 1 of IEC 61131.

The functions of program entry, testing, monitoring, operating system, etc., are specified in Part 1 of IEC 61131.

1.2 Normative references

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050 (all parts): *International Electrotechnical Vocabulary (IEV)*

IEC 60559:1989, *Binary floating-point arithmetic for microprocessors systems*

IEC 60617-12:1997, *Graphical symbols for diagrams – Part 12: Binary logic elements*

IEC 60617-13:1993, *Graphical symbols for diagrams – Part 13: Analogue elements*

AS/NZS 1102.113:1995, *Graphical symbols for electrotechnology, Part 113: Analogue elements (identical)*

IEC 60848:2002, *GRAFCET specification language for sequential function charts*

~~IEC 61131-1, *Programmable controllers – Part 1: General information*~~

AS IEC 61131.1, *Programmable controllers, Part 1: General information* (identical)

~~IEC 61131-5, *Programmable controllers – Part 5: Communications*~~

AS IEC 61131.5, *Programmable controllers, Part 5: Communications* (identical)

ISO/AFNOR: 1989, *Dictionary of computer science – The standardised vocabulary*

~~ISO/IEC 10646-1:1993, *Information technology – Universal Multiple-Octet Coded Character Set (UCS) – Part 1: Architecture and Basic Multilingual Plane*~~