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IEC/TR 61131-8, Ed. 2.0 (2003)

AS IEC 61131.8:2014

Australian STANDARD

Programmable controllers

Part 8: Guidelines for the application and implementation of programming languages

STANDARDS Australia

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Programmable controllers

Part 8: Guidelines for the application and implementation of programming languages

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PREFACE

This Standard was prepared by the Standards Australia Committee IT-006, Industrial Process Measurement, Control and Automation, to supersede AS IEC 61131.8—2004.

The objective of this Standard is to provide guidelines for the implementation of the programming languages defined in AS IEC 61131.3, in programmable controller systems and their programming support environments (PSEs).

This Standard should be read in conjunction with the other parts of the AS IEC 61131 series.

This Standard is identical with, and has been reproduced from, IEC/TR 61131-8, Ed. 2.0 (2003), *Programmable controllers*—Part 8: *Guidelines for the application and implementation of programming languages*.

The principal differences between this and the previous edition have been made to align this edition with the current edition of AS IEC 61131.3.

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

(a) In the source text 'this part of IEC 61131' should read 'this Australian Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian Standards, as follows:

Reference to International Standard	*Australian Standard*
IEC	AS IEC
61131 Programmable controllers	61131 Programmable controllers
61131-1 Part 1: General information	61131.1 Part 1: General information
61131-2 Part 2: Equipment requirements and tests	61131.2 Part 2: Equipment requirements and tests
61131-3 Part 3: Programming languages	61131.3 Part 3: Programming languages
61131-5 Part 5: Communications	61131.5 Part 5: Communications

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

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INTRODUCTION

This part of IEC 61131 is being issued as a technical report in order to provide guidelines for the implementation and application of the programming languages defined in IEC 61131-3: 2003, second edition.

Its contents answer a number of frequently asked questions about the intended application and implementation of the normative provisions of IEC 61131-3, second edition and about its differences from IEC 61131-3:1993, first edition.

AUSTRALIAN STANDARD

Programmable controllers

Part 8: Guidelines for the application and implementation of programming languages

1 General

1.1 Scope

This part of IEC 61131, which is a technical report, applies to the programming of programmable controller systems using the programming languages defined in IEC 61131-3. It also provides guidelines for the implementation of these languages in programmable controller systems and their programming support environments (PSEs).

IEC 61131-4 should be consulted for other aspects of the application of programmable controller systems.

NOTE Neither IEC 61131-3 nor this technical report explicitly addresses safety issues of programmable controller systems or their associated software. The various parts of IEC 61508 should be consulted for such considerations.

1.2 Normative references

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 61131-1:1992, *Programmable controllers – Part 1: General information*

IEC 61131-2:2003, *Programmable controllers – Part 2: Equipment requirements and tests*

IEC 61131-3:2003, *Programmable controllers – Part 3: Programming languages*

IEC 61131-5:2000, *Programmable controllers – Part 5: Communications*

1.3 Abbreviated terms

FB	Function Block
FBD	Function Block Diagram
LD	Ladder Diagram
IL	Instruction List
POU	Program Organization Unit
PSE	Programming Support Environment
SFC	Sequential Function Chart
ST	Structured Text

