



Programmable controllers
Part 4: User guidelines

STANDARDS
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This Australian Standard® was prepared by Committee IT-006, Industrial Process Measurement, Control and Automation. It was approved on behalf of the Council of Standards Australia on 14 November 2014.
This Standard was published on 19 December 2014.

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This Standard was issued in draft form for comment as DR AS IEC 61131.4:2014.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard[®]

Programmable controllers

Part 4: User guidelines

Original as AS IEC 61131.4—2004.
Second edition 2014.

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Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 74342 932 7

PREFACE

This Standard was prepared by the Standards Australia Committee IT-006, Industrial Process Measurement, Control and Automation, to supersede AS IEC 61131.4—2004.

The objective of this Standard is to introduce the end-users of Programmable Controllers (PLCs) to the AS IEC 61131 series, and to assist the end-users in their selection and specification of PLC equipment according to the AS IEC 61131 series. This user guideline has as its main audience PLC end-users.

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 61131-4, Ed. 2.0 (2004), *Programmable controllers—Part 4: User guidelines*.

This edition differs extensively from the previous (2004) edition. Whereas the previous edition was mainly tutorial in nature, this edition aims to provide an engineering overview of the AS IEC 61131 series for those end-users of PLCs who may not be expected to delve into the extensive details of the AS 61131 series, but wish to understand the benefit of using AS IEC 61131 compliant PLCs.

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 or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>	<i>Australian Standard</i>
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
61131-7 Part 7: Fuzzy control programming	61131.7 Part 7: Fuzzy control programming
61131-8 Part 8: Guidelines for the application and implementation of programming languages	61131.8 Part 8: Guidelines for the application and implementation of programming languages

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 constitutes the fourth part of a series of standards on programmable controllers and the associated peripherals and should be read in conjunction with the other parts of the series.

Where a conflict exists between this and other IEC standards (except basic safety standards), the provisions of this standard should be considered to govern in the area of programmable controllers and their associated peripherals.

Terms of general use are defined in IEC 61131-1. More specific terms are defined in each part.

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User guidelines

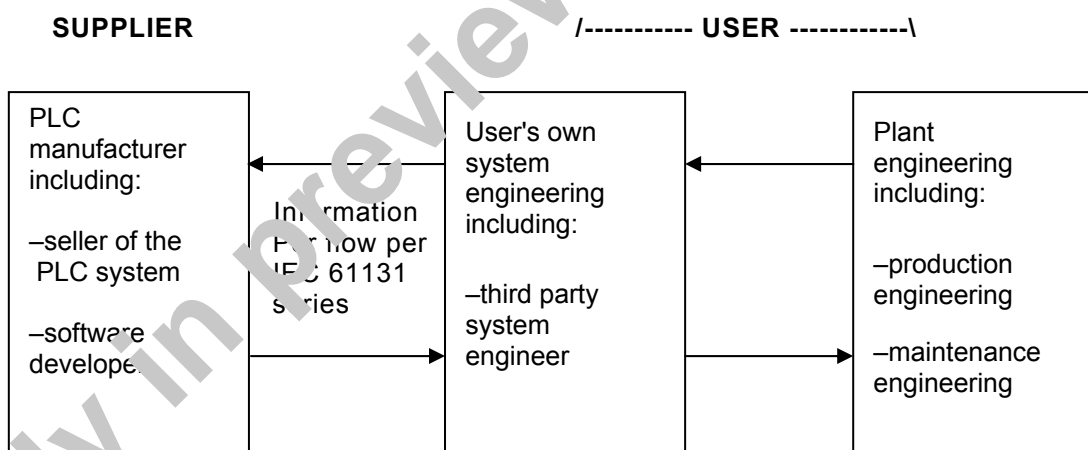
1 General

1.1 Scope and object

The object of this Technical report is to introduce the end-users of Programmable Controller (PLC) to the IEC 61131 series, and to assist the end-users in their selection and specification of their PLC equipment according to the IEC 61131 series. This user guideline has as its main audience PLC end-users.

PLCs, their application program and their associated peripherals are considered as components of a control system. Therefore, PLC users should take note that this standard does not deal with the automated system in which the PLC and PLC system is but one component. However, when applying this user guideline, an overall system architecture evaluation is recommended. Functional safety of the overall automated system is beyond the scope of this standard.

An objective of this user guideline is to facilitate communication between the PLC user and PLC supplier according to the specifications of the IEC 61131 series that applies to PLCs and their associated peripherals. This information exchange is illustrated in Figure 1.



IEC 1025/04

Figure 1 – Object of user guidelines