

# TECHNICAL REPORT

# IEC TR 61131-8

Second edition  
2003-09

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## Programmable controllers –

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

*Automates programmables –*

*Partie 8:  
Lignes directrices pour l'application et la mise en oeuvre  
des langages de programmation*

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### PROGRAMMABLE CONTROLLERS –

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

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IEC 61131-8, which is a technical report, has been prepared by subcommittee 65B: Devices, of IEC technical committee 65: Industrial-process measurement and control.

This second edition cancels and replaces the first edition, published in 2000, and constitutes a technical revision.

The main changes with respect to the previous edition are to make IEC 61131-8 consistent with IEC 61131-3, 2nd edition.

This is a preview of "IEC/TR 61131-8 Ed. 2...". [Click here to purchase the full version from the ANSI store.](#)

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
65B/478/DTR	65B/492/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until 2008. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

This is a preview of "IEC/TR 61131-8 Ed. 2...". [Click here to purchase the full version from the ANSI store.](#)

## 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.



## 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