Introduction into IEC 61131-8

Guidelines for the application and implementation of programming languages

(From the Working Draft 3)

Scope

This 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.

Overview

The intended audience for this technical report consists of:

- users of programmable controller systems as defined in IEC 61131-3, who must program, configure, install, and maintain programmable controllers as part of industrial process measurement and control systems; and

- implementors of programming languages, as defined in IEC 61131-3, for programmable controller systems. This may include vendors of software and hardware for the preparation and maintenance of programs for these systems, as well as vendors of the programmable controller systems themselves.

IEC 61131-3, in contrast, is mainly oriented toward the implementors of programming languages for programmable controllers. Users who wish a general introduction to these languages and their application should consult any of several generally available textbooks on this subject. Subclause 1.4 of IEC 61131-3 should be consulted by those who wish a "top-down" overview of the contents of IEC 61131-3.

Clause 2 of this technical report provides a general introduction to IEC 61131-3, while clause 3 provides complementary information about the application of some of the programming language elements specified IEC 61131-3. Clause 4 provides information about the intended implementation of some of these programming language elements, while Clause 5 provides general information about requirements for hardware and software for program development and maintenance. Hence, it is expected that users of programmable controllers will find Clauses 2 and 3 of this document most useful, while programming language implementors will find Clauses 4 and 5 more useful, referring to the background material in Clauses 2 and 3 as necessary.

TABLE OF CONTENT IEC 61131-8