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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 19769.3-2012

**Function block for industrial-process measurement and control
systems -- Part 3: Tutorial information**

工业过程测量和控制系统用功能块 第3部分：指导信息
(English Translation)

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Foreword

GB/T 19769 "industrial process measurement and control systems function block" is divided into the following sections.

- Part 1. Structure;
- Part 2. Software tools requirements;
- Part 3. Guidance information;
- Part 4. Application Profile Guidelines.

This section GB/T 19769 Part 3.

This section identical with IEC 61499-3:2004 "industrial process measurement and control systems Function blocks - Part 3. Guidance Information" (English Chinese Version).

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section according to GB/T 1.1-2009 to IEC 61499-3:2004 made the following editorial changes.

- Remove the IEC 61499-3:2004 foreword, preface rewritten this section;
- Where "IEC 61499" where to "GB/T 19769";
- With a decimal point "." Instead of a comma as the decimal point, ","
- According to Chinese customs for some formatting has been modified;
- Some of the statements apply to international standards to apply to our standard formulation.

Appendix A of this section and Appendix B is an informative annex.

This part is proposed by China Machinery Industry Federation.

This part of the measurement and control of Standardization Technical Committee (SAC/TC124) is administered by the National industrial processes.

Introduction

The following shows the GB/T 19769 describes the various parts of the content.

a) The first part

- General requirements, including introduction, scope, normative references, definitions and reference model;

- defined function block types of rules, rules type declaration of an instance of behavior;
- Rule Function blocks in distributed industrial process measurement and control systems (IPMCS) used in the configuration;
- function blocks to meet the communication needs rules distributed IPMCS used;
- Rule Function block IPMCS managing distributed applications, resources and equipment used.

b) Part 2 defines the requirements for the software tools to support the following systems engineering tasks GB/T 19769.1 1.1 listed.

- normative function block type;
- resource type and specification of the type of equipment;
- Distributed IPMCS specification analysis and verification;
- Distributed IPMCS configuration, implementation, operation and maintenance;
- information exchange software tools.

Objective c) of Part 3 is to promote understanding and reception, and the promotion of common areas IPMCS structure of a particular application, and promote soft Shipping Tools meet the needs of other parts, by providing.

- Frequently Asked Questions about GB/T 19769 answers (FAQ);
- Use GB/T 19769 structural example of control and automation engineering to solve problems frequently encountered.

d) Section 4 defines conformance profiles of development guidelines, the need to implement the provisions of GB/T 19769.1 and GB/T 19769.2 Features to provide based on the following properties GB/T 19769 systems, equipment and software tools.

- multiple providers of equipment interoperability;
- software portability between multiple providers of software tools;
- over a provider of software tools for over a provider of the device configurable.

Industrial process measurement and control systems function blocks Part 3. Guidance Information

1 Scope

This section provides a technical report, intended to provide a simple method for the expression of a wide range of applications in the field of common features. In a it can be considered a "language" kind of degree. It should be noted, GB/T 19769 is not a programming method.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) used in the present document.

GB/T 15969.3-2005 programmable controllers Part 3. programming languages
IEC 61131-3:2002, IDT) GB/T 21099.1-2007 process control function blocks
- Part 1. System aspects Subjects (IEC/CDV61804-1.

2003, IDT)

GB/T 21099.2-2007 Part 2 process control function blocks. Function Block concept and
electronic device description language specification (IEC/CDV61804-2.2003, IDT)

3.1 General Issues

This part of the action.

This part is GB/T 19769 Some common questions to answer each compilation.

GB/T 19769 benefits.

Follow GB/T 19769 distributed industrial process measurement and control systems
(IPMCS), and their associated equipment lifecycle Support system will give their owners
and system integrators to bring a number of significant benefits, including.

a) through integrated configuration, programming, and data management capabilities, can
follow to reduce engineering GB/T 19769 Life Cycle Support System the cost of. In addition,
simple and complete model GB/T 19769 distributed system makes the system easy to
integrate, it also saves a this. This model for all functions of the system (including control
and information processing, and communication and process interface), independently of
the hard Member and the operating system of representation;

b) engineers and technicians by the general concepts and techniques used in all elements
of the system, the system can save time to achieve.

In addition, by eliminating the previously integrated system incompatible elements and
software tools needed for software patches and "stick member (Glueware) ", it is possible to
save the system implementation time;

Easy to set c) the elimination of patches and adhesive member can be set interoperable
software availability, portability and engineering skills of the system elements Cheng, will
generate higher reliability and maintainability in the life of the system;

d) GB/T 19769 provides an abstract, independent of the implementation of the system
function representation. This common goal will So that existing systems be easily ported to