

# IEC/PAS 61499-2

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## PRE-STANDARD

Function blocks for industrial-process  
measurement and control systems –

Part 2:  
Software tools requirements

Withdrawn

**PUBLICLY AVAILABLE SPECIFICATION**

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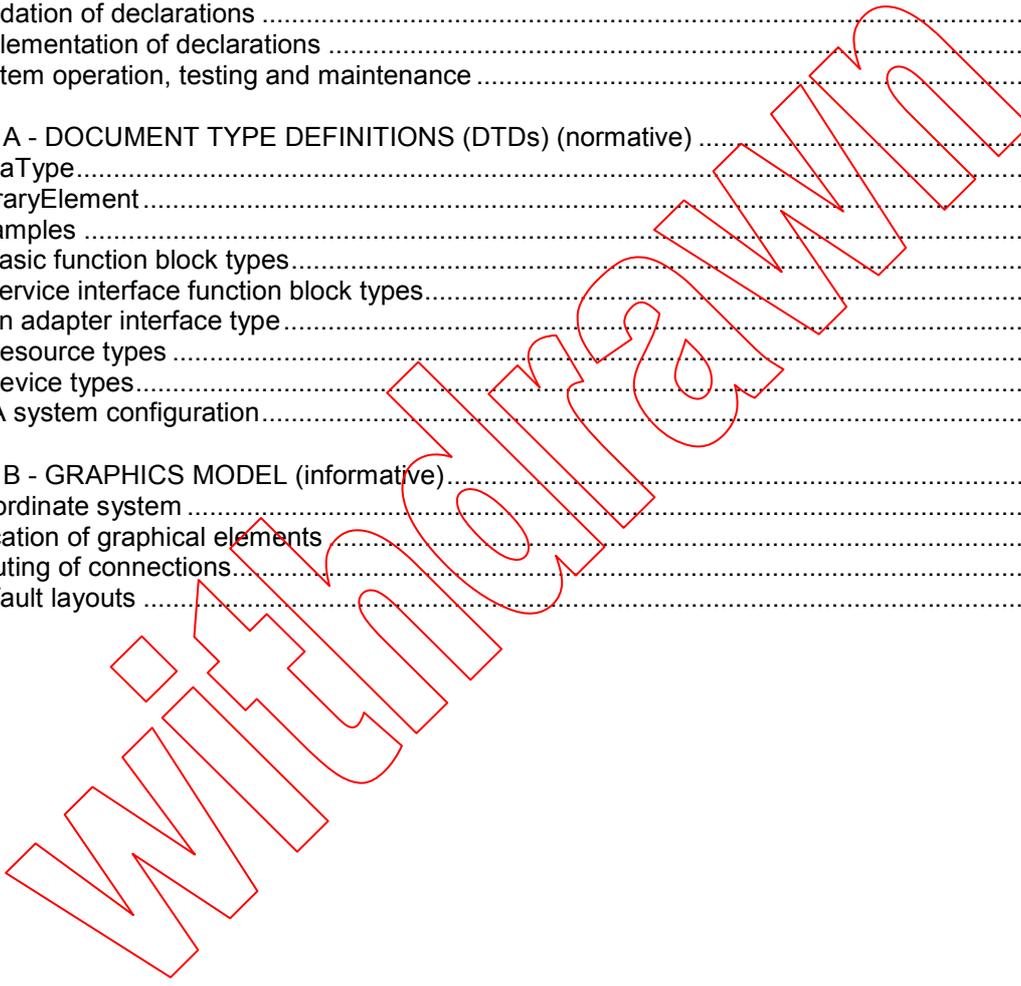


INTERNATIONAL  
ELECTROTECHNICAL  
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FUNCTION BLOCKS FOR INDUSTRIAL-PROCESS MEASUREMENT  
AND CONTROL SYSTEMS**

**PART 2: SOFTWARE TOOLS REQUIREMENTS**

FOREWORD

A PAS is a technical specification not fulfilling the requirements for a standard, but made available to the public and established in an organization operating under given procedures.

IEC-PAS 61499-2 has been processed by working group 6 of IEC technical committee 65: Industrial-process measurement and control.

The text of this PAS is based on the following document:

This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document:

Draft PAS	Report on voting
65/260/PAS	65/265/RVD

Following publication of this PAS, the technical committee or subcommittee concerned will investigate the possibility of transforming the PAS into an International Standard.

This is Part 2 of a projected three-part Standard under development by Working Group 6 of IEC Technical Committee 65.

The projected parts of the standard are:

- Part 1 – Architecture,
- Part 2 – Software Tool Requirements,
- Part 3 – Application Guidelines

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# 1. GENERAL REQUIREMENTS

## 1.1 Scope

This Standard consists of two Parts:

- Part 1, "Architecture", contains:
  - general requirements, including an introduction, scope, normative references, definitions, and reference models;
  - rules for the declaration of *function block types*, and rules for the behavior of *instances* of the types so declared;
  - rules for the use of function blocks in the *configuration* of distributed industrial-process measurement and control *systems* (IPMCSs);
  - rules for the use of function blocks in meeting the communication requirements of distributed IPMCSs;
  - rules for the use of function blocks in the management of *applications*, *resources* and *devices* in distributed IPMCSs;
  - requirements to be met by compliant systems and standards.
- This Part defines requirements for *software tools* to support the following systems engineering tasks enumerated in subclause 1.1 of IEC 61499-1:
  - the specification of *function block types*;
  - the functional specification of *resource types* and *device types* ;
  - the specification, analysis, and validation of distributed IPMCSs;
  - the *configuration*, *implementation*, operation, and maintenance of distributed IPMCSs;
  - the exchange of *information* among *software tools*.

It is assumed that such *software tools* may be used in the context of an Engineering Support System (ESS) as described in Annex C 1 of IEC 61499-1.

- Part 3, "Application Guidelines," contains examples of the application of software tools in various stages of engineering methodologies for the performance of the tasks enumerated above.

It is beyond the scope of this Standard to specify the entire life cycle of industrial-process IPMCSs, or the entire set of tasks and activities required to support an IPCMS over its life cycle. However, other standards which do specify such tasks and activities may extend or modify the requirements specified in this Part.

## 1.2 Normative references

The normative references given in IEC 61499-1 also apply to this Part. In addition, the following document contains normative provisions that are used in an informative manner in Annex A of this Part.

17B/1022/CD, Draft IEC 61915: Low-voltage switchgear and controlgear - Profiles for networked industrial devices, 12 October 1999

All normative documents are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated above. Members of the IEC and ISO maintain registers of currently valid International Standards.