Function blocks - Part 2: Software tool requirements (IEC 61499-2:2012)

EESTI STANDARDIKESKUS
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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 61499-2:2013 sisaldab Euroopa standardi EN 61499-2:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 61499-2:2013 consists of the English text of the European standard EN 61499-2:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 15.02.2013.	Date of Availability of the European standard is 15.02.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61499-2

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English version

Function blocks -
Part 2: Software tool requirements
(IEC 61499-2:2012)

Blocs fonctionnels -
Partie 2: Exigences pour les outils
logiciels
(CEI 61499-2:2012)

Funktionsbausteine für industrielle
Leitsysteme -
Teil 2: Anforderungen an Software-
Werkzeuge
(IEC 61499-2:2012)

This European Standard was approved by CENELEC on 2012-12-12. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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Foreword

The text of document 65B/846/FDIS, future edition 2 of IEC 61499-2, prepared by IEC/TC 65B "Measurement and control devices" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61499-2:2013.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2013-09-12
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2015-12-12

This document supersedes EN 61499-2:2005.

EN 61499-2:2013 includes the following significant technical changes with respect to EN 61499-2:2005:

- the contents of Annex A have been updated to conform to the technical changes of the second edition of EN 61499-1;

- CDATA sections are now allowed for the textual contents of algorithms in Tables A.4 and A.5.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61499-2:2012 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated :

　　IEC 61499-4　　　NOTE　　Harmonised as EN 61499-4.

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE   When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 61131-3	2003	Programmable controllers - Part 3: Programming languages	EN 61131-3	2003
IEC 61499-1	2012	Function blocks - Part 1: Architecture	EN 61499-1	2013
ISO/IEC 8824	Series	Information technology - Abstract Syntax Notation One (ASN.1)	-	-

CONTENTS

INTRODUCTION

IEC 61499 consists of the following parts, under the general title *Function blocks*:

- Part 1: Architecture
- Part 2: Software tool requirements
- Part 3: Tutorial information (withdrawn)
- Part 4: Rules for compliance profiles

FUNCTION BLOCKS –

Part 2: Software tool requirements

1 Scope

This part of IEC 61499 defines requirements for *software tools* to support the following systems engineering tasks enumerated in 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 IEC 61499-1.

It is beyond the scope of this standard to specify the entire life cycle of industrial-process measurement and control systems (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 of IEC 61499.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61131-3:2003, *Programmable controllers – Part 3: Programming languages*

IEC 61499-1:2012, *Function blocks – Part 1: Architecture*

ISO/IEC 8824 (all parts), *Information technology – Abstract Syntax Notation One (ASN.1)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61499-1, as well as the following apply.

3.1
library element
collection of *declarations* applying to a *data type, function block type, adapter type, subapplication type, resource type, device type, segment type,* or *system configuration*