



SLOVENSKI STANDARD

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Batch control - Part 4: Batch production records (IEC 61512-4:2009)

Chargenorientierte Fahrweise - Teil 4: Aufzeichnungen zur Chargenproduktion (IEC 61512-4:2009)

Contrôle-commande des processus de fabrication par lots - Partie 4: Enregistrements de production par lots (CEI 61512-4:2009)

Ta slovenski standard je istoveten z: **EN 61512-4:2010**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61512-4

September 2010

ICS 25.040.40

English version

**Batch control -
Part 4: Batch production records
(IEC 61512-4:2009)**

Contrôle-commande des processus
de fabrication par lots -
Partie 4: Enregistrements de production
par lots
(CEI 61512-4:2009)

Chargenorientierte Fahrweise -
Teil 4: Aufzeichnungen
zur Chargenproduktion
(IEC 61512-4:2009)

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This European Standard was approved by CENELEC on 2010-09-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

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Foreword

The text of document 65A/537/FDIS, future edition 1 of IEC 61512-4, prepared by SC 65A, System aspects, of IEC TC 65, Industrial-process measurement, control and automation, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61512-4 on 2010-09-01.

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

The following dates were fixed:

- | | | |
|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2011-06-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2013-09-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61512-4:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

- | | | |
|------------------|------|---|
| IEC 61512-3:2008 | NOTE | Harmonized as EN 61512-3:2008 (not modified). |
| IEC 62264-1:2003 | NOTE | Harmonized as EN 62264-1:2008 (not modified). |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61512-1	1997	Batch control - Part 1: Models and terminology	EN 61512-1	1999
IEC 61512-2	2001	Batch control - Part 2: Data structures and guidelines for languages	EN 61512-2	2002
ANSI/ISA-95.00.01	2000	Enterprise-Control System Integration - Part 1: Models and Terminology	-	-
ANSI/ISA-95.00.02	2001	Enterprise-Control System Intergration - Part 2: Object Model Attributes	-	-

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Edition 1.0 2009-10

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Partie 4: Enregistrements de production par lots
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

BATCH CONTROL –

Part 4: Batch production records

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61512-4 has been prepared by subcommittee 65A: System aspects, of IEC technical committee 65: Industrial-process measurement, control and automation.

This standard cancels and replaces the IEC/PAS 61512-4 published in 2007. This first edition constitutes a technical revision.

The text of this standard is based on the following documents:

FDIS	Report on voting
65A/537/FDIS	65A/546/RVD

Full information on the voting for the approval of this standard 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.

A list of all parts of the IEC 61512 series, published under the general title *Batch control*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

IMPORTANT – The “colour inside” logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

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INTRODUCTION

IEC 61512-1 provides models and terminology applicable to batch control. Subclause 5.5 defines product information concepts, and subclause 6.4 defines production information management activities and functions.

Clause 4 of IEC 61512-2 provides an object model of production information, and Clause 5 defines batch history exchange tables. The batch history exchange tables given in Clause 5 are one implementation for production information.

Whereas IEC 61512-1 and IEC 61512-2 provide significant information concerning batch history and production information, they are not sufficient for use as standards for implementing specific technologies and are lacking in scope and content.

This part of IEC 61512 provides a detailed definition for batch production records. It consists of a description and object model of batch production record contents.

The intended use of this batch production record standard is to provide a reference model for developing applications for the storage and/or exchange of batch production records. Implementations based upon this standard will allow retrieval, analysis, and reporting of selected batch production record data.

This batch production record standard is compliant with the batch data model in Clause 4 of IEC 61512-2, as well as with IEC 61512-1.

Although this standard is intended primarily for batch processes, it may be of considerable value for other types of processes.

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BATCH CONTROL –

Part 4: Batch production records

1 Scope

This part of the IEC 61512 series defines a reference model for batch production records containing information about production of batches or elements of batch production. This standard is intended for batch processes.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated reference, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61512-1:1997, *Batch Control – Part 1: Models and terminology*

IEC 61512-2:2001, *Batch Control – Part 2: Data structures and guidelines for language*

ANSI/ISA-95.00.01:2000, *Enterprise-Control System Integration – Part 1: Models and Terminology*

ANSI/ISA-95.00.02:2001, *Enterprise-Control System Integration – Part 2: Object Model Attributes*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

NOTE Terms and definitions given in IEC 61512-1 also apply, except where differences are explicitly stated in this part.

3.1

batch history

all execution information collected pertaining to the production of a single batch, and may include common (non-batch specific) information

3.2

batch production record

subset of the execution and business information that is retained based upon business requirements identified by the batch production record specification

NOTE This information could include the recipe procedural element execution information, both specific equipment information, operator comments, batch-related alarms, elements related to the definition of a batch (such as control recipe, master recipe, site and/or general recipe, batch schedule information), and information important to the batch (such as training logs, maintenance records, and environmental conditions).

3.3

batch production record report

extraction of information from one or more batch production records that is formatted for printing, displaying, or sending to a collaborating system