SVENSK STANDARD SS-EN 61512-1

Fastställd	Utgåva	Sida	Ansvarig kommitté
1999-08-20	1	1 (1+94)	SEK TK 65

Satsstyrning – Del 1: Modeller och terminologi

Batch control – Part 1: Models and terminology

Som svensk standard gäller europastandarden EN 61512-1:1999. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61512-1:1999.

Nationellt förord

Europastandarden EN 61512-1:1999*)

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 61512-1, First edition, 1997 - Batch control - Part 1: Models and terminology**

utarbetad inom International Electrotechnical Commission, IEC.

*) EN 61512-1:1999 ikraftsattes 1999-08-20 som SS-EN 61512-1 genom offentliggörande, d v s utan utgivning av något svenskt dokument.

ICS 01.040.25; 25.040.40

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Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61512-1

June 1999

ICS 25.040.40; 01.040.25

English version

Batch control
Part 1: Models and terminology
(IEC 61512-1:1997)

Contrôle-commande des processus de fabrication par lots
Partie 1: Modèles et terminologie
(CEI 61512-1:1997)

Chargenorientierte Fahrweise
Teil 1: Modelle und Terminologie
(IEC 61512-1:1997)

This European Standard was approved by CENELEC on 1999-05-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 61512-1:1999 E

SEK Svensk Elstandard

Foreword

The text of the International Standard IEC 61512-1:1997, prepared by SC 65A, System aspects, of IEC TC 65, Industrial-process measurement and control, was submitted to the formal vote and was approved by CENELEC as EN 61512-1 on 1999-05-01 without any modification.

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) 2000-08-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2002-08-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes A and ZA are normative and annex B is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61512-1:1997 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60848	1988	Preparation of function charts for control systems	-	-
IEC 60902	1987	Industrial-process measurement and control Terms and definitions	-	-

CONTENTS

Figures

Tables

Annexes

INTRODUCTION

The models and terminology defined in this part of IEC 61512

- emphasize good practices for the design and operation of batch manufacturing plants;
- can be used to improve control of batch manufacturing plants; and
- can be applied regardless of the degree of automation.

Specifically, this standard provides a standard terminology and a consistent set of concepts and models for batch manufacturing plants and batch control that will improve communications between all parties involved; and that will

- reduce the user's time to reach full production levels for new products;
- enable vendors to supply appropriate tools for implementing batch control;
- enable users to better identify their needs;
- make recipe development straightforward enough to be accomplished without the services of a control systems engineer;
- reduce the cost of automating batch processes; and
- reduce life-cycle engineering efforts.

It is not the intent of this standard to

- suggest that there is only one way to implement or apply batch control;
- force users to abandon their current way of dealing with their batch processes; or
- restrict development in the area of batch control.

The models presented in this standard are presumed to be complete as indicated. However, they may be collapsed and expanded as described below. The unit and the control module levels may not be omitted from the physical model. The master recipe and the control recipe may not be omitted from the recipe-type model. Specific rules for collapsing and expanding these models are not covered in this standard.

- Collapsing: elements in the models may be omitted as long as the model remains consistent, and the functions of the element removed are taken into account.
- Expanding: elements may be added to the modules. When they are added between related elements, the integrity of the original relationship should be maintained.

BATCH CONTROL –
Part 1: Models and terminology

1 Scope

This part of IEC 61512 on batch control defines reference models for batch control as used in the process industries and terminology that helps explain the relationships between these models and terms. This standard may not apply to all batch control applications.

2 Normative references

The following normative documents contain provisions, which through reference in this text, constitute provisions of this part of IEC 61512. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 61512 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60848: 1988, *Preparation of function charts for control systems*

NOTE – Structures defined in IEC 60848 may be useful in the definition of procedural control and, in particular, in the definition of a phase.

IEC 60902: 1987, *Industrial-process measurement and control – Terms and definitions*