SLOVENSKI STANDARD
SIST EN 62264-3:2007
01-december-2007

Integracija sistemov za upravljanje podjetij - 3. del: Model aktivnosti vodenja proizvodnje (IEC 62264-3:2007)

Enterprise-control system integration - Part 3: Activity models of manufacturing operations management

Integration von Unternehmens-EDV und Leitsystemen - Teil 3: Aktivitätsmodelle für das operative Produktionsmanagement

Intégration du systeme de commande d'entreprise - Partie 3: Modeles d'activités pour la gestion des opérations de fabrication

Ta slovenski standard je istoveten z: EN 62264-3:2007

ICS:

25.040.01	Sistemi za avtomatizacijo v industriji na splošno	Industrial automation systems in general
35.240.50	Uporabniške rešitve IT v industriji	IT applications in industry

SIST EN 62264-3:2007 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62264-3

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English version

Enterprise-control system integration - Part 3: Activity models of manufacturing operations management (IEC 62264-3:2007)

Intégration du système de commande d'entreprise - Partie 3: Modèles d'activités pour la gestion des opérations de fabrication (CEI 62264-3:2007)

Integration von Unternehmens-EDV und Leitsystemen - Teil 3: Aktivitätsmodelle für das operative Produktionsmanagement (IEC 62264-3:2007)

This European Standard was approved by CENELEC on 2007-07-01. 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.

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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 62264-3:2007 E

Foreword

The text of document 65A/476/CDV, future edition 1 of IEC 62264-3 prepared by SC 65A, System aspects, of IEC TC 65, Industrial-process measurement and control, and SC 5, JWG 15, of ISO TC 184, Enterprise-control system integration, was submitted to the IEC-CENELEC parallel Unique Acceptance Procedure and was approved by CENELEC as EN 62264-3 on 2007-07-01.

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)	2008-04-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2010-07-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 62264-3:2007 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 61131-3 NOTE Harmonized as EN 61131-3:2003 (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.

Publication	Year	Title	EN/HD	Year
IEC 61512-1	1997	Batch control - Part 1: Models and terminology	EN 61512-1	1999
IEC 62264-1	-[1)]	Enterprise-control system integration - Part 1: Models and terminology	-	-
IEC 62264-2	-[1)]	Enterprise-control system integration - Part 2: Object model attributes	-	-
ISO 15704	2000	Industrial automation systems - Requirements for enterprise-reference architectures and methodologies	-	-

[1)] Undated reference.

INTERNATIONAL STANDARD

NORME INTERNATIONALE

IEC
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62264-3

First edition
Première édition
2007-06

Enterprise-control system integration –

Part 3:
Activity models of manufacturing operations management

Intégration du système de commande d'entreprise –

Partie 3:
Modèles d'activités pour la gestion des opérations de fabrication

PRICE CODE
CODE PRIX XE

For price, see current catalogue
Pour prix, voir catalogue en vigueur

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENTERPRISE-CONTROL SYSTEM INTEGRATION –

Part 3: Activity models of manufacturing operations management

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 62264-1 has been prepared by subcommittee 65A: System aspects, of IEC technical committee 65: Industrial-process measurement and control and ISO SC5, JWG 15, of ISO technical committee 184: Enterprise-control system integration.

It is published as a double logo standard.

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

CDV	Report on voting
65A/476/CDV	65A/495/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table. In ISO, the standard has been approved by 10 P-members out of 10 hving cast a vote.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The list of all the parts of the IEC 62264 series, under the general title *Enterprise-control system integration*, 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.

INTRODUCTION

This part of IEC 62264 shows activity models and data flows for manufacturing information that enables enterprise-control system integration. The modelled activities operate between Level 4 logistics and planning functions and Level 2 manual and automated process control functions. The models are consistent with the object models given in IEC 62264-1 and the Level 3 (manufacturing operations and control) definitions.

The goal of the standard is to reduce the risk, cost and errors associated with implementing enterprise systems and manufacturing operations systems in such a way that they inter-operate and easily integrate. The standard may also be used to reduce the effort associated with implementing new product offerings.

This standard provides models and terminology for defining the activities of manufacturing operations management. The models and terminology defined in this standard are:

– to emphasize the good practices of manufacturing operations;
– to be used to improve existing manufacturing operations systems;
– to be applied regardless of the degree of automation.

Some potential benefits produced when applying the standard may include

– reducing the time to reach full production levels for new products;
– enabling vendors to supply appropriate tools for manufacturing operations;
– enabling more uniform and consistent identification of manufacturing needs;
– reducing the cost of automating manufacturing processes;
– optimizing supply chains;
– improving efficiency in life-cycle engineering efforts.

It is not the intent of this part of the standard to

– suggest that there is only one way of implementing manufacturing operations;
– force users to abandon their current way of handling manufacturing operations;
– restrict development in the area of manufacturing operations;
– restrict use only to manufacturing industries.

ENTERPRISE-CONTROL SYSTEM INTEGRATION –

Part 3: Activity models of manufacturing operations management

1 Scope

This part of IEC 62264 defines activity models of manufacturing operations management that enable enterprise system to control system integration. The activities defined in this standard are consistent with the object models definitions given in IEC 62264-1. The modelled activities operate between business planning and logistics functions, defined as the Level 4 functions and the process control functions, defined as the Level 2 functions of IEC 62264-1. The scope of this standard is limited to

– a model of the activities associated with manufacturing operations management, Level 3 functions;

– an identification of some of the data exchanged between Level 3 activities.

2 Normative references

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.

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

IEC 62264-1, *Enterprise-control system integration – Part 1: Models and terminology*

IEC 62264-2, *Enterprise-control system integration – Part 2: Object model attributes*

ISO 15704:2000, *Industrial automation systems – Requirements for enterprise-reference architecture and methodologies*

3 Terms, definitions and abbreviations

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

3.1 Terms and definitions

3.1.1
detailed production schedule
organized and structured collection of production work orders and sequencing involved in the production of one or more products

3.1.2
finite capacity scheduling
scheduling methodology where work is scheduled for production equipment, in such a way that no production equipment capacity requirement exceeds the capacity available to the production equipment

3.1.3
inventory operations management
activities within Level 3 of a manufacturing facility which coordinate, direct, manage and track inventory and material movement within manufacturing operations