

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

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management

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**ICS** 25.040.01, 35.240.50

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**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**

## 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with the EN have to be withdrawn (dow) 2010-07-01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).

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## 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