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Enterprise-control system integration - Part 5: Business to manufacturing transactions

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NATIONAL FOREWORD

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ICS 25.040.99, 35.100, 35.200

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62264-5

November 2016

ICS 25.040.99; 35.100; 35.200

Supersedes EN 62264-5:2012

English Version

**Enterprise-control system integration -
Part 5: Business to manufacturing transactions
(IEC 62264-5:2016)**

Intégration du système de commande d'entreprise -
Partie 5 : Transactions entre systèmes de gestion de
commande d'entreprise et systèmes de fabrication
(IEC 62264-5:2016)

Integration von Unternehmensführungs- und Leitsystemen -
Teil 5: Transaktionen zwischen Unternehmensführungs-
und Produktionsleitsystemen
(IEC 62264-5:2016)

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 65E/459/CDV, future edition 2 of IEC 62264-5, prepared by SC 65E "Devices and integration in enterprise systems", of IEC/TC 65 "Industrial-process measurement, control and automation" and ISO/SC 5/JWG 5, of ISO/TC 184 "Automation systems and integration" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62264-5:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at (dop) 2017-05-25 national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-11-25

This document supersedes EN 62264-5:2012

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Endorsement notice

The text of the International Standard IEC 62264-5:2016 was approved by CENELEC as a European Standard without any modification.

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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62264-2	2013	Enterprise-control system integration - Part 2: Objects and attributes for enterprise-control system integration	EN 62264-2	2013
IEC 62264-3	-	Enterprise-control system integration - Part 3: Activity models of manufacturing operations management	EN 62264-3	-
IEC 62264-4	-	Enterprise-control system integration - Part 4: Object model attributes for manufacturing operations management integration	EN 62264-4	-
ISO/IEC 19501	-	Information technology - Open Distributed Processing - Unified Modeling Language (UML) Version 1.4.2	-	-
ISO 8601	-	Data elements and interchange formats - Information interchange - Representation of dates and times	-	-

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INTRODUCTION

This part of IEC 62264 is based on the use of IEC 62264 abstract models previously defined in IEC 62264-2 and IEC 62264-4 combined with verbs to define a transaction model for information exchange. It is recognized that other non-IEC 62264-5 transaction protocols are possible and are not deemed invalid as a result. Transactions occur at all levels within the enterprise and between enterprise partners, and are related to both required and actual activities, but the focus of this part of IEC 62264 is the interface between enterprise/business systems and manufacturing systems.

This standard defines transactions that are exchanged between Level 4 and Level 3, and within Level 3 as defined in the object models of IEC 62264-2 and IEC 62264-4. Models are introduced which provide descriptions of the transactions and explanations of the required transaction processing behaviour.

Technology specific implementations to provide this behaviour are not defined in this standard. This part of IEC 62264 has the intent of providing insight into the level of work required to construct transactional exchanges.

ENTERPRISE-CONTROL SYSTEM INTEGRATION –

Part 5: Business to manufacturing transactions

1 Scope

This part of IEC 62264 defines transactions in terms of information exchanges between applications performing business and manufacturing activities associated with Levels 3 and 4. The exchanges are intended to enable information collection, retrieval, transfer and storage in support of enterprise-control system integration. This part of IEC 62264 is consistent with the IEC 62264-2 and IEC 62264-4 object models attributes. This standard also defines transactions that specify how to exchange the objects defined in IEC 62264-2, IEC 62264-4 and this standard. Other uses of the transaction model are not defined in this part.

The models covered in this standard are:

- Personnel model
- Equipment model
- Physical asset model
- Material model
- Process segment model
- Operations capability model
- Operations definition mode
- Operations schedule model
- Operations performance model
- Resource relationship network model
- Work capability model
- Work definition model
- Work schedule model
- Job list model
- Work performance model
- Workflow specification model
- Work calendar
- Work record
- Work alert model

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 62264-2:2013, *Enterprise-control system integration – Part 2: Object and attributes for enterprise-control system integration*

IEC 62264-3, *Enterprise-control system integration – Part 3: Activity models of manufacturing operations management*