Enterprise system integration - Part 5: Business to manufacturing transactions

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EUROPEAN STANDARD

NORME EUROPÉENNE

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English version

Enterprise system integration - Part 5: Business to manufacturing transactions

(IEC 62264-5:2011)

Intégration du système de commande d'entreprise -
Partie 5: Transactions entre systèmes de gestion de commande d'entreprise et systèmes de fabrication
(CEI 62264-5:2011)

Integration von Unternehmensführungs- und Leitsystemen -
Teil 5: Transaktionen zwischen Geschäftsabläufen und Produktionssteuerung
(IEC 62264-5:2011)

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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 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 62264-1	-	Enterprise-control system integration - Part 1: Models and terminology	EN 62264-1	-
IEC 62264-2	-	Enterprise-control system integration - Part 2: Object model attributes	EN 62264-2	-
IEC 62264-3	-	Enterprise-control system integration - Part 3 Activity models of manufacturing operations management	EN 62264-3	-

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INTRODUCTION

This part of IEC 62264 is based on the use of IEC 62264 abstract models previously defined in IEC 62264-1 and IEC 62264-2 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 of this standard. 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 business-to-manufacturing transactions and manufacturing-to-business transactions that may be used in relation to the objects that are exchanged between Level 4 and Level 3, as defined in the object models of IEC 62264-1 and IEC 62264-2. 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.

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ENTERPRISE-CONTROL SYSTEM INTEGRATION –

Part 5: Business to manufacturing transactions

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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 62264-1 models and terminology and IEC 62264-2 object model attributes. This standard also defines transactions that specify how to exchange the objects defined in IEC 62264-1, Clause 7, IEC 62264-2 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, Maintenance Model, Material Model, Process Segment Model, Production Capability Model, Product Definition Model, Production Schedule Model, and Production Performance Model.

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

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

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

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply. Terms, definitions and concepts expressed in IEC 62264-1, IEC 62264-2 and IEC 62264-3 apply, except where differences are explicitly stated in this document.

3.1.1
application
ordered set of physical and virtual processes, performed by a set of resources that conduct a set of transactions intended to accomplish a definite objective; information provider or information user performing the activity that is involved in a transaction

3.1.2
identifier
ID
information to identify an object or a property of an object