

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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**Standardized product ontology register and transfer by spreadsheets –  
Part 5: Interface for activity description**

**Enregistrement d'ontologie de produits normalisés et transfert par tableurs –  
Partie 5: Interface pour la description des activités**



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## CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references .....	7
3 Terms, definitions and abbreviations .....	7
3.1 Terms and definitions.....	7
3.2 Abbreviations.....	9
4 Overview .....	9
4.1 Activity described as an ontology.....	9
4.2 Use cases and key technical concepts .....	10
4.3 Relation among properties of different activities.....	14
4.4 International Concept Identifier (ICID).....	14
5 Basic structure of the PAM .....	14
5.1 Activity and arrows.....	14
5.2 Subactivities .....	15
5.2.1 General .....	15
5.2.2 Specialized activity .....	15
5.2.3 Component activity .....	15
5.3 ICOM representation.....	16
5.4 Role of the mechanism (M) in the PAM .....	16
5.5 External function call .....	17
5.6 Basic PAM notation with function symbols .....	17
5.7 Joining arrows .....	20
5.8 Forking arrows.....	21
5.9 Branching or joining of arrows.....	21
5.10 Transcendental arrows.....	22
5.10.1 General .....	22
5.10.2 Modelling incoming arrows .....	24
5.10.3 Modelling outgoing arrows .....	24
5.10.4 Modelling connections of arrows at frame boundary.....	25
5.10.5 Contracted form of representation for branching and joining arrows.....	26
5.10.6 Domain or codomain overloading for transcendent arrows .....	27
5.11 Extended semantics beyond IDEF0.....	28
5.11.1 Specialized types of activity and its icon .....	28
5.11.2 Conjunction node.....	30
5.11.3 Disjunction node.....	30
5.11.4 Complementation node .....	31
5.11.5 Selection node.....	31
5.11.6 Transformation node.....	31
5.11.7 Decision tree .....	31
5.12 Graphic properties of arrows.....	31
5.13 Arrow specialization.....	31
5.14 Delegated formula interpretation .....	32
Annex A (normative) Meta-properties for activity description .....	34
A.1 General.....	34
A.2 List of meta-properties .....	34
Annex B (informative) Description examples for the PAM.....	37

B.1	Design product.....	37
B.2	Sample IDEF0 Diagram .....	48
Annex C (informative)	Example PAM data for production operations management.....	51
	Bibliography.....	59
Figure 1	– See fine arts at Museum .....	11
Figure 2	– Production operations management (extracted from IEC 62264-3) .....	12
Figure 3	– Production operations management modelled in PAM and depicted as IDEF-0 diagram .....	13
Figure 4	– Basic activity and its subcomponents .....	16
Figure 5	– Corresponding IDEF0 diagram for basic PAM notation .....	18
Figure 6	– Sample activity drawing in IDEF0 and ICOM .....	19
Figure 7	– Subactivities and arrows .....	19
Figure 8	– Joining arrow example .....	20
Figure 9	– Forking arrow example.....	22
Figure 10	– Transcendental arrows to be taken over by child nodes .....	23
Figure 11	– Transcendental arrows from the parent node .....	23
Figure 12	– IDEF0 extension for specialized activity node in the PAM.....	29
Figure 13	– An implementation example of Conjunction node in the PAM .....	30
Figure 14	– Super relation and its application for specialized activity .....	32
Figure B.1	– Class meta-class example of the PAM for “design product” activity .....	38
Figure B.2	– Property meta-class example of the PAM for “design product” activity .....	40
Figure B.3	– Relation meta-class example of the PAM for “design product” activity .....	42
Figure B.4	– IDEF0 diagram image corresponding to A-0 (frame containing A0) .....	49
Figure B.5	– IDEF0 diagram image corresponding to A0 (frame containing subactivities of A0) .....	50
Figure C.1	– Class meta-class example for production operations management defined in IEC 62264-3.....	52
Figure C.2	– Property meta-class example for production operations management defined in IEC 62264-3 .....	53
Figure C.3	– Relation meta-class example for production operations management defined in IEC 62264-3 .....	54
Figure C.4	– Autogenerated IDEF 0 A-0 (top) node for production operations management defined in IEC 62264-3 .....	57
Figure C.5	– Autogenerated IDEF A0 node for production operations management defined in IEC 62264-3 .....	58
Table 1	– Basic PAM notation for arrows .....	18
Table 2	– Extracts of relation meta-class definitions for activities.....	26
Table 3	– Contracted representation for connectivity of activities .....	28
Table 4	– Reserved keywords for formula interpretation.....	33
Table A.1	– Meta-properties of relation meta-class used for activity description .....	35

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**STANDARDIZED PRODUCT ONTOLOGY REGISTER  
AND TRANSFER BY SPREADSHEETS –****Part 5: Interface for activity description**

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International Standard IEC 62656-5 has been prepared by subcommittee 3D: Product properties and classes and their identification, of IEC technical committee 3: Information structures and elements, identification and marking principles, documentation and graphical symbols.

The text of this International Standard is based on the following documents:

CDV	Report on voting
3D/257/CDV	3D/287/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

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

A list of all parts in the IEC 62656 series, published under the general title *Standardized product ontology register and transfer by spreadsheets*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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## STANDARDIZED PRODUCT ONTOLOGY REGISTER AND TRANSFER BY SPREADSHEETS –

### Part 5: Interface for activity description

#### 1 Scope

This part of IEC 62656 specifies a method for representing activities and relations among the activities by a tabular ontology representation, called “parcellized activity model” or PAM for short, which is a specialized use of a generic tabular ontology data model, known as the parcellized ontology model (POM) defined in Part 1 of the IEC 62656 series. The activities that can be described by this document include part or whole of an enterprise, an organization or a collection of services, a set of events or processes which interact with each other by exchanging physical or non-physical entities. This part of IEC 62656 also defines a method for uniquely identifying activities, or their homologues happenings in a certain sequence. In addition, this document identifies flows of information, objects or materials exchanged among activities, where each of the activities is represented by a class and each flow by a relation.

Consequently, this document enables characterization, classification, and identification of a set of activities as part of a normalized ontology. And this enables registering of a pattern of activities as a set of metadata and uploading it onto the IEC 61360 Common Data Dictionary (CDD), maintained as an online database of the electrotechnical concepts.

Additionally, this part of IEC 62656 provides a method to integrate ontologies of products and activities including services, in a single model. This means a product can be analyzed in its operational context for service. Such an integrated view will help people of different technical backgrounds to see and share knowledge about the extent of an enterprise that requires the products and services as indispensable resources. Such a data representation will also help analyse the key functionalities of an enterprise and its available resources, with clear definitions, limitations and interactions among them, when people are required to respond or react to a new external condition or situation in a short time frame, in particular, at an emergency or natural hazard.

Meanwhile, this part of IEC62656 does not intend to provide a detailed algorithmic description of a flow of information, timing chart of processes, or sequential ordering of events that will be necessary in a software design or programming phase of an information system that handles activities or events. These detailed specifications of the algorithms and associated construction of the data structures are left to the realm of software engineering methodology and tools where there are so many schools and styles already, such as UML (Unified Modelling Language), BPMN, SysML, DFD, IDEF, and other CASE (Computer Aided Software Engineering) tools.

This International Standard neither intends to standardize nor introduce a new method of graphic description for activities or processes. Ideally, an ontology of activities modelled by this International Standard must be expressible by a number of existing graphical presentation tools and process description languages for activities.

Nevertheless, some graphical presentations in the style of such tools or languages are helpful for making the people understand the content of the PAM, and therefore, they are used in this International Standard. In most of the cases, IDEF-0 is preferred for the purpose, because it describes both activities and flows of things among the activities, but any other choices of tools or languages can be made, wherever they are appropriate and relevant.