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Terminology work and terminology science — Vocabulary

Travail terminologique et science de la terminologie — Vocabulaire

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CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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This document was prepared by Technical Committee ISO/TC 37, *Language and Terminology*, Subcommittee SC 1, *Principles and methods*.

This document cancels and replaces ISO 1087-1:2000, which has been technically revised.

The main changes compared to the previous edition are as follows:

— most of the terminological entries have been reviewed to reflect the current state of the art;

— some terminological entries from the former ISO 1087-2:2000 (withdrawn) have been incorporated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The main purpose of this document is to provide a systematic description of the concepts related to terminology work and terminology science and to clarify the use of the terms in this field. This document is addressed to anyone involved in terminology work. In particular, its target group comprises standardizers, terminologists, other individuals involved in terminology work, terminology users as well as researchers and professionals dealing with terminology science and/or natural language processing.

The terminological entries in this document are listed in a systematic order under a number of general headings.

The layout follows the directions given in ISO 10241-1. Thus, the elements of an entry appear in the following order:

— entry number

— preferred term(s)

— admitted term(s)

— abbreviated form(s)

— definition

— example(s)

— note(s)

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The terminological entries hereunder have been formatted according to ISO 10241-1, which stipulates the current ISO rules for the presentation of terminology standards. Specifically, in the examples and notes in this document, terms (including appellations) and proper names are indicated by double quotation marks, whereas objects, concepts, properties, characteristics, and types of characteristics are indicated by single quotation marks. This markup is intended to facilitate the distinction between references to the three terminological levels and other text throughout this document.

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This new revision of ISO 1087 has been prepared in accordance with the principles and methods of terminology work described in ISO 704:2009.

The alphabetical index includes preferred and admitted terms.

Annex A gives concept diagrams and concept models that illustrate the relations between concepts described in the various entries of Clause 3.

It should be noted that most examples are specific to the English language in the English version and to the French language in the French version.

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Terminology work and terminology science — Vocabulary

1 Scope

This document establishes basic terms and definitions for terminology work and terminology science. It does not include terms and definitions that are specific to computer applications in terminology work.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

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3.1 Reality and language

3.1.1
object
anything perceivable or conceivable

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Note 1 to entry: Objects can be material (e.g. 'engine', 'sheet of paper', 'diamond'), immaterial (e.g. 'conversion ratio', 'project plan') or imagined (e.g. 'unicorn', 'scientific hypothesis').

3.1.2
extension
set of all of the *objects* (3.1.1) to which a *concept* (3.2.7) corresponds

3.1.3
property
feature of an *object* (3.1.1)

EXAMPLE 1 'Being made of wood' as a property of a given 'table'.

EXAMPLE 2 'Belonging to person A' as a property of a given 'pet'.

EXAMPLE 3 'Having been formulated by Einstein' as a property of the equation '$E = mc^2$'.

EXAMPLE 4 'Being compassionate' as a property of a given 'person'.

EXAMPLE 5 'Having a given cable' as a property of a given 'computer mouse'.

Note 1 to entry: One or more objects can have the same property.

3.1.4
domain
subject field
field of special knowledge

Note 1 to entry: The borderlines and the granularity of a domain are determined from a purpose-related point of view. If a domain is subdivided, the result is again a domain.

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[SOURCE: ISO 10241-1:2011, 3.3.1, modified — Note 1 to entry and Note 3 to entry have been merged; Note 2 to entry and Note 4 to entry have been omitted.]

3.1.5
subject
area of interest or expertise

3.1.6
language
system of sounds, characters, *symbols* (3.4.5) used for communication

[SOURCE: ISO 18841:2018, 3.4.1, modified — The wording "or signs" has been deleted.]

3.1.7
natural language
language (3.1.6) that is or was in active use in a community of people, and the rules of which are mainly deduced from usage

[SOURCE: ISO 5127:2017, 3.1.5.2, modified — Note 1 to entry not included.]

3.1.8
general language
natural language (3.1.7) characterized by the use of linguistic means of expression independent of any specific *domain* (3.1.4)

3.1.9
special language
language for special purposes
language for specific purposes
LSP
natural language (3.1.7) used in communication between experts in a *domain* (3.1.4) and characterized by the use of specific linguistic means of expression

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Note 1 to entry: The specific linguistic means of expression always include domain-specific *terminology* (3.1.11) and phraseology and also can cover stylistic or syntactic features.

3.1.10
formal language
language (3.1.6) whose rules are explicitly established before its use

EXAMPLE Web Ontology Language (OWL).

Note 1 to entry: The purpose of formal language is to assure exact communication of information.

[SOURCE: ISO 24156-1:2014, 3.6]

3.1.11
terminology
set of *designations* (3.4.1) and *concepts* (3.2.7) belonging to one *domain* (3.1.4) or *subject* (3.1.5)

3.1.12
terminology science
terminology studies
science studying *terminologies* (3.1.11), aspects of *terminology work* (3.5.1), the resulting *terminology resources* (3.7.1), and *terminological data* (3.6.1)

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3.2 Concepts

3.2.1
characteristic
abstraction of a *property* (3.1.3)

EXAMPLE 'Having a cable for connecting with a computer' as a characteristic of the concept 'cord mouse'.

Note 1 to entry: Characteristics are used for describing *concepts* (3.2.7).

3.2.2
type of characteristic
category of *characteristics* (3.2.1) that are grouped for the purposes of terminological analysis

EXAMPLE 1 For the *concept* (3.2.7) 'safety sign' according to ISO 3864-1:2011, 3.12, 'geometric shape' is a type of characteristic. It includes *characteristics* (3.2.1) such as 'circle' and 'square'.

EXAMPLE 2 For the *concept* (3.2.7) 'computer mouse', 'computer connection' is a type of characteristic. It includes *characteristics* (3.2.1) such as 'having a cable' and 'using wireless technology'.

3.2.3
essential characteristic
characteristic (3.2.1) of a *concept* (3.2.7) that is indispensable to understand that concept

3.2.4
non-essential characteristic
characteristic (3.2.1) of a *concept* (3.2.7) that is not indispensable to understand that concept

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EXAMPLE For defining the *concept* (3.2.7) 'traffic light', the colour 'red', 'green' or 'amber' is an *essential characteristic* (3.2.3), while for defining the *concept* 'computer mouse', the colour (e.g. 'ivory', 'blue' or 'red') is a non-essential characteristic.

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3.2.5
delimiting characteristic
essential characteristic (3.2.3) used for distinguishing a *concept* (3.2.7) from related concepts

EXAMPLE The delimiting characteristic 'support for the back' may be used for distinguishing the *concepts* (3.2.7) 'stool' and 'chair'.

3.2.6
intension
set of *characteristics* (3.2.1) that make up a *concept* (3.2.7)

3.2.7
concept
unit of knowledge created by a unique combination of *characteristics* (3.2.1)

Note 1 to entry: Concepts are not necessarily bound to particular *natural languages* (3.1.7). They are, however, influenced by the social or cultural background which often leads to different categorizations.

Note 2 to entry: This is the concept 'concept' as used and designated by the term "concept" in *terminology work* (3.5.1). It is a very different concept from that designated by other domains such as industrial automation or marketing.

3.2.8
individual concept
concept (3.2.7) that corresponds to a unique *object* (3.1.1)

EXAMPLE 'Saturn', 'Eiffel Tower', 'Moon', 'serial number FRHR603928', '2016 Nobel Prize in Physics'.

Note 1 to entry: Individual concepts are represented by *proper names* (3.4.4).

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3.2.9
general concept
concept (3.2.7) that corresponds to a potentially unlimited number of *objects* (3.1.1) which form a group by reason of shared *properties* (3.1.3)

EXAMPLE 'planet', 'tower', 'Nobel Prize in Physics', 'moon'.

Note 1 to entry: For a general concept it is essential that a number of corresponding objects greater than 1 can be perceived or conceived of. For example 'spaceship' has been a general concept before such a material object existed, at the time when there existed only 1 such object, and later, when there existed several such objects.

3.2.10
concept field
unstructured set of *concepts* (3.2.7) belonging to the same *domain* (3.1.4) or *subject* (3.1.5)

3.2.11
concept relation
relation between *concepts* (3.2.7)

3.2.12
hierarchical relation
hierarchical concept relation
generic relation (3.2.13) or *partitive relation* (3.2.14)

3.2.13
generic relation
generic concept relation
genus-species relation
concept relation (3.2.11) between a *generic concept* (3.2.19) and a *specific concept* (3.2.20) where the *intension* (3.2.6) of the *specific concept* (3.2.20) includes the intension of the *generic concept* (3.2.19) plus at least one additional *delimiting characteristic* (3.2.5)

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EXAMPLE A generic relation exists between the *concepts* (3.2.7) 'word' and 'noun', 'vehicle' and 'car', and 'person' and 'child'.

Note 1 to entry: Outside the terminology community, "type-of relation" and "is-a relation" are also used instead of "generic relation".

Note 2 to entry: In a generic relation the *subordinate concept* (3.2.16) is a *specific concept* (3.2.20) and the *superordinate concept* (3.2.15) is a *generic concept* (3.2.19).

3.2.14
partitive relation
partitive concept relation
part-whole relation
part-of relation
concept relation (3.2.11) between a *comprehensive concept* (3.2.21) and a *partitive concept* (3.2.22)

EXAMPLE A partitive relation exists between the *concepts* (3.2.7) 'bicycle' and 'wheel', 'molecule' and 'atom'.

3.2.15
superordinate concept
broader concept
generic concept (3.2.19) or *comprehensive concept* (3.2.21)

EXAMPLE 'furniture' is a superordinate concept to 'table' and 'chair' in a *generic relation* (3.2.13); 'tree' is a superordinate concept to 'root' or 'branch' in a *partitive relation* (3.2.14).

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3.2.16
subordinate concept
narrower concept
specific concept (3.2.20) or *partitive concept* (3.2.22)

EXAMPLE 'table' is a subordinate concept to 'furniture' in a *generic relation* (3.2.13); the concept 'root' is a subordinate concept to 'tree' in a *partitive relation* (3.2.14).

3.2.17
criterion of subdivision
subdivision criterion
type of characteristic (3.2.2) according to which a *superordinate concept* (3.2.15) is divided into *subordinate concepts* (3.2.16)

EXAMPLE 1 For the *concept system* (3.2.28) 'safety sign' according to ISO 3864-1:2011, 5, Table 1, the *type of characteristic* (3.2.2) 'geometric shape' is used as a criterion of subdivision to divide the *generic concept* (3.2.19) 'safety sign' into *specific concepts* (3.2.20) such as 'mandatory action sign' and 'safe condition sign'.

EXAMPLE 2 For the *concept system* (3.2.28) 'computer mouse' according to ISO 704:2009, 5.5.2.2.1, Example 4 the *type of characteristic* (3.2.2) 'computer connection' is used as a criterion of subdivision to divide the *generic concept* (3.2.19) 'computer mouse' into *specific concepts* (3.2.20) such as 'cord mouse' and 'cordless mouse'.

EXAMPLE 3 For the *concept system* (3.2.28) 'computer' the *type of characteristic* (3.2.2) 'function' is used as a criterion of subdivision to divide the *comprehensive concept* (3.2.21) 'computer' into *partitive concepts* (3.2.22) such as 'main board', 'display adapter', 'power supply', 'storage device' and 'input device'.

3.2.18
coordinate concept
subordinate concept (3.2.16) resulting from the same *criterion of subdivision* (3.2.17) as another *subordinate concept* (3.2.16)

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EXAMPLE Applying 'layer of clothing' as a *criterion of subdivision* (3.2.17) to 'clothing' yields 'outerwear' and 'underwear' as *specific concepts* (3.2.20). These concepts are coordinate concepts in relation to their *generic concept* (3.2.19) 'clothing'.

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Note 1 to entry: Coordinate concepts have the same immediate *superordinate concept* (3.2.15).

3.2.19
generic concept
concept (3.2.7) in a *generic relation* (3.2.13) that has the narrower *intension* (3.2.6)

EXAMPLE In relation to 'electronic signature', 'signature' is a generic concept.

3.2.20
specific concept
concept (3.2.7) in a *generic relation* (3.2.13) that has the broader *intension* (3.2.6)

EXAMPLE In relation to 'signature', 'electronic signature' is a specific concept.

3.2.21
comprehensive concept
concept (3.2.7) in a *partitive relation* (3.2.14) that is viewed as a whole consisting of various parts

EXAMPLE In relation to 'pedal', 'bicycle' is a comprehensive concept.

Note 1 to entry: A comprehensive concept is viewed as a whole consisting of parts, which are the corresponding *partitive concepts* (3.2.22).

3.2.22
partitive concept
concept (3.2.7) in a *partitive relation* (3.2.14) that is viewed as a part of a whole

EXAMPLE In relation to 'bicycle', 'pedal' is a partitive concept.

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Note 1 to entry: The partitive concept is viewed as one of the parts constituting the whole of a *comprehensive concept* (3.2.21).

3.2.23
associative relation
associative concept relation
pragmatic relation
non-hierarchical *concept relation* (3.2.11)

EXAMPLE An associative relation exists between the *concepts* (3.2.7) 'education' and 'teaching'.

3.2.24
sequential relation
associative relation (3.2.23) by which *concepts* (3.2.7) can be ordered by a relevant ordering criterion

Note 1 to entry: Sequential relations are usually based on *spatial relations* (3.2.25), *temporal relations* (3.2.26) or *causal relations* (3.2.27).

3.2.25
spatial relation
sequential relation (3.2.24) based on the criterion of relative location in space

EXAMPLE A spatial relation exists between the *concepts* (3.2.7) 'floor' and 'ceiling'.

3.2.26
temporal relation
sequential relation (3.2.24) based on the criterion of following or preceding in time

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EXAMPLE A temporal relation exists between the *concepts* (3.2.7) 'production' and 'consumption'.

3.2.27
causal relation
cause-effect relation
sequential relation (3.2.24) based on the criterion of cause and its effect

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EXAMPLE A causal relation exists between the *concepts* (3.2.7) 'action' and 'reaction', 'nuclear explosion' and 'fallout'.

3.2.28
concept system
system of concepts
set of *concepts* (3.2.7) structured in one or more related *domains* (3.1.4) according to the *concept relations* (3.2.11) among its concepts

3.2.29
concept diagram
graphic representation of a *concept system* (3.2.28)

3.2.30
concept model
concept diagram (3.2.29) formed by means of a *formal language* (3.1.10)

[SOURCE: ISO 24156-1:2014, 3.2]

3.3 Definitions

3.3.1
definition
representation of a *concept* (3.2.7) by an expression that describes it and differentiates it from related concepts

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3.3.2
intensional definition
definition (3.3.1) that conveys the *intension* (3.2.6) of a *concept* (3.2.7) by stating the immediate *generic concept* (3.2.19) and the *delimiting characteristic(s)* (3.2.5)

EXAMPLE 1 optical mouse: computer mouse in which movements are detected by light sensors.

EXAMPLE 2 mechanical mouse: computer mouse in which movements are detected by rollers and a ball.

Note 1 to entry: Intensional definitions are preferable to other types of *definitions* (3.3.1) because they clearly reveal the *characteristics* (3.2.1) of a *concept* (3.2.7) within a *concept system* (3.2.28): they should be used whenever possible.

3.3.3
extensional definition
definition (3.3.1) that enumerates all the *subordinate concepts* (3.2.16) of a *superordinate concept* (3.2.15) under one *criterion of subdivision* (3.2.17)

3.3.4
generic extensional definition
extensional definition (3.3.3) that enumerates all the *specific concepts* (3.2.20) of a *generic concept* (3.2.19) under one *criterion of subdivision* (3.2.17) on the same hierarchical level

EXAMPLE Noble gas: helium, neon, argon, crypton, xenon or radon.

Note 1 to entry: A generic extensional definition is based on a *generic relation* (3.2.13), and the enumeration ends with the operator "or".

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3.3.5
partitive extensional definition
extensional definition (3.3.3) that enumerates all the *partitive concepts* (3.2.22) of a *comprehensive concept* (3.2.21) on the same hierarchical level

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EXAMPLE Family 18 in the Periodic Table: helium, neon, argon, crypton, xenon and radon.

Note 1 to entry: A partitive extensional definition is based on a *partitive relation* (3.2.26), and the enumeration ends with the operator "and".

3.4 Designations

3.4.1
designation
designator
representation of a *concept* (3.2.7) by a sign which denotes it in a *domain* (3.1.4) or *subject* (3.1.5)

Note 1 to entry: A designation can be linguistic or non-linguistic. It can consist of various types of characters, but also punctuation marks such as hyphens and parentheses, governed by domain-, subject-, or language-specific conventions.

Note 2 to entry: A designation can be a *term* (3.4.2) including *appellations* (3.4.3), a *proper name* (3.4.4), or a *symbol* (3.4.5).

[SOURCE: ISO 10241-1:2011, 3.4.1.1.1, modified — Added "in a domain (3.1.4) or subject (3.1.5)" in the definition; order and content of Notes to entry changed.]

3.4.2
term
designation (3.4.1) that represents a *general concept* (3.2.9) by linguistic means

EXAMPLE "laser printer", "planet", "pacemaker", "chemical compound", "¾ time", "Influenza A virus", "oil painting".

Note 1 to entry: Terms may be partly or wholly verbal.

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