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## Systems and software engineering — Vocabulary

*Ingénierie des systèmes et du logiciel — Vocabulaire*

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

IEEE Standards documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information contained in its standards.

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 document 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](http://www.iso.org/directives)).

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For an explanation on 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 the following URL [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, SC 7, *Software and systems engineering*, in cooperation with the IEEE Computer Society Systems and Software Engineering Standards Committee, under the Partner Standards Development Organization cooperation agreement between ISO and IEEE.

Certain material contained in ISO/IEC/IEEE 24765 is reproduced, with permission, from *A Guide to the Project Management Body of Knowledge (PMBOK®) Guide — Fifth Edition*, copyright 2013, Project Management Institute.

This second edition cancels and replaces the first edition (ISO/IEC/IEEE 24765:2010), and has been editorially revised. Revisions in terms and definitions published in this second edition have been previously approved through the vocabulary maintenance procedures of ISO/IEC JTC 1/SC7, in cooperation with the IEEE Computer Society. These revisions have been made available through the online vocabulary database used for this standard, maintained by the ISO/IEC JTC 1/SC7/SWG 22 Vocabulary Validation Team in cooperation with the IEEE Computer Society at [www.computer.org/sevocab](http://www.computer.org/sevocab)

## Introduction

The systems and software engineering disciplines are continuing to mature while information technology advances. New terms are being generated and new meanings are being adopted for existing terms. This document was prepared to collect and standardize terminology. Its purpose is to identify terms currently in use in the field and standard definitions for these terms. It is intended to serve as a useful reference for those in the Information Technology field, and to encourage the use of systems and software engineering standards prepared by ISO/IEC JTC 1 and liaison organizations IEEE Computer Society and Project Management Institute (PMI). It provides definitions that are rigorous, uncomplicated, and understandable by all concerned.

While it is useful to find the meaning of a term, no word stands in isolation. This document makes it possible to search for related concepts and to view how a term is used in definitions of other terms.

Every effort has been made to use definitions from established systems and software engineering standards of ISO JTC 1/SC 7 and its liaison organizations IEEE Computer Society and the PMI. When existing standards were found to be incomplete, unclear or inconsistent with other entries in the vocabulary, however, new, revised, or composite definitions have been developed. Some definitions have been recast in a system, rather than software, context.

The vocabulary is offered in both print and internet-accessible versions for ease of reference and to encourage use of the source standards for the vocabulary. The online vocabulary database used for this standard is maintained by the ISO/IEC JTC 1/SC7/SWG 22 Vocabulary Validation Team in cooperation with the IEEE Computer Society at [www.computer.org/sevocab](http://www.computer.org/sevocab)

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# Systems and software engineering — Vocabulary

## 1 Scope

### 1.1 General

Consistent with ISO vocabulary standards, each technical committee is responsible for standard terminology in its area of specialization. This document provides a common vocabulary applicable to all systems and software engineering work falling within the scope of ISO/IEC JTC 1/SC 7, *Software and systems engineering*, and the IEEE Computer Society Systems and Software Engineering Standards Committee (IEEE-CS S2ESC).

The scope of each concept defined has been chosen to provide a definition that is suitable for general application. In those circumstances where a restricted application is concerned, a more specific definition might be needed.

Terms have been excluded if they were:

- considered to be parochial to one group or organization;
- company proprietary or trademarked;
- multi-word terms whose meaning could be inferred from the definitions of the component words; and
- terms whose meaning in the information technology (IT) field could be directly inferred from their common English dictionary meaning.

### 1.2 Relationship of the print and internet-accessible versions

The primary tool for maintaining this vocabulary is a database that is modified in a controlled fashion. Hosted by the IEEE Computer Society, the SEVOCAB (systems and software engineering vocabulary) database is publicly accessible at [www.computer.org/sevocab](http://www.computer.org/sevocab). ISO/IEC/IEEE 24765 is issued periodically as a formal, published document reflecting a "snapshot" of the database.

The copyright notice provided with the database permits users to copy definitions from the database as long as the source of the definition is cited. Permitting public use of the definitions in the database is intended to encourage the use of other ISO/IEC JTC 1 and IEEE systems and software engineering standards.

### 1.3 Vocabulary structure

Entries in the vocabulary are arranged alphabetically. Blanks precede all other characters in alphabetizing. Hyphens and slashes (- and /) follow all other characters in alphabetizing.

Preferred terms are shown in **bold**. Synonyms or admitted terms (terms with the same meaning as the preferred term), are listed under the preferred term in plain text, and can be located by searching.

Terms, definitions, and notes use spelling preferred in the US. The use of capital letters has been minimized and generally limited to proper names and acronyms. In some cases, the source standard uses another correct spelling (such as behaviour rather than behavior, on-line rather than online). Technical terms in English often change form from two words to a hyphenated word to a single word as they become more familiar, e.g., real time to real-time to realtime. Hence, other correct spellings and capitalization of the terms, according to a national standard, an authoritative general dictionary or accepted style guide, can be used with the definitions.

An entry can consist of a single word, such as "software"; a phrase or compound term, such as "test case"; or an abbreviated term, such as "CDR". Phrases are given in their natural order (test plan) rather than in reversed order (plan, test). Abbreviated terms can be listed separately as well as in parentheses following the source term. Terms that are verbs are shown without the infinitive marker "to".

After each term, numbered definitions are listed in order of preference, or from the most general to the more specific usages. The different definitions can show the use of a term as a noun, verb and adjective.

This document includes references to the active source standards for each definition, so that the use of the term can be further explored. The sources of most of the definitions are ISO JTC 1/SC 7 or IEEE Computer Society standards and the PMI Glossary, Fifth Edition. Sources are listed in the Bibliography. Additional sources for definitions drawn from outside the scope of systems and software engineering are in Annex A, List of References. In some cases, the same definition can also be found in other active or withdrawn standards. No source is shown if the original source standard has been withdrawn or archived and the definition has been retained in this vocabulary.

Notes (comments), Examples, and Figures taken from the source standards have been included to clarify selected definitions.

Cross-references are used to show a term's relationship to other terms in the dictionary: *cf.* refers to related terms that are not synonyms.

## 1.4 PMI Glossary provisions

The Project Management Institute (PMI) Glossary definitions have been included without alteration in accordance with the copyright agreement. Some of these terms and definitions are not worded according to ISO/IEC or IEEE styles. Many of these definitions include explanatory material. For other terms and other definitions that have ISO/IEC and IEEE standards as their source, explanatory matter is shown in the Notes and Examples.

## 2 Normative references

There are no normative references in this document.

NOTE The definitions in this document are drawn from normative standards and informative guidance documents, including ISO/IEC Technical Reports (TR). Where terms have multiple definitions, users should consult the source standards for further information on appropriate usage within a specific context.

## 3 Terms, definitions, and abbreviated terms

For the purposes of this document, the following terms and definitions apply.

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

- IEC Electropedia: available at <http://www.electropedia.org>
- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEEE Standards Dictionary Online: available at <http://dictionary.ieee.org>

### 3.1

#### 1GL

1. first-generation language

*cf.* machine language

### 3.2

#### 2GL

1. second-generation language

*cf.* assembly language

### 3.3

#### 3D

1. three-dimensional [ISO/IEC/IEEE 23026:2015 Systems and software engineering — Engineering and management of websites for systems, software, and services information]

### 3.4

#### 3GL

1. third-generation language

*cf.* high order language



## 3.5

**4GL**

1. fourth-generation language

## 3.6

**5GL**

1. fifth-generation language

## 3.7

**<Viewpoint> language**

1. definitions of concepts and rules for the specification of an ODP system from the <viewpoint> viewpoint [ISO/IEC 10746-3:2009 Information technology — Open Distributed Processing — Reference Model: Architecture, 4.2.1.1]

Note 1 to entry: Thus, engineering language: definitions of concepts and rules for the specification of an ODP system from the engineering viewpoint.

## 3.8

**<X> domain**

1. set of objects, each of which is related by a characterizing relationship <X> to a controlling object [ISO/IEC 10746-2:2009 Information technology — Open Distributed Processing — Reference Model: Foundations, 10.3]

## 3.9

**<X> federation**

1. community of <x> domains [ISO/IEC 10746-3:2009 Information technology — Open Distributed Processing — Reference Model: Architecture, 5.1.2]

## 3.10

**<X> group**

1. set of objects with a particular characterizing relationship <X> [ISO/IEC 10746-2:2009 Information technology — Open Distributed Processing — Reference Model: Foundations, 10.1]

## 3.11

**<x> interceptor**

1. engineering object in a channel, placed at a boundary between <x> domains [ISO/IEC 10746-3:2009 Information technology — Open Distributed Processing — Reference Model: Architecture, 8.1.11]

Note 1 to entry: An <x> interceptor performs checks to enforce or monitor policies on permitted interactions between basic engineering objects in different domains; performs transformations to mask differences in interpretation of data by basic engineering objects in different domains. An inter-subnetwork relay is an example of an interceptor

## 3.12

**<x> pattern**

1. abstract specification of a composition of objects that results in any instance of the composition having a given property, named by <X> [ISO/IEC 10746-2:2009 Information technology — Open Distributed Processing — Reference Model: Foundations, 9.8]

## 3.13

**A-0 context diagram**

1. the only context diagram that is required for a valid IDEF0 model, the A-0 diagram contains one box, which represents the top-level function being modeled, the inputs, controls, outputs, and mechanisms attached to this box, the full model name, the model name abbreviation, the model's purpose statement, and the model's viewpoint statement [IEEE 1320.1-1998 (R2004) IEEE Standard for Functional Modeling Language - Syntax and Semantics for IDEF0]

## 3.14

**A-profile**

1. Application profile [ISO/IEC 10746-1:1998 Information technology — Open Distributed Processing — Reference model: Overview]

3.15

**ABC**

1. activity-based costing

3.16

**abend**

1. abnormal end

3.17

**abnormal end (abend)**

1. termination of a process prior to completion

*cf.* abort, exception

3.18

**abort**

1. to terminate a process prior to completion

*cf.* abend, exception

3.19

**absolute address**

explicit address

specific address

1. address that is permanently assigned to a device or storage location and that identifies the device or location without the need for translation or calculation

*cf.* relative address, relocatable address, symbolic address, absolute assembler, absolute code, absolute instruction

3.20

**absolute assembler**

1. assembler that produces absolute code

*cf.* relocating assembler

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3.21

**absolute code**

specific code

1. code in which all addresses are absolute addresses

*cf.* relocatable code

3.22

**absolute instruction**

1. computer instruction in which all addresses are absolute addresses

*cf.* direct instruction, effective instruction, immediate instruction, indirect instruction

3.23

**absolute loader**

1. loader that reads absolute machine code into main memory, beginning at the initial address assigned to the code by the assembler or compiler, and performs no address adjustments on the code

*cf.* relocating loader

3.24

**abstract class**

1. class that cannot be instantiated independently [IEEE 1320.2-1998 (R2004) IEEE Standard for Conceptual Modeling Language Syntax and Semantics for IDEF1X97 (IDEFobject), 3.1.1]

Note 1 to entry: That is, instantiation must be accomplished via a subclass. A class for which every instance must also be an instance of a subclass in the cluster (a total cluster) is called an abstract class with respect to that cluster.

3.25

**abstract data type**

1. data type for which only the properties of the data and the operations to be performed on the data are specified, without concern for how the data will be represented or how the operations will be implemented

**3.26****abstract design**

**1.** generic form that needs specialization (further design work) to produce concrete designs **2.** design aimed at producing designs

**3.27****abstraction**

**1.** view of an object that focuses on the information relevant to a particular purpose and ignores the remainder of the information [ISO/IEC 19506:2012 *Information technology — Object Management Group Architecture-Driven Modernization (ADM) — Knowledge Discovery Meta-Model (KDM)*, 4] **2.** process of formulating a view **3.** process of suppressing irrelevant detail to establish a simplified model, or the result of that process [ISO/IEC 10746-2:2009 *Information technology — Open Distributed Processing — Reference Model: Foundations*, 6.3]  
cf. data abstraction

**3.28****AC**

**1.** actual cost [A Guide to the Project Management Body of Knowledge (PMBOK® Guide) — Fifth Edition]

**3.29****acceptability**

**1.** exposure to loss (financial or otherwise) that an organization is willing to tolerate from a risk

Note 1 to entry: Risk acceptability can apply to an individual risk or to a collection of risks, such as the totality of risks confronting a project or enterprise. Acceptability can differ for different categories of risk and can depend on the cost of treatment or other factors.

**3.30****acceptability criteria**

**1.** documented set of characteristics of a program's work products that if satisfied, forms a sufficient basis for judging each product's content to be acceptable to support a successful review or audit [IEEE 15288.2:2014 *IEEE Standard for Technical Reviews and Audits on Defense Programs*, 3.1]

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**3.31****acceptable**

**1.** meeting stakeholder expectations that can be shown to be reasonable or merited

**3.32****acceptance criteria**

**1.** criteria that a system or component must satisfy in order to be accepted by a user, customer, or other authorized entity **2.** a set of conditions that is required to be met before deliverables are accepted [A Guide to the Project Management Body of Knowledge (PMBOK® Guide) — Fifth Edition]  
cf. requirement, test criteria

**3.33****acceptance test**

**1.** test of a system or functional unit usually performed by the purchaser on his premises after installation with the participation of the vendor to ensure that the contractual requirements are met [ISO/IEC 2382:2015, *Information technology — Vocabulary*]  
cf. acceptance testing, validation test

**3.34****acceptance testing**

**1.** testing conducted to determine whether a system satisfies its acceptance criteria and to enable the customer to determine whether to accept the system **2.** formal testing conducted to enable a user, customer, or other authorized entity to determine whether to accept a system or component [IEEE 1012-2012 *IEEE Standard for System and Software Verification and Validation*, 3.1]  
cf. acceptance test, validation test

3.35

**accepted deliverables**

1. products, results, or capabilities produced by a project and validated by the project customer or sponsors as meeting their specified acceptance criteria [A Guide to the Project Management Body of Knowledge (PMBOK® Guide) — Fifth Edition]

3.36

**access**

1. to obtain the use of a resource [ISO/IEC 2382:2015, Information technology — Vocabulary]

3.37

**access facility**

1. set of service primitives that allow a stub objects to negotiate the abstract and transfer syntax to be used for the operation data to be transmitted over the channel [ISO/IEC 14752:2000 Information technology — Open Distributed Processing — Protocol support for computational interactions, 3.3.1]

3.38

**access method**

1. technique to obtain the use of data, the use of storage in order to read or write data, or the use of an input-output channel to transfer data [ISO/IEC 2382:2015, Information technology — Vocabulary]

3.39

**access routine**

1. routine that provides access to a data structure that is hidden, usually because it is a global variable or used in an abstract data type.

3.40

**access transparency**

1. distribution transparency which masks differences in data representation and invocation mechanisms to enable interworking between objects [ISO/IEC 10746-3:2009 Information technology — Open Distributed Processing — Reference Model: Architecture, 4.4.1.1]

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3.41

**accessibility**

1. extent to which products, systems, services, environments and facilities can be used by people from a population with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use [ISO/IEC 25064:2013 Systems and software engineering — Software product Quality Requirements and Evaluation (SQuaRE) — Common Industry Format (CIF) for usability: User needs report, 4.1] 2. degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use [ISO/IEC 25010:2011 Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — System and software quality models, 4.2.4.6] 3. usability of a product, service, environment or facility by people with the widest range of capabilities [ISO/IEC 25062:2006 Software engineering — Software product Quality Requirements and Evaluation (SQuaRE) — Common Industry Format (CIF) for usability test reports, 4.1; ISO/IEC 26514:2008 Systems and software engineering — requirements for designers and developers of user documentation, 4.1]

Note 1 to entry: Although "accessibility" typically addresses users who have disabilities, the concept is not limited to disability issues. The range of capabilities includes disabilities associated with age. Accessibility for people with disabilities can be specified or measured either as the extent to which a product or system can be used by users with specified disabilities to achieve specified goals with effectiveness, efficiency, freedom from risk and satisfaction in a specified context of use, or by the presence of product properties that support accessibility. Context of use includes direct use or use supported by assistive technologies.

[SOURCE: ISO 9241-171:2008]

3.42

**accessibility testing**

1. type of usability testing used to measure the degree to which a test item can be operated by users with the widest possible range of characteristics and capabilities [ISO/IEC/IEEE 29119-1:2013 Software and systems engineering — Software testing — Part 1: Concepts and definitions, 4.1]

## 3.43

**accident**

1. unplanned event or series of events that results in death, injury, illness, environmental damage, or damage to or loss of equipment or property [IEEE 1228-1994 (R2002) IEEE Standard for Software Safety Plans, 3.1.1]

## 3.44

**accountability**

1. degree to which the actions of an entity can be traced uniquely to the entity [ISO/IEC 25010:2011 Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — System and software quality models, 4.2.6.4]

## 3.45

**accuracy**

1. qualitative assessment of correctness, or freedom from error 2. quantitative measure of the magnitude of error 3. Within the quality management system, accuracy is an assessment of correctness [A Guide to the Project Management Body of Knowledge (PMBOK® Guide) — Fifth Edition]  
cf. precision

## 3.46

**accuracy of measurement**

1. the closeness of the agreement between the result of a measurement and the true value of the measurand [ISO/IEC TR 14143-3:2003 Information technology — Software measurement — Functional size measurement — Part 3: Verification of functional size measurement methods, 3.1]

Note 1 to entry: Accuracy is a qualitative concept. The term precision is not a synonym for "accuracy". A true value is a value consistent with the definition of a given particular quantity and this is a value that would be obtained by a perfect measurement. In contexts where perfect measurement is not practically feasible, a conventional true value is a value attributed to a particular quantity and accepted, sometimes by convention, as having an uncertainty appropriate for a given purpose. 'Conventional true value', in the same reference, is sometimes called assigned value, best estimate of the value, conventional value or reference value. The accuracy can be expressed in terms of the Mean magnitude of relative error.

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[SOURCE: ISO/IEC Guide 99:2007 International vocabulary of metrology (VIM) — Basic and general concepts and associated terms]

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## 3.47

**ACIA**

1. asynchronous communication interface adapter

## 3.48

**ACID**

1. Atomicity Consistency Isolation Durability [ISO/IEC 10746-1:1998 Information technology — Open Distributed Processing — Reference model: Overview]

## 3.49

**ACQ**

1. acquirer [ISO/IEC TR 29110-5-6-2:2014 Systems and software engineering — Lifecycle profiles for Very Small Entities (VSEs) — Part 5-6-2: Systems engineering — Management and engineering guide: Generic profile group: Basic profile, 4.2]

## 3.50

**acquire project team**

1. the process of confirming human resource availability and obtaining the team necessary to complete project activities [A Guide to the Project Management Body of Knowledge (PMBOK® Guide) — Fifth Edition]

## 3.51

**acquirer**

owner

purchaser

1. stakeholder that acquires or procures a product or service from a supplier [ISO/IEC 12207:2008 Systems and software engineering — Software life cycle processes, 4.1; ISO/IEC TS 24748-1:2016 Systems and software engineering — Life cycle management — Part 1: Guide for life cycle management, 2.1; ISO/IEC/IEEE 15288:2015 Systems and

## ISO/IEC/IEEE 24765:2017(E)

*software engineering — System life cycle processes, 4.1.1]* **2.** person or organization that acquires or procures a system, software product, or software service (which can be part of a system) from a supplier [*ISO/IEC TR 12182:2015 Systems and software engineering — Framework for categorization of IT systems and software, and guide for applying it, 3.13]* **3.** individual or organization that acquires or procures a system, software product or software service from a supplier [*ISO/IEC 25040:2011 Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Evaluation process, 4.1]*

Note 1 to entry: The acquirer can be internal or external to the supplier organization. Acquisition of a software product can involve, but does not necessarily require, a legal contract or a financial transaction between the acquirer and supplier.

### 3.52

#### **acquisition**

**1.** process of obtaining a system, product, or service [*ISO/IEC TS 24748-1:2016 Systems and software engineering — Life cycle management — Part 1: Guide for life cycle management, 3.2; ISO/IEC/IEEE 15288:2015 Systems and software engineering — System life cycle processes, 4.1.2]* **2.** obtaining human and material resources necessary to perform project activities. Acquisition implies a cost of resources, and is not necessarily financial [*A Guide to the Project Management Body of Knowledge (PMBOK® Guide) — Fifth Edition]*

### 3.53

#### **acquisition strategy**

**1.** specific approach to acquiring products and services that is based on considerations of supply sources, acquisition methods, requirements specification types, contract or agreement types, and related acquisition risks

### 3.54

#### **action**

**1.** element of a step that a user performs during a procedure [*ISO/IEC 26514:2008 Systems and software engineering — requirements for designers and developers of user documentation, 4.2]* **2.** description of an operation to be taken in the formulation of a solution [*ISO 5806:1984 Information processing — Specification of single-hit decision tables, 3.7]* **3.** something which happens [*ISO/IEC 10746-2:2009 Information technology — Open Distributed Processing — Reference Model: Foundations, 8.3]* **4.** user behavior that a system accepts as a request for a particular operation [*ISO/IEC TR 25060:2010 Systems and software engineering — Systems and software product Quality Requirements and Evaluation (SQuaRE) — Common Industry Format (CIF) for usability: General framework for usability-related information, 2.2]* **5.** process of transformation that operates upon data or other types of inputs to create data, produce outputs, or change the state or condition of the subject software [*IEEE 1175.3-2004 IEEE Standard for CASE Tool Interconnections - Reference Model for Specifying Software Behavior]* **6.** statement of causal and affective relationships in a behavior model linking particular stimulus interactions to particular response interactions and changes within a unit under a certain set of conditions on a unit's lifeline [*IEEE 1175.4-2008 IEEE Standard for CASE Tool Interconnections - Reference Model for Specifying System Behavior, 3.1]*

### 3.55

#### **action entry**

**1.** indication of the relevance of an action to a particular rule [*ISO 5806:1984 Information processing — Specification of single-hit decision tables, 3.9]*

### 3.56

#### **action of interest**

**1.** action in a transaction which leads to a state change of significance to the transaction [*ISO/IEC 10746-3:2009 Information technology — Open Distributed Processing — Reference Model: Architecture, 13.7.1.2]*

### 3.57

#### **action signature**

**1.** specification of an action that comprises the name for the action, the number, names and types of its parameters, and an indication of the causality of the object that instantiates the action template [*ISO/IEC 10746-2:2009 Information technology — Open Distributed Processing — Reference Model: Foundations, 9.14]*

### 3.58

#### **action stub**

**1.** list of all the actions to be taken in the solution of a problem [*ISO 5806:1984 Information processing — Specification of single-hit decision tables, 3.11]*

## 3.59

**activation**

1. one occurrence of a function's transformation of some subset of its inputs into some subset of its outputs [IEEE 1320.1-1998 (R2004) IEEE Standard for Functional Modeling Language - Syntax and Semantics for IDEF0, 2.1.3]

## 3.60

**activation constraint**

1. function's requirement for the presence of a non-empty object set in a particular arrow role as a precondition for some activation of the function [IEEE 1320.1-1998 (R2004) IEEE Standard for Functional Modeling Language - Syntax and Semantics for IDEF0, 2.1.4]

## 3.61

**active area**

1. (on-screen documentation) area that responds to user input

EXAMPLE: a window, icon or text field

## 3.62

**active enterprise object**

1. enterprise object that is able to fill an action role [ISO/IEC 15414:2015 Information technology — Open distributed processing — Reference model — Enterprise language, 6.3.1]

## 3.63

**active interconnection**

1. physical interaction mechanism allowing the action of one thing to cause a change or to stimulate an action in another thing [IEEE 1175.2-2006 IEEE Recommended Practice for CASE Tool Interconnection — Characterization of Interconnections, 3.1]

## 3.64

**active redundancy**

1. in fault tolerance, the use of redundant elements operating simultaneously to prevent, or permit recovery from, failures  
cf. standby redundancy

## 3.65

**active text**

1. text displayed on the screen that responds to user input

## 3.66

**active white space**

1. area around textual or graphical elements, not including margins, which breaks up text, separates topic and subtopic groupings, indicates hierarchical and topical relationships, highlights information, or makes text easier to read

## 3.67

**activity**

1. set of cohesive tasks of a process [ISO/IEC 12207:2008 Systems and software engineering — Software life cycle processes; ISO/IEC TS 24748-1:2016 Systems and software engineering — Life cycle management — Part 1: Guide for life cycle management, 2.3; ISO/IEC/IEEE 15288:2015 Systems and software engineering — System life cycle processes, 4.1.3] 2. a distinct, scheduled portion of work performed during the course of a project [A Guide to the Project Management Body of Knowledge (PMBOK® Guide) — Fifth Edition] 3. order submitted to the system under test (SUT) by a user or an emulated user demanding the execution of a data processing operation according to a defined algorithm to produce specific output data from specific input data and (if requested) stored data [ISO/IEC 14756:1999 Information technology — Measurement and rating of performance of computer-based software systems, 4.1] 4. defined body of work to be performed, including its required input information and output information 5. set of cohesive tasks of a process, which transforms inputs into outputs [IEEE 730-2014 IEEE Standard for Software Quality Assurance Processes, 3.2] 6. element of work performed during the implementation of a process 7. set of actions that consume time and resources and whose performance is necessary to achieve, or contribute to, the realization of one or more outcomes [ISO/IEC TR 24766:2009 Information technology — Systems and software engineering — Guide for requirements engineering tool capabilities, 3.1] 8. single-headed directed acyclic graph of actions, where occurrence of each action in the graph is made possible by the occurrence of all immediately