

Systémové a softvérové inžinierstvo Slovník

STN ISO/IEC/IEEE 24765

97 4210

Systems and software engineering Vocabulary

Ingénierie des systèmes et du logiciel Vocabulaire

System und Software-Engineering Begriffe

Táto slovenská technická norma obsahuje anglickú verziu medzinárodnej normy ISO/IEC/IEEE 24765: 2017 a má postavenie oficiálnej verzie.

This Slovak standard includes the English version of the International standard ISO/IEC/IEEE 24765: 2017 and has the status of the official version.

141010

Anotácia

V súlade s normami ISO pre terminológiu je každá technická komisia zodpovedná za štandardnú terminológiu vo svojej oblasti špecializácie. Tento dokument poskytuje spoločnú terminológiu uplatniteľnú na všetky systémy a softvérové inžinierstvo, ktoré spadajú do rozsahu pôsobnosti ISO/IEC JTC 1/SC 7 Softvérové a systémové inžinierstvo a IEEE Computer Society Systems and Software Engineering Standards Committee (IEEE-CS S2ESC).

Rozsah každého definovaného pojmu bol zvolený tak, aby poskytoval definíciu vhodnú na všeobecné použitie. V prípadoch, keď ide o obmedzené použitie, môže byť potrebná špecifickejšia definícia.

Termíny boli vylúčené, ak:

- boli považované za obmedzené na jednu skupinu alebo organizáciu:
- boli vlastníctvom spoločnosti alebo ochrannou známkou;
- boli viacslovné termíny, ktorých význam možno odvodiť z definícií jednotlivých slov; a
- termíny, ktorých význam v oblasti informačných technológií (IT) možno priamo odvodiť z ich bežného významu v anglickom slovníku.

Súčasne s rozvojom informačných technológií sa naďalej zdokonaľujú aj disciplíny systémového a softvérového inžinierstva. Vznikajú nové termíny a existujúce termíny nadobúdajú nové významy. Tento dokument bol vypracovaný s cieľom zhromaždiť a štandardizovať terminológiu. Jeho účelom je identifikovať termíny, ktoré sa v súčasnosti používajú v danej oblasti a stanoviť štandardné definície týchto termínov. Je určený ako užitočná referenčná príručka pre odborníkov v oblasti informačných technológií a na podporu používania noriem pre systémové a softvérové inžinierstvo vypracovaných organizáciou ISO/IEC JTC 1 a spolupracujúcimi organizáciami IEEE Computer Society a Project Management Institute (PMI). Obsahuje definície, ktoré sú presné, jednoduché a zrozumiteľné pre všetkých zainteresovaných.

Hoci je užitočné nájsť význam pojmu, žiadne slovo neexistuje izolovane. Tento dokument umožňuje vyhľadávať súvisiace pojmy a zobraziť, ako sa termín používa v definíciách iných termínov.

Bolo vynaložené všetko úsilie, aby sa použili definície zo zavedených noriem pre systémové a softvérové inžinierstvo ISO JTC 1/SC 7 a jej partnerských organizácií IEEE Computer Society a PMI. Ak sa však zistilo, že existujúce normy sú neúplné, nejasné alebo v rozpore s inými záznamami v slovníku, boli vypracované nové, revidované alebo zložené definície. Niektoré definície boli prepracované v kontexte systému, nie softvéru.

Slovník je k dispozícii v tlačenej aj internetovej verzii, aby sa uľahčilo vyhľadávanie a podporilo používanie zdrojových noriem pre slovník. Online databáza slovníka použitá pre túto normu je spravovaná tímom ISO/IEC JTC 1/SC7/SWG 22 Vocabulary Validation Team v spolupráci s IEEE Computer Society na adrese www.computer.org/sevocab.

Národný predhovor

Obrázky a matematické výrazy v tejto STN sú prevzaté z elektronických podkladov dodaných z ISO/IEC/IEEE, © 2017 ISO/IEC/IEEE, ref. č. ISO/IEC/IEEE 24765: 2017 E.

Normatívne referenčné dokumenty

V tomto dokumente sa nenachádzajú žiadne referenčné dokumenty.

Vypracovanie

Spracovateľ: Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, Bratislava

Technická komisia: TK 37 Informačné technológie

Contents Page

Forewordv		
Introductionvi		
1	Scope1 General1	
1.1	General1	
1.2	Relationship of the print and internet-accessible versions1	
1.3	Vocabulary structure1	
1.4	Relationship of the print and internet-accessible versions	
2	Normative references2	
3	Terms, definitions, and abbreviated terms2	
Annex A (informative) List of References		
Bibliography514		

List of Figures

Figure 1 — Activity group	10
Figure 2 — Bathtub curve	42
Figure 3 — Block diagram	47
Figure 4 —Box Diagram	50
Figure 5 —Bubble chart	
Figure 6 —Call graph	56
Figure 7 —Case construct	59
Figure 8 — Category	60
Figure 9 — Data flow diagram	116
Figure 10 — Data structure diagram	119
Figure 11 — Directed graph	140
Figure 12 — Documentation tree	
Figure 13 — Flowchart	
Figure 14 — If-then-else construct	212
Figure 15 — Input-process-output chart	225
Figure 16 — Modification request	278
Figure 17 — Structure chart	
Figure 18 — UNTIL construct	
Figure 19 — Waterfall model	
Figure 20 — Website	507
Figure 21 — WHILE construct	508

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).

Attention is called to the possibility that implementation of this standard may require the use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. ISO/IEEE is not responsible for identifying essential patents or patent claims for which a license may be required, for conducting inquiries into the legal validity or scope of patents or patent claims or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance or a Patent Statement and Licensing Declaration Form, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from ISO or the IEEE Standards Association. Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

Use of IEEE Standards documents is wholly voluntary. IEEE documents are made available for use subject to important notices and legal disclaimers (see http://standards.ieee.org/IPR/disclaimers.html for more information).

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.

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

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

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 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.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN