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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.

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 or www.iec.ch/members_experts/refdocs).

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

This second edition cancels and replaces the first edition (ISO/IEC/IEEE 41062:2019), which has been technically revised.

The main changes are as follows:

— the eight steps of software acquisition were replaced by four sub-processes of software acquisition;

— discussion of the various forms of requirements and their implications was expanded;

— additional attention was given to acquisitions of services;

— alternatives to traditional methods were described for identifying prospective suppliers, structuring requests for proposals (RFPs), evaluating proposals, and negotiating contracts;

— numerous insights and tips are provided to aid in avoiding common acquisition difficulties;

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— the acquisition of operations, maintenance and support services in conjunction with acquiring software products was added.

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Introduction

This document describes the management and execution of software acquisition activities and is intended for:

— individuals or organizations that acquire software or software services from external suppliers for operational use, including software implementation, support, and operations services;

— individuals or organizations that acquire software from external suppliers for resale to other individuals or organizations;

— individuals or organizations that influence how software and software services is acquired from suppliers or implemented, operated, and maintained by suppliers;

— suppliers interested in providing high-quality software to acquirers.

This document is designed to help organizations and individuals:

— incorporate quality considerations during the definition, evaluation, selection, implementation, acceptance, operation, and support of supplier software for operational use;

— specify how the external supply of software and software services should be specified, selected, monitored, and accepted on behalf of end users.

This document is intended to satisfy the following objectives:

— enable acquirers to more effectively acquire software that economically meets their needs;

— enable external suppliers to more effectively and economically deliver software that meets acquirers' needs;

— enable acquirers and suppliers to establish fair, understandable, suitable, and sufficient agreements for the acquisition of software;

— promote consistency within and among organizations in acquiring software from external suppliers;

— provide guidance and useful practices for enhancing the quality of acquired software and the software acquisition process;

— provide guidance and useful practices for evaluating and qualifying supplier capabilities to meet the acquirer's business and technical requirements;

— provide guidance and useful practices for evaluating, qualifying, and contracting for proposed supplier software;

— provide guidance and useful practices for evaluating and determining acceptability of software implemented by external suppliers;

— provide guidance and useful practices for specifying, evaluating, and controlling the acceptability of ongoing software services provided by external suppliers.

This document can be helpful if the software acquirer and supplier are both part of the same organization.

While many of the concepts and techniques for acquiring software from external suppliers can also be relevant for internal software development, this document is not intended to address techniques of software development, testing, or operation.

Each organization or individual using this document can identify the specific set of activities to include within the organization's acquisition process, given its legal and regulatory environment, procurement guidelines, and life cycle processes.

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Software engineering — Life cycle processes — Software acquisition

1 Scope

This document describes a set of useful activities, tasks, methods, and practices that acquirers of software and related services from unrelated (external) suppliers can apply to help ensure an efficient and effective acquisition of software or software services. These practices can be applied in competitive and in sole source procurements, regardless of the type, size, complexity, and cost of the acquisition. The document can be applied to software that runs on any computer system regardless of its size, complexity, or criticality. The software supply chain can include integration of off-the-shelf (OTS), custom, software as a service (SaaS), or open-source software. Software services can include software development and sustainment (maintenance), integration, verification (testing) and operation. Security and safety are included as attributes to be considered during the acquisition. However, specific requirements for acquisition of information assurance (security), safety, and cloud services are not included.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

ISO/IEC/IEEE 12207, *Systems and software engineering — Software life cycle processes*

ISO/IEC/IEEE 15289, *Systems and software engineering — Content of life-cycle information items (documentation)*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

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

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

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

— IEEE Standards Dictionary Online: available at: http://dictionary.ieee.org

NOTE Definitions for other systems and software engineering terms typically can be found in ISO/IEC/IEEE 24765, available at www.computer.org/sevocab.

3.1.1
acquirer
stakeholder that acquires or procures a product or service from *a supplier* (3.1.19)

Note 1 to entry: Other terms commonly used for an acquirer are buyer, customer, owner, purchaser or internal/organizational sponsor.

[SOURCE: ISO/IEC/IEEE 12207:2017, 3.1.1]

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