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Systems and software engineering — Software life cycle processes —

Part 2: Relation and mapping between ISO/ IEC/IEEE 12207:2017 and ISO/IEC 12207:2008

Ingénierie des systèmes et du logiciel — Processus du cycle de vie du logiciel —

Partie 2: Relation et correspondance entre l'ISO/IEC/IEEE 12207:2017 et l'ISO/IEC 12207:2008



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Purpose	2
5 Overview of the mappings	2
5.1 General.....	2
5.2 Compound and singular requirements.....	3
6 Outcome mappings	3
6.1 Outcome mapping from ISO/IEC/IEEE 12207:2017 to ISO/IEC 12207:2008.....	3
6.2 Outcome mapping from ISO/IEC 12207:2008 to ISO/IEC/IEEE 12207:2017.....	28
7 Activity and task-level mappings	53
7.1 Activity and task-level mapping from ISO/IEC/IEEE 12207:2017 to ISO/ IEC 12207:2008 edition.....	53
7.2 Activity and task-level mapping from ISO/IEC 12207:2008 to ISO/IEC/ IEEE 12207:2017.....	164
Bibliography	267
IEEE notices and abstract	268

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 ISO documents should be noted. This document was drafted in accordance with the rules given in 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.

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.

A list of all parts in the ISO/IEC/IEEE 12207 series can be found on the ISO website.

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.

Introduction

The processes in ISO/IEC/IEEE 12207:2017 form a comprehensive set from which an organization can construct software system life cycle models appropriate to its products and services. An organization, depending on its purpose, can select and apply an appropriate subset to fulfil that purpose.

However, ISO/IEC/IEEE 12207:2017 does not include "software-specific processes" as a specialization of system processes, as identified in ISO/IEC 12207:2008, Clause 7. Those processes are partially represented as activities, tasks and NOTES in processes defined in ISO/IEC/IEEE 12207:2017. This document supports software engineering users of ISO/IEC 12207:2008 in applying their current processes, activities and tasks based on the previous edition to perform effectively and efficiently processes, activities and tasks in ISO/IEC/IEEE 12207:2017. This document also intends to help system engineers using ISO/IEC/IEEE 12207:2017 (or ISO/IEC/IEEE 15288:2015) collaborate with software engineers who have used ISO/IEC 12207:2008.

This document can be used in one or more of the following modes in conjunction with ISO/IEC/IEEE 12207:

- By an organization — to help use the current organizational software processes and assets derived from ISO/IEC 12207:2008 in establishing an environment of desired processes of ISO/IEC/IEEE 12207:2017.
- By a project — to help use the current project's software processes and assets derived from ISO/IEC 12207:2008 and extend these to processes of ISO/IEC/IEEE 12207:2017 to provide software systems as products and services.
- By an acquirer and a supplier — to help use the current agreement concerning processes and activities derived from ISO/IEC 12207:2008 in establishing an environment of desired processes of ISO/IEC/IEEE 12207:2017.
- By process assessors — to serve as an aid to mapping tasks and activities of the previous edition of ISO/IEC 12207:2008 to the process reference model in ISO/IEC/IEEE 12207:2017, Annex C for process assessments that may be used to support organizational process improvement.

Systems and software engineering — Software life cycle processes —

Part 2:

Relation and mapping between ISO/IEC/IEEE 12207:2017 and ISO/IEC 12207:2008

1 Scope

This document provides the mapping expressing corresponding relations between software life cycle processes in ISO/IEC/IEEE 12207:2017 and the processes in ISO/IEC 12207:2008.

These relations are demonstrated by means of mapping tables that show relationships between activities and tasks, and process outcomes.

This mapping assists users of ISO/IEC 12207:2008 to transition to using ISO/IEC/IEEE 12207:2017.

This document will help users understand the differences between the reference processes and requirements of the two editions of ISO/IEC/IEEE 12207, and any potential gaps or process enhancements that can be needed in seeking conformance to and/or using ISO/IEC/IEEE 12207:2017. Also, this document provides to such users the mapping which helps to identify corresponding process outcomes, activities and tasks of processes for software systems in ISO/IEC/IEEE 12207:2017.

The mapping between ISO/IEC/IEEE 12207:2017 and ISO/IEC 12207:2008 in this document can be used as a basis to continuously conduct, improve and extend current process assets including software specific process assets based on ISO/IEC 12207:2008 for effective implementation of ISO/IEC/IEEE 12207:2017. These process activities and tasks can be applied iteratively.

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) applies.

ISO/IEC/IEEE 12207:2017, *Systems and software engineering — Software life cycle processes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC/IEEE 12207:2017 apply.

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

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

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

4 Purpose

Users should apply this document to map between their current software life cycle processes consistent with ISO/IEC 12207:2008 and the processes, activities, and tasks required by ISO/IEC/IEEE 12207:2017.

The user may define and document user implemented processes differently from either ISO/IEC 12207:2008 or ISO/IEC/IEEE 12207:2017. Then, the mapping tables of this document may be modified with additional user process information, when the user's processes are mapped to the reference processes of ISO/IEC/IEEE 12207:2017 in order to claim conformance with that standard.

This document will help users (who are presumably users of ISO/IEC 12207:2008 as well) to understand the similarities and differences between the reference process definitions and requirements contained in ISO/IEC 12207:2008 and ISO/IEC/IEEE 12207:2017 and then to help map their own implemented lifecycle processes to ISO/IEC/IEEE 12207:2017. Where ISO/IEC/IEEE 12207:2017 requirements (at the level of processes, outcomes, activities or tasks) differ from those in ISO/IEC 12207:2008, the user will be able to identify elements (again at the level of processes, activities or tasks) which have gaps or will not meet the requirements for conformance with ISO/IEC/IEEE 12207:2017.

Users can identify corresponding process outcomes, activities or tasks from the mapping tables in [Clause 6](#).

This document has none of conformance requirements. However, process outcome or activity/task mapping of this document can be used to support conformance to ISO/IEC/IEEE 12207:2017. Such a case is stated in [Clause 1](#).

NOTE 1 The mappings in this document expand on ISO/IEC/IEEE 12207:2017, Table I.1, "Comparison of processes in ISO/IEC/IEEE 12207:2017 and the previous edition", and ISO/IEC/IEEE 12207:2017, Table I.2, "Comparison of process outcomes in ISO/IEC/IEEE 12207:2017 and software-related outcomes in the previous edition".

NOTE 2 Analysis of the relationships between the tasks and activities of ISO/IEC 12207:2008 and ISO/IEC/IEEE 12207, as detailed in this document, can assist in process assessment and improvement. ISO/IEC 33004 can be used to develop a process reference model.

The following are typical use cases when users of this document can apply mappings:

- users can understand which processes, outcomes, activities, or tasks of ISO/IEC/IEEE 12207:2017 cover or subsume the outcomes, activities, or tasks of processes (including software specific processes) of ISO/IEC 12207:2008;
- users can identify outcomes, activities, or tasks of processes (including software specific processes) of ISO/IEC 12207:2008 that are to be continuously conducted, enhanced, extended or improved to meet the requirements of ISO/IEC/IEEE 12207:2017 and/or to demonstrate achievement of required outcomes, activities and tasks of the software life cycle processes.

5 Overview of the mappings

5.1 General

The process models used in ISO/IEC 12207:2008 and ISO/IEC 15288:2008 were harmonized to the process model used in both ISO/IEC/IEEE 12207:2017 and ISO/IEC/IEEE 15288:2015.

This document provides bi-directional mappings for outcomes, activities, and tasks between ISO/IEC 12207:2008 and ISO/IEC/IEEE 12207:2017.

This document contains the following tables:

- [Clause 6](#) Outcome mappings
 - Mapping from ISO/IEC/IEEE 12207:2017 to ISO/IEC 12207:2008 ([Table 1](#))

- Mapping from ISO/IEC 12207:2008 to ISO/IEC/IEEE 12207:2017 ([Table 2](#))
- [Clause 7](#) Activity and Task-level mappings
 - Mapping from ISO/IEC/IEEE 12207:2017 to ISO/IEC 12207:2008 ([Table 3](#))
 - Mapping from ISO/IEC 12207:2008 to ISO/IEC/IEEE 12207:2017 ([Table 4](#))

These tables can be used to determine how requirements in ISO/IEC 12207:2008 were treated or requirements in ISO/IEC/IEEE 12207:2017 have originated. Where a relationship is identified, it does not necessarily imply that the intent is identical.

This document provides a correspondence between ISO/IEC 12207:2008 and ISO/IEC/IEEE 12207:2017. It does not provide any explanatory commentary on why a change has been made, or the significance of the change.

NOTE Couplings of associative multiple outcomes or tasks are often mapped, rather than one-to-one mapping, from ISO/IEC 12207:2008 to ISO/IEC/IEEE 12207:2017.

5.2 Compound and singular requirements

A compound requirement is a requirement (i.e. 'shall') containing more than one obligation that needs to be satisfied. There are many instances in ISO/IEC 12207:2008 where the requirement is expressed as '.. shall do this and do that and do the other'.

Although this may be a single sentence, it represents three separate obligations that will need to be satisfied.

Singular requirements are created from compound requirements by separating out these distinct requirements, when such a separated mapping helps to provide more obvious relations.

By way of example, the following sub-clause fragment is taken from ISO/IEC 12207:2008, 6.4.10.3.1.1, task 'Software Maintenance Process, Process implementation', "The maintainer shall develop, document, and execute plans and procedures for conducting the activities and tasks of the Software Maintenance Process."

Three singular requirements can be identified in this compound requirement:

- "6.4.10.3.1.1-1 The maintainer shall develop[, document, and execute] plans and procedures for conducting the activities and tasks of the Software Maintenance Process."
- "6.4.10.3.1.1-2 The maintainer shall [develop,] document[, and execute] plans and procedures for conducting the activities and tasks of the Software Maintenance Process."
- "6.4.10.3.1.1-3 The maintainer shall [develop, document, and] execute plans and procedures for conducting the activities and tasks of the Software Maintenance Process."

Square brackets (i.e. []) are used to identify the particular requirement(s) to be ignored in reading the numbered compound requirements.

NOTE Additionally, 'should' and 'may' statements and descriptions in NOTES are used to make mapping, when they are helpful for user to understand reasons for correspondences.

6 Outcome mappings

6.1 Outcome mapping from ISO/IEC/IEEE 12207:2017 to ISO/IEC 12207:2008

[Table 1](#) correlates process outcomes required by ISO/IEC/IEEE 12207:2017 to process outcomes required in ISO/IEC 12207:2008. The mapping indicates related outcomes that may be helpful in meeting

the requirements of ISO/IEC/IEEE 12207:2017. There is no assumption that all the required outcomes of ISO/IEC/IEEE 12207:2008 are required to fulfil the required outcomes of ISO/IEC/IEEE 12207:2017.

When the subclause is indicated by 'l.m.n.2 x)', it indicates the process outcome x) that is described in the subclause for outcome 'l.m.n.2' of process 'l.m.n' in ISO/IEC/IEEE 12207:2017 and ISO/IEC 12207:2008 respectively.

NOTE An only process outcome with asterisk marking, i.e. ' (*) ', has a discrepancy mapping between the one in ISO/IEC/IEEE 12207:2017, Table I.2 to provide the more obvious relation, though this is extension of ISO/IEC/IEEE 12207:2017, Table I.2.

Table 1 — Outcome mapping from ISO/IEC/IEEE 12207:2017 to ISO/IEC 12207:2008

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
6.1.1 Acquisition process			
Acquisition 2. a) A request for supply is prepared.	6.1.1.2a)	6.1.1.2a)	Acquisition 2. a) acquisition needs, goals, product and/or service acceptance criteria and acquisition strategies are defined;
Acquisition 2. b) One or more suppliers are selected.	6.1.1.2b)	6.1.1.2c)	Acquisition 2. c) one or more suppliers is selected;
Acquisition 2. c) An agreement is established between the acquirer and supplier.	6.1.1.2c)	6.1.1.2b)	Acquisition 2. b) an agreement is developed that clearly expresses the expectation, responsibilities and liabilities of both the acquirer and the supplier;
Acquisition 2. d) A product or service complying with the agreement is accepted.	6.1.1.2d)	6.1.1.2d)	Acquisition 2. d) a product and/or service is acquired that satisfies the acquirer's stated need;
	6.1.1.2d)	6.1.1.2e)	Acquisition 2. e) the acquisition is monitored so that specified constraints such as cost, schedule and quality are met;
	6.1.1.2d)	6.1.1.2f)	Acquisition 2. f) supplier deliverables are accepted;
Acquisition 2. e) Acquirer obligations defined in the agreement are satisfied.	6.1.1.2e)	6.1.1.2g)	Acquisition 2. g) any identified open items have a satisfactory conclusion as agreed to by the acquirer and the supplier.
6.1.2 Supply process			
Supply 2. a) An acquirer for a product or service is identified.	6.1.2.2a)	6.1.2.2a)	Supply 2. a) an acquirer for a product or service is identified;
Supply 2. b) A response to the acquirer's request is produced.	6.1.2.2b)	6.1.2.2b)	Supply 2. b) a response to an acquirer's request is produced;
Supply 2. c) An agreement is established between the acquirer and supplier.	6.1.2.2c)	6.1.2.2c)	Supply 2. c) an agreement is established between the acquirer and the supplier for developing, maintaining, operating, packaging, delivering, and installing the product and/or service;
Supply 2. d) A product or service is provided.	6.1.2.2d)	6.1.2.2d)	Supply 2. d) a product and/or service that meets the agreed requirements are developed by the supplier;
Supply 2. e) Supplier obligations defined in the agreement are satisfied.	6.1.2.2e)	6.1.2.2e)	Supply 2. e) the product and/or service is delivered to the acquirer in accordance with the agreed requirements;
Supply 2. f) Responsibility for the acquired product or service, as directed by the agreement, is transferred.	6.1.2.2f)	6.1.2.2f)	Supply 2. f) the product is installed in accordance with the agreed requirements.

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
6.2.1 Life cycle model Management process			
Life cycle model management 2. a) Organizational policies and procedures for the management and deployment of life cycle models and processes are established.	6.2.1.2a)	6.2.1.2a)	Life Cycle Model Management 2. a) policies and procedures for the management and deployment of life cycle models and processes are provided;
Life cycle model management 2. b) Responsibility, accountability, and authority within life cycle policies, processes, models, and procedures are defined.	6.2.1.2b)	6.2.1.2b)	Life Cycle Model Management 2. b) responsibility, accountability and authority for life cycle management are defined;
Life cycle model management 2. c) Life cycle models and processes for use by the organization are assessed.	6.2.1.2c)	6.2.1.2c)	Life Cycle Model Management 2. c) life cycle processes, models and procedures for use by the organization are defined, maintained and improved;
Life cycle model management 2. d) Prioritized process, model, and procedure improvements are implemented.	6.2.1.2d)	6.2.1.2d)	Life Cycle Model Management 2. d) prioritized process improvements are implemented.
6.2.2 Infrastructure Management process			
Infrastructure Management 2. a) The requirements for infrastructure are defined.	6.2.2.2a)	6.2.2.2a)	Infrastructure Management 2. a) the requirements for infrastructure to support processes are defined;
Infrastructure Management 2. b) The infrastructure elements are identified and specified.	6.2.2.2b)	6.2.2.2b)	Infrastructure Management 2. b) the infrastructure elements are identified and specified;
Infrastructure Management 2. c) Infrastructure elements are developed or acquired.	6.2.2.2c)	6.2.2.2c)	Infrastructure Management 2. c) the infrastructure elements are acquired;
	6.2.2.2c)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Infrastructure Management 2. d) The infrastructure is available.	6.2.2.2d)	6.2.2.2e)	Infrastructure Management 2. e) a stable and reliable infrastructure is maintained and improved.
6.2.3 Portfolio Management process			
Portfolio Management 2.a) Business venture opportunities, investments or necessities are qualified and prioritized.	6.2.3.2a)	6.2.3.2a)	Project Portfolio Management 2. a) business venture opportunities, investments or necessities are qualified, prioritized and selected;
Portfolio Management 2. b) Projects are identified.	6.2.3.2b)	6.3.1.2a)	Project Planning 2. a) the scope of the work for the project is defined;
Portfolio Management 2. c) Resources and budgets for each project are allocated.	6.2.3.2c)	6.2.3.2b)	Project Portfolio Management 2. b) resources and budgets for each project are identified and allocated;
Portfolio Management 2. d) Project management responsibilities, accountability, and authorities are defined.	6.2.3.2d)	6.2.3.2c)	Project Portfolio Management 2. c) project management accountability and authorities are defined;
Portfolio Management 2. e) Projects meeting agreement and stakeholder requirements are sustained.	6.2.3.2e)	6.2.3.2d)	Project Portfolio Management 2. d) projects meeting agreement and stakeholder requirements are sustained;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Portfolio Management 2. f) Projects not meeting agreement or satisfying stakeholder requirements are redirected or terminated.	6.2.3.2f)	6.2.3.2e)	Project Portfolio Management 2. e) projects not meeting agreement or stakeholder requirements are redirected or terminated;
Portfolio Management 2. g) Projects that have completed agreements and satisfied stakeholder requirements are closed.	6.2.3.2g)	None	None of outcomes is mapped.
6.2.4 Human Resource Management process			
Human Resource Management 2. a) Skills required by projects are identified.	6.2.4.2a)	6.2.4.2a)	Human Resource Management 2. a) skills required by projects are identified;
Human Resource Management 2. b) Necessary human resources are provided to projects.	6.2.4.2b)	6.2.4.2b)	Human Resource Management 2. b) necessary human resources are provided to projects;
Human Resource Management 2. c) Skills of personnel are developed, maintained or enhanced.	6.2.4.2c)	6.2.4.2c)	Human Resource Management 2. c) skills of personnel are developed, maintained or enhanced;
	6.2.4.2c)	6.2.4.2e)	Human Resource Management 2. e) individual knowledge, information and skills are collected, shared, reused and improved throughout the organization.
Human Resource Management 2. d) Conflicts in multi-project resource demands are resolved.	6.2.4.2d)	6.2.4.2d)	Human Resource Management 2. d) conflicts in multi-project resource demands are resolved;
6.2.5 Quality Management process			
Quality Management 2. a) Organizational quality management policies, objectives, and procedures are defined and implemented.	6.2.5.2a)	6.2.5.2a)	Quality Management 2. a) organization quality management policies and procedures are defined;
	6.2.5.2a)	6.2.5.2b)	Quality Management 2. b) organization quality objectives are defined;
	6.2.5.2a)	6.2.5.2c)	Quality Management 2. c) accountability and authority for quality management are defined;
Quality Management 2. b) Quality evaluation criteria and methods are established.	6.2.5.2b)	6.2.5.2a)	Quality Management 2. a) organization quality management policies and procedures are defined;
Quality Management 2. c) Resources and information are provided to projects to support the operation and monitoring of project quality assurance activities.	6.2.5.2c)	6.2.4.2b)	Human Resource Management 2. b) necessary human resources are provided to projects;
Quality Management 2. d) Quality assurance evaluation results are gathered and analyzed.	6.2.5.2d)	6.2.5.2d)	Quality Management 2. d) the status of customer satisfaction is monitored;
Quality Management 2. e) Quality management policies and procedures are improved based upon project and organizational results.	6.2.5.2e)	6.2.5.2e)	Quality Management 2. e) appropriate action is taken when quality objectives are not achieved.

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
6.2.6 Knowledge Management process			
Knowledge Management 2. a) A taxonomy for the application of knowledge assets is identified.	6.2.6.2a)	7.3.2.2a)	Reuse Asset Management 2. a) an asset management strategy is documented;
	6.2.6.2a)	7.3.2.2b)	Reuse Asset Management 2. b) an asset classification scheme is established;
	6.2.6.2a)	7.3.1.2a)	Domain Engineering 2. a) the representation forms for the domain models and the domain architectures are selected;
	6.2.6.2a)	7.3.1.2b)	Domain Engineering 2. b) the boundaries of the domain and its relationships to other domains are established;
	6.2.6.2a)	7.3.1.2c)	Domain Engineering 2. c) a domain model that captures the essential common and different features, capabilities, concepts, and functions in the domain is developed;
	6.2.6.2a)	7.3.1.2d)	Domain Engineering 2. d) a domain architecture describing the family of systems within the domain, including their commonalities and variabilities is developed;
	6.2.6.2a)	7.3.3.2a)	Reuse Program Management 2. a) the organization's reuse strategy, including its purpose, scope, goals and objectives, is defined;
	6.2.6.2a)	7.3.3.2b)	Reuse Program Management 2. b) the domains for potential reuse opportunities are identified;
Knowledge Management 2. b) The organizational knowledge, skills, and knowledge assets are developed or acquired.	6.2.6.2b)	6.2.4.2c)	Human Resource Management 2. c) skills of personnel are developed, maintained or enhanced;
	6.2.6.2b)	7.3.1.2e)	Domain Engineering 2. e) assets belonging to the domain are specified;
	6.2.6.2b)	7.3.1.2f)	Domain Engineering 2. f) assets belonging to the domain are acquired or developed and maintained throughout their life cycles;
	6.2.6.2b)	7.3.2.2c)	Reuse Asset Management 2. c) Criteria for asset acceptance, certification and retirement are defined;
	6.2.6.2b)	7.3.3.2c)	Reuse Program Management 2. c) the organization's systematic reuse capability is assessed;
	6.2.6.2b)	7.3.3.2d)	Reuse Program Management 2. d) the reuse potential of each domain is assessed;
	6.2.6.2b)	7.3.3.2e)	Reuse Program Management 2. e) reuse proposals are evaluated to ensure the reuse product is suitable for the proposed application;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Knowledge Management 2. c) The organizational knowledge, skills, and knowledge assets are available.	6.2.6.2c)	6.2.4.2e)	Human Resource Management 2. e) individual knowledge, information and skills are collected, shared, reused and improved throughout the organization.
	6.2.6.2c)	7.3.1.2g)	Domain Engineering 2. g) the domain models and architectures are maintained throughout their life cycles;
	6.2.6.2c)	7.3.2.2d)	Reuse Asset Management 2. d) an asset storage and retrieval mechanism is operated;
	6.2.6.2c)	7.3.2.2f)	Reuse Asset Management 2. f) changes to the assets are controlled;
	6.2.6.2c)	7.3.2.2g)	Reuse Asset Management 2. g) Users of assets are notified of problems detected, modifications made, new versions created and deletion of assets from the storage and retrieval mechanism.
	6.2.6.2c)	7.3.3.2f)	Reuse Program Management 2. f) the reuse strategy is implemented in the organization;
Knowledge Management 2. d) Knowledge management usage data is gathered and analyzed.	6.2.6.2d)	7.3.2.2e)	Reuse Asset Management 2. e) the use of assets is recorded;
	6.2.6.2d)	7.3.3.2g)	Reuse Program Management 2. g) feedback, communication, and notification mechanisms that operate between affected parties are established;
	6.2.6.2d)	7.3.3.2h)	Reuse Program Management 2. h) the reuse program is monitored and evaluated.
6.3.1 Project Planning process			
Project Planning 2. a) Objectives and plans are defined. (*)	6.3.1.2a)	6.3.1.2a)	Project Planning 2. a) the scope of the work for the project is defined;
	6.3.1.2a)	6.3.1.2b)	Project Planning 2. b) the feasibility of achieving the goals of the project with available resources and constraints are evaluated;
	6.3.1.2a)	6.3.1.2c)	Project Planning 2. c) the tasks and resources necessary to complete the work are sized and estimated;
	6.3.1.2a)	6.3.1.2e)	Project Planning 2. e) plans for the execution of the project are developed;
Project Planning 2. b) Roles, responsibilities, accountabilities, and authorities are defined. (*)	6.3.1.2b)	6.2.3.2c)	Project Portfolio Management 2. c) project management accountability and authorities are defined;
	6.3.1.2b)	6.3.1.2d)	Project Planning 2. d) interfaces between elements in the project, and with other project and organizational units, are identified;
	6.3.1.2b)	6.3.1.2e)	Project Planning 2. e) plans for the execution of the project are developed;
Project Planning 2. c) Resources and services necessary to achieve the objectives are formally requested and committed. (*)	6.3.1.2c)	6.3.1.2c)	Project Planning 2. c) the tasks and resources necessary to complete the work are sized and estimated;
	6.3.1.2c)	6.3.1.2e)	Project Planning 2. e) plans for the execution of the project are developed;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Project Planning 2. d) Plans for the execution of the project are activated.	6.3.1.2d)	6.3.1.2f)	Project Planning 2. f) plans for the execution of the project are activated.
	6.3.1.2d)	7.2.6.2a)	Software Review 2. a) management and technical reviews are held based on the needs of the project;
6.3.2 Project Assessment and Control process			
Project assessment and control 2. a) Performance measures or assessment results are available.	6.3.2.2a)	6.3.2.2a)	Project Assessment and Control 2. a) progress of the project is monitored and reported;
	6.3.2.2a)	7.2.6.2c)	Software Review 2. c) review results are made known to all affected parties;
	6.3.2.2a)	7.2.6.2e)	Software Review 2. e) risks and problems are identified and recorded;
Project assessment and control 2. b) Adequacy of roles, responsibilities, accountabilities, and authorities is assessed.	6.3.2.2b)	6.3.2.2a)	Project Assessment and Control 2. a) progress of the project is monitored and reported;
	6.3.2.2b)	6.3.2.2b)	Project Assessment and Control 2. b) interfaces between elements in the project, and with other project and organizational units, are monitored;
	6.3.2.2b)	7.2.6.2a)	Software Review 2. a) management and technical reviews are held based on the needs of the project;
	6.3.2.2b)	7.2.6.2b)	Software Review 2. b) the status and products of an activity of a process are evaluated through review activities;
Project assessment and control 2. c) Adequacy of resources is assessed.	6.3.2.2c)	6.3.1.2b)	Project Planning 2. b) the feasibility of achieving the goals of the project with available resources and constraints are evaluated;
	6.3.2.2c)	6.3.2.2a)	Project Assessment and Control 2. a) progress of the project is monitored and reported;
	6.3.2.2c)	7.2.6.2a)	Software Review 2. a) management and technical reviews are held based on the needs of the project;
	6.3.2.2c)	7.2.6.2b)	Software Review 2. b) the status and products of an activity of a process are evaluated through review activities;
Project assessment and control 2. d) Technical progress reviews are performed.	6.3.2.2d)	6.3.2.2a)	Project Assessment and Control 2. a) progress of the project is monitored and reported;
	6.3.2.2d)	7.2.6.2a)	Software Review 2. a) management and technical reviews are held based on the needs of the project;
Project assessment and control 2. e) Deviations in project performance from plans are investigated and analyzed.	6.3.2.2e)	6.3.2.2a)	Project Assessment and Control 2. a) progress of the project is monitored and reported;
	6.3.2.2e)	7.2.6.2b)	Software Review 2. b) the status and products of an activity of a process are evaluated through review activities;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Project assessment and control 2. f) Affected stakeholders are informed of project status.	6.3.2.2f)	6.3.2.2a)	Project Assessment and Control 2. a) progress of the project is monitored and reported;
	6.3.2.2f)	6.3.2.2b)	Project Assessment and Control 2. b) interfaces between elements in the project, and with other project and organizational units, are monitored;
	6.3.2.2f)	7.2.6.2c)	Software Review 2. c) review results are made known to all affected parties;
Project assessment and control 2. g) Corrective action is defined and directed, when project achievement is not meeting targets.	6.3.2.2g)	6.3.2.2c)	Project Assessment and Control 2. c) actions to correct deviations from the plan and to prevent recurrence of problems identified in the project are taken when project targets are not achieved;
	6.3.2.2g)	7.2.6.2d)	Software Review 2. d) action items resulting from reviews are tracked to closure;
Project assessment and control 2. h) Project replanning is initiated, as necessary.	6.3.2.2h)	6.3.2.2c)	Project Assessment and Control 2. c) actions to correct deviations from the plan and to prevent recurrence of problems identified in the project are taken when project targets are not achieved;
Project assessment and control 2. i) Project action to progress (or not) from one scheduled milestone or event to the next is authorized.	6.3.2.2i)	None	None of outcomes is mapped.
Project assessment and control 2. j) Project objectives are achieved.	6.3.2.2j)	6.3.2.2d)	Project Assessment and Control 2. d) project objectives are achieved and recorded.
6.3.3 Decision Management process			
Decision Management 2. a) Decisions requiring alternative analysis are identified.	6.3.3.2a)	6.3.3.2a)	Decision Management 2. a) a decision-making strategy is defined;
Decision Management 2. b) Alternative courses of action are identified and evaluated.	6.3.3.2b)	6.3.3.2b)	Decision Management 2. b) alternative courses of action are defined;
Decision Management 2. c) A preferred course of action is selected.	6.3.3.2c)	6.3.3.2c)	Decision Management 2. c) a preferred course of action is selected;
Decision Management 2. d) The resolution, decision rationale and assumptions are identified.	6.3.3.2d)	6.3.3.2d)	Decision Management 2. d) the resolution, decision rationale and assumptions are captured and reported.
6.3.4 Risk Management process			
Risk Management 2. a) Risks are identified.	6.3.4.2a)	6.3.4.2a)	Risk Management 2. a) the scope of risk management to be performed is determined;
	6.3.4.2a)	6.3.4.2c)	Risk Management 2. c) risks are identified as they develop and during the conduct of the project;
	6.3.4.2a)	7.2.6.2e)	Software Review 2. e) risks and problems are identified and recorded;
Risk Management 2. b) Risks are analyzed.	6.3.4.2b)	6.3.4.2d)	Risk Management 2. d) risks are analyzed, and the priority in which to apply resources to treatment of these risks is determined;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Risk Management 2. c) Risk treatment options are identified, prioritized, and selected.	6.3.4.2c)	6.3.4.2b)	Risk Management 2. b) appropriate risk management strategies are defined and implemented;
	6.3.4.2c)	6.3.4.2d)	Risk Management 2. d) risks are analyzed, and the priority in which to apply resources to treatment of these risks is determined;
	6.3.4.2c)	6.3.4.2e)	Risk Management 2. e) risk measures are defined, applied, and assessed to determine changes in the status of risk and the progress of the treatment activities;
Risk Management 2. d) Appropriate treatment is implemented.	6.3.4.2d)	6.3.4.2f)	Risk Management 2. f) appropriate treatment is taken to correct or avoid the impact of risk based on its priority, probability, and consequence or other defined risk threshold.
Risk Management 2. e) Risks are evaluated to assess changes in status and progress in treatment.	6.3.4.2e)	6.3.4.2e)	Risk Management 2. e) risk measures are defined, applied, and assessed to determine changes in the status of risk and the progress of the treatment activities;
6.3.5 Configuration Management process			
Configuration Management 2. a) Items requiring configuration management are identified and managed.	6.3.5.2a)	6.3.5.2a)	Configuration Management 2. a) a configuration management strategy is defined;
	6.3.5.2a)	6.3.5.2b)	Configuration Management 2. b) items requiring configuration management are defined;
	6.3.5.2a)	7.2.2.2a)	Software Configuration Management 2. a) a software configuration management strategy is developed;
	6.3.5.2a)	7.2.2.2b)	Software Configuration Management 2. b) items generated by the process or project are identified, defined and baselined;
Configuration Management 2. b) Configuration baselines are established.	6.3.5.2b)	6.3.5.2c)	Configuration Management 2. c) configuration baselines are established;
	6.3.5.2b)	7.2.2.2b)	Software Configuration Management 2. b) items generated by the process or project are identified, defined and baselined;
Configuration Management 2. c) Changes to items under configuration management are controlled.	6.3.5.2c)	6.3.5.2d)	Configuration Management 2. d) changes to items under configuration management are controlled;
	6.3.5.2c)	7.2.2.2c)	Software Configuration Management 2. c) modifications and releases of the items are controlled;
	6.3.5.2c)	7.2.2.2d)	Software Configuration Management 2. d) modifications and releases are made available to affected parties;
Configuration Management 2. d) Configuration status information is available.	6.3.5.2d)	6.3.5.2f)	Configuration Management 2. f) the status of items under configuration management is made available throughout the life cycle.
	6.3.5.2d)	7.2.2.2e)	Software Configuration Management 2. e) the status of the items and modifications are recorded and reported;
Configuration Management 2. e) Required configuration audits are completed.	6.3.5.2e)	7.2.2.2f)	Software Configuration Management 2. f) the completeness and consistency of the items is ensured;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Configuration Management 2. f) System releases and deliveries are controlled and approved.	6.3.5.2f)	6.3.5.2e)	Configuration Management 2. e) the configuration of released items is controlled;
	6.3.5.2f)	7.2.2.2c)	Software Configuration Management 2. c) modifications and releases of the items are controlled;
	6.3.5.2f)	7.2.2.2d)	Software Configuration Management 2. d) modifications and releases are made available to affected parties;
	6.3.5.2f)	7.2.2.2g)	Software Configuration Management 2. g) the storage, handling and delivery of the items are controlled.
6.3.6 Information Management process			
Information Management 2. a) Information to be managed is identified.	6.3.6.2a)	6.3.6.2a)	Information Management 2. a) information to be managed is identified;
	6.3.6.2a)	7.2.1.2a)	Software Documentation Management 2. a) a strategy identifying the documentation to be produced during the life cycle of the software product or service is developed;
	6.3.6.2a)	7.2.1.2c)	Software Documentation Management 2. c) documentation to be produced by the process or project is identified;
Information Management 2. b) Information representations are defined. (*)	6.3.6.2b)	6.3.6.2b)	Information Management 2. b) the forms of the information representations are defined;
	6.3.6.2b)	7.2.1.2d)	Software Documentation Management 2. d) the content and purpose of all documentation is specified[, reviewed and approved;]
Information Management 2. c) Information is obtained, developed, transformed, stored, validated, presented, and disposed of.	6.3.6.2c)	6.3.6.2c)	Information Management 2. c) information is transformed and disposed of as required;
	6.3.6.2c)	6.3.6.2e)	Information Management 2. e) information is current, complete and valid;
	6.3.6.2c)	6.3.7.2e)	Measurement 2. e) information products are used to support decisions and provide an objective basis for communication;
	6.3.6.2c)	7.2.1.2d)	Software Documentation Management 2. d) the content and purpose of all documentation is [specified,] reviewed and approved;
	6.3.6.2c)	7.2.1.2e)	Software Documentation Management 2. e) documentation is developed [and made available in accordance with identified standards];
	6.3.6.2c)	7.2.1.2f)	Software Documentation Management 2. f) documentation is maintained in accordance with defined criteria.
Information Management 2. d) The status of information is identified.	6.3.6.2d)	6.3.6.2d)	Information Management 2. d) the status of information is recorded;
	6.3.6.2d)	6.3.6.2e)	Information Management 2. e) information is current, complete and valid;
	6.3.6.2d)	7.2.1.2f)	Software Documentation Management 2. f) documentation is maintained in accordance with defined criteria.

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Information Management 2. e) Information is available to designated stakeholders.	6.3.6.2e)	6.3.6.2f)	Information Management 2. f) information is made available to designated parties.
	6.3.6.2e)	7.2.1.2e)	Software Documentation Management 2. e). documentation is [developed and] made available in accordance with identified standards;
6.3.7 Measurement process			
Measurement 2. a) Information needs are identified.	6.3.7.2a)	6.3.7.2a)	Measurement 2. a) the information needs of technical and management processes are identified;
Measurement 2. b) An appropriate set of measures, based on the information needs, is identified or developed.	6.3.7.2b)	6.3.7.2b)	Measurement 2. b) an appropriate set of measures, driven by the information needs are identified and/or developed;
	6.3.7.2b)	6.3.7.2c)	Measurement 2. c) measurement activities are identified and planned;
Measurement 2. c) Required data is collected, verified, and stored.	6.3.7.2c)	6.3.7.2d)	Measurement 2. d) the required data are collected, stored, analyzed, and the results interpreted;
Measurement 2. d) The data is analyzed and the results interpreted.	6.3.7.2d)	6.3.7.2d)	Measurement 2. d) the required data are collected, stored, analyzed, and the results interpreted;
Measurement 2. e) Information items provide objective information that supports decisions.	6.3.7.2e)	6.3.7.2e)	Measurement 2. e) information products are used to support decisions and provide an objective basis for communication;
	6.3.7.2e)	6.3.7.2g)	Measurement 2. g) improvements are communicated to the Measurement Process owner.
6.3.8 Quality Assurance process			
Quality Assurance 2. a) Project quality assurance procedures are defined and implemented.	6.3.8.2a)	7.2.3.2a)	Software Quality Assurance 2. a) a strategy for conducting software quality assurance is developed;
	6.3.8.2a)	7.2.3.2d)	Software Quality Assurance 2. d) adherence of software products, processes and activities to the applicable standards, procedures and requirements is verified;
	6.3.8.2a)	7.2.6.2a)	Software Review 2. a) management and technical reviews are held based on the needs of the project;
	6.3.8.2a)	7.2.7.2a)	Software Audit 2. a) an audit strategy is developed and implemented;
	6.3.8.2a)	7.2.8.2a)	Software Problem Resolution 2. a) a problem management strategy is developed;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Quality Assurance 2. b) Criteria and methods for quality assurance evaluations are defined.	6.3.8.2b)	7.2.3.2a)	Software Quality Assurance 2. a) a strategy for conducting software quality assurance is developed;
	6.3.8.2b)	7.2.6.2a)	Software Review 2. a) management and technical reviews are held based on the needs of the project;
	6.3.8.2b)	7.2.7.2a)	Software Audit 2. a) an audit strategy is developed and implemented;
	6.3.8.2b)	7.2.8.2a)	Software Problem Resolution 2. a) a problem management strategy is developed;
Quality Assurance 2. c) Evaluations of the project's products, services, and processes are performed, consistent with quality management policies, procedures, and requirements.	6.3.8.2c)	7.2.3.2d)	Software Quality Assurance 2. d) adherence of software products, processes and activities to the applicable standards, procedures and requirements is verified;
	6.3.8.2c)	7.2.6.2a)	Software Review 2. a) management and technical reviews are held based on the needs of the project;
	6.3.8.2c)	7.2.6.2b)	Software Review 2. b) the status and products of an activity of a process are evaluated through review activities;
	6.3.8.2c)	7.2.7.2b)	Software Audit 2. b) compliance of selected software work products and/or services or processes with requirements, plans and agreement is determined according to the audit strategy;
	6.3.8.2c)	7.2.7.2c)	Software Audit 2. c) audits are conducted by an appropriate independent party;
	6.3.8.2c)	6.4.6.2d)	System Qualification Testing 2. d) readiness of the system for delivery is assured.
	6.3.8.2c)	6.3.7.2f)	Measurement 6. f) the Measurement Process and measures are evaluated;
Quality Assurance 2. d) Results of evaluations are provided to relevant stakeholders.	6.3.8.2d)	7.2.3.2b)	Software Quality Assurance 2. b) evidence of software quality assurance is produced and maintained;
	6.3.8.2d)	7.2.6.2c)	Software Review 2. c) review results are made known to all affected parties;
	6.3.8.2d)	7.2.7.2d)	Software Audit 2. d) problems detected during an audit are identified and communicated to those responsible for corrective action, and resolution;
	6.3.8.2d)	7.2.8.2f)	Software Problem Resolution 2. f) the status of all problems reported is known;
Quality Assurance 2. e) Incidents are resolved.	6.3.8.2e)	None	None of outcomes is mapped.

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Quality Assurance 2. f) Prioritized problems are treated. (*)	6.3.8.2f)	7.2.6.2d)	Software Review 2. d) action items resulting from reviews are tracked to closure;
	6.3.8.2f)	7.2.8.2b)	Software Problem Resolution 2. b) problems are recorded, identified and classified;
	6.3.8.2f)	7.2.8.2c)	Software Problem Resolution 2. c) problems are analyzed and assessed to identify acceptable solution(s);
	6.3.8.2f)	7.2.8.2d)	Software Problem Resolution 2. d) problem resolution is implemented;
	6.3.8.2f)	7.2.8.2e)	Software Problem Resolution 2. e) problems are tracked to closure;
6.4.1 Business or Mission Analysis process			
Business or Mission Analysis 2. a) The problem or opportunity space is defined.	6.4.1.2a)	None	None of outcomes is mapped.
Business or Mission Analysis 2. b) The solution space is characterized.	6.4.1.2b)	None	None of outcomes is mapped.
Business or Mission Analysis 2. c) Preliminary operational concepts and other concepts in the life cycle stages are defined.	6.4.1.2c)	6.4.1.2a)	Stakeholder Requirements Definition 2. a) the required characteristics and context of use of services are specified;
Business or Mission Analysis 2. d) Candidate alternative solution classes are identified and analyzed.	6.4.1.2d)	None	None of outcomes is mapped.
Business or Mission Analysis 2. e) The preferred candidate alternative solution class(es) are selected.	6.4.1.2e)	None	None of outcomes is mapped.
Business or Mission Analysis 2. f) Any enabling systems or services needed for business or mission analysis are available. (*)	6.4.1.2f)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Business or Mission Analysis 2. g) Traceability of business or mission problems and opportunities and the preferred alternative solution classes is established.	6.4.1.2g)	None	None of outcomes is mapped.
6.4.2 Stakeholder Needs and Requirements Definition process			
Stakeholder Needs and Requirements Definition 2. a) Stakeholders of the system are identified.	6.4.2.2a)	None	None of outcomes is mapped.
Stakeholder Needs and Requirements Definition 2. b) Required characteristics and context of use of capabilities and concepts in the life cycle stages, including operational concepts, are defined.	6.4.2.2b)	6.4.1.2a)	Stakeholder Requirements Definition 2. a) the required characteristics and context of use of services are specified;
Stakeholder Needs and Requirements Definition 2. c) Constraints on a system are identified.	6.4.2.2c)	6.4.1.2b)	Stakeholder Requirements Definition 2. b) the constraints on a system solution are defined;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Stakeholder Needs and Requirements Definition 2. d) Stakeholder needs are defined.	6.4.2.2d)	6.4.1.2a)	Stakeholder Requirements Definition 2. a) the required characteristics and context of use of services are specified;
Stakeholder Needs and Requirements Definition 2. e) Stakeholder needs are prioritized and transformed into clearly defined stakeholder requirements.	6.4.2.2e)	6.4.1.2d)	Stakeholder Requirements Definition 2. d) the basis for defining the system requirements is described;
	6.4.2.2e)	6.4.1.2e)	Stakeholder Requirements Definition 2. e) the basis for validating the conformance of the services is defined;
Stakeholder Needs and Requirements Definition 2. f) Critical performance measures are defined.	6.4.2.2f)	None	None of outcomes is mapped.
Stakeholder Needs and Requirements Definition 2. g) Stakeholder agreement that their needs and expectations are reflected adequately in the requirements is achieved.	6.4.2.2g)	6.4.1.2f)	Stakeholder Requirements Definition 2. f) a basis for negotiating and agreeing to supply a service or product is provided.
Stakeholder Needs and Requirements Definition 2. h) Any enabling systems or services needed for stakeholder needs and requirements are available. (*)	6.4.2.2h)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Stakeholder Needs and Requirements Definition 2. i) Traceability of stakeholder requirements to stakeholders and their needs is established.	6.4.2.2i)	6.4.1.2c)	Stakeholder Requirements Definition 2. c) traceability of stakeholder requirements to stakeholders and their needs is achieved;
6.4.3 System/Software requirements definition process			
System/Software requirements definition 2. a) The system or element description, including interfaces, functions and boundaries, for a system solution is defined.	6.4.3.2a)	6.4.2.2a)	System Requirements Analysis 2. a) a defined set of system functional and non-functional requirements describing the problem to be solved are established;
	6.4.3.2a)	7.1.2.2a)	Software Requirements Analysis 2. a) the requirements allocated to the software elements of the system and their interfaces are defined;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
System/Software requirements definition 2. b) System/software requirements (functional, performance, process, non-functional, and interface) and design constraints are defined.	6.4.3.2b)	6.4.2.2a)	System Requirements Analysis 2. a) a defined set of system functional and non-functional requirements describing the problem to be solved are established;
	6.4.3.2b)	6.4.2.2e)	System Requirements Analysis 2.e) the requirements are prioritized, approved and updated as needed;
	6.4.3.2b)	6.4.2.2h)	System Requirements Analysis 2.h) the system requirements are communicated to all affected parties and baselined.
	6.4.3.2b)	7.1.2.2a)	Software Requirements Analysis 2. a) the requirements allocated to the software elements of the system and their interfaces are defined;
	6.4.3.2b)	7.1.2.2e)	Software Requirements Analysis 2. e) prioritization for implementing the software requirements is defined;
	6.4.3.2b)	7.1.2.2f)	Software Requirements Analysis 2. f) the software requirements are approved and updated as needed;
	6.4.3.2b)	7.1.2.2h)	Software Requirements Analysis 2. h) the software requirements are baselined and communicated to all affected parties;
System/Software requirements definition 2. c) Critical performance measures are defined.	6.4.3.2c)	6.4.2.2d)	System Requirements Analysis 2. d) the impact of the system requirements on the operating environment are understood;
	6.4.3.2c)	7.1.2.2c)	Software Requirements Analysis 2. c) the impact of software requirements on the operating environment is understood;
System/Software requirements definition 2. d) The system/software requirements are analyzed.	6.4.3.2d)	6.4.2.2c)	System Requirements Analysis 2. c) system requirements are analyzed for correctness and testability;
	6.4.3.2d)	6.4.2.2d)	System Requirements Analysis 2. d) the impact of the system requirements on the operating environment are understood;
	6.4.3.2d)	6.4.2.2g)	System Requirements Analysis 2. g) changes to the baseline are evaluated for cost, schedule and technical impact;
	6.4.3.2d)	7.1.2.2b)	Software Requirements Analysis 2. b) software requirements are analyzed for correctness and testability;
	6.4.3.2d)	7.1.2.2c)	Software Requirements Analysis 2. c) the impact of software requirements on the operating environment is understood;
	6.4.3.2d)	7.1.2.2g)	Software Requirements Analysis 2. g) changes to the software requirements are evaluated for cost, schedule and technical impact;
System/Software requirements definition 2. e) Any enabling systems or services needed for system/software requirements definition are available. (*)	6.4.3.2e)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
System/Software requirements definition 2. f) Traceability of system/software requirements to stakeholder requirements is developed.	6.4.3.2f)	6.4.2.2f)	System Requirements Analysis 2. f) consistency and traceability are established between the system requirements and the customer's requirements baseline;
	6.4.3.2f)	7.1.2.2d)	Software Requirements Analysis 2. d) consistency and traceability are established between the software requirements and system requirements;
6.4.4 Architecture Definition process			
Architecture Definition 2. a) Identified stakeholder concerns are addressed by the architecture.	6.4.4.2a)	6.4.3.2a)	System Architecture Design 2. a) a system architecture design is defined that identifies the elements of the system and meets the defined requirements;
	6.4.4.2a)	6.4.3.2c)	System Architecture Design 2. c) the requirements are allocated to the elements of the system;
	6.4.4.2a)	7.1.3.2a)	Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;
	6.4.4.2a)	7.1.3.2c)	Software Architecture Design 2. c) consistency and traceability are established between software requirements and software design.
Architecture Definition 2. b) Architecture viewpoints are developed.	6.4.4.2b)	6.4.3.2a)	System Architecture Design 2. a) a system architecture design is defined that identifies the elements of the system and meets the defined requirements;
	6.4.4.2b)	7.1.3.2a)	Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;
Architecture Definition 2. c) Context, boundaries, and external interfaces of the system are defined.	6.4.4.2c)	7.1.3.2b)	Software Architecture Design 2. b) internal and external interfaces of each software item are defined;
	6.4.4.2c)	7.3.1.2b)	Domain Engineering 2. b) the boundaries of the domain and its relationships to other domains are established;
Architecture Definition 2. d) Architecture views and models of the system are developed.	6.4.4.2d)	6.4.3.2h)	System Architecture Design 2. h) the system requirements, the system architecture design, and their relationships are baselined and communicated to all affected parties;
	6.4.4.2d)	7.1.3.2a)	Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;
	6.4.4.2d)	7.3.1.2a)	Domain Engineering 2. a) the representation forms for the domain models and the domain architectures are selected;
	6.4.4.2d)	7.3.1.2c)	Domain Engineering 2. c) a domain model that captures the essential common and different features, capabilities, concepts, and functions in the domain is developed;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Architecture Definition 2. e) Concepts, properties, characteristics, behaviors, functions, or constraints that are significant to architecture decisions of the system are allocated to architectural entities.	6.4.4.2e)	7.1.3.2a)	Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;
	6.4.4.2e)	6.4.3.2a)	System Architecture Design 2. a) a system architecture design is defined that identifies the elements of the system and meets the defined requirements;
	6.4.4.2e)	6.4.3.2b)	System Architecture Design 2. b) the system's functional and non-functional requirements are addressed;
	6.4.4.2e)	6.4.3.2i)	System Architecture Design 2. i) human factors and ergonomic knowledge and techniques are incorporated in system design;
Architecture Definition 2. f) System elements and their interfaces are identified.	6.4.4.2f)	6.4.3.2a)	System Architecture Design 2. a) a system architecture design is defined that identifies the elements of the system and meets the defined requirements;
	6.4.4.2f)	6.4.3.2d)	System Architecture Design 2. d) internal and external interfaces of each system element are defined;
	6.4.4.2f)	7.1.3.2a)	Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;
	6.4.4.2f)	7.1.3.2b)	Software Architecture Design 2. b) internal and external interfaces of each software item are defined;
Architecture Definition 2. g) Architecture candidates are assessed.	6.4.4.2g)	6.4.3.2a)	System Architecture Design 2. a) a system architecture design is defined that identifies the elements of the system and meets the defined requirements;
	6.4.4.2g)	7.1.3.2a)	Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;
Architecture Definition 2. h) An architectural basis for processes throughout the life cycle is achieved.	6.4.4.2h)	6.4.3.2a)	System Architecture Design 2. a) a system architecture design is defined that identifies the elements of the system and meets the defined requirements;
	6.4.4.2h)	7.1.3.2a)	Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;
	6.4.4.2h)	7.3.1.2d)	Domain Engineering 2. d) a domain architecture describing the family of systems within the domain, including their commonalities and variabilities, is developed.

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Architecture Definition 2. i) Alignment of the architecture with requirements and design characteristics is achieved.	6.4.4.2i)	6.4.3.2c)	System Architecture Design 2. c) the requirements are allocated to the elements of the system;
	6.4.4.2i)	6.4.3.2e)	System Architecture Design 2. e) verification between the system requirements and the system architecture is performed;
	6.4.4.2i)	7.1.3.2a)	Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;
	6.4.4.2i)	7.1.3.2c)	Software Architecture Design 2. c) consistency and traceability are established between software requirements and software design.
Architecture Definition 2. j) Any enabling systems or services needed for architecture definition are available. (*)	6.4.4.2j)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Architecture Definition 2. k) Traceability of architecture elements to stakeholder and system/software requirements is developed.	6.4.4.2k)	6.4.3.2f)	System Architecture Design 2. f) the requirements allocated to the system elements and their interfaces are traceable to the customer's requirements baseline;
	6.4.4.2k)	6.4.3.2g)	System Architecture Design 2. g) consistency and traceability between the system requirements and system architecture design is maintained;
	6.4.4.2k)	7.1.3.2c)	Software Architecture Design 2. c) consistency and traceability are established between software requirements and software design.
6.4.5 Design Definition process			
Design Definition 2. a) Design characteristics of each system element are defined.	6.4.5.2a)	7.1.4.2a)	Software Detailed Design 2. a) a detailed design of each software component, describing the software units to be built, is developed;
Design Definition 2. b) System/software requirements are allocated to system elements.	6.4.5.2b)	7.1.4.2a)	Software Detailed Design 2. a) a detailed design of each software component, describing the software units to be built, is developed;
	6.4.5.2b)	7.1.4.2c)	Software Detailed Design 2. c) consistency and traceability are established between the detailed design and the requirements and architectural design.
Design Definition 2. c) Design enablers necessary for design definition are selected or defined.	6.4.5.2c)	7.1.4.2a)	Software Detailed Design 2. a) a detailed design of each software component, describing the software units to be built, is developed;
Design Definition 2. d) Interfaces between system elements composing the system are defined or refined.	6.4.5.2d)	7.1.4.2b)	Software Detailed Design 2. b) external interfaces of each software unit are defined;
Design Definition 2. e) Design alternatives for system elements are assessed.	6.4.5.2e)	7.1.4.2a)	Software Detailed Design 2. a) a detailed design of each software component, describing the software units to be built, is developed;
Design Definition 2. f) Design artifacts are developed.	6.4.5.2f)	7.1.4.2a)	Software Detailed Design 2. a) a detailed design of each software component, describing the software units to be built, is developed;
Design Definition 2. g) Any enabling systems or services needed for design definition are available. (*)	6.4.5.2g)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Design Definition 2. h) Traceability of the design characteristics to the architectural entities of the system architecture is established.	6.4.5.2h)	7.1.4.2c)	Software Detailed Design 2. c) consistency and traceability are established between the detailed design and the requirements and architectural design.
6.4.6 System Analysis process			
System Analysis 2. a) System analyses needed are identified.	6.4.6.2a)	None	None of outcomes is mapped.
System Analysis 2. b) System analysis assumptions and results are validated.	6.4.6.2b)	None	None of outcomes is mapped.
System Analysis 2. c) System analysis results are provided for decisions.	6.4.6.2c)	None	None of outcomes is mapped.
System Analysis 2. d) Any enabling systems or services needed for system analysis are available. (*)	6.4.6.2d)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
System Analysis 2. e) Traceability of the system analysis results is established.	6.4.6.2e)	None	None of outcomes is mapped.
6.4.7 Implementation process			
Implementation 2. a) Implementation constraints that influence the requirements, architecture, or design are identified.	6.4.7.2a)	7.1.1.2a)	Software Implementation 2. a) an implementation strategy is defined;
	6.4.7.2a)	7.1.1.2b)	Software Implementation 2. b) implementation technology constraints on the design are identified;
	6.4.7.2a)	7.1.5.2a)	Software Construction 2. a) verification criteria are defined for all software units against their requirements;
	6.4.7.2a)	7.1.5.2d)	Software Construction 2. d) verification of the software units against the requirements and the design is accomplished;
Implementation 2. b) A system element is realized.	6.4.7.2b)	7.1.1.2c)	Software Implementation 2. c) a software item is realized;
	6.4.7.2b)	7.1.5.2b)	Software Construction 2. b) software units defined by the design are produced;
	6.4.7.2b)	7.1.5.2d)	Software Construction 2. d) verification of the software units against the requirements and the design is accomplished;
Implementation 2. c) A system element is packaged or stored.	6.4.7.2c)	7.1.1.2d)	Software Implementation 2. d) a software item is packaged and stored in accordance with an agreement for its supply.
Implementation 2. d) Any enabling systems or services needed for implementation are available. (*)	6.4.7.2d)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Implementation 2. e) Traceability is established.	6.4.7.2e)	7.1.5.2c)	Software Construction 2. c) consistency and traceability are established between software units and requirements and design;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
6.4.8 Integration process			
Integration 2. a) Integration constraints that influence system requirements, architecture, or design, including interfaces, are identified. Integration 2. b) Approach and checkpoints for the correct operation of the assembled interfaces and system functions are defined.	6.4.8.2a)	6.4.5.2a)	System Integration 2. a) a strategy is developed to integrate the system according to the priorities of the system requirements;
	6.4.8.2a)	7.1.6.2a)	Software Integration 2. a) an integration strategy is developed for software units consistent with the software design and the prioritized software requirements;
	6.4.8.2b)	6.4.5.2a)	System Integration 2. a) a strategy is developed to integrate the system according to the priorities of the system requirements;
	6.4.8.2b)	6.4.5.2b)	System Integration 2. b) criteria are developed to verify compliance with the system requirements allocated to the system elements, including the interfaces between system elements;
	6.4.8.2b)	6.4.5.2c)	System Integration 2. c) the system integration is verified using the defined criteria;
	6.4.8.2b)	6.4.5.2d)	System Integration 2. d) a regression strategy is developed and applied for re-testing the system when changes are made;
	6.4.8.2b)	7.1.6.2a)	Software Integration 2. a) an integration strategy is developed for software units consistent with the software design and the prioritized software requirements;
	6.4.8.2b)	7.1.6.2c)	Software Integration 2. c) software items are verified using the defined criteria;
Integration 2. c) Any enabling systems or services needed for integration are available.	6.4.8.2c)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Integration 2. d) A system composed of implemented system elements is integrated.	6.4.8.2d)	6.4.5.2f)	System Integration 2. f) an integrated system is constructed that demonstrates compliance with the system design;
	6.4.8.2d)	6.4.5.2g)	System Integration 2. g) an integrated system is constructed that demonstrates that a complete set of usable deliverable system elements exists.
	6.4.8.2d)	7.1.6.2d)	Software Integration 2. d) software items defined by the integration strategy are produced;
Integration 2. e) The interfaces between the implemented system elements that compose the system are checked.	6.4.8.2e)	6.4.5.2b)	System Integration 2. b) criteria are developed to verify compliance with the system requirements allocated to the system elements, including the interfaces between system elements;
	6.4.8.2e)	6.4.5.2c)	System Integration 2. c) the system integration is verified using the defined criteria;
	6.4.8.2e)	7.1.6.2c)	Software Integration 2. c) software items are verified using the defined criteria;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Integration 2. f) The interfaces between the system and the external environment are checked.	6.4.8.2f)	6.4.5.2c)	System Integration 2. c) the system integration is verified using the defined criteria;
	6.4.8.2f)	7.1.6.2c)	Software Integration 2. c) software items are verified using the defined criteria;
Integration 2. g) Integration results and anomalies are identified.	6.4.8.2g)	6.4.5.2c)	System Integration 2. c) the system integration is verified using the defined criteria;
	6.4.8.2g)	7.1.6.2c)	Software Integration 2. c) software items are verified using the defined criteria;
	6.4.8.2g)	7.1.6.2e)	Software Integration 2. e) results of integration testing are recorded;
Integration 2. h) Traceability of the integrated system elements is established.	6.4.8.2h)	6.4.5.2e)	System Integration 2. e) consistency and traceability are established between the system design and the integrated system elements;
	6.4.8.2h)	7.1.6.2f)	Software Integration 2. f) consistency and traceability are established between software design and software items;
6.4.9 Verification process			
Verification 2. a) Constraints of verification that influence the requirements, architecture, or design are identified.	6.4.9.2a)	6.4.6.2a)	System Qualification Testing 2. a) criteria for evaluating compliance with system requirements are developed;
	6.4.9.2a)	7.2.4.2a)	Software Verification 2. a) a software verification strategy is developed and implemented;
	6.4.9.2a)	7.2.4.2b)	Software Verification 2. b) criteria for verification of all required software work products are identified;
	6.4.9.2a)	7.1.7.2a)	Software Qualification Testing 2. a) criteria for the integrated software are developed that demonstrate compliance with the software requirements;
	6.4.9.2a)	7.1.7.2d)	Software Qualification Testing 2. d) a regression strategy is developed and applied for re-testing the integrated software when a change in software items is made;
	6.4.9.2a)	7.1.6.2b)	Software Integration 2. b) verification criteria for software items are developed that ensure compliance with the software requirements allocated to the items;
	6.4.9.2a)	7.1.6.2g)	Software Integration 2. g) a regression strategy is developed and applied for re-verifying software items when a change in software units (including associated requirements, design and code) occur;
	6.4.9.2a)	7.1.5.2a)	Software Construction 2. a) verification criteria are defined for all software units against their requirements;
Verification 2. b) Any enabling systems or services needed for verification are available. (*)	6.4.9.2b)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Verification 2. c) The system or system element is verified.	6.4.9.2c)	6.4.3.2e)	System Architecture Design 2. e) verification between the system requirements and the system architecture is performed;
	6.4.9.2c)	6.4.5.2c)	System Integration 2. c) the system integration is verified using the defined criteria;
	6.4.9.2c)	6.4.5.2d)	System Integration 2. d) a regression strategy is developed and applied for re-testing the system when changes are made;
	6.4.9.2c)	6.4.6.2b)	System Qualification Testing 2. b) the integrated system is tested using the defined criteria;
	6.4.9.2c)	7.1.6.2c)	Software Integration 2. c) software items are verified using the defined criteria;
	6.4.9.2c)	7.2.4.2c)	Software Verification 2. c) required verification activities are performed;
	6.4.9.2c)	7.2.3.2d)	Software Quality Assurance 2. d) adherence of software products, processes and activities to the applicable standards, procedures and requirements is verified.
	6.4.9.2c)	7.1.7.2b)	Software Qualification Testing 2. b) integrated software is verified using the defined criteria;
	6.4.9.2c)	7.1.7.2d)	Software Qualification Testing 2. d) a regression strategy is developed and applied for re-testing the integrated software when a change in software items is made;
Verification 2. d) Data providing information for corrective actions is reported.	6.4.9.2d)	7.2.4.2d)	Software Verification 2. d) defects are identified and recorded;
Verification 2. e) Objective evidence that the realized system fulfills the requirements, architecture and design is provided.	6.4.9.2e)	6.4.6.2c)	System Qualification Testing 2. c) test results are recorded;
	6.4.9.2e)	7.1.7.2c)	Software Qualification Testing 2. c) test results are recorded;
	6.4.9.2e)	7.2.4.2e)	Software Verification 2. e) Results of the verification activities are made available to the customer and other involved parties.
Verification 2. f) Verification results and anomalies are identified.	6.4.9.2f)	6.4.6.2c)	System Qualification Testing 2. c) test results are recorded;
	6.4.9.2f)	7.1.7.2c)	Software Qualification Testing 2. c) test results are recorded;
	6.4.9.2f)	7.2.4.2d)	Software Verification 2. d) defects are identified and recorded;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Verification 2. g) Traceability of the verified system elements is established.	6.4.9.2g)	7.1.7.2a)	Software Qualification Testing 2. a) criteria for the integrated software are developed that demonstrate compliance with the software requirements;
	6.4.9.2g)	7.2.4.2b)	Software Verification 2. b) criteria for verification of all required software work products are identified;
	6.4.9.2g)	7.2.4.2c)	Software Verification 2. c) required verification activities are performed;
6.4.10 Transition process			
Transition 2. a) Transition constraints that influence system/software requirements, architecture, or design are identified.	6.4.10.2a)	6.4.7.2a)	Software Installation 2. a) a software installation strategy is developed;
	6.4.10.2a)	6.4.7.2b)	Software Installation 2. b) criteria for software installation are developed that demonstrate compliance with the software installation requirements;
Transition 2. b) Any enabling systems or services needed for transition are available. (*)	6.4.10.2b)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Transition 2. c) The site is prepared.	6.4.10.2c)	6.4.7.2d)	Software Installation 2. d) readiness of the software product for use in its intended environment is assured;
Transition 2. d) The system, as installed in its operational location, is capable of delivering its specified functions. (*)	6.4.10.2d)	6.4.7.2d)	Software Installation 2. d) readiness of the software product for use in its intended environment is assured.
	6.4.10.2d)	6.4.8.2a)	Software Acceptance Support 2. a) the product is completed and delivered to the acquirer;
	6.4.10.2d)	6.4.8.2b)	Software Acceptance Support 2. b) acquirer acceptance tests and reviews are supported;
Transition 2. e) Operators, users and other stakeholders necessary to the system utilization and support are trained.	6.4.10.2e)	6.4.7.2d)	Software Installation 2. d) readiness of the software product for use in its intended environment is assured;
	6.4.10.2e)	6.4.8.2c)	Software Acceptance Support 2. c) the product is put into operation in the customers' environment;
	6.4.10.2e)	6.2.4.2c)	Human Resource Management 2. c) Skills of personnel are developed, maintained or enhanced
Transition 2. f) Transition results and anomalies are identified.	6.4.10.2f)	6.4.7.2d)	Software Installation 2. d) readiness of the software product for use in its intended environment is assured;
	6.4.10.2f)	6.4.8.2d)	Software Acceptance Support 2. d) Problems detected during acceptance are identified and communicated to those responsible for resolution.

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Transition 2. g) The installed system is activated and ready for operation.	6.4.10.2g)	6.4.7.2c)	Software Installation 2. c) the software product is installed in the target environment;
	6.4.10.2g)	6.4.7.2d)	Software Installation 2. d) readiness of the software product for use in its intended environment is assured;
	6.4.10.2g)	6.4.8.2c)	Software Acceptance Support 2. c) the product is put into operation in the customers' environment;
Transition 2. h) Traceability of the transitioned elements is established.	6.4.10.2h)	6.4.7.2b)	Software Installation 2. b) criteria for software installation are developed that demonstrate compliance with the software installation requirements;
6.4.11 Validation process			
Validation 2. a) Validation criteria for stakeholder requirements are defined.	6.4.11.2a)	7.2.5.2a)	Software Validation 2. a) a validation strategy is developed and implemented;
	6.4.11.2a)	7.2.5.2b)	Software Validation 2. b) criteria for validation of all required work products are identified;
Validation 2. b) The availability of services required by stakeholders is confirmed. (*)	6.4.11.2b)	6.4.8.2b)	Software Acceptance Support 2. b) acquirer acceptance tests and reviews are supported;
	6.4.11.2b)	6.4.8.2c)	Software Acceptance Support 2. c) the product is put into operation in the customers' environment;
	6.4.11.2b)	7.2.5.2c)	Software Validation 2. c) Required validation activities are performed;
Validation 2. c) Constraints of validation that influence the requirements, architecture, or design are identified.	6.4.11.2c)	7.2.5.2a)	Software Validation 2. a) a validation strategy is developed and implemented;
	6.4.11.2c)	7.2.5.2b)	Software Validation 2. b) criteria for validation of all required work products are identified;
Validation 2. d) The system or system element is validated.	6.4.11.2d)	6.4.8.2b)	Software Acceptance Support 2. b) acquirer acceptance tests and reviews are supported;
	6.4.11.2d)	6.4.9.2c)	Software Operation 2. c) the software is tested and determined to operate in its intended environment;
	6.4.11.2d)	7.2.5.2c)	Software Validation 2. c) required validation activities are performed;
Validation 2. e) Any enabling systems or services needed for validation are available. (*)	6.4.11.2e)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Validation 2. f) Validation results and anomalies are identified.	6.4.11.2f)	6.4.8.2d)	Software Acceptance Support 2. d) Problems detected during acceptance are identified and communicated to those responsible for resolution;
	6.4.11.2f)	7.2.5.2d)	Software Validation 2. d) problems are identified and recorded;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Validation 2. g) Objective evidence that the realized system or system element satisfies stakeholder needs is provided.	6.4.11.2g)	7.2.5.2e)	Software Validation 2. e) evidence is provided that the software work products as developed are suitable for their intended use;
	6.4.11.2g)	7.2.5.2f)	Software Validation 2. f) results of the validation activities are made available to the customer and other involved parties;
Validation 2. h) Traceability of the validated system elements is established.	6.4.11.2h)	7.2.5.2b)	Software Validation 2. b) criteria for validation of all required work products are identified;
6.4.12 Operation process			
Operation 2. a) Operation constraints that influence system/software requirements, architecture, or design are identified. (*)	6.4.12.2a)	6.4.9.2a)	Software Operation 2. a) an operation strategy is defined;
	6.4.12.2a)	6.4.9.2b)	Software Operation 2. b) conditions for correct operation of the software in its intended environment are identified and evaluated;
Operation 2. b) Any enabling systems, services, and material needed for operation are available. (*)	6.4.12.2b)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Operation 2. c) Trained, qualified operators are available. (*)	6.4.12.2c)	6.2.4.2c)	Human Resource Management 2. c) Skills of personnel are developed, maintained or enhanced;
Operation 2. d) System product services that meet stakeholder requirements are delivered.	6.4.12.2d)	6.4.9.2d)	Software Operation 2. d) the software is operated in its intended environment;
	6.4.12.2d)	6.4.8.2c)	Software Acceptance Support 2. c) the product is put into operation in the customers' environment;
Operation 2. e) System product performance during operation is monitored.	6.4.12.2e)	6.4.9.2b)	Software Operation 2. b) conditions for correct operation of the software in its intended environment are identified and evaluated;
Operation 2. f) Support to the customer is provided.	6.4.12.2f)	6.4.9.2e)	Software Operation 2. e) assistance and consultation is provided to the customers of the software product in accordance with the agreement.
6.4.13 Maintenance process			
Maintenance 2. a) Maintenance constraints that influence system requirements, architecture, or design are identified.	6.4.13.2a)	6.4.10.2a)	Software Maintenance 2. a) a maintenance strategy is developed to manage modification and migration of products according to the release strategy;
	6.4.13.2a)	6.4.10.2b)	Software Maintenance 2. b) the impact of changes to the existing system on organization, operations or interfaces are identified;
Maintenance 2. b) Any enabling systems or services needed for maintenance are available. (*)	6.4.13.2b)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;

Table 1 (continued)

Outcomes (ISO/IEC/IEEE 12207:2017)	Sub clause	Sub clause	Outcomes (ISO/IEC 12207:2008)
Maintenance 2 c) Replacement, repaired, or revised system elements are made available.	6.4.13.2c)	6.4.10.2c)	Software Maintenance 2. c) affected system and software documentation is updated as needed;
	6.4.13.2c)	6.4.10.2d)	Software Maintenance 2. d) modified products are developed with associated tests that demonstrate that requirements are not compromised;
	6.4.13.2c)	6.4.10.2e)	Software Maintenance 2. e) product upgrades are migrated to the customer's environment;
	6.4.13.2c)	6.4.10.2f)	Software Maintenance 6. f) the system software modification is communicated to all affected parties.
	6.4.13.2c)	7.3.1.2f)	Domain Engineering 2. f) assets belonging to the domain are acquired or developed and maintained throughout their life cycles.
Maintenance 2. d) The need for changes to address corrective, perfective, or adaptive maintenance is reported.	6.4.13.2d)	6.4.10.2b)	Software Maintenance 2. b) the impact of changes to the existing system on organization, operations or interfaces are identified;
Maintenance 2. e) Failure and lifetime data, including associated costs, is determined.	6.4.13.2e)	6.4.10.2b)	Software Maintenance 2. b) the impact of changes to the existing system on organization, operations or interfaces are identified;
6.4.14 Disposal process			
Disposal 2. a) Disposal constraints are provided as inputs to requirements, architecture, design, and implementation.	6.4.14.2a)	6.4.11.2a)	Software Disposal 2. a) a software disposal strategy is defined;
	6.4.14.2a)	6.4.11.2b)	Software Disposal 2. b) disposal constraints are provided as inputs to requirements;
Disposal 2. b) Any enabling systems or services needed for disposal are available.(*)	6.4.14.2b)	6.2.2.2d)	Infrastructure Management 2. d) the infrastructure elements are implemented;
Disposal 2. c) The system elements or waste products are destroyed, stored, reclaimed or recycled in accordance with requirements, e.g., safety and security requirements.	6.4.14.2c)	6.4.11.2c)	Software Disposal 2. c) the system's software elements are destroyed or stored;
Disposal 2. d) The environment is returned to its original or an agreed state.	6.4.14.2d)	6.4.11.2d)	Software Disposal 2. d) the environment is left in an agreed-upon state;
Disposal 2. e) Records of disposal actions and analysis are available.	6.4.14.2e)	6.4.11.2e)	Software Disposal 2. e) records allowing knowledge retention of disposal actions and any analysis of long-term impacts are available.

6.2 Outcome mapping from ISO/IEC 12207:2008 to ISO/IEC/IEEE 12207:2017

Table 2 correlates process outcomes required by ISO/IEC 12207:2008 to process outcomes required in ISO/IEC/IEEE 12207:2017. The mapping indicates related outcomes that may be helpful in meeting the required outcomes of ISO/IEC/IEEE 12207:2017. There is no assumption that all the required outcomes of ISO/IEC 12207:2008 are required to fulfil the required outcomes of ISO/IEC/IEEE 12207:2017. Also, there is no assumption that all the required outcomes of ISO/IEC/IEEE 12207:2017 can be met by achieving the required outcomes of ISO/IEC 12207:2008.

When the subclause is indicated by 'l.m.n.2 x)', it indicates the process outcome x) that is described in the subclause for outcome 'l.m.n.' of process 'l.m.n' in ISO/IEC/IEEE 12207:2017 and ISO/IEC 12207:2008 respectively.

Table 2 — Outcome mapping from ISO/IEC 12207:2008 to ISO/IEC/IEEE 12207:2017

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
6.1.1 Acquisition Process			
Acquisition 2. a) acquisition needs, goals, product and/or service acceptance criteria and acquisition strategies are defined;	6.1.1.2a)	6.1.1.2a)	Acquisition 2. a) A request for supply is prepared.
Acquisition 2. b) an agreement is developed that clearly expresses the expectation, responsibilities and liabilities of both the acquirer and the supplier;	6.1.1.2b)	6.1.1.2c)	Acquisition 2. c) An agreement is established between the acquirer and supplier.
Acquisition 2. c) one or more suppliers is selected;	6.1.1.2c)	6.1.1.2b)	Acquisition 2. b) One or more suppliers are selected.
Acquisition 2. d) a product and/or service is acquired that satisfies the acquirer's stated need;	6.1.1.2d)	6.1.1.2d)	Acquisition 2. d) A product or service complying with the agreement is accepted.
Acquisition 2. e) the acquisition is monitored so that specified constraints such as cost, schedule and quality are met;	6.1.1.2e)	6.1.1.2d)	Acquisition 2. d) A product or service complying with the agreement is accepted.
Acquisition 2. f) supplier deliverables are accepted;	6.1.1.2f)	6.1.1.2d)	Acquisition 2. d) A product or service complying with the agreement is accepted.
Acquisition 2. g) any identified open items have a satisfactory conclusion as agreed to by the acquirer and the supplier.	6.1.1.2g)	6.1.1.2e)	Acquisition 2. e) Acquirer obligations defined in the agreement are satisfied.
6.1.2 Supply Process			
Supply 2. a) an acquirer for a product or service is identified;	6.1.2.2a)	6.1.2.2a)	Supply 2. a) An acquirer for a product or service is identified.
Supply 2. b) a response to an acquirer's request is produced;	6.1.2.2b)	6.1.2.2b)	Supply 2. b) A response to the acquirer's request is produced.
Supply 2. c) an agreement is established between the acquirer and the supplier for developing, maintaining, operating, packaging, delivering, and installing the product and/or service;	6.1.2.2c)	6.1.2.2c)	Supply 2. c) An agreement is established between the acquirer and supplier.
Supply 2. d) a product and/or service that meets the agreed requirements are developed by the supplier;	6.1.2.2d)	6.1.2.2d)	Supply 2. d) A product or service is provided.
Supply 2. e) the product and/or service is delivered to the acquirer in accordance with the agreed requirements;	6.1.2.2e)	6.1.2.2e)	Supply 2. e) Supplier obligations defined in the agreement are satisfied.
Supply 2. f) the product is installed in accordance with the agreed requirements.	6.1.2.2f)	6.1.2.2f)	Supply 2. f) Responsibility for the acquired product or service, as directed by the agreement, is transferred.
6.2.1 Life Cycle Model Management Process			
Life Cycle Model Management 2. a) policies and procedures for the management and deployment of life cycle models and processes are provided;	6.2.1.2a)	6.2.1.2a)	Life cycle model management 2. a) Organizational policies and procedures for the management and deployment of life cycle models and processes are established.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available".			
^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
Life Cycle Model Management 2. b) responsibility, accountability and authority for life cycle management are defined;	6.2.1.2b)	6.2.1.2b)	Life cycle model management 2. b) Responsibility, accountability, and authority within life cycle policies, processes, models, and procedures are defined.
Life Cycle Model Management 2. c) life cycle processes, models and procedures for use by the organization are defined, maintained and improved;	6.2.1.2c)	6.2.1.2c)	Life cycle model management 2. c) Life cycle models and processes for use by the organization are assessed.
Life Cycle Model Management 2. d) prioritized process improvements are implemented.	6.2.1.2d)	6.2.1.2d)	Life cycle model management 2. d) Prioritized process, model, and procedure improvements are implemented.
6.2.2 Infrastructure Management Process			
Infrastructure Management 2. a) the requirements for infrastructure to support processes are defined;	6.2.2.2a)	6.2.2.2a)	Infrastructure Management 2. a) The requirements for infrastructure are defined.
Infrastructure Management 2. b) the infrastructure elements are identified and specified;	6.2.2.2b)	6.2.2.2b)	Infrastructure Management 2. b) The infrastructure elements are identified and specified.
Infrastructure Management 2. c) the infrastructure elements are acquired;	6.2.2.2c)	6.2.2.2c)	Infrastructure Management 2. c) Infrastructure elements are developed or acquired.
Infrastructure Management 2. d) the infrastructure elements are implemented; ^a	6.2.2.2d)	6.2.2.2c)	Infrastructure Management 2. c) Infrastructure elements are developed or acquired.
Infrastructure Management 2. e) a stable and reliable infrastructure is maintained and improved.	6.2.2.2e)	6.2.2.2d)	Infrastructure Management 2. d) The infrastructure is available.
6.2.3 Project Portfolio Management Process			
Project Portfolio Management 2. a) business venture opportunities, investments or necessities are qualified, prioritized and selected;	6.2.3.2a)	6.2.3.2a)	Portfolio Management 2.a) Business venture opportunities, investments or necessities are qualified and prioritized.
Project Portfolio Management 2. b) resources and budgets for each project are identified and allocated;	6.2.3.2b)	6.2.3.2c)	Portfolio Management 2. c) Resources and budgets for each project are allocated.
Project Portfolio Management 2. c) project management accountability and authorities are defined;	6.2.3.2c)	6.2.3.2d)	Portfolio Management 2. d) Project management responsibilities, accountability, and authorities are defined.
	6.2.3.2c)	6.3.1.2b)	Project Planning 2. b) Roles, responsibilities, accountabilities, and authorities are defined.
Project Portfolio Management 2. d) projects meeting agreement and stakeholder requirements are sustained;	6.2.3.2d)	6.2.3.2e)	Portfolio Management 2. e) Projects meeting agreement and stakeholder requirements are sustained.
Project Portfolio Management 2. e) projects not meeting agreement or stakeholder requirements are redirected or terminated;	6.2.3.2e)	6.2.3.2f)	Portfolio Management 2. f) Projects not meeting agreement or satisfying stakeholder requirements are redirected or terminated.

^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available".

^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
6.2.4 Human Resource Management Process			
Human Resource Management 2. a) skills required by projects are identified;	6.2.4.2a)	6.2.4.2a)	Human Resource Management 2. a) Skills required by projects are identified.
Human Resource Management 2. b) necessary human resources are provided to projects;	6.2.4.2b)	6.2.4.2b)	Human Resource Management 2. b) Necessary human resources are provided to projects.
	6.2.4.2b)	6.2.5.2c)	Quality Management 2. c) Resources and information are provided to projects to support the operation and monitoring of project quality assurance activities.
Human Resource Management 2. c) Skills of personnel are developed, maintained or enhanced; (*)	6.2.4.2c)	6.2.4.2c)	Human Resource Management 2. c) Skills of personnel are developed, maintained or enhanced.
	6.2.4.2c)	6.2.6.2b)	Knowledge Management 2. b) The organizational knowledge, skills, and knowledge assets are developed or acquired.
	6.2.4.2c)	6.4.10.2e)	Transition 2. e) Operators, users and other stakeholders necessary to the system utilization and support are trained.
	6.2.4.2c)	6.2.12.2c)	Operation 2. c) Trained, qualified operators are available.
Human Resource Management 2. d) conflicts in multi-project resource demands are resolved;	6.2.4.2d)	6.2.4.2d)	Human Resource Management 2. d) Conflicts in multi-project resource demands are resolved.
Human Resource Management 2. e) individual knowledge, information and skills are collected, shared, reused and improved throughout the organization.	6.2.4.2e)	6.2.4.2c)	Human Resource Management 2. c) Skills of personnel are developed, maintained or enhanced.
	6.2.4.2e)	6.2.6.2c)	Knowledge Management 2. c) The organizational knowledge, skills, and knowledge assets are available.
6.2.5 Quality Management Process			
Quality Management 2. a) organization quality management policies and procedures are defined;	6.2.5.2a)	6.2.5.2a)	Quality Management 2. a) Organizational quality management policies, objectives, and procedures are defined and implemented.
	6.2.5.2a)	6.2.5.2b)	Quality Management 2. b) Quality evaluation criteria and methods are established.
Quality Management 2. b) organization quality objectives are defined;	6.2.5.2b)	6.2.5.2a)	Quality Management 2. a) Organizational quality management policies, objectives, and procedures are defined and implemented.
Quality Management 2. c) accountability and authority for quality management are defined;	6.2.5.2c)	6.2.5.2a)	Quality Management 2. a) Organizational quality management policies, objectives, and procedures are defined and implemented.
Quality Management 2. d) the status of customer satisfaction is monitored;	6.2.5.2d)	6.2.5.2d)	Quality Management 2. d) Quality assurance evaluation results are gathered and analyzed.

^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available".

^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
Quality Management 2. e) appropriate action is taken when quality objectives are not achieved.	6.2.5.2e)	6.2.5.2e)	Quality Management 2. e) Quality management policies and procedures are improved based upon project and organizational results.
6.3.1 Project Planning Process			
Project Planning 2. a) the scope of the work for the project is defined;	6.3.1.2a)	6.2.3.2b)	Portfolio Management 2. b) Projects are identified.
	6.3.1.2a)	6.3.1.2a)	Project Planning 2. a) Objectives and plans are defined.
Project Planning 2. b) the feasibility of achieving the goals of the project with available resources and constraints are evaluated;	6.3.1.2b)	6.3.1.2a)	Project Planning 2. a) Objectives and plans are defined.
	6.3.1.2b)	6.3.2.2c)	Project assessment and control 2. c) Adequacy of resources is assessed.
Project Planning 2. c) the tasks and resources necessary to complete the work are sized and estimated;	6.3.1.2c)	6.3.1.2a)	Project Planning 2. a) Objectives and plans are defined.
	6.3.1.2c)	6.3.1.2c)	Project Planning 2. c) Resources and services necessary to achieve the objectives are formally requested and committed.
Project Planning 2. d) interfaces between elements in the project, and with other project and organizational units, are identified;	6.3.1.2d)	6.3.1.2b)	Project Planning 2. b) Roles, responsibilities, accountabilities, and authorities are defined.
Project Planning 2. e) plans for the execution of the project are developed;	6.3.1.2e)	6.3.1.2a)	Project Planning 2. a) Objectives and plans are defined.
	6.3.1.2e)	6.3.1.2b)	Project Planning 2. b) Roles, responsibilities, accountabilities, and authorities are defined.
	6.3.1.2e)	6.3.1.2c)	Project Planning 2. c) Resources and services necessary to achieve the objectives are formally requested and committed.
Project Planning 2. f) plans for the execution of the project are activated.	6.3.1.2f)	6.3.1.2d)	Project Planning 2. d) Plans for the execution of the project are activated.
6.3.2 Project Assessment and Control Process			
Project Assessment and Control 2. a) progress of the project is monitored and reported;	6.3.2.2a)	6.3.2.2a)	Project assessment and control 2. a) Performance measures or assessment results are available.
	6.3.2.2a)	6.3.2.2b)	Project assessment and control 2. b) Adequacy of roles, responsibilities, accountabilities, and authorities is assessed.
	6.3.2.2a)	6.3.2.2c)	Project assessment and control 2. c) Adequacy of resources is assessed.
	6.3.2.2a)	6.3.2.2d)	Project assessment and control 2. d) Technical progress reviews are performed.
	6.3.2.2a)	6.3.2.2e)	Project assessment and control 2. e) Deviations in project performance from plans are investigated and analyzed.

^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available".

^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
	6.3.2.2a)	6.3.2.2f)	Project assessment and control 2. f) Affected stakeholders are informed of project status.
Project Assessment and Control 2. b) interfaces between elements in the project, and with other project and organizational units, are monitored;	6.3.2.2b)	6.3.2.2b)	Project assessment and control 2. b) Adequacy of roles, responsibilities, accountabilities, and authorities is assessed.
	6.3.2.2b)	6.3.2.2f)	Project assessment and control 2. f) Affected stakeholders are informed of project status.
Project Assessment and Control 2. c) actions to correct deviations from the plan and to prevent recurrence of problems identified in the project are taken when project targets are not achieved;	6.3.2.2c)	6.3.2.2g)	Project assessment and control 2. g) Corrective action is defined and directed, when project achievement is not meeting targets.
	6.3.2.2c)	6.3.2.2h)	Project assessment and control 2. h) Project replanning is initiated, as necessary.
Project Assessment and Control 2 d) project objectives are achieved and recorded.	6.3.2.2d)	6.3.2.2j)	Project assessment and control 2. j) Project objectives are achieved.
6.3.3 Decision Management Process			
Decision Management 2. a) a decision-making strategy is defined;	6.3.3.2a)	6.3.3.2a)	Decision Management 2. a) Decisions requiring alternative analysis are identified.
Decision Management 2. b) alternative courses of action are defined;	6.3.3.2b)	6.3.3.2b)	Decision Management 2. b) Alternative courses of action are identified and evaluated.
Decision Management 2. c) a preferred course of action is selected;	6.3.3.2c)	6.3.3.2c)	Decision Management 2. c) A preferred course of action is selected.
Decision Management 2. d) the resolution, decision rationale and assumptions are captured and reported.	6.3.3.2d)	6.3.3.2d)	Decision Management 2. d) The resolution, decision rationale and assumptions are identified.
6.3.4 Risk Management Process			
Risk Management 2. a) the scope of risk management to be performed is determined;	6.3.4.2a)	6.3.4.2a)	Risk Management 2. a) Risks are identified.
Risk Management 2. b) appropriate risk management strategies are defined and implemented;	6.3.4.2b)	6.3.4.2c)	Risk Management 2. c) Risk treatment options are identified, prioritized, and selected.
Risk Management 2. c) risks are identified as they develop and during the conduct of the project;	6.3.4.2c)	6.3.4.2a)	Risk Management 2. a) Risks are identified.
Risk Management 2. d) risks are analyzed, and the priority in which to apply resources to treatment of these risks is determined;	6.3.4.2d)	6.3.4.2b)	Risk Management 2. b) Risks are analyzed.
	6.3.4.2d)	6.3.4.2c)	Risk Management 2. c) Risk treatment options are identified, prioritized, and selected.
Risk Management 2. e) risk measures are defined, applied, and assessed to determine changes in the status of risk and the progress of the treatment activities;	6.3.4.2e)	6.3.4.2c)	Risk Management 2. c) Risk treatment options are identified, prioritized, and selected.
	6.3.4.2e)	6.3.4.2e)	Risk Management 2. e) Risks are evaluated to assess changes in status and progress in treatment.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available". ^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
Risk Management 2. f) appropriate treatment is taken to correct or avoid the impact of risk based on its priority, probability, and consequence or other defined risk threshold.	6.3.4.2f)	6.3.4.2d)	Risk Management 2. d) Appropriate treatment is implemented.
6.3.5 Configuration Management Process			
Configuration Management 2. a) a configuration management strategy is defined;	6.3.5.2a)	6.3.5.2a)	Configuration Management 2. a) Items requiring configuration management are identified and managed.
Configuration Management 2. b) items requiring configuration management are defined;	6.3.5.2b)	6.3.5.2a)	Configuration Management 2. a) Items requiring configuration management are identified and managed.
Configuration Management 2. c) configuration baselines are established;	6.3.5.2c)	6.3.5.2b)	Configuration Management 2. b) Configuration baselines are established.
Configuration Management 2. d) changes to items under configuration management are controlled;	6.3.5.2d)	6.3.5.2c)	Configuration Management 2. c) Changes to items under configuration management are controlled.
Configuration Management 2. e) the configuration of released items is controlled;	6.3.5.2e)	6.3.5.2f)	Configuration Management 2. f) System releases and deliveries are controlled and approved.
Configuration Management 2. f) the status of items under configuration management is made available throughout the life cycle.	6.3.5.2f)	6.3.5.2d)	Configuration Management 2. d) Configuration status information is available.
6.3.6 Information Management Process			
Information Management 2. a) information to be managed is identified;	6.3.6.2a)	6.3.6.2a)	Information Management 2. a) Information to be managed is identified.
Information Management 2. b) the forms of the information representations are defined;	6.3.6.2b)	6.3.6.2b)	Information Management 2. b) Information representations are defined.
Information Management 2. c) information is transformed and disposed of as required;	6.3.6.2c)	6.3.6.2c)	Information Management 2. c) Information is obtained, developed, transformed, stored, validated, presented, and disposed of.
Information Management 2. d) the status of information is recorded;	6.3.6.2d)	6.3.6.2d)	Information Management 2. d) The status of information is identified.
Information Management 2. e) information is current, complete and valid;	6.3.6.2e)	6.3.6.2c)	Information Management 2. c) Information is obtained, developed, transformed, stored, validated, presented, and disposed of.
	6.3.6.2e)	6.3.6.2d)	Information Management 2. d) The status of information is identified.
Information Management 2. f) information is made available to designated parties.	6.3.6.2f)	6.3.6.2e)	Information Management 2. e) Information is available to designated stakeholders.
6.3.7 Measurement Process			
Measurement 2. a) the information needs of technical and management processes are identified;	6.3.7.2a)	6.3.7.2a)	Measurement 2. a) Information needs are identified.
Measurement 2. b) an appropriate set of measures, driven by the information needs are identified and/or developed;	6.3.7.2b)	6.3.7.2b)	Measurement 2. b) An appropriate set of measures, based on the information needs, is identified or developed.

^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available".

^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
Measurement 2. c) measurement activities are identified and planned;	6.3.7.2c)	6.3.7.2b)	Measurement 2. b) An appropriate set of measures, based on the information needs, is identified or developed.
Measurement 2. d) the required data are collected, stored, analyzed, and the results interpreted;	6.3.7.2d)	6.3.7.2c)	Measurement 2. c) Required data is collected, verified, and stored.
	6.3.7.2d)	6.3.7.2d)	Measurement 2. d) The data is analyzed and the results interpreted.
Measurement 2. e) information products are used to support decisions and provide an objective basis for communication;	6.3.7.2e)	6.3.6.2c)	Information Management 2. c) Information is obtained, developed, transformed, stored, validated, presented, and disposed of.
	6.3.7.2e)	6.3.7.2e)	Measurement 2. e) Information items provide objective information that supports decisions.
Measurement 6. f) the Measurement Process and measures are evaluated;	6.3.7.2f)	6.3.8.2c)	Quality Assurance 2. c) Evaluations of the project's products, services, and processes are performed, consistent with quality management policies, procedures, and requirements.
Measurement 2. g) improvements are communicated to the Measurement Process owner.	6.3.7.2g)	6.3.7.2e)	Measurement 2. e) Information items provide objective information that supports decisions.
6.4.1 Stakeholder Requirements Definition Process			
Stakeholder Requirements Definition 2. a) the required characteristics and context of use of services are specified;	6.4.1.2a)	6.4.1.2c)	Business or Mission Analysis 2. c) Preliminary operational concepts and other concepts in the life cycle stages are defined.
	6.4.1.2a)	6.4.2.2b)	Stakeholder Needs and Requirements Definition 2. b) Required characteristics and context of use of capabilities and concepts in the life cycle stages, including operational concepts, are defined.
	6.4.1.2a)	6.4.2.2d)	Stakeholder Needs and Requirements Definition 2. d) Stakeholder needs are defined.
Stakeholder Requirements Definition 2. b) the constraints on a system solution are defined;	6.4.1.2b)	6.4.2.2c)	Stakeholder Needs and Requirements Definition 2. c) Constraints on a system are identified.
Stakeholder Requirements Definition 2. c) traceability of stakeholder requirements to stakeholders and their needs is achieved;	6.4.1.2d)	6.4.2.2 i)	Stakeholder Needs and Requirements Definition 2. i) Traceability of stakeholder requirements to stakeholders and their needs is established.
Stakeholder Requirements Definition 2. d) the basis for defining the system requirements is described;	6.4.1.2d)	6.4.2.2e)	Stakeholder Needs and Requirements Definition 2. e) Stakeholder needs are prioritized and transformed into clearly defined stakeholder requirements.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available". ^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
Stakeholder Requirements Definition 2. e) the basis for validating the conformance of the services is defined;	6.4.1.2e)	6.4.2.2e)	Stakeholder Needs and Requirements Definition 2. e) Stakeholder needs are prioritized and transformed into clearly defined stakeholder requirements.
Stakeholder Requirements Definition 2. f) a basis for negotiating and agreeing to supply a service or product is provided.	6.4.1.2f)	6.4.2.2g)	Stakeholder Needs and Requirements Definition 2. g) Stakeholder agreement that their needs and expectations are reflected adequately in the requirements is achieved.
6.4.2 System Requirements Analysis Process			
System Requirements Analysis 2. a) a defined set of system functional and non-functional requirements describing the problem to be solved are established;	6.4.2.2a)	6.4.3.2a)	System/Software requirements definition 1. a) The system or element description, including interfaces, functions and boundaries, for a system solution is defined.
	6.4.2.2a)	6.4.3.2b)	System/Software requirements definition 2. b) System/software requirements (functional, performance, process, non-functional, and interface) and design constraints are defined.
System Requirements Analysis 2. b) the appropriate techniques are performed to optimize the preferred project solution;	6.4.2.2b)	None	None of outcomes is mapped.
System Requirements Analysis 2. c) system requirements are analyzed for correctness and testability;	6.4.2.2c)	6.4.3.2d)	System/Software requirements definition 2. d) The system/software requirements are analyzed.
System Requirements Analysis 2. d) the impact of the system requirements on the operating environment are understood;	6.4.2.2d)	6.4.3.2c)	System/Software requirements definition 2. c) Critical performance measures are defined.
	6.4.2.2d)	6.4.3.2d)	System/Software requirements definition 2. d) The system/software requirements are analyzed.
System Requirements Analysis 2.e) the requirements are prioritized, approved and updated as needed;	6.4.2.2e)	6.4.3.2b)	System/Software requirements definition 2. b) System/software requirements (functional, performance, process, non-functional, and interface) and design constraints are defined.
System Requirements Analysis 2. f) consistency and traceability are established between the system requirements and the customer's requirements baseline;	6.4.2.2f)	6.4.3.2f)	System/Software requirements definition 2. f) Traceability of system/software requirements to stakeholder requirements is developed.
System Requirements Analysis 2. g) changes to the baseline are evaluated for cost, schedule and technical impact;	6.4.2.2g)	6.4.3.2d)	System/Software requirements definition 2. d) The system/software requirements are analyzed.
System Requirements Analysis 2.h) the system requirements are communicated to all affected parties and baselined.	6.4.2.2h)	6.4.3.2b)	System/Software requirements definition 2. b) System/software requirements (functional, performance, process, non-functional, and interface) and design constraints are defined.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available". ^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
6.4.3 System Architectural Design Process			
System Architecture Design 2. a) a system architecture design is defined that identifies the elements of the system and meets the defined requirements;	6.4.3.2a)	6.4.4.2a)	Architecture Definition 2. a) Identified stakeholder concerns are addressed by the architecture.
	6.4.3.2a)	6.4.4.2b)	Architecture Definition 2. b) Architecture viewpoints are developed.
	6.4.3.2a)	6.4.4.2e)	Architecture Definition 2. e) Concepts, properties, characteristics, behaviors, functions, or constraints that are significant to architecture decisions of the system are allocated to architectural entities.
	6.4.3.2a)	6.4.4.2f)	Architecture Definition 2. f) System elements and their interfaces are identified.
	6.4.3.2a)	6.4.4.2g)	Architecture Definition 2. g) Architecture candidates are assessed.
	6.4.3.2a)	6.4.4.2h)	Architecture Definition 2. h) An architectural basis for processes throughout the life cycle is achieved.
System Architecture Design 2. b) the system's functional and non-functional requirements are addressed;	6.4.3.2b)	6.4.4.2e)	Architecture Definition 2. e) Concepts, properties, characteristics, behaviors, functions, or constraints that are significant to architecture decisions of the system are allocated to architectural entities.
System Architecture Design 2. c) the requirements are allocated to the elements of the system;	6.4.3.2c)	6.4.4.2a)	Architecture Definition 2. a) Identified stakeholder concerns are addressed by the architecture.
	6.4.3.2c)	6.4.4.2 i)	Architecture Definition 2. i) Alignment of the architecture with requirements and design characteristics is achieved.
System Architecture Design 2. d) internal and external interfaces of each system element are defined;	6.4.3.2d)	6.4.4.2f)	Architecture Definition 2. f) System elements and their interfaces are identified.
System Architecture Design 2. e) verification between the system requirements and the system architecture is performed;	6.4.3.2e)	6.4.4.2 i)	Architecture Definition 2. i) Alignment of the architecture with requirements and design characteristics is achieved.
System Architecture Design 2. e) verification between the system requirements and the system architecture is performed;	6.4.3.2e)	6.4.9.2c)	Verification 2. c) The system or system element is verified.
System Architecture Design 2. f) the requirements allocated to the system elements and their interfaces are traceable to the customer's requirements baseline;	6.4.3.2f)	6.4.4.2k)	Architecture Definition 2. k) Traceability of architecture elements to stakeholder and system/software requirements is developed.
System Architecture Design 2. g) consistency and traceability between the system requirements and system architecture design is maintained;	6.4.3.2g)	6.4.4.2k)	Architecture Definition 2. k) Traceability of architecture elements to stakeholder and system/software requirements is developed.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available". ^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
System Architecture Design 2. h) the system requirements, the system architecture design, and their relationships are baselined and communicated to all affected parties;	6.4.3.2h)	6.4.4.2d)	Architecture Definition 2. d) Architecture views and models of the system are developed.
System Architecture Design 2. i) human factors and ergonomic knowledge and techniques are incorporated in system design;	6.4.3.2 i)	6.4.4.2e)	Architecture Definition 2. e) Concepts, properties, characteristics, behaviors, functions, or constraints that are significant to architecture decisions of the system are allocated to architectural entities.
System Architecture Design 2. j) human-centred design activities are identified and performed.	6.4.3.2 j)	None	None of outcomes is mapped.
6.4.4 Implementation Process^b			
6.4.5 System Integration Process			
System Integration 2. a) a strategy is developed to integrate the system according to the priorities of the system requirements;	6.4.5.2a)	6.4.8.2a)	Integration 2. a) Integration constraints that influence system requirements, architecture, or design, including interfaces, are identified.
	6.4.5.2a)	6.4.8.2b)	Integration 2. b) Approach and checkpoints for the correct operation of the assembled interfaces and system functions are defined.
System Integration 2. b) criteria are developed to verify compliance with the system requirements allocated to the system elements, including the interfaces between system elements;	6.4.5.2b)	6.4.8.2b)	Integration 2. b) Approach and checkpoints for the correct operation of the assembled interfaces and system functions are defined.
	6.4.5.2b)	6.4.8.2e)	Integration 2. e) The interfaces between the implemented system elements that compose the system are checked.
System Integration 2. c) the system integration is verified using the defined criteria;	6.4.5.2c)	6.4.8.2b)	Integration 2. b) Approach and checkpoints for the correct operation of the assembled interfaces and system functions are defined.
	6.4.5.2c)	6.4.8.2e)	Integration 2. e) The interfaces between the implemented system elements that compose the system are checked.
	6.4.5.2c)	6.4.8.2f)	Integration 2. f) The interfaces between the system and the external environment are checked.
	6.4.5.2c)	6.4.8.2g)	Integration 2. g) Integration results and anomalies are identified.
	6.4.5.2c)	6.4.9.2c)	Verification 2. c) The system or system element is verified.
System Integration 2. d) a regression strategy is developed and applied for re-testing the system when changes are made;	6.4.5.2d)	6.4.8.2b)	Integration 2. b) Approach and checkpoints for the correct operation of the assembled interfaces and system functions are defined.
	6.4.5.2d)	6.4.9.2c)	Verification 2. c) The system or system element is verified.

^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available".

^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
System Integration 2. e) consistency and traceability are established between the system design and the integrated system elements;	6.4.5.2e)	6.4.8.2h)	Integration 2. h) Traceability of the integrated system elements is established.
System Integration 2. f) an integrated system is constructed that demonstrates compliance with the system design;	6.4.5.2f)	6.4.8.2d)	Integration 2. d) A system composed of implemented system elements is integrated.
System Integration 2. g) an integrated system is constructed that demonstrates that a complete set of usable deliverable system elements exists.	6.4.5.2g)	6.4.8.2d)	Integration 2. d) A system composed of implemented system elements is integrated.
6.4.6 System Qualification Testing Process			
System Qualification Testing 2. a) criteria for evaluating compliance with system requirements are developed;	6.4.6.2a)	6.4.9.2a)	Verification 2. a) Constraints of verification that influence the requirements, architecture, or design are identified.
System Qualification Testing 2. b) the integrated system is tested using the defined criteria;	6.4.6.2b)	6.4.9.2c)	Verification 2. c) The system or system element is verified.
System Qualification Testing 2. c) test results are recorded;	6.4.6.2c)	6.4.9.2e)	Verification 2. e) Objective evidence that the realized system fulfills the requirements, architecture and design is provided.
	6.4.6.2c)	6.4.9.2f)	Verification 2. f) Verification results and anomalies are identified.
System Qualification Testing 2. d) readiness of the system for delivery is assured.	6.4.6.2d)	6.3.8.2c)	Quality Assurance 2. c) Evaluations of the project's products, services, and processes are performed, consistent with quality management policies, procedures, and requirements.
6.4.7 Software Installation Process			
Software Installation 2. a) a software installation strategy is developed;	6.4.7.2a)	6.4.10.2a)	Transition 2. a) Transition constraints that influence system/software requirements, architecture, or design are identified.
Software Installation 2. b) criteria for software installation are developed that demonstrate compliance with the software installation requirements;	6.4.7.2b)	6.4.10.2a)	Transition 2. a) Transition constraints that influence system/software requirements, architecture, or design are identified.
	6.4.7.2b)	6.4.10.2h)	Transition 2. h) Traceability of the transitioned elements is established.
Software Installation 2. c) the software product is installed in the target environment;	6.4.7.2c)	6.4.10.2g)	Transition 2. g) The installed system is activated and ready for operation.
Software Installation 2. d) readiness of the software product for use in its intended environment is assured. (*)	6.4.7.2d)	6.4.10.2c)	Transition 2. c) The site is prepared.
	6.4.7.2d)	6.4.10.2d)	Transition 2. d) The system, as installed in its operational location, is capable of delivering its specified functions.
	6.4.7.2d)	6.4.10.2e)	Transition 2. e) Operators, users and other stakeholders necessary to the system utilization and support are trained.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available". ^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
	6.4.7.2d)	6.4.10.2f)	Transition 2. f) Transition results and anomalies are identified.
	6.4.7.2d)	6.4.10.2g)	Transition 2. g) The installed system is activated and ready for operation.
6.4.8 Software Acceptance Support Process			
Software Acceptance Support 2. a) the product is completed and delivered to the acquirer; (*)	6.4.8.2a)	6.4.10.2d)	Transition 2. d) The system, as installed in its operational location, is capable of delivering its specified functions.
Software Acceptance Support 2. b) acquirer acceptance tests and reviews are supported;	6.4.8.2b)	6.4.10.2d)	Transition 2. d) The system, as installed in its operational location, is capable of delivering its specified functions.
	6.4.8.2b)	6.4.11.2b)	Validation 2. b) The availability of services required by stakeholders is confirmed.
	6.4.8.2b)	6.4.11.2d)	Validation 2. d) The system or system element is validated.
Software Acceptance Support 2. c) the product is put into operation in the customers' environment;	6.4.8.2c)	6.4.10.2e)	Transition 2. e) Operators, users and other stakeholders necessary to the system utilization and support are trained.
	6.4.8.2c)	6.4.10.2g)	Transition 2. g) The installed system is activated and ready for operation.
	6.4.8.2c)	6.4.11.2b)	Validation 2. b) The availability of services required by stakeholders is confirmed.
	6.4.8.2c)	6.4.12.2d)	Operation 2. d) System product services that meet stakeholder requirements are delivered.
Software Acceptance Support 2. d) Problems detected during acceptance are identified and communicated to those responsible for resolution.	6.4.8.2d)	6.4.10.2f)	Transition 2. f) Transition results and anomalies are identified.
	6.4.8.2d)	6.4.11.2f)	Validation 2. f) Validation results and anomalies are identified.
6.4.9 Software Operation Process			
Software Operation 2. a) an operation strategy is defined;	6.4.9.2a)	6.4.12.2a)	Operation 2. a) Operation constraints that influence system/software requirements, architecture, or design are identified.
Software Operation 2. b) conditions for correct operation of the software in its intended environment are identified and evaluated; (*)	6.4.9.2b)	6.4.12.2a)	Operation 2. a) Operation constraints that influence system/software requirements, architecture, or design are identified.
	6.4.9.2b)	6.4.12.2e)	Operation 2. e) System product performance during operation is monitored.
Software Operation 2. c) the software is tested and determined to operate in its intended environment;	6.4.9.2c)	6.4.11.2d)	Validation 2. d) The system or system element is validated.
Software Operation 2. d) the software is operated in its intended environment;	6.4.9.2d)	6.4.12.2d)	Operation 2. d) System product services that meet stakeholder requirements are delivered.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available". ^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
Software Operation 2. e) assistance and consultation is provided to the customers of the software product in accordance with the agreement.	6.4.9.2e)	6.4.12.2f)	Operation 2. f) Support to the customer is provided.
6.4.10 Software Maintenance Process			
Software Maintenance 2. a) a maintenance strategy is developed to manage modification and migration of products according to the release strategy;	6.4.10.2a)	6.4.13.2a)	Maintenance 2. a) Maintenance constraints that influence system requirements, architecture, or design are identified.
Software Maintenance 2. b) the impact of changes to the existing system on organization, operations or interfaces are identified;	6.4.10.2b)	6.4.13.2a)	Maintenance 2. a) Maintenance constraints that influence system requirements, architecture, or design are identified.
	6.4.10.2b)	6.4.13.2d)	Maintenance 2. d) The need for changes to address corrective, perfective, or adaptive maintenance is reported.
	6.4.10.2b)	6.4.13.2e)	Maintenance 2. e) Failure and lifetime data, including associated costs, is determined.
Software Maintenance 2. c) affected system and software documentation is updated as needed;	6.4.10.2c)	6.4.13.2c)	Maintenance 2 c) Replacement, repaired, or revised system elements are made available.
Software Maintenance 2. d) modified products are developed with associated tests that demonstrate that requirements are not compromised; (*)	6.4.10.2d)	6.4.13.2c)	Maintenance 2 c) Replacement, repaired, or revised system elements are made available.
Software Maintenance 2. e) product upgrades are migrated to the customer's environment; (*)	6.4.10.2e)	6.4.13.2c)	Maintenance 2 c) Replacement, repaired, or revised system elements are made available.
Software Maintenance 6. f) the system software modification is communicated to all affected parties.	6.4.10.2f)	6.4.13.2c)	Maintenance 2 c) Replacement, repaired, or revised system elements are made available.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available".			
^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
6.4.11 Software Disposal Process			
Software Disposal 2. a) a software disposal strategy is defined; (*)	6.4.11.2a)	6.4.14.2a)	Disposal 2. a) Disposal constraints are provided as inputs to requirements, architecture, design, and implementation.
Software Disposal 2. b) disposal constraints are provided as inputs to requirements;	6.4.11.2b)	6.4.14.2a)	Disposal 2. a) Disposal constraints are provided as inputs to requirements, architecture, design, and implementation.
Software Disposal 2. c) the system's software elements are destroyed or stored;(*)	6.4.11.2c)	6.4.14.2c)	Disposal 2. c) The system elements or waste products are destroyed, stored, reclaimed or recycled in accordance with requirements, e.g., safety and security requirements.
Software Disposal 2. d) the environment is left in an agreed-upon state;	6.4.11.2d)	6.4.14.2d)	Disposal 2. d) The environment is returned to its original or an agreed state.
Software Disposal 2. e) records allowing knowledge retention of disposal actions and any analysis of long-term impacts are available.	6.4.11.2e)	6.4.14.2e)	Disposal 2. e) Records of disposal actions and analysis are available.
7.1.1 Software Implementation Process			
Software Implementation 2. a) an implementation strategy is defined;	7.1.1.2a)	6.4.7.2a)	Implementation 2. a) Implementation constraints that influence the requirements, architecture, or design are identified.
Software Implementation 2. b) implementation technology constraints on the design are identified;	7.1.1.2b)	6.4.7.2a)	Implementation 2. a) Implementation constraints that influence the requirements, architecture, or design are identified.
Software Implementation 2. c) a software item is realized;	7.1.1.2c)	6.4.7.2b)	Implementation 2. b) A system element is realized.
Software Implementation 2. d) a software item is packaged and stored in accordance with an agreement for its supply.	7.1.1.2d)	6.4.7.2c)	Implementation 2. c) A system element is packaged or stored.
7.1.2 Software Requirements Analysis Process			
Software Requirements Analysis 2. a) the requirements allocated to the software elements of the system and their interfaces are defined;	7.1.2.2a)	6.4.3.2a)	System/Software requirements definition 2. a) The system or element description, including interfaces, functions and boundaries, for a system solution is defined.
	7.1.2.2a)	6.4.3.2b)	System/Software requirements definition 2. b) System/software requirements (functional, performance, process, non-functional, and interface) and design constraints are defined.
Software Requirements Analysis 2. b) software requirements are analyzed for correctness and testability;	7.1.2.2b)	6.4.3.2d)	System/Software requirements definition 2. d) The system/software requirements are analyzed.
Software Requirements Analysis 2. c) the impact of software requirements on the operating environment is understood;	7.1.2.2c)	6.4.3.2c)	System/Software requirements definition 2. c) Critical performance measures are defined.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase "Any enabling systems or services needed are available".			
^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
	7.1.2.2c)	6.4.3.2d)	System/Software requirements definition 2. d) The system/software requirements are analyzed.
Software Requirements Analysis 2. d) consistency and traceability are established between the software requirements and system requirements;	7.1.2.2d)	6.4.3.2f)	System/Software requirements definition 2. f) Traceability of system/software requirements to stakeholder requirements is developed.
Software Requirements Analysis 2. e) prioritization for implementing the software requirements is defined;	7.1.2.2e)	6.4.3.2b)	System/Software requirements definition 2. b) System/software requirements (functional, performance, process, non-functional, and interface) and design constraints are defined.
Software Requirements Analysis 2. f) the software requirements are approved and updated as needed;	7.1.2.2f)	6.4.3.2b)	System/Software requirements definition 2. b) System/software requirements (functional, performance, process, non-functional, and interface) and design constraints are defined.
Software Requirements Analysis 2. g) changes to the software requirements are evaluated for cost, schedule and technical impact;	7.1.2.2g)	6.4.3.2d)	System/Software requirements definition 2. d) The system/software requirements are analyzed.
Software Requirements Analysis 2. h) the software requirements are baselined and communicated to all affected parties;	7.1.2.2h)	6.4.3.2b)	System/Software requirements definition 2. b) System/software requirements (functional, performance, process, non-functional, and interface) and design constraints are defined.
7.1.3 Software Architectural Design Process			
Software Architecture Design 2. a) a software architectural design is developed and baselined that describes the software items that will implement the software requirements;	7.1.3.2a)	6.4.4.2a)	Architecture Definition 2. a) Identified stakeholder concerns are addressed by the architecture.
	7.1.3.2a)	6.4.4.2b)	Architecture Definition 2. b) Architecture viewpoints are developed.
	7.1.3.2a)	6.4.4.2d)	Architecture Definition 2. d) Architecture views and models of the system are developed.
	7.1.3.2a)	6.4.4.2e)	Architecture Definition 2. e) Concepts, properties, characteristics, behaviors, functions, or constraints that are significant to architecture decisions of the system are allocated to architectural entities.
	7.1.3.2a)	6.4.4.2f)	Architecture Definition 2. f) System elements and their interfaces are identified.
	7.1.3.2a)	6.4.4.2g)	Architecture Definition 2. g) Architecture candidates are assessed.
	7.1.3.2a)	6.4.4.2h)	Architecture Definition 2. h) An architectural basis for processes throughout the life cycle is achieved.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase “Any enabling systems or services needed are available”. ^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			

Table 2 (continued)

Outcomes (ISO/IEC 12207:2008)	Sub clause	Sub clause	Outcomes (ISO/IEC/IEEE 12207:2017)
	7.1.3.2a)	6.4.4.2 i)	Architecture Definition 2. i) Alignment of the architecture with requirements and design characteristics is achieved.
Software Architecture Design 2. b) internal and external interfaces of each software item are defined;	7.1.3.2b)	6.4.4.2c)	Architecture Definition 2. c) Context, boundaries, and external interfaces of the system are defined.
	7.1.3.2b)	6.4.4.2f)	Architecture Definition 2. f) System elements and their interfaces are identified.
Software Architecture Design 2. c) consistency and traceability are established between software requirements and software design.	7.1.3.2c)	6.4.4.2a)	Architecture Definition 2. a) Identified stakeholder concerns are addressed by the architecture.
	7.1.3.2c)	6.4.4.2 i)	Architecture Definition 2. i) Alignment of the architecture with requirements and design characteristics is achieved.
	7.1.3.2c)	6.4.4.2k)	Architecture Definition 2. k) Traceability of architecture elements to stakeholder and system/software requirements is developed.
7.1.4 Software Detailed Design Process			
Software Detailed Design 2. a) a detailed design of each software component, describing the software units to be built, is developed;	7.1.4.2a)	6.4.5.2a)	Design Definition 2. a) Design characteristics of each system element are defined.
	7.1.4.2a)	6.4.5.2b)	Design Definition 2. b) System/software requirements are allocated to system elements.
	7.1.4.2a)	6.4.5.2c)	Design Definition 2. c) Design enablers necessary for design definition are selected or defined.
	7.1.4.2a)	6.4.5.2e)	Design Definition 2. e) Design alternatives for system elements are assessed.
	7.1.4.2a)	6.4.5.2f)	Design Definition 2. f) Design artifacts are developed.
Software Detailed Design 2. b) external interfaces of each software unit are defined;	7.1.4.2b)	6.4.5.2d)	Design Definition 2. d) Interfaces between system elements composing the system are defined or refined.
Software Detailed Design 2. c) consistency and traceability are established between the detailed design and the requirements and architectural design.	7.1.4.2c)	6.4.5.2b)	Design Definition 2. b) System/software requirements are allocated to system elements.
	7.1.4.2c)	6.4.5.2h)	Design Definition 2. h) Traceability of the design characteristics to the architectural entities of the system architecture is established.
7.1.5 Software Construction Process			
Software Construction 2. a) verification criteria are defined for all software units against their requirements;	7.1.5.2a)	6.4.7.2a)	Implementation 2. a) Implementation constraints that influence the requirements, architecture, or design are identified.
^a 6.2.2 Infrastructure Management 2.d) of ISO/IEC 12207:2008 contributes to such outcome of each technical process in clause 6.4 of ISO/IEC/IEEE 12207:2017 that includes the phrase “Any enabling systems or services needed are available”. ^b See outcomes for 7.1.1 Software Implementation Process of ISO/IEC 12207:2008, because 6.4.4 does not provide outcomes and describes 7.1.1 replaces this process to implement a software product, service or a software element of a system.			