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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

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- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/IEC DIS 29110-5-6-1

Systems and software engineering — Life cycle profiles for very small entities (VSEs) —

Part 5-6-1: System engineering guidelines for the generic entry profile

ICS: 35.080

ISO/IEC JTC 1/SC 7

Secretariat: **BIS**

Voting begins on:
2025-07-17

Voting terminates on:
2025-10-09

This document is circulated as received from the committee secretariat.

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Foreword

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

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

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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. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

This first edition replaces the ISO/IEC TR 29110-5-6-1:2015, which has been technically revised.

The main changes are as follows:

- Many task statements have been reworded to facilitate their understanding.
- Conditional tasks have been added to develop optional work products (e.g. operation guide) that have been requested by a customer. This notation replaces the 'Optional' notation [e.g. *(optional)] used in the TR that caused ambiguities.

A list of all parts in the ISO/IEC 29110 series can be found on the ISO and IEC websites.

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 and www.iec.ch/national-committees

Introduction

0.1 Introduction to the ISO/IEC 29110 series

For the purpose of the ISO/IEC 29110 series, a VSE is an enterprise, organization (e.g., government agency, non-profit organization), department or project having up to 25 people. Many VSEs develop and/or maintain systems and the software components used in those systems, either as independent products or incorporated into the larger system. Due to this a recognition of VSEs as suppliers of high-quality products is required.

Very small entities (VSEs) around the world are creating valuable products and services. According to the World Bank, small and medium-sized enterprises (SMEs) account for about 90 % of enterprises worldwide. According to the Organisation for Economic Co-operation and Development (OECD), SMEs represent 99 % of all businesses and generate about 60 % of employment. Almost one person out of three is employed in a micro firm with less than 10 employees. The European Union reports that micro firms, with fewer than 10 persons, account for 93.5 % of all enterprises and small firms, with 10 to 49 employees, account for 5.5 % of all enterprises. The challenge facing OECD governments is to provide a business environment that supports the competitiveness of this large heterogeneous business population and that promotes a vibrant entrepreneurial culture.

From studies and surveys conducted, the majority of International Standards do not address the needs of VSEs. Implementation of and conformity with these standards is difficult, if not impossible.

Consequently, VSEs have no, or very limited, ways to be recognized as entities that produce quality systems/system elements including software in their domain. Therefore, VSEs are excluded from some economic activities.

It has been found that VSEs find it difficult to relate International Standards to their business needs and to justify the effort required to apply standards to their business practices. Most VSEs can neither afford the resources, in terms of number of employees, expertise, budget and time, nor do they see a net benefit in establishing over-complex systems or software life cycle processes. To address some of these difficulties, a set of guidelines has been developed based on a set of VSE characteristics. The guidelines are based on subsets of appropriate standards processes, activities, tasks, and outcomes, referred to as Profiles. The purpose of a profile is to define a subset of International Standards relevant to the VSEs' context; for example, processes, activities, tasks, and outcomes of ISO/IEC/IEEE 12207 for software; and processes, activities, tasks, and outcomes of ISO/IEC/IEEE 15288 for systems; and information products (documentation) of ISO/IEC/IEEE 15289 for systems and software.

VSEs can achieve recognition through implementing a profile and by being audited against ISO/IEC 29110 specifications.

The ISO/IEC 29110 series can be applied at any phase of system or software development within a life cycle. The ISO/IEC 29110 series is intended to be used by VSEs that do not have experience or expertise in adapting/tailoring ISO/IEC/IEEE 12207 or ISO/IEC/IEEE 15288 standards to the needs of a specific project. VSEs that have expertise in adapting/tailoring ISO/IEC/IEEE 12207 or ISO/IEC/IEEE 15288 are encouraged to use those standards instead of the ISO/IEC 29110 series.

The ISO/IEC 29110 series is intended to be used with any life cycle such as: waterfall, iterative, incremental, evolutionary or agile.

Systems, in the context of the ISO/IEC 29110 series, are typically composed of hardware and software components.

The ISO/IEC 29110 series, targeted by audience, has been developed to improve system or software and/or service quality, and process performance. Figure 1 describes the ISO/IEC 29110 series and positions the parts within the framework of reference.

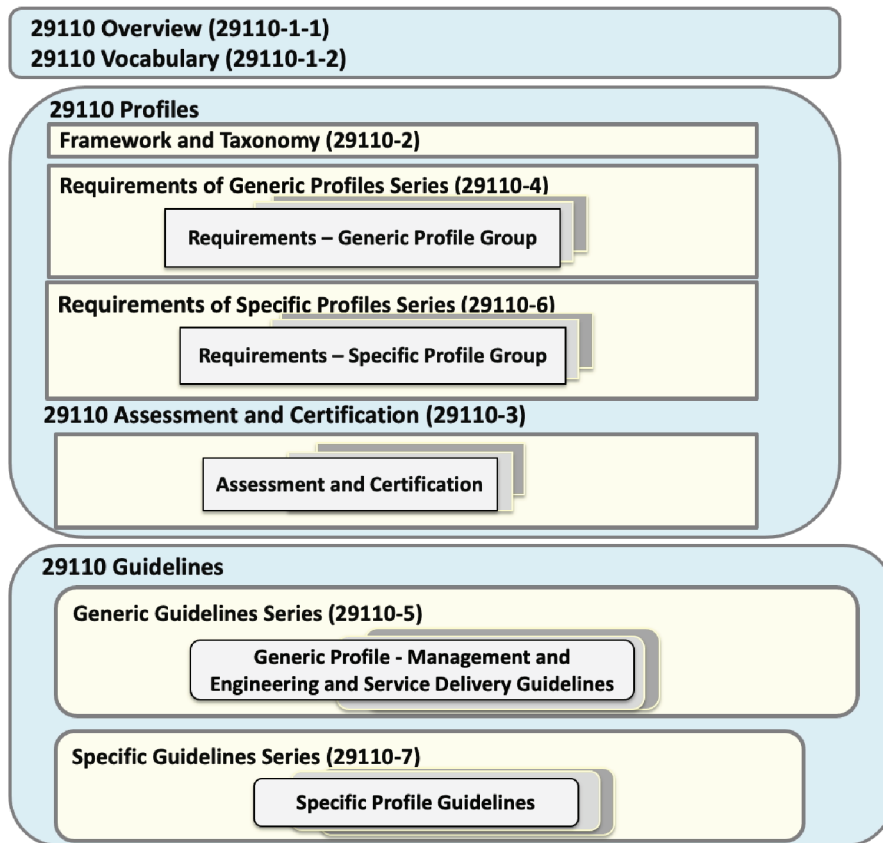


Figure 1 — ISO/IEC 29110 series

ISO/IEC 29110-1-1 introduces processes, life cycle and standardization concepts, the taxonomy (catalogue) of ISO/IEC 29110 profiles and the ISO/IEC 29110 series. ISO/IEC 29110-1-1 also introduces the characteristics and needs of a VSE, and clarifies the rationale for specific profiles, documents, standards and guidelines. ISO/IEC 29110-1-2 defines the terms common to the ISO/IEC 29110 series. ISO/IEC 29110-1-1 and ISO/IEC 29110-1-2 are targeted at VSEs and their customers, assessors, standards producers, tool vendors and methodology vendors.

ISO/IEC 29110-2 introduces the concepts for systems and software engineering profiles for VSEs. It establishes the logic behind the definition and application of profiles. For standardized profiles, it specifies the elements common to all profiles (structure, requirements, conformity, and assessment). For domain-specific profiles (profiles that are not standardized and developed outside of the ISO process), it provides general guidance adapted from the definition of standardized profiles. ISO/IEC 29110-2 is targeted at profile producers, tool vendors and methodology vendors.

ISO/IEC 29110-3 defines certification schemes, assessment guidelines and compliance requirements for process capability assessment, conformity assessments, and self-assessments for process improvements. ISO/IEC 29110-3 also contains information that can be useful to developers of certification and assessment methods and developers of certification and assessment tools. ISO/IEC 29110-3 is addressed to people who have direct involvement with the assessment process, e.g., the auditor, certification and accreditation bodies and the sponsor of the audit, who need guidance on ensuring that the requirements for performing an audit have been met. ISO/IEC 29110-3 is targeted at VSEs and their customers, assessors, accreditation bodies.

ISO/IEC 29110-4 provides the specifications for all generic profiles of the Generic profile group that are based on subsets of appropriate standards elements. ISO/IEC 29110-4 is targeted at VSEs, customers, standards producers, tool vendors and methodology vendors.

ISO/IEC 29110-5 provides a management, engineering and service delivery guidelines for profiles of the Generic profile group. ISO/IEC 29110-5 is targeted at VSEs and their customers.

ISO/IEC 29110-6 provides the specifications for specific profiles that are based on subsets of appropriate standards elements. ISO/IEC 29110-6 is targeted at VSEs, customers, standards producers, tool vendors and methodology vendors.

ISO/IEC 29110-7 provides a guideline for each profile of the specific profile group. ISO/IEC 29110-7 is targeted at VSEs and their customers.

If a new profile is needed, ISO/IEC 29110-4 or ISO/IEC 29110-6 and or ISO/IEC 29110-7, ISO/IEC 29110-5 can be developed with minimal impact to existing documents.

0.2 Introduction to this document

This document is the first profile of a four-profile systems engineering roadmap (i.e. Entry, Basic, Intermediate and Advanced).

The Entry profile describes the development by VSEs who started their operation less than 3 years and/or a VSE working on small projects (e.g. project size of less than 6 person-months).

Since a VSE may be an enterprise, a project or a department of an organization, a customer of a VSE can be internal or external to the organization.

This document is intended to be used by VSEs to support the product which they developed or are developing.

This document is intended to be used by VSEs to add accessibility tasks to the implementation process.

This document is intended to be used with any processes, techniques and methods that enhance the VSE's customer satisfaction and productivity.

The life cycle processes described in the ISO/IEC 29110 series are not intended to preclude or discourage their use by organizations larger than VSEs.

This document applies for the development of non-safety critical systems.

The outcomes and tasks are guidance, not requirements, for purposes of process assessment.

Using this document, a VSE can obtain the following benefits:

- A documented project plan, that provides the structure and guidance for execution of the project visibility and corrective actions of project problems and deviations, is performed;
- A documented set of project requirements (technical part of contract) for the expected product are agreed to by the acquirer;
- A foundation for rapid advancement to higher profiles in program management and systematic system definition and realization process in the systems engineering roadmap. for program management

To use this guideline, the VSE should ensure the following entry conditions:

- project needs and expectations are realized and documented;
- feasibility of the project was performed;
- project team, including project manager and system engineer, assigned;
- goods, services, and infrastructure to start the project are available.

VSEs developing software that is part of a system, and for stand-alone software products and services are encouraged to use the management and engineering guidelines of the Entry Profile (ISO/IEC 29110-5-1-1).

Conformity requirements for implementations of this document can be found in ISO/IEC 29110-4-6¹⁾

1) To be published

Systems and software engineering — Life cycle profiles for very small entities (VSEs) —

Part 5-6-1: System engineering guidelines for the generic entry profile

1 Scope

1.1 Fields of application

This document describes processes targeted at VSEs who are in Stage 1 of the business lifecycle [ref to Five Stages of Small-Business Growth]. The VSE is in start-up mode and is working on single projects consisting of less than 6 person-months.

VSEs developing software that is part of a larger system and for stand-alone software products and services are encouraged to use the software management and engineering guidelines of the Entry profile (ISO/IEC 29110-5-1-1).

1.2 Target Audience

This document is targeted at VSEs who do not develop critical systems and do not have experience with systems engineering (SE) process planning and implementation using the ISO/IEC/IEEE 15288.

This document is intended to be used with any processes, techniques and methods that enhance the VSE's stakeholder's satisfaction and productivity.

2 Normative references

This document has no normative references.

3 Terms and definitions

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

acquirer

stakeholder that acquires or procures a product or service from a supplier

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

[SOURCE: ISO/IEC/IEEE 15288:2023, 3.1]

3.2

activity

set of cohesive tasks of a process

[SOURCE: ISO/IEC/IEEE 12207:2017, 3.1.3]

3.3

Advanced profile

profile targeted at VSEs which want to sustain and grow as a competitive system and/or software development organization

[SOURCE: ISO/IEC 29110-1-2: 2024]

3.4

agreement

mutual acknowledgement of terms and conditions under which a working relationship is conducted

EXAMPLE Contract, memorandum of agreement.

[SOURCE: ISO/IEC/IEEE 15288:2023, 3.4]

3.5

Basic profile

profile targeted at VSEs developing a single product by a single work team

[SOURCE: ISO/IEC 29110-1-2: 2024]

3.6

conditional task

task that can be mandatory under some specified condition(s), can be optional under other specified conditions, and can be out of scope or not applicable under other specified conditions

Note 1 to entry: These are to be observed if the specified condition(s) apply.

[SOURCE: ISO/IEC 29110-1-2: 2024]

3.7

Safety critical system

System whose failure or malfunction can result in one (or more) of the following outcomes: death or serious injury to people, loss or severe damage to equipment or property, or environmental harm

3.8

Data model

List of data items provided to and developed by the VSE in support of the product or service delivery

3.9

Data repository

The location where project data items are stored by the VSE

3.10

disposed system

system that has been transformed (i.e. state change) by applying the disposal process

Note 1 to entry: A systems approach considers the total system and the total life cycle of the system. This includes all aspects of the system throughout its life until the day users dispose of the system and the external enterprises complete the handling of the disposed system products.

3.11

Entry profile

profile targeted at start-up VSEs (i.e. VSEs who started their operation less than 3 years) and/or at VSEs working on small projects (e.g. project size of less than 6 person-months)

[SOURCE: ISO/IEC 29110-1-2: 2024, 3.42]

3.12

Intermediate profile

profile targeted at VSEs involved in the development of more than one project in parallel with more than one work team

[SOURCE: ISO/IEC 29110-1-2: 2024]

3.13

operator

individual or organization that performs the operations of a system

Note 1 to entry: The role of operator and the role of user can be vested, simultaneously or sequentially, in the same individual or organization.

Note 2 to entry: An individual operator combined with knowledge, skills and procedures can be considered as an element of the system.

Note 3 to entry: An operator may perform operations on a system that is operated, or of a system that is operated, depending on whether the operating instructions are placed within the system boundary.

[SOURCE: ISO/IEC/IEEE 15288:2023, 3.24]

3.14

profile

subset of appropriate standards' processes and their outcomes, activities and tasks combined to accomplish a particular function

Note 1 to entry: The base standards used to develop profiles for VSEs are the ISO/IEC/IEEE 12207, the ISO/IEC/IEEE 15288 and the ISO/IEC/IEEE 15289

[SOURCE: ISO/IEC 29110-1-2: 2024]

3.15

process

set of interrelated or interacting activities that transforms inputs into outputs

[SOURCE: ISO/IEC/IEEE 12207:2017, 3.1.33]

3.16

Small and medium enterprise (SME)

SME

enterprise which employs fewer than 250 persons

[SOURCE: ISO/IEC 29110-1-2:2024]

3.17

stakeholder

individual or organization having a right, share, claim, or interest in a system or in its possession of characteristics that meet their needs and expectations

[SOURCE: ISO/IEC/IEEE 12207:2017, 3.1.59, modified — EXAMPLE and note 1 to entry have been removed.]

3.18

system

arrangement of parts or elements that together exhibit a stated behaviour or meaning that the individual constituents do not

Note 1 to entry: A system is sometimes considered as a product or as the services it provides.

Note 2 to entry: In practice, the interpretation of its meaning is frequently clarified by the use of an associative noun, e.g. aircraft system. Alternatively, the word "system" is substituted simply by a context-dependent synonym, e.g., aircraft, though this potentially obscures a system principles perspective.

Note 3 to entry: A complete system includes all of the associated equipment, facilities, material, computer programs, firmware, technical documentation, services and personnel required for operations and support to the degree necessary for self-sufficient use in its intended environment.

[SOURCE: ISO/IEC/IEEE 15288:2023, 3.46]

3.19

task

required, recommended, or permissible action, intended to contribute to the achievement of one or more outcomes of a process

[SOURCE: ISO/IEC/IEEE 12207:2017, 3.1.66]

3.20

trade-off

decision-making actions that select from various requirements and alternative solutions on the basis of net benefit to the stakeholders

3.21

system structure

the decomposition of a system of interest into a set of interacting systems and system elements

Note 1 to entry: The system structure is described in a System Breakdown Structure (SBS).

[SOURCE: ISO/IEC/IEEE 15288:2023]

3.22

user

individual or group that interacts with a system or benefits from a system during its utilization

Note 1 to entry: The role of user and the role of operator are sometimes vested, simultaneously or sequentially, in the same individual or organization.

[SOURCE: ISO/IEC/IEEE 15288:2023, 3.53]

3.23

very small entity

VSE

enterprise, organization, department or project having up to 25 people

[SOURCE: ISO/IEC 29110-1-2:2024]

3.24

work breakdown structure

WBS

deliverable-oriented hierarchical decomposition of the work to be executed by the project team to accomplish the project objectives and create the required deliverables

[SOURCE: ISO/IEC/IEEE 26511:2018, 3.1.42]

3.25

work product

artefact produced by a process

[SOURCE: ISO/IEC 15940:2013, 3.5]

Note 1 to entry: Definitions for other system and software engineering terms can be found in ISO/IEC/IEEE 24765, available at www.computer.org/sevocab.

4 Conventions and abbreviated terms

4.1 General

Conventions for naming, diagramming, describing and defining profiles are defined in ISO/IEC 29110-2-1:2015.

4.2 Naming, diagramming and definition conventions

The following process structure description and notation are used to describe the processes:

Process name – process identifier, followed by its abbreviation in parentheses “()”.

Process purpose – the high-level objective and results expected of the effective implementation of the process. The implementation of the process should provide tangible benefits to the stakeholders.

Process outcomes – the process outcomes are identified by the abbreviation of the process name, followed by the letter “O” and a consecutive number, for example PM.O1, SR.O2.

Input work products – work products required to perform the process and its corresponding source, which can be another process or an external entity to the project, such as the acquirer. Input work products are identified by the abbreviation of the process name.

Output work products – work products generated by the process and its corresponding destination, which can be another process or an external entity to the project, such as an acquirer. Output work products are identified by the abbreviation of the process name.

Internal work products – work products generated (i.e. output work product) and consumed (i.e. input work product) by the process. Internal work products are identified by the abbreviation of the process name. An internal work product is not reviewed or approved by the customer.

All work products’ names begin with capital letters. Some work products have one or more states attached to the work product name surrounded by square brackets “[]” and separated by “,”. The work product state may change during the process execution. See Clause 14 for the alphabetical listing of the work products, its descriptions, possible states and the source of the work product. The source can be another process or an external entity to the project, such as the acquirer.

Roles involved – names and abbreviation of the functions to be performed by project team members. Several roles may be performed by a single person and one role may be assumed by several persons. Roles are assigned to project participants based on the characteristics of the project. The role list is identified by the abbreviation of the process name and shown as a two-column table. See Clause 13 for the alphabetical list of the roles, its abbreviations and required competencies description.

Diagram – graphical representation of the processes. The large round-edged rectangles indicate process or activities, and the smaller square-edged rectangles indicate the work products. The directional or bidirectional thick arrows indicate the major flow of information between processes or activities. The thin directional arrows indicate the input or output work products. The notation used in the diagrams does not imply the use of any specific process life cycle.

Activity – a set of cohesive tasks. A task is a requirement, recommendation, or permissible action, intended to contribute to the achievement of one or more outcomes of a process. A process activity is the first level of process workflow decomposition and the second one is a task. Activities are identified by process name abbreviation followed by consecutive number and the activity name.

Activity description – each activity description is identified by the activity name and the list of related outcomes surrounded by parenthesis “()”. For example, PM.O1 project planning (PM.O1, PM.O5, PM.O6, and PM.O7) means that the activity PM.1 project planning contributes to the achievement of the listed outcomes: PM.O1, PM.O5, PM.O6 and PM.O7. The activity description begins with the task summary and is followed by the task descriptions table.

Task description - Each task description begins with an active verb (e.g. assign, test) and is followed by an object (e.g. review the project plan). The task description doesn't impose any technique or method to perform it. The selection of the techniques or methods is left to the VSE or project team.

Tasks description tables contain four columns corresponding to:

- Role – the abbreviation of roles involved in the task execution.
- Task – description of the task to be performed. Each task is identified by activity ID and consecutive number, for example PM.01.01, PM.01.02, and so on. Notes are added to provide additional information intended to assist the understanding or use of tasks. Each note is numbered using the following notation: x).
- Input work products – work products needed to execute the task.
- Output work products – work products created or modified by the execution of the task.

NOTE 1 A conditional task is executed if its associated work product (e.g. software user documentation) is required by the customer and listed in the delivery instructions. A conditional task statement is preceded with this text: " x) Conditional task". A work product associated to a conditional task is identified as an 'optional' work product.

Organizational repository – list of work products to be saved in organizational repository; the configuration management strategy should be applied to some of them.

NOTE 2 Tables used in process description are for presentation purpose only. The tables are not prescribing a waterfall approach.

NOTE 3 The term 'Entry' is using a capital 'E' to indicate an ISO/IEC 29110 profile (e.g., the Entry profile) while the term 'entry' is used when referring to the act of entering a place or something written or printed in a dictionary, account book.

4.3 Abbreviated terms

The following abbreviations are used in this document:

AGR	agreement
IVV	integration, verification, validation
PM	project management
PJM	project manager
SDD	system design document
SEP	systems engineering plan
SR	system definition and realization
SMART	specific, measurable, achievable, relevant and traceable
SME	small and medium enterprise
WBS	work breakdown structure
WP	work product

4.4 Systems thinking

The traditional approach to solve a problem is called artisan. This approach focuses on dividing a problem into small parts and, once resolved each part is resolved, the whole problem is solved. This approach, however, has limitations because the insight of the whole system can be lost. To overcome this limitation, there is the systems thinking concept, which analyses and observes the system as a whole and identifies

the interrelationships among the parts that compose it also with the system environment (e.g. enabling systems).

Systems thinking allows for a better understanding of the systems as a whole: systems thinking is used to broaden the perspective to larger environments by considering the entire life cycle of the system and the different possible applications of the system. Systems can be immersed in different environments and multiple relationships will emerge. Every project has a context in which the system is embedded. Thus, a system is not only composed of software and hardware, but is always part of a larger operation, often involving people and other systems. The designer should clearly understand these relationships before defining a solution.

The “system” perspective enables the design of an optimized system to consider all needs and constraints. This perspective also helps to invent new solutions to meet existing needs or in some cases create new needs.

For this document, systems thinking should be considered when understanding the system to be designed so that, when identifying the requirements, all stakeholders’ needs are considered, as well as the context in which the system should operate. Following this approach, when deploying the requirements in smaller modules, it will help ensure effective integration of the parts.

5 Overview

5.1 Introduction

This document provides the following processes: project management and systems definition and realisation. These processes integrate tasks selected from ISO/IEC/IEEE 15288 and ISO/IEC/IEEE 15289. [Annex A](#) provides information about deployment packages (DPs) which will facilitate the implementation of these processes.

In the Entry, Basic, Intermediate and Advanced profiles of the generic profile group, the boundary between the VSE, its business environment, and its work product were naturally vague, since everyone was focused on one work product.

[Table 1](#) illustrates the four-stage systems engineering roadmap. The 1st column on the left lists the 2 processes of the ISO/IEC 29110-5-6-1 Entry profile. The list of processes of the Basic profile of the 2nd column is incrementally built from the left column, so that the processes for the 2nd column are all the ones from the Entry profile plus new tasks and new work products. The list of the processes of the Intermediate profile of the 3rd column is the process in the second column plus two new processes. The list of process of the Advanced profile of the 4th column is the process in the 3rd column plus one new process.

Table 1 — Systems engineering four-stage roadmap

ISO/IEC 29110-5-6-1 Entry profile	ISO/IEC 29110-5-6-2 Basic profile	ISO/IEC 29110-5-6-3 Intermediate profile	ISO/IEC 29110-5-6-4 Advanced profile
— System definition and realization process — Project management process	Processes of ISO/IEC 29110-5-6-1 and: — Conditional process: acquisition management — additional tasks and work products	Processes of ISO/IEC 29110-5-6-2 and: — Technical management	Processes of ISO/IEC 29110-5-6-3 and: — Conditional process: System transition and disposal process

The purpose of the project management (PM) process is to establish and carry out, in a systematic way, the tasks of the project plan which conform to the project’s objectives for the expected quality, time, cost, and risks.

The purpose of the system definition and realisation (SR) process is the systematic performance of the analysis, design, construction, integration, verification, and validation activities for a new or modified system, according to the specified requirements.

5.2 Processes and activities of the systems engineering Entry profile

This document provides two processes: a project management (PM) process, and a system definition and realization process (SR). The two processes are interrelated as illustrated in [Figure 2](#).

The processes illustrated in [Figure 2](#) are intended to be used with any life cycle such as: waterfall, iterative, incremental, evolutionary or agile.

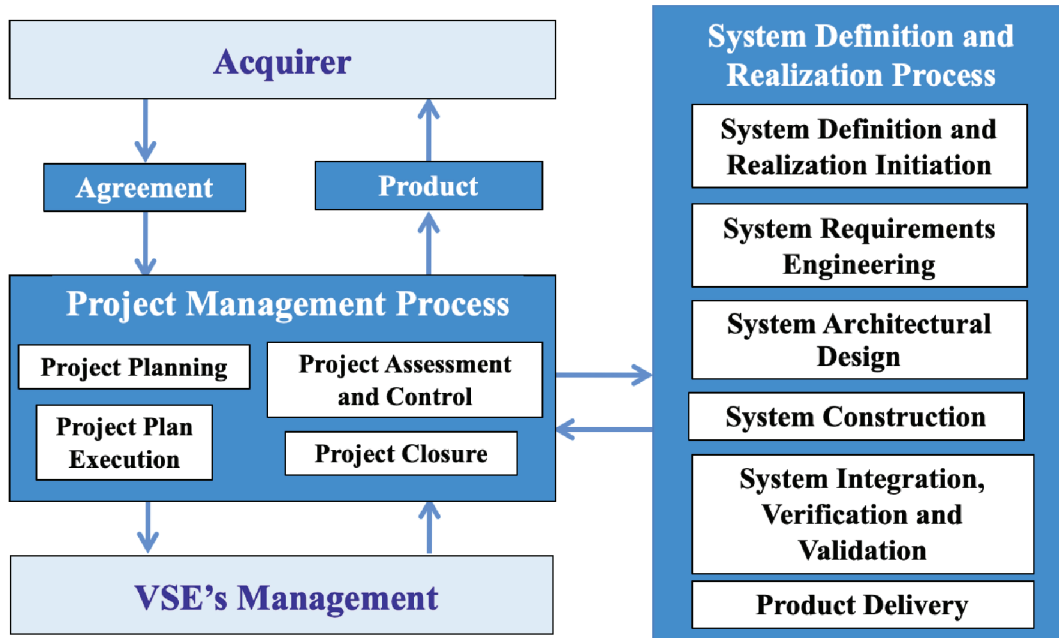


Figure 2 — Entry profile processes

The PM process uses the acquirer's agreement to elaborate the project plan. If there is no agreement available from the acquirer, the PJM, in collaboration with the work team, must clarify the basis to develop the agreement. The PM project assessment and control tasks compare the project progress against the project plan and actions are taken to eliminate deviations or incorporate changes to the project plan. The PM project closure activity ensures delivery of the product (new or modified product), produced by SR (system definition and realization) process, and gets the acquirer's acceptance to formalize the end of the project. A project repository is established to save the work products and to control its versions during the project.

The execution of the SR process is done according to the project plan.

The acquirer provides an agreement (AGR) as an input to project management process and receives products as a result of system definition and realization process execution (see [figure 2](#)).

6 Project management (PM) process

6.1 PM process purpose

The purpose of the project management process is to establish and carry out, in a systematic way, the tasks of the system definition and realization project. This supports compliance with the project's objectives in the expected quality, time, and cost, within the acceptable risks.

This document is intended to be used by the VSE to establish their own tailored processes to implement any development approach or methodology including; agile, evolutionary, incremental, test-driven development, or other. based on the VSE organization or project needs.