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~~Second Edition~~

Systems and software engineering~~—~~ — Life cycle management~~—~~ —

Part 7: Application of systems engineering on ~~defense~~defence programs

Ingénierie des systèmes et du logiciel~~—~~ — Gestion du cycle de vie~~—~~ —

Partie 7: Application de ~~l'ingénierie~~l'ingénierie des systèmes aux programmes de défense

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Foreword

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

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

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

This second edition cancels and replaces the first edition (ISO/IEC/IEEE 24748-7:2019), which has been technically revised.

The main changes are as follows:

— ~~—~~aligned content to ISO/IEC/IEEE 15288:2023 which was recently revised

— ~~—~~converted from original IEEE Std format to ISO format

— ~~—~~updated necessary defence specific language to include outputs

— ——Added/updated defence references

A list of all parts in the ISO/IEC/IEEE 24748 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

For effective and efficient application of ISO/IEC/IEEE 15288 on defence programs, additional application requirements are needed. ISO/IEC/IEEE 15288 is written in a general manner to address all types of systems and different modes of application. Thus, it does not have requirements specific to the use by defence projects that facilitate effective implementation of an acquirer-supplier agreement, such as use in defence contracts.

This document implements ISO/IEC/IEEE 15288 for application on defence programs, providing the defence-specific language and terminology to help ensure the correct application of acquirer-supplier requirements for a defence program. It provides the basis for selection, negotiation, agreement, and performance of necessary systems engineering activities and delivery of products, while allowing flexibility for both innovative implementation and tailoring of the specific systems engineering process(es) to be used by system suppliers, either contractors or government system developers, integrators, maintainers, or sustainers. This document includes the expected or required outputs and associated attributes.

Systems and software engineering~~–~~ — Life cycle management~~–~~ —

Part 7: Application of systems engineering on ~~defense~~defence programs

1 Scope

This document establishes the requirements for systems engineering activities to be performed on projects of defence agencies, including the United States (US) Department of Defense (DoD), across the entire system life cycle. This document implements ISO/IEC/IEEE 15288 for use by defence agencies in acquiring systems or systems engineering support, including the planning, acquisition, operation, modification, and sustainment of defence systems. It provides the foundation for systems engineering within the context of ISO/IEC/IEEE 15288. This document provides detailed requirements for the application of the life cycle processes, activities, and tasks of ISO/IEC/IEEE 15288 for use on any defence system and includes the effective integration of agreement processes, technical processes, technical management processes, organizational project enabling processes, and essential specialty engineering requirements. While primarily supporting the acquirer-supplier agreement mode, this document also can be used to support the other modes: use by organizations, projects, and process assessors.

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 15288:2023, *Systems and software engineering — System life cycle processes*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

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

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

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

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

NOTE For additional terms and definitions in the field of systems and software engineering, see ISO/IEC/IEEE 24765, which is published periodically as a "snapshot" of the SEVOCAB (Systems and software Engineering Vocabulary) database and which is publicly accessible at http://www.computer.org/sevocab.

3.1.1 ~~3.1.1~~

allocated baseline

approved requirements for a product, subsystem or component, describing the functional, performance, interoperability, and interface requirements that are allocated from higher-level requirements and the