



**International
Standard**

**ISO/IEC/IEEE
24748-8**

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

**Part 8:
Technical reviews and audits on
defence programs**

*Ingénierie des systèmes et du logiciel — Gestion du cycle de vie —
Partie 8: Revues techniques et audits des programmes de défense*

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialised 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/IEC documents 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/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 24748-8:2019), which has been technically revised.

The main changes are as follows:

- aligned document structure, terminology, etc. with related ISO standards (e.g. ISO/IEC/IEEE 15288:2023);
- reorganized and consolidated text for more consistent wording and to support different acquisition life cycles and organizations;
- added information to support software using highly iterative and incremental (agile) life cycles;
- defined common processes for technical reviews and audits on defence projects;
- defined review and audit topics associated with technical reviews and audits, replacing acceptability criteria;

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- added context to support readers without significant defence industry experience;
- updated to reflect current best practices (e.g. digital engineering);
- removed selected guidance material (e.g. annexes describing optional reviews);
- updated definitions, acronyms and bibliography to be consistent with revised text.

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

This document responds to the needs of defence projects to have more specific and detailed requirements for technical reviews and audits as part of the assessment of projects during their life cycle. The requirements and guidance in this document have been written at the most general level possible so that they can meet the needs of defence agencies in different countries, either by direct application or by tailoring for an agency's specific needs.

Defence projects can be different from typical commercial projects in several ways:

- Defence systems can have hazards to human safety, the environment and national security that make their ownership and use prohibited outside of a defence organization. This can constrain the ability of projects to develop and deploy solutions for test and operational use;
- Acquisition teams can require comprehensive, cohesive technical data for systems and system elements, particularly plans, requirements and architectural descriptions (e.g. for certification activities or organic support);
- Acquisition teams using public funds often need extensive visibility into the definition and execution of supplier processes to support their fiduciary responsibilities.

These differences can result in the need to support more stakeholders in the review and audit process (6.6) and the need to review and audit more information items than found in typical commercial projects. However, non-defence projects are encouraged to apply it if useful.

This document can be used in one or more of the following modes:

- by an acquirer and a supplier, to help develop an agreement on the contribution of each party to the technical reviews and audit approach;
- by a project, to help establish and execute a technical review and audit approach for that project;
- by an organization, to help establish a desired approach to technical reviews and audits that can be applied across multiple projects;
- by process assessors, to serve as a reference for use in the performance of process assessments that support organizational process improvement.

NOTE Several tables in this document include a unique identifier (ID) for each table entry. This identifier can be used as desired to support compact references to the table entry in tailoring descriptions, checklists, etc.

Systems and software engineering — Life cycle management —

Part 8: Technical reviews and audits on defence programs

1 Scope

This document establishes the requirements for technical reviews and audits to be performed throughout the acquisition life cycle of defence projects. This document provides the purpose, timing, activities and tasks for each technical review and audit. It can be used to establish agreement between acquirers and suppliers on the technical reviews and audits that are needed for the project, as well as the focus and expectations of each technical review and audit.

This document is applicable to:

- those who implement or plan to implement technical reviews and audits in the acquisition of defence-related systems (and parts thereof) or services;
- those who are responsible for the technical management of projects concerned with the engineering of systems;
- those responsible for executing ISO/IEC/IEEE 15288 system life cycle processes for defence projects.

While primarily supporting the acquirer-supplier agreement mode, this document also can be used to support the other modes such as use by organizations, projects and process assessors.

NOTE In this document, the terms "project" and "program" are used interchangeably.

2 Normative references

There are no normative references in this document.

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