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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 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, *Systems and software engineering*, in cooperation with the Software & Systems 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 16326:2009), which has been technically revised.

The main changes compared to the previous edition are as follows:

a) re-ordered the original Clauses 2 and 4, and added a new Clause 2 to comply with the new ISO document fixed structure requirements;

b) moved the process guidelines up in front of the project management plan content requirements to put more emphasis on the process rather than the “product;”

c) changed the citation tables in the new Clause 6 to a single column so that the corresponding content is identical to both ISO/IEC/IEEE 15288:2015 and ISO/IEC/IEEE 12207:2017;

d) added references in the applicable guidance portions of the new Clause 6 that point to the more detailed process guidance information in ISO/IEC/IEEE 24748-4:2016 and ISO/IEC/IEEE 24748-5:2017;

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e) removed the PMP format requirements from the new Clause 7;

f) re-ordered the Bibliography to list the citations in numerical order.

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.

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Introduction

This document provides normative content specifications for project management plans concerned with systems, and software systems.

This document also provides detailed discussion and advice on applying a set of technical management processes that are common to both the system and software life cycles as covered by ISO/IEC/IEEE 15288 and ISO/IEC/IEEE 12207 respectively. The discussion and advice are intended to aid in the preparation of the normative content of project management plans.

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Systems and software engineering — Life cycle processes — Project management

1 Scope

1.1 Purpose

This document is intended to aid project managers in managing to successful conclusion those projects concerned with systems, including software systems.

This document specifies the required content of the project management plan (PMP). This document also quotes the extracted purpose and outcome statements from the technical management processes of ISO/IEC/IEEE 15288 and ISO/IEC/IEEE 12207, and adds detailed guidance for managing projects that use these processes for systems, including software systems.

1.2 Field of application

This document is written for those who use or plan to use ISO/IEC/IEEE 15288 and ISO/IEC/IEEE 12207 on projects dealing with systems, including software systems, regardless of project scope, products, methodology, size or complexity. The field of application of this document spans the whole system or software life cycle and addresses all project management roles, specifically:

— those responsible for establishing and continuously improving their organization's policies for implementing ISO/IEC/IEEE 15288 system life cycle processes and ISO/IEC/IEEE 12207 software life cycle processes;

— those responsible for executing any ISO/IEC/IEEE 15288 system life cycle process or ISO/IEC/IEEE 12207 software life cycle process at a project level.

— organizations or individuals subcontracting a project management effort.

In many organizations, the various responsibilities of project management are assigned to more than one person. Where the term "project manager" is used in this document, the guidance, advice or normative requirement is taken as applying to the applicable role within the organization.

This document is intended to provide guidance for two-party situations and can be equally applied where the two parties are from the same organization. This document can also be used by a single party as self-imposed tasks.

This document can also serve as guidance in multi-party situations, where high risks are inherent in the supply and integration of complex software-based systems, and procurement can involve several vendors, organizations or contracting parties.

1.3 Limitations

The normative content specifications for PMPs and the guidance for application of the technical management processes have general application across the scope of ISO/IEC/IEEE 15288 and ISO/IEC/IEEE 12207, but are developed with a focus on projects dealing with systems with a significant software element, and software systems.

2 Normative References

There are no normative references in this document.

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3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

No terms and definitions are listed in this document.

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

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

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

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

3.2 Abbreviated terms

CDRL	contract data requirements list
ICWG	interface control working group
PERT	program evaluation review technique
PM	project management (or project manager)
PMP	project management plan
PPL	product parts list
SDP	software development plan
SEE	software engineering environment
SEMP	systems engineering management plan
SWEBoK	software engineering body of knowledge
WBS	work breakdown structure

4 Conformance

4.1 General

This document provides normative definition of the content of the PMP and provides guidance for the execution of the technical management processes of ISO/IEC/IEEE 15288 and ISO/IEC/IEEE 12207. Users of this document can claim conformance to the normative documentation content, to the process provisions, or both.

4.2 Conformance to the normative documentation content

A claim of conformance to the documentation provisions of this document means that the user demonstrates that the content of a PMP conforms to the content requirements specified in Clause 7.

4.3 Conformance to processes

A claim of conformance to the process provisions of this document is equivalent to claiming conformance to the technical management processes from ISO/IEC/IEEE 15288 and ISO/IEC/IEEE 12207 cited in Clause 6.

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