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Systems and software engineering — Life cycle processes — Project management

Ingénierie du logiciel — Processus de cycle de vie — Gestion de projet



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Contents

	Page
Foreword	v
Introduction	vii
1 Scope	1
1.1 Purpose.....	1
1.2 Field of application.....	1
1.3 Limitations.....	1
2 Normative References	1
3 Terms, definitions and abbreviated terms	2
3.1 Terms and definitions.....	2
3.2 Abbreviated terms.....	2
4 Conformance	2
4.1 General.....	2
4.2 Conformance to the normative documentation content.....	2
4.3 Conformance to processes.....	2
4.4 Full conformance.....	3
5 Application of this document	3
6 Technical management processes	3
6.1 General.....	3
6.2 Project planning process.....	5
6.2.1 General.....	5
6.2.2 Guidance.....	5
6.2.3 Software-specific guidance.....	8
6.3 Project assessment and control process.....	9
6.3.1 General.....	9
6.3.2 Guidance.....	9
6.4 Decision management process.....	11
6.4.1 General.....	11
6.4.2 Guidance.....	11
6.5 Risk management process.....	13
6.5.1 General.....	13
6.5.2 Guidance.....	13
6.6 Configuration management process.....	14
6.6.1 General.....	14
6.6.2 Guidance.....	14
6.7 Information management process.....	15
6.7.1 General.....	15
6.7.2 Guidance.....	15
6.8 Measurement process.....	16
6.8.1 General.....	16
6.8.2 Guidance.....	16
6.9 Quality assurance process.....	17
6.9.1 General.....	17
6.9.2 Guidance.....	17
7 Elements of the project management plan	18
7.1 General.....	18
7.2 Front matter.....	18
7.3 Project overview.....	18
7.3.1 Project summary.....	18
7.4 References.....	19
7.5 Definitions.....	19
7.6 Project context.....	20
7.6.1 Process model.....	20

This is a preview of "IEEE/ISO/IEC 16326-2...". [Click here to purchase the full version from the ANSI store.](#)

7.6.2	Process improvement.....	20
7.6.3	Infrastructure and enabling systems	20
7.6.4	Methods, tools and techniques	20
7.6.5	Product acceptance.....	20
7.6.6	Project organization.....	21
7.7	Project planning.....	21
7.7.1	General.....	21
7.7.2	Project initiation	21
7.7.3	Project work plans.....	22
7.8	Project assessment and control.....	23
7.8.1	General.....	23
7.8.2	Requirements management.....	23
7.8.3	Scope change control	24
7.8.4	Schedule control.....	24
7.8.5	Budget control	24
7.8.6	Quality assurance.....	24
7.8.7	Subcontractor management.....	24
7.8.8	Project closeout	24
7.9	Product delivery.....	25
7.10	Supporting processes.....	25
7.10.1	General.....	25
7.10.2	Project supervision and work environment.....	25
7.10.3	Decision management.....	25
7.10.4	Risk management.....	25
7.10.5	Configuration management.....	26
7.10.6	Information management.....	26
7.10.7	Quality assurance.....	27
7.10.8	Measurement.....	27
7.10.9	Reviews and audits.....	27
7.10.10	Verification and validation	27
7.11	Additional plans.....	28
7.12	End matter	28
	Bibliography.....	29
	IEEE notices and abstract.....	30

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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).

IEEE Standards documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information contained in its standards.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see <http://patents.iec.ch>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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.