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Systems and software engineering — Life cycle processes — Project management

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Contents

Page

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List of Figures

Page

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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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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The main task of ISO/IEC JTC 1 is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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ISO/IEC/IEEE 16326 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*, in cooperation with the Software and Systems Engineering Standards Committee of the IEEE, under the Partner Standards Development Organization cooperation agreement between ISO and IEEE.

This first edition of ISO/IEC/IEEE 16326 cancels and replaces ISO/IEC TR 16326, which has been technically revised and merged with content from IEEE Std 1058-1998.

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Introduction

This International Standard provides normative content specifications for project management plans covering software projects, and software-intensive system projects.

This International Standard also provides detailed discussion and advice on applying a set of project processes that are common to both the software and system life cycle as covered by ISO/IEC 12207:2008 (IEEE Std 12207-2008), *Systems and software engineering – Software life cycle processes* [15], and ISO/IEC 15288:2008 (IEEE Std 15288-2008), *Systems and software engineering – System life cycle processes* [16], respectively. The discussion and advice are intended to aid in the preparation of the normative content of project management plans.

This International Standard is the result of the harmonization of ISO/IEC TR 16326:1999 and IEEE Std 1058-1998.

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Systems and software engineering — Life cycle processes — Project management

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1 Scope

1.1 Purpose

This International Standard is intended to aid project managers in managing to successful conclusion those projects concerned with software-intensive systems and software products.

This International Standard specifies the required content of the project management plan (PMP). This International Standard also quotes the extracted purpose and outcome statements from the project processes of ISO/IEC 12207:2008 (IEEE Std 12207-2008) and ISO/IEC 15288:2008 (IEEE Std 15288-2008), and adds detailed guidance for managing projects that use these processes for software products and software-intensive systems.

1.2 Field of application

This International Standard is written for those who use or plan to use ISO/IEC 15288:2008 (IEEE Std 15288-2008) and ISO/IEC 12207:2008 (IEEE Std 12207-2008) on projects dealing with software-intensive systems and software products, regardless of project scope, product, methodology, size or complexity. The field of application of this International Standard spans the whole software or system life cycle, and addresses everybody who plays a role in project management – project managers and others, specifically:

- those responsible for establishing and continuously improving ISO/IEC 12207:2008 (IEEE Std 12207-2008) software life cycle processes and ISO/IEC 15288:2008 (IEEE Std 15288-2008) system life cycle processes;
- those responsible for executing any ISO/IEC 12207:2008 (IEEE Std 12207-2008) software life cycle process or ISO/IEC 15288:2008 (IEEE Std 15288-2008) system 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 International Standard, the guidance, advice or normative requirement applies to the applicable role within the organization.

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

This International Standard 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 project management plans and the guidance for management of the project processes are limited to projects dealing with software-intensive systems and software products.

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2 Conformance

This International Standard provides normative definition of the content of the project management plan (PMP), and provides guidance for the execution of the project processes of ISO/IEC 15288:2008 (IEEE Std 15288-2008) and ISO/IEC 12207:2008 (IEEE Std 12207-2008). Users of this International Standard can claim conformance to the normative documentation content, to the process provisions, or both.

2.1 Conformance to normative documentation content

A claim of conformance to the documentation provisions of this International Standard means that the user demonstrates that the content of a PMP conforms to the content requirements specified in clause 5 of this International Standard.

2.2 Conformance to processes

A claim of conformance to the process provisions of this International Standard is equivalent to claiming conformance to the project processes from ISO/IEC 15288:2008 (IEEE Std 15288-2008) and ISO/IEC 12207:2008 (IEEE Std 12207-2008) cited in clause 6 of this International Standard.

2.3 Full conformance

A claim of full conformance to this International Standard is equivalent to claiming conformance to the PMP content requirements cited in clause 5 and the project processes of ISO/IEC 15288:2008 (IEEE Std 15288-2008) and ISO/IEC 12207:2008 (IEEE Std 12207-2008) cited in clause 6 of this International Standard.

3 Symbols and abbreviations

The following symbols and abbreviations are used in this International Standard:

ANSI	American National Standards Institute
CCB	Configuration/Change Control Board
CDRL	Contract Data Requirements List
GATES	Stage-Gate methodology
IBM	International Business Machines
ICWG	Interface Control Working Group
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
ISO	International Organization for Standardization
OGC	Office of Government Commerce (UK)
PERT	Program Evaluation Review Technique
PM	Project Management (or Project Manager)
PMBOK®	Project Management Body of Knowledge

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