
Systems and software engineering — Life cycle management —

Part 5: Software development planning

*Ingénierie des systèmes et du logiciel — Gestion du cycle de vie —
Partie 5: Planification de développement de logiciel*



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2017, Published in Switzerland

© IEEE 2017

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO or IEEE at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Institute of Electrical and Electronics Engineers, Inc
3 Park Avenue, New York
NY 10016-5997, USA

stds.ipr@ieee.org
www.ieee.org

This is a preview of "ISO/IEC/IEEE 24748-5...". [Click here to purchase the full version from the ANSI store.](#)

Contents

1	Scope	1
2	Normative references	1
3	Terms, definitions and abbreviated terms	1
4	Abbreviations	5
5	Conformance.....	5
5.1	General	5
5.2	Intended usage.....	6
5.3	Conformance to processes	6
5.4	Conformance to information item content	6
5.5	Full conformance.....	6
5.6	Tailored conformance	7
6	Concepts	7
6.1	General	7
6.2	System concepts	7
6.3	Life cycle concepts	7
6.4	Process concepts	8
6.5	Project concepts	8
6.6	Information item concepts.....	8
6.6.1	General	8
6.6.2	Concept of Plans.....	9
6.6.3	Software development plans.....	9
6.7	Management concepts	10
6.7.1	General	10
6.7.2	Project management	10
6.7.3	Technical management	10
6.8	Software development model concepts.....	10
6.8.1	General	10
6.8.2	Once-Through software development model	11
6.8.3	Evolutionary software development model	11
6.8.4	Incremental software development model	11
7	Software life cycle processes and software development planning	12
7.1	General	12
7.2	Agreement processes.....	12
7.3	Organizational project-enabling processes.....	12
7.4	Technical management processes.....	13
7.5	Technical processes	13
8	Software development planning	13
9	Process Execution	14
9.1	Overview	14
9.2	Project planning process	14
9.2.1	General	14
9.2.2	Responsibility for planning	14
9.2.3	Project scope.....	15
9.2.4	Work Breakdown Structure	16

This is a preview of "ISO/IEC/IEEE 24748-5...". [Click here to purchase the full version from the ANSI store.](#)

9.2.5	Project estimation	16
9.2.6	Relationship management.....	18
9.2.7	Risk Management	19
9.2.8	Configuration management.....	19
9.2.9	Information management.....	19
9.2.10	Quality Assurance.....	19
9.3	Project and software measurement	19
9.3.1	Measurement overview	19
9.3.2	Project measures	20
9.3.3	Software measures.....	20
9.4	Project assessment and control	21
9.4.1	Overview.....	21
9.4.2	General guidance	21
9.4.3	Project assessment and control process	23
9.5	Decision management.....	25
10	Information items: Technical plans.....	26
10.1	Software Development Plan related to other plans	26
10.2	Content of the Software Development Plan	27
10.2.1	Content Overview	27
10.2.2	Detailed content of the SDP	27
Annex A (informative)	Generic content for a plan	30
Annex B (informative)	Sample Software Development Plan outline	31
Annex C (informative)	Application of related standards	35
Bibliography	37

Foreword

Commission) form the specialized system for worldwide standardization. National bodies that are members of 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 nongovernmental, 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.

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

Attention is called to the possibility that implementation of this standard may require the use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. ISO/IEEE is not responsible for identifying essential patents or patent claims for which a license may be required, for conducting inquiries into the legal validity or scope of patents or patent claims or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance or a Patent Statement and Licensing Declaration Form, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from ISO or the IEEE Standards Association.

Use of IEEE Standards documents is wholly voluntary. IEEE documents are made available for use subject to important notices and legal disclaimers (see <http://standards.ieee.org/IPR/disclaimers.html> for more information).

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

A list of all parts in the ISO/IEC/IEEE 24748 series can be found on the ISO website.

Introduction

ISO/IEC/IEEE 24748 provides unified and consolidated guidance on the life cycle management of systems and software. This document draws on key aspects of the former IEEE J-Std-016 *Standard for information technology software — Software life cycle processes — Software development — Acquirer-supplier agreement*. The IEEE has identified the need for a non-military standard to guide managers of software systems in software development planning.

Taken together, the parts of ISO/IEC/IEEE 24748 are intended to facilitate the joint usage of the process content of ISO/IEC/IEEE FDIS 12207 *Systems and software engineering — Software life cycle processes* and ISO/IEC/IEEE 15288, *Systems and software engineering — System life cycle processes*, which in turn may be used together with related standards, such as for Information Technology (IT) service management and various lower-level process standards.

The acquisition or supply of a software system is usually done within a project. A project prepares and implements the technical plans and schedules necessary to guide the project toward accomplishment of its objectives and proper conclusion. Given the project's authorization and objectives, the project should establish plans for the technical management of activities as necessary for the software development effort.

This document unifies technical and management requirements and guidance from several sources to specify the requirements for software engineering planning, including software development plans or software engineering plans. This document also identifies the processes as defined in ISO/IEC/IEEE FDIS 12207 to perform the necessary project planning activities to accomplish the project's technical effort and to develop the software project's technical management and development plans.

This document focuses on the processes required for successful planning and management of the project's software development effort and for development of the software development plan (SDP) as a vehicle for representing a project's application of software life cycle processes. The SDP is a top level technical planning document for a project which addresses technical management processes established by three principal sources (the project's agreement, applicable organizational and technical management processes, and the software development project team) as necessary to successfully accomplish the software development related tasks of the project.