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Systems and software engineering — Life cycle management —

Part 1: Guidelines for life cycle management

Ingénierie des systèmes et du logiciel — Gestion du cycle de vie —

Partie 1: Lignes directrices pour la gestion du cycle de vie

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Foreword

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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 document 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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, SC 7, *Software and systems engineering*.

This first edition of ISO/IEC/TS 24748-1 cancels and replaces ISO/IEC/TR 24748-1, which has been technically revised.

ISO/IEC 24748 consists of the following parts, under the general title *Systems and software engineering — Life cycle management*:

— *Part 1: Guidelines for life cycle management* [Technical Specification]

— *Part 2: Guide to the application of* ISO/IEC 15288 *(System life cycle processes)*

— *Part 3: Guide to the application of* ISO/IEC 12207 *(Software life cycle processes)*

— *Part 4: Systems engineering planning* [ISO/IEC/IEEE]

— *Part 5: Software development planning* [ISO/IEC/IEEE]

The following parts are under preparation:

— *Part 6: Guide to system integration engineering*

Introduction

The purpose of this Technical Specification is to facilitate the joint usage of the process content of the latest revisions of ISO/IEC/IEEE 15288 and ISO/IEC 12207, by providing unified and consolidated guidance on life cycle management of systems and software. This is to help ensure consistency in system concepts and life cycle concepts, models, stages, processes, process application, key points of view, adaptation and use in various domains as the two International Standards are used in combination. That will in turn help a project team design a life cycle model for managing the progress of their project.

This Technical Specification will also aid in identifying and planning use of life cycle processes described in ISO/IEC/IEEE 15288 and ISO/IEC 12207 that will enable the project to be completed successfully, meeting its objectives/requirements for each stage and for the overall project.

Besides the above, there is also increasing recognition of the importance of ensuring that all life cycle stages and all aspects within each stage are supported with thorough guidance to enable alignment with any process documents that might subsequently be created that focus on areas besides systems and software, including hardware, humans, data, processes (e.g. review process), procedures (e.g. operator instructions), facilities and naturally occurring entities (e.g. water, organisms, minerals).

By addressing these needs specifically in this Technical Specification, the users of the process-focused ISO/IEC 12207 and ISO/IEC/IEEE 15288 will not only benefit from having one document complementarily addressing the aspect of product or service life cycle: they will also benefit from a framework that links life cycle management aspects to more than just the systems or software aspects of products or services.

ISO/IEC/IEEE 15288 and ISO/IEC 12207 also have published guidelines (ISO/IEC/TR 24748-2 and ISO/IEC/TR 24748-3), respectively, to support use of the two revised International Standards individually.