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**Systems and software engineering -- Software engineering
environment services**

系统与软件工程 软件工程环境服务

(English Translation)

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Table of Contents

Introduction

Introduction

1 Scope

2 Terms and definitions

2.3 Acronyms

4 SEE Service Reference Model

4.1 SEE Service Type

3 Structure 4.2 service description

4.3 Reference Model

5 Software Engineering Services

5.1 Overview

5.2 Software Requirements Engineering Services

5.3 Software reverse engineering services

5.4 Software Reengineering Services

5.5 Software prototype services

5.6 Software modeling services

5.7 Simulation software and services

7 5.8 Software Design Services

5.9 Software component-based software to generate a service

5.10 Software source code generation services

5.11 Build Service Software

5.12 Software debugging services

5.13 Software Static/Dynamic Analysis Service

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses the translation method identical with ISO/IEC 15940:2013 "Systems and Software Engineering software engineering environmental services." the standard ISO/IEC 15940:2013 made the following editorial changes.

--- Deleted Chapter 1 explains the origin of the standard and the 2006 edition difference two paragraphs;

- Standards body for ISO/IEC 12207, ISO/IEC 15288 reference to the year when the label is sometimes no, this standard shall be complementary;
- Revised standard clear inconsistencies between the Department and obvious clerical error;
- Adjust the order of the services listed in the name of 5.1, 6.1, to make them consistent with the order they appear in Chapter 5, Chapter 6;
- Deleted Appendix A, Appendix C significantly duplicate content;
- Modify the name of the service categories in Appendix D to make it consistent with the text;
- Deletion of Appendix F, because it lists only ISO/IEC 15940:2013 to ISO/IEC 15940:2006 made changes to this standard Quasi does not make sense.

This standard by the National Information Technology Standardization Technical Committee (SAC/TC28) and focal points.

This standard was drafted. Shanghai Hong Di Information Technology Co., Fudan University, Shanghai Lu Qixin Information Technology Co., Ltd., China Electronics Technology Institute of Standardization surgery, Shanghai Institute of Finance.

Introduction

Software Engineering Environment (referred SEE) by means of software tools automate some or all of the services collection, these services are used to support Implementation of systems and software engineering human activities.

These activities are usually in the software or system development and maintenance projects carried out, covering the system specification, development, re-engineering, or maintenance and other fields.

ISO/IEC 12207:2008 implementation of all processes fully described during the software life cycle, activities and tasks.

The term "software engineering environment" can encompass a variety of situations. from home and only run on the same operating system, a small tool to be able to place Management, monitoring and control systems as well as the software life cycle in a fully integrated environment for all data, processes and activities. SEE through a series of Column describes the ability of the environment to provide support services to human activities. SEE supported by the software process becomes a secondary or automation software Member process. This standard describes the SEE service, and organizational form suitable for a range of them with the ISO/IEC 12207:2008 Union Tied together. When you define a life cycle process of an organization, we need to find the right level of automation provided by software engineering environment.

This can lead to the establishment of new or improving existing SEE SEE.

Experience partial or complete automation of activities, SEE by reducing costs (higher productivity), improved management, and the resulting more High product quality, provide organizations with the benefits. For example, repetitive activities (such as the implementation of test cases) automation not only improves productivity, but also to help ensure the completeness and conformance testing activities.

The standard way to reference model from the definition of the concept of the SEE service, the reference model can be applied to any of the SEE, so that one or More software and systems engineering activities automation.

Users interested in a specific process, this standard describes a given system and software engineering processes, software, engineering services and the corresponding typical the relationship between software engineering tools.

The SEE service description supports ISO/IEC 12207:2008 process definition. Its purpose is to define a set of SEE service, it They and ISO/IEC 12207:2008 compliant and can be used as a conventional reference or definition of the automation software and systems processes.

The Standard Appendix A lists the typical automated support each SEE service, which includes a list of service operations corresponds to help Readers understand SEE.

Appendix B gives SEE Service 12207 and ISO/IEC .2008 correspondence.

Appendix C gives SEE Service 15288 and ISO/IEC .2008 correspondence.

Appendix D illustrates the relationship between the eight categories SEE services.

Appendix E describes the various types of people can benefit from this standard.

Systems and Software Engineering Software Engineering Environment Services

1 Scope

This standard describes software engineering environment (hereinafter referred to as SEE) services that support the ISO/IEC 12207:2008 is defined by There are software and systems life cycle processes.

These services are meant as a complete collection can be used to choose one or more of any of the services SEE Systems and Software Engineering Development or support organizations, such organizations may or may not be using ISO/IEC 12207:2008 process framework systems and software projects.

2 Terms and definitions

The following terms and definitions apply to this document.

Life cycle model it includes software development and maintenance during operation involved and the framework of activities and tasks of system products, from requirements definition through to system Commission terminate the use of the system lifetime.

[ISO/IEC 12207:2008] 2.2 Computer-aided software engineering; CASE Using computer assisted software engineering process.

[ISO/IEC/IEEE24765.2010] 2.3 CASE tools CASEtool A software product; it can by providing ISO/IEC 12207:2008 is defined in software and systems engineering life cycle activities Automated support to assist software and systems engineers.

[ISO/IEC 14102:2008] 2.4 Organization Arrangement with responsibility, authority and community relations personnel and facilities.

[GB/T 19000-2008]

Work product an article by any process output.

NOTE: This may include some of the files, documents, products, services, processes, specifications and delivery lists.

[ISO/IEC/IEEE24765.2010] 2.6 Systems Engineering systemengineering Management and overall technical management of the interdisciplinary approach, whereby a set of customer needs, expectations, and constraints into solution in the Provide support for the lifetime of the solution.