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**Systems and software engineering - Process assessment -
Process assessment model for software testing**

系统与软件工程 过程评估 软件测试过程评估模型

(English Translation)

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References

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is modified to adopt ISO/IEC 33063:2015 "Information technology process evaluation - Software testing process evaluation model".

Compared with ISO/IEC 33063:2015, this document has many structural adjustments.

See Appendix A for a list.

The technical differences between this document and ISO/IEC 33063:2015 and their reasons are as follows.

a) The normative references GB/T 38634.1 and GB/T 38634.2 replace ISO/IEC/IEEE 29119-1 and ISO/IEC/IEEE 29119-2 (see Chapters 3 and 4) for the convenience of readers;

b) Added terms to help users better understand this document (see 3.1 to 3.12);

c) Deleted the source of STAT.1 "ISO/IEC 12207" and the source of STAT.2 in Table 4 of ISO/IEC 33063:2015.

"ISO/IEC CD1 29119-2:2011", because the latest versions of ISO/IEC 12207 and ISO/IEC 29119-2 There is no software review process (STAT.1) and static analysis process (STAT.2);

d) Deleted the additional skills development process (OT.2), problem solving management process in 4.2.2 of ISO/IEC 33063:2015.

(TM.4), measurement process (TM.5) and software review process (STAT.1) are from ISO/IEC 12207 PRM, while static the analytical process (STAT.2) is based on the definition of the previous version of PRM." The reason is that the latest version of ISO/IEC 12207 the process is no longer described in the ISO/IEC/IEEE 29119-2 standard;

e) The process assessment model established in this document has been modified to meet ISO/IEC 33002, ISO/IEC 33003, ISO/IEC 33004 the content of the relevant requirements (see Chapter 1, 4.1, 4.2.1, 4.4, 6.2.1, B.1.2, C.1, C.3) is based on the assessment established in this document.

Models and guidelines can be used independently by users to evaluate the test process if they substantially meet the requirements of the above standards.

The changes will help users understand this document and improve the efficiency of the assessment process.

The following editorial changes have been made to this document.

- a) Change the name of the standard to "System and Software Engineering Process Evaluation Software Testing Process Evaluation Model";
- b) Summarize the contents of Chapter 4 and remove any repetitive content;
- c) Changed the title of Table 3 in ISO/IEC 33063:2015 to "Dynamic test process group" the reason is that Table 3 involves the static test process group;
- d) Change "TM.2.BP4" in 5.3.3 of ISO/IEC 33063:2015 to "TM.3.BP4". The reason is that 5.3.3 Process Standard Identified as "TM.3";
- e) In ISO/IEC 33063:2015, the name of "4.01" in the table "Work Products" in 5.3.1 is changed to "Organizational Test Policy".

The name of "4.02" was changed to "Organizational Test Strategy";

f) The "Results" in No. 3.08 of the table "Work Products" in 5.3.1 of ISO/IEC 33063:2015 has been changed. The reason is that in a table, the "process results" of TM.1 only have a), b), c), d), e), f), g), h), but no i), j), k), l), m), so delete Except i), j), k), l), m in "Results" of No. 3.08);

g) In ISO/IEC 33063:2015, "5.00 Records" in 6.2.3.3 and 6.2.5.1.3 is changed to "9.00 Records" and "9.00 the order of "5.00 Record" and "8.00 Specifications" is changed because the contents of the second-level items under "5.00 Record" are all the same as those in "9.00 Record".

work products;

- h) Added table numbers, table titles and introductory words (see Chapter 5, Chapter 6, Appendix A, Appendix B, and Appendix D);
- i) Add item numbers and titles to the suspended sections, combining the generic practices, generic resources, and generic work products for each process attribute into a table (see Chapter 6);
- j) Delete the work product outputs "6.04 Incident Report" and "6.07 Static Analysis

Completion Report" in Table D.4;

k) Add informative Appendices E, F, and G. Appendix E is used to guide users in carrying out test process capability measurement activities;

l) Deleted the informative Annex A "Conformity assessment model for processes" of ISO/IEC 33063:2015.

Introduction

Software testing runs through all stages of the software development life cycle. In addition to software testing technology, a good and mature software testing the software testing process can maximize the effectiveness of software testing and thus ensure the quality of software products.

Providing the required information for software testing is an important factor affecting the effectiveness of software testing.

This document establishes a software testing process evaluation model that defines and provides evaluation indicators from two dimensions. process and capability. It is applicable to Evaluate each software testing process at the organizational level, test management level, and dynamic test level.

Effectively evaluate the level that can be achieved during the component testing process and apply it to the entire project, different test stages, and Segments, test levels or test types can be used flexibly according to different user needs. After analysis and optimization, the test can be continuously improved.

process, thereby better guiding the development of software testing work, which will fundamentally improve the quality of software products and promote the development of the software industry Rapid development.

Systems and Software Engineering Process Evaluation Software Testing Process
Evaluation Model

1 Scope

This document establishes a software testing process evaluation model and provides a framework for explaining the purpose and results of the testing process, as well as the process attributes.

Provide guidance on the definition, selection and use of evaluation indicators through examples.

This document is applicable for selecting models and associated documented process methods for assessment (for capability definition or process improvement).