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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 18491.3-2010

**Information technology -- Software measurement -- Functional
size measurement -- Part 3: Verification of functional size
measurement methods**

信息技术 软件测量 功能规模测量 第3部分：功能规模测量方法的验证
(English Translation)

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Foreword

GB/T 18491 under "Information technology - Software measurement - Functional size measurement of" total title currently consists of the following six components.

- Part 1. definition of the concept;
- Part 2. software size measurement methods and conformity assessment GB/T 18491.1-2001's;
- Part 3. Verification of functional size measurement methods;
- Part 4. Reference model;
- Part 5. domain functional size measurement is determined;
- Part 6. GB/T 18491 series of standards and guidelines related to the use of standards.

This section GB/T 18491 Part 3.

This part identical with ISO/IEC TR14143-3:2003 "Information technology - Software measurement - Functional size measurement - Part 3. Functional Verify the size measurement methods "(in English). Due to the international standard ISO/IEC 14143-6:2006 released late on ISO/IEC TR14143-3.

2003, therefore the original International Standard ISO/IEC TR14143-3:2003 Foreword is not involved in ISO/IEC 14143-6:2006. In the ISO/IEC TR14143-3:2003 conversion-oriented section, added preface explained in Section 6 related.

For ease of use, the ISO/IEC TR14143-3:2003, this section also made the following editorial changes.

- Original term 3.5 "measurand" misspelled to "measured" (measured quantities);

--- Since the original leads in 4.3.1.1 and A.2.5 ISO/IEC 14143-5, and therefore in Chapter 2, normative references in an increase of GB/T 18491.5.

This part of the Appendix A and Appendix B for the normative appendix, Appendix C is informative appendix.

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

This section is drafted. Shanghai computer software technology development center, China Electronics Standardization Institute, Neusoft Group Co. Shares the company, Liaoning North Laboratories Limited.

Introduction

Functional Size Measurement (FSM) is a technique to measure the size of software by quantifying the functional requirements of software users. Originally published contains this method of analysis is the concept developed by the AlanAlbercht in the late 1970s, function points. Thereafter, the original method of open it issued a number of extensions and variants. There are multiple variants can be used for end-users to choose, each variant under certain conditions has its own advantages Potential. Development of GB/T 18491 in this section is to provide a certain performance attributes by statements of FSM methods into the true extent of Line verification process to help users select the appropriate method for their needs.

Testing in accordance with the terms of this section (including the performance attributes of a particular FSM Method Statements made) execution. The results of these tests FSM method will help potential users determine whether the method is suitable for their needs.

Develop GB/T 18491.1-2001 it is to define the concept of FSM and for all variants provide a baseline for comparison.

And GB/T 18491 in this section.

- a) establish a framework to verify the performance attributes of an FSM methods;
- b) defines several performance attributes, then be able to verify the FSM method;
- c) describes the type of executable test;
- d) defines the verification process FSM methods;
- e) provides an example of the validation report template.

Authentication is performed by verification group, which has the capability described in this section. This section assumes that the reader is familiar GB/T 18491.1-2001 Concepts and definitions described.

Design verification process to meet the needs verification initiator, and the verification

process should include.

- a) identifies the need to verify the performance attributes;
- b) identifies the need to perform the test;
- c) perform the test;
- d) report to verify the test results.

Output verification is to verify the report, verification report to show the extent of a FSM method performance attributes provide objective evidence. Authentication Message Report the results of each test is performed by the composition and can be used.

- a) to determine the validity of a particular FSM methods made statements;
- b) determining a particular FSM methods to show the extent of the measured specific performance attributes;
- c) help FSM method of potential users make decisions about which method best meets their needs sensible decisions.

Information technology - Software measurement - Functional size measurement Part 3.
Verification of functional size measurement method

1 Scope

GB/T 18491 This section sets out a framework for verification FSM method statements and (or) to perform validation initiator request test. Involves the following performance attributes.

- a) repeatability and reproducibility;
- b) accuracy;
- c) convertibility;
- d) identify a threshold;
- e) the applicability of functional domains.

Note: statements involving other performance attributes and test request is beyond the scope of this section.

This section is dedicated to ensuring verify that the output is an objective, impartial, consistent and repeatable.

As part of the application of this validation report the results produced will enable potential users to choose the method that best meets their needs FSM.

2 Normative references

The following documents contain provisions which, through reference GB/T 18491 in this section constitute provisions of this section. Where dated references article Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. Who does not note date reference documents, the latest versions apply to this section.

Part 1 GB/T 18491.1-2001 Information technology - Software measurement - Functional size measurement. concept definition (Idt ISO/IEC 14143-1:1998) GB/T 18491.2-2010 Information technology - Software measurement - Functional size measurement - Part 2. Software size measurement methods and GB/T 18491.1-2001 conformity assessment (ISO/IEC 14143-2:2002, IDT) GB/T 18491.4-2010 Information technology - Software measurement - Functional size measurement - Part 4. Reference model (ISO/IEC TR14143-4:2002, IDT) Domain functional size measurement. GB/T 18491.5-2010 Information technology - Software measurement - Functional size measurement - Part 5 Determining (ISO/IEC TR14143-5:2004, IDT)

3 Terms and Definitions

GB/T 18491.1-2001 and as defined in the following terms and definitions apply to this section.

Measurement accuracy accuracyofmeasurement Correct measurement results and the measured value is close to the same extent.

Note 1: Accuracy is a qualitative concept.

Note 2: The term "precision" should not be used as "accuracy." [Cited references [Definition 13] 3.5]

Note 3: References [13] define a correct value is consistent with the definition of a specific amount of a given value, and that value can be passed over a measurement Too. In the ideal case measurements are not feasible due to the presence of a known target in line with uncertainties, as usual, the correct value of the agreement is the source Since the amount of specific and accepted values. "Conventions correct value" in the same reference value is sometimes referred to as a distribution, the best estimate, conventional value or reference value. The average amount should be used relative error representation accuracy.