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**Efficiency of system and software -- Part 2: Metric method
(English Translation)**

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Foreword

GB/T 29835 in the "System Software and efficiency," the general title, divided into the following three parts.

- Part 1. Index System;
- Part 2. Measurement Methods;
- Part 3. Test methods.

This section GB/T 29835 Part 2.

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

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

This section is drafted. Shanghai Baoxin Software Co., Ltd., China Electronics Standardization Institute, Shenzhen Branch clock Technology Co., the company, Shanghai Pudong Software platform Ltd., Shanghai Information Technology Co., Ltd. Lu Qixin, Guangdong Software Testing Center, Beijing University of Posts and beads Hainan Party Network Software Testing Center, the National Software Quality Supervision and Inspection Center, Shanghai Key Laboratory of Computer Software Testing, Shanghai Embedded System Engineering Research Center, Nanchang Jinlu Software Park Software Testing Training Ltd., Guangzhou soft information system management Li Consulting.

Introduction

GB/T 29835 in this section from the time characteristics of the system and software, capacity and utilization of resources in view of the three proposed corresponding Measure. Measures listed in this section is not a complete set. This section applies to a variety of computer systems and software products, but not every Species measure applicable to a variety of computer systems and software products. Software suppliers, third-party evaluation agencies, and other demand-side combination can be selected from this section Appropriate measure, can also modify or use other measures not included in this section to define the efficiency of quality requirements, evaluating software products Efficiency, quality and efficiency measurement conditions or for other purposes.

The main users of this standard is expected to include.

a) software suppliers, when.

1) to declare a software product efficiency characteristics;

2) control efficiency characteristics of self-declaration assessment systems and software products;

3) on the design and implementation of software products related to the efficiency of the time;

b) the efficiency of the certificate of conformity or third party evaluation agency logo testing;

c) the potential demand-side when.

1) software products for the upcoming procurement efficiency requirements and instructions when compared to existing products;

2) the need to further improve the efficiency of our products, or improve, the presence of difference between the actual operating environment and procurement environment;

3) test the efficiency requirement is satisfied.

GB/T 29835.1 "system and efficiency of the software - Part 1. Indicator System" gives the efficiency index system, GB/T 29835.3 "system System and Software Efficiency - Part 3. Test methods "describes test methods efficiency indicators. This section is intended and GB/T 29835.1 and GB/T 29835.3 combination.

Systems and Software Efficiency - Part 2. Measurement Methods

1 Scope

The basic part of GB/T 29835 in GB/T 29835.1 proposed index system, provides systems and software efficiency indicator body Metric system, making it possible to meet a variety of different test targets and test requirements.

This section applies to systems and software efficiency measurement and evaluation.

NOTE: The system referred to in this section are primarily software system.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 29835.1 efficiency systems and software - Part 1. Index System

3 Terms and Definitions

Terms and definitions GB/T 29835.1, as defined in this document apply.

4 Overview

Efficiency is an important quality systems and software features. On the efficiency of the system and software to measure, help us to understand whether the software is full Foot efficiency requirements, in favor of the demand side, developer, and other timely detection, defect localization efficiency. Depending on the definition of GB/T 29835.1 of Index system, using appropriate methods and formulas to measure each indicator, comparable quantitative values \u200b\u200bobtained.

This section defines the measure of software quality and efficiency of GB/T 29835.1 use with a group. Users should be from GB/T 29835.1 Select efficiency indicators, to determine the relevant measures and corresponding test methods based on efficiency indicators, and objective manner interpret measurement results.

5.1 Statistical formula

Formula efficiency indicators measure commonly used maximum, average and minimum values, with its formula is as follows.

a) Maximum.

$A_{\max} = \text{MAX}(A_i), i = 1 \sim n$ (1) where.

$A_{\max}$ --- $A_1, A_2, \dots, A_n$ one of the largest value.

b) the average of.

$A_{\text{avg}} = \text{AVG}(A_i) =$

$A_1 A_2 A_n$

, $i = 1 \sim n$ (2)