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**GB/T 29834.3-2013**

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**Maintainability of system and software -- Part 3: Testing method**

系统与软件维护性 第3部分：测试方法

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## Foreword

GB/T 29834 in the "System and software maintenance" of the general heading, divided into the following three parts.

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

This section GB/T 29834 Part 3.

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 computer software technology development center, China Electronics Standardization Institute, Shenzhen City in the letter Information Technology Co., Ltd., Beijing University of Posts and Telecommunications, Shanghai Pudong Software platform Ltd., Shanghai Baoxin Software Co., Ltd., Shanghai Lu Qixin interest Technology

Co., Ltd. Liaoning North laboratories, Nanning square Software Technology Co., Ltd., Shanghai Electric Power Companies Communication center.

## Introduction

Since the flawed software delivery, user needs change, the environment changes, the software often requires maintenance, GB/T 8566-2007 noted that software maintenance software life cycle has become an important part. GB/T 16260.1-2006 "Software Engineering production Product quality - Part 1. Quality model "includes software maintenance statements. This section GB/T 29834 with reference to GB/T 16260.1-

2006 Maintenance statements made maintenance testing methods. The development side, the demand side, the quality of managers and third-party evaluation agencies according to index System maintenance is defined quality requirements, evaluating software product maintenance, of measuring the quality of the case or for other purposes. This section applies to have Maintenance needs of all types of systems and software, does not apply to "single-use" or systems and software during use without change.

The main users of this standard is expected to include.

a) software suppliers, when.

- 1) to declare maintenance of software product characteristics;
- 2) maintenance control characteristics declared its own assessment of systems and software;
- 3) maintenance of software products related to the design and implementation time;
- 4) certificate of conformity for the maintenance or third-party evaluation agencies flags during testing;

b) the potential demand-side when.

- 1) on the upcoming purchase of software products and maintenance requirements of existing products, when compared to descriptive information;
- 2) the need for product performance further improvement or improvement of products and potential errors made the necessary changes, the physical movement Differences line environment and procurement environment;
- 3) inspection of maintenance requirements is satisfied.

GB/T 29834.1 "System and Software Maintenance - Part 1. Indicator System" gives the metric system maintenance, GB/T 29834.2 "systems and software maintenance - Part 2. Measurement method" gives access to maintenance indicators measure how the measured value method. This section is intended and GB/T 29834.1 and GB/T 29834.2 combination.

Systems and software maintenance Part 3. Test methods

## 1 Scope

This section GB/T 29834 specifies the test method how to obtain maintenance index measurements.

This section applies to all types of systems have maintenance requirements and software. Without this period does not apply to "single-use" or in use Systems and software changes.

**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 11457 software engineering terminology Part 1 GB/T 29834.1 systems and software maintenance. Index System Part of GB/T 29834.2 systems and software maintenance 2. measurement methods

## 3 Terms and Definitions

Terms and definitions GB/T 11457 and GB/T 29834.1, as defined in this document apply.

## 4 Overview

GB/T 29834.2 defines the measure of system and software maintenance of this section for the measure in the relevant formulas given measure Test methods. Common maintenance test methods. expert evaluation method, test methods and technical user survey. All kinds of methods as follows.

a) expert evaluation method --- a subjective evaluation method. When the assessment should be reviewed in accordance with the object and purpose of the assessment, design review project

Table lists the scoring column, scores, weights, and scoring rules. N may be composed of a expert review group, according to its own expert

Experience and knowledge, to judge scoring. Then, based on the weight and the weight of expert statistical rules, summary scores were calculated, the calculated the value as a result of the review. Scoring rules can be hierarchical, it can also be a range of values, or select one of the other Appropriate rules;

b) Technical Test Method --- an objective evaluation method. When testing technology, can be based on the measured object and purpose of the test, opt Suitable for automated testing tools, but also by doing manual testing. The results obtained in testing technology is

usually an amount of the measurement results;

c) User survey questionnaire sought --- one kind of method for specific user groups. When a user survey should be based on the purpose and special investigations Given user group, design the questionnaire, so that respondents fill in and feedback, the number of recovered questionnaire should reach a certain number, not Less than the appropriate proportion of the number issued. Then, the collected questionnaires aggregate calculations, the calculated value as a user survey the result of.