

ICS 35.080
CCS L 77



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

GB/T 29834.2-2013

Maintainability of system and software -- Part 2: Metric method

系统与软件维护性 第2部分：度量方法

(English Translation)

Issued on: January 1, 1970

Implemented on: January 1, 1970

Issued by: Standardization Administration of China

Table of Contents

Introduction

Introduction

1 Scope

2 Normative references

3 Terms and definitions

Overview 4

5 Easy analytical

5.1 Failure diagnosis efficiency

5.2 Pairs failure diagnostic support

6 Modular

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 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 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 "Information technology - Software life cycle processes," pointed out the software maintenance software life cycle has become an important part.

GB/T 16260.1-2006 "Software engineering - Product quality - Part 1. Quality model" includes software maintenance statements.

GB/T 29834 with reference to this part of GB/T 16260.1-2006 maintenance statement proposed measure and measure the maintainability index formula. The development side, the demand side, the quality control manager and third party reviews before the index system based on the definition of maintenance quality requirements, evaluating software products Maintenance, of measuring the quality of the case or for other purposes. This section applies to all types of systems have maintenance requirements and software, does not apply "Single-use" systems and software or 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 software products and systems;

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

b) for the maintenance of the certificate of conformity or a third-party evaluation agencies mark when tested;

c) the potential demand-side when.

1) procurement of software products for the upcoming maintenance requirements and existing product descriptions compare information;

2) the need for product performance further improvement or improvement of products and potential errors made the necessary changes, the actual operation Differences in environmental and procurement environment;

3) inspection maintenance requirement is satisfied.

GB/T 29834.1 "System and Software Maintenance - Part 1. Indicator System" gives the measure of the index system maintenance, GB/T 29834.3 "Systems and Software Maintenance - Part 3. Test methods" describes test methods maintenance indicators. This section aims and in GB/T 29834.1 and GB/T 29834.3 combination.

Systems and software maintenance Part 2. Measurement Methods

1 Scope

This section GB/T 29834 on the basis of GB/T 29834.1 proposed index system, provides for maintenance of the system and software the amount of formula.

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

3 Terms and Definitions

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

4 Overview

Maintenance is an important quality systems and software features. System maintenance and software to measure, help us to understand whether the software Meet the requirements of maintenance requirements, it is conducive to the demand side, developer, and other timely detection, localization maintenance defects. According to GB/T 29834.1 Suo the definition of index system, using appropriate methods and formulas to measure each indicator, comparable quantitative values \u200b\u200bobtained.

Before implementing measure, the relevant measure should be stated in advance objects (such as modules, function) granularity.

This section presents a set of software and GB/T 29834.1 use with a measure of the quality of maintenance. Users should be from GB/T 29834.1 Select the maintenance indicators, measure and determine the appropriate test methods in accordance with specifications.

For one particular system or software, can be both complete maintenance, it could be for a part of system maintenance. Therefore to select the corresponding appropriate indicators for the specific objectives of its maintenance, improve maintenance of the measure of accuracy.

a) to obtain the source code and software system, you can remove the index system metrics for the code;

- b) For this maintenance function point completely unrelated, when measurement can give up;
- c) For other indicators can not measure, you can give up a measure.

Analysis of 5 Yi

5.1 Failure diagnosis efficiency

The failure diagnostic efficiency and accuracy indicator comprises two time failure diagnosis of the failure diagnosis, as shown in Table 1.