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GB/T 29831.2-2013

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

系统与软件功能性 第2部分：度量方法

(English Translation)

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Table of Contents

Introduction	
Introduction	
1 Scope	
2 Normative references	
3 Terms and definitions	
4 Functional decomposition Description	
Completeness 1	
2 6 correctness	
Appropriateness 7	
8 3 Interoperability	
9 Security and confidentiality of	
10 Compliance	
Appendix A (informative) software functions General Settings	
Reference	

Foreword

GB/T 29831 "systems and software functionality" is divided into three parts as follows.

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

This section GB/T 29831 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, the Shanghai Software Reviews Heart Co., Ltd. Shenzhen Technology Co. Angola measurement standards, Zhuhai force quasi-Electronic Technology Co., Beijing University of Posts and Telecommunications, Shanghai Pudong soft Member platform Ltd., Shanghai Baoxin Software Co., Ltd., Guangdong Software Testing Center, Shanghai Lu Qixin Information Technology Co., Ltd., Guangzhou Soft Information

Systems Management Consulting Co.

Introduction

This section GB/T 29831 with reference to GB/T 16260.2-2006 "Software engineering - Product quality - Part 2. External metrics" Specific Given the system and software functionality of the quality metrics and measurement formulas.

The method set forth in this section is not a complete set, is still exploring new methods not included. Functional testing of personnel from Select the appropriate method of this single part or a plurality of combinations of methods for measuring the functional quality of the system under test conditions; also repair Change or use other methods not covered in this section.

This section applies to a variety of software products and related computer systems with functional requirements, but not every indicator is applicable to all kinds of meter Computer software products and related systems.

The main users of this standard is expected to include.

- a) the demand side (obtained from the supplier or procurement system, software product or software service individual or organization);
- b) the evaluator (individual or organization to implement the evaluation);
- c) the supplier (the contract provided by the system, organization or individual software product or software service to the acquirer), which is indeed the eligibility test when using recognized software quality.

GB/T 29831.1 "Systems and software features - Part 1. Indicator System" gives the functional index system, GB/T 29831.3 "system Systems and software functionality - Part 3. Test methods "describes the test method for functional indexes. This section is intended and GB/T 29831.1 and GB/T 29831.3 combination.

Systems and software functionality Part 2. Measurement Methods

1 Scope

This section GB/T 29831 on the basis of GB/T 29831.1 proposed index system, provides the functionality of the system and software the amount of formula to provide a unified functional measure of demand-side system and software evaluator for the party.

This section applies to functional testing and measurement of computer software products and related systems.

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 GB/T 29831.1 systems and software functionality - Part 1. Index System

3 Terms and Definitions

Terms and definitions GB/T 11457 and GB/T 29831.1, as defined in this document apply.

4 Description of functional decomposition

Testing requirements for software functionality, the most important is to determine the software features. From different sides may have to distinguish between software functions in different ways, this section is not specified, but is given in Appendix A general method for setting the software functions. Refer to Appendix A functional decomposition of Select the method or other suitable method.

Completeness 5

Completeness is a measure of software requirements specification fully functional capacity, including full features, functions implemented End Integrity, functions to achieve coverage and other indicators, as shown in Table 1.

Table 1 Completeness

Index Name	Index Description	Measure, formula and data element computations
Measurements	Description Full sexual function	They are evaluated fully functional degree $X = 1 - A/B$ where.

A --- detected number does not meet the functional requirements;

B --- Total requirements specification described functionality Note. The general method is recommended to use functional decomposition, see Appendix A.

$0.0 \leq X \leq 1.0$, closer

1.0 more fully