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**Systems and software engineering - Functional size
measurement - MkII Function point analysis**

系统与软件工程 功能规模测量 MkII功能点分析方法

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents" drafting:

This document is modified to adopt ISO/IEC 20968:2002 "Software Engineering MkII Function Point Analysis and Counting Practice Guide":

Compared with ISO/IEC 20968:2002, this document has made the following structural adjustments:

- Added "Chapter 2 Normative References";
- Chapter 3 corresponds to Chapter 10 of ISO/IEC 20968:2002;
- Added "Chapter 4 Abbreviations";

---Chapter 5 corresponds to Chapter 2 of ISO/IEC 20968:2002, and the subsequent chapter numbers are extended;

---7:4:2~7:4:9 correspond to 4:4:1~4:4:8 of ISO/IEC 20968:2002;

---8:4 corresponds to 5:5 of ISO/IEC 20968:2002;

---10:2 corresponds to 7:1~7:5 of ISO/IEC 20968:2002:

The technical differences between this document and ISO/IEC 20968:2002 and their reasons are as follows:

---Change the scope of Chapter 1 (see Chapter 1), delete the content irrelevant to this document, in order to adapt to the application and application of standardized documents in our country use;

--- Added normative references to GB/T 18491.1 (see Chapter 3), citing its terms to facilitate the understanding and application of this document;

--- Changed the description of the terms 3:2, 3:4, 3:5, 3:6, 3:9, 3:10, 3:18, 3:20, 3:22, 3:25, 3:29 and 3:32 (see Section 3 Chapter), to ensure that terminology is consistent with current standards, and to enhance the coordination and consistency among functional size measurement standards;

--- Added a summary description of the rules (see Chapter 5) to further describe the meaning of the rules;

--- Deleted 5:4 of ISO/IEC 20968:2002, the technology is outdated and not applicable;

--- Deleted the terms Albrecht1984, Enhancement, GeneralSystem in Chapter 10 of ISO/IEC 20968:2002 the following editorial changes have been made to this document:

---In order to coordinate with existing standards, the name of the standard is changed to "System and Software Engineering Functional Scale Measurement MkII Function Point Analysis Method Law";

--- Added "note" in Chapter 5;

--- Added the number and title of "7:4:1 Overview" because it is a suspended paragraph;

--- Increase the number and title of "10:1 Overview" because it is a suspended paragraph;

--- Added column item number in 7:6: a)~h);

---The column item number i)~vi) of 8:2 is changed to a)~g);

--- Added figure numbers, figure titles, table numbers, table titles and their reference expressions, because: some figure numbers and table numbers in the original text are missing and not in order Arrangement; whether there are figure titles and table titles in the full text are not uniform;

- Changed the article number and article title in Appendix A and Appendix B;
- Added Appendix C (informative) "Application Cases of This Document";
- Deleted Appendix III of ISO/IEC 20968:2002, because this appendix is a reference and does not comply with the drafting rules of our country's standards:

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

The MkII function point analysis method is a method for quantitative analysis and scale measurement of information processing applications:

It expresses the scale of software products in the form of numbers based on the information processing requirements identified, and is suitable for performance measurement and evaluation related to software product activities:

In the case of MkII function point analysis, "information processing requirements" refers to the functional requirements set of application software product commissioned users (not including any technical and quality requirements), "activities" can be the development, optimization, or maintenance of software products to meet software requirements:

The MkII function point analysis method was published by Charles Symons in:1991 in "Scaling and Evaluation of Software: MkII Function Point Analysis" Defined in , developed internally at KPMG during 1985-1986 and protected as a proprietary method, is now publicly available: British Software Measurement Association the Society's Measurement Practices Committee (MPC) is currently the interpretation body for this method and is responsible for its continued development:

The purpose of this document is to establish rules for the use of MkII Function Point Analysis (FPA) and to provide standards for the MkII Function Point Analysis method:

The relationship between the MkII and IFPUG function point analysis methods is as follows:

a) Both of these software product size measures are subtle but significantly different: The main difference is the finer grained the MkII function point analysis is a continuous measurement, and once the IFPUG reaches the threshold, the component size is limited, and the MkII function point the point analysis method is designed to better reflect the complexity of the intermediate processing of commercial systems containing large amounts of data: due to scale measurement it is based on logical transactions and entities, in which software requirements and functional specifications are usually expressed, so the MkII functional scale Measurement has nothing to do with developing techniques or methods for implementing software:

b) In general, both methods give approximately the same software size at around 400

function points (for individual software projects Say, averages can be quite spread out): For larger-scale software, MkII function point analysis will calculate continuously increasing, relative IFPUG method for higher scale values:

c) For some applications (such as portfolio management of securities), the two methods may be considered equivalent: However, if used for the most Common performance measurement and estimation tend to use the same scale, and only use a display average when necessary:

The relationship formula can be converted:

System and software engineering functional size measurement MkII Function Point Analysis Method

1 Scope

This document specifies the usage rules, measurement process, general requirements, specific scene measurement requirements, and scale adjustment of the MkII function point analysis method:

methods and methods of estimating workload: The MkII function point analysis method is a method that helps to measure process efficiency and manage application software development, Ways to enhance or maintain activity costs: It measures the size of a software product independently of the technical characteristics of the software and is only relevant to users: it can:

- Early application in the software development process;
- Consistent and continuous application in the software life cycle;
- Explained by business, and can be understood by users who use the software:

This document applies to the functional size measurement of any software application described in terms of logical transactions, where each logical transaction includes Input, processing and output components: MkII's measurement rules apply to application software from the field of business information systems, where each logic Transaction processing components are mainly responsible for data storage or retrieval: MkII may also be suitable for software in other fields, but it should be noted that its measurement specifications it does not consider the scale of complex algorithms common in scientific engineering software, nor does it particularly consider the real-time requirements: Other areas are also possible the MkII function point analysis method is used, but the rules given in this document may need to be extended or new interpretations made: MkII function Point analysis methods can be used to measure the following scales:

- Requirements specification or functional specification for new applications or changes to existing applications;