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

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Replacing GB/Z 31102-2014

**System and software engineering - Software engineering body
of knowledge**

系统与软件工程 软件工程知识体系

(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 replaces GB/Z 31102-2014 "Software Engineering - Guide to the Software Engineering Body of Knowledge" and is consistent with GB/Z 31102-2014.

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Considering that this document has been changed from a national standardization guiding technical document to a recommended national standard, Chapters 4 to 14 have been added "General Principles". "General Principles" provides the knowledge topics that should be mastered and understood according to the knowledge subdomains (see 4.1, 5.1, 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1, 13.1, 14.1);

---Added a chapter on "Basics of Software Engineering" (see Chapter 15).

Introduction

With the rapid development of software engineering in recent years, the content of relevant knowledge systems and knowledge domains (KA) has changed.

After revision, this document lists 11 KA related knowledge, including. software requirements, software design, software architecture, software manufacturing, software testing, software maintenance, software configuration management, software engineering management, software engineering process, software engineering models and methods, software quality, Software engineering professional practice, and basic knowledge of software engineering economics, engineering, mathematical foundations, computing foundations, etc.

This document describes the content of the software engineering discipline and clarifies the status of software engineering. It shows that software engineering is closely related to project management, computer this document provides information on the various topics in the software engineering body of knowledge, for curriculum development, professional certification, and this document covers 11 KAs and 1 set of basic knowledge, which are divided into the following four categories.

--- Basic knowledge category, which stipulates the basic knowledge of software engineering that software engineers should master (Chapter 15), including software engineering experience Economics (15.1), Engineering (15.2), Mathematical Foundations (15.3), Computing Foundations (15.4) and related knowledge.

It is the cornerstone for other KAs to be built on;

--- Development and delivery, including the traditional waterfall life cycle model involving software requirements (Chapter 4), software design (Chapter 5), software Software Construction (Chapter 6), Software Testing (Chapter 7), Software Maintenance (Chapter 8)