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

GB/T 46687.1-2025

**Expression of machine language for standards - Part 1: General
requirements for basic architecture and element expression**

标准机器语言表达 第1部分：基本架构与要素表达通用要求

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 1 of GB/T 46687 "Standard Machine Language Expressions". GB/T 46687 has the following parts published.

1. Basic Architecture and General Requirements for Element Representation;

2. Guidelines for Standard Document Content Markup Based on XML. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Standards Digitalization Standardization Working Group (SAC/SWG29). This document was drafted by: Zhejiang Laboratory, China National Institute of Standardization, China Machinery Research Institute of Standardization (Beijing) Co., Ltd., and Beijing Municipality. Analysis and Testing Institute of Science and Technology Research Institute (Beijing Physical and Chemical Analysis and Testing Center), China Aerospace Standardization Institute, Beijing State Grid Information & Communication Co., Ltd. Senzhe Information Technology Co., Ltd., Beijing Xinnover Information Technology Co., Ltd., Shandong Provincial Computing Center (National Supercomputing Center in Jinan) Zhongshan City Shenzhen-Zhongshan Standards and Quality Research Center, Luxi Kean Special Equipment Testing Co., Ltd., China Association for Standardization, China Jiliang University, China Communications Construction Company Infrastructure Maintenance Group Co., Ltd., Jiangsu Zhongtian Technology Co., Ltd., Qingdao Zhongxin Huamei Plastics Co., Ltd., Beijing Sihe Technology Limited Liability Company, Hubei University, Zhejiang University, China Southern Power Grid Science Research Institute Co., Ltd., Beijing Academy of Science and Technology, Taizhou City Intellectual Property Office Intellectual Property Protection Center, Zhejiang Provincial Academy of Quality Sciences, Zhejiang Shuanghuan Transmission Machinery Co., Ltd., Zhejiang Qianjiang Robotics Co., Ltd. Zhejiang Sunshine Lighting & Electric Appliance Group Co., Ltd., China Electric Power Research Institute Co., Ltd., Primate (Suzhou) Consulting Co., Ltd. National Unified Social Credit Code Data Service Center for

Organizations, Beijing Zhongchenghui Standardization Technology Institute, New Hope Liuhe Co., Ltd. China Electronics Engineering Design Institute Co., Ltd., Chang'an University, Kunshan Guojianlian Information Technology Co., Ltd., Zhejiang Huanzhi Yunchuang Technology Co., Ltd. company. The main drafters of this document are. Liu Yanlin, Ma Xiaowen, Gao Yongmei, Liu Xize, Sun Zhaoyang, Chen Ting, Wu Yongliang, Wang Sining, Liu Yong, and Sun Jinyang. Ye Junwen, Liu Xiaona, Zhao Zhenxia, Li Jingsheng, Du Yue, Chen Shuangquan, He Wei, Gao Xia, Xu Zhiya, Wang Yongheng, Sui Yuan, Lin Zhengping, Wei Bao, Wang Tianyi Xu Xinsheng, Gao Jianguo, Ge Yongxin, Hong Penghui, Deng Heming, Chen Yichen, Gu Xinjian, Lu Xianli, Chen Zhang, Tao Longfei, Han Tongpeng, Chen Wenjun Li Xiaobing, Sun Yue, Deng Tao, Chen Liangfu, Sun Zhen, Zhang Debao, Zhang Jingxiao, Li Sheng, Zhang Canlu.

Standardized digital transformation is an inevitable trend for standardization work to adapt to global digital development. Standardized machine language expression is a form of standardized digitalization. The core content, and the foundation supporting the digitalization of applications. Standard machine language expressions reconstruct standard content from a machine-readable perspective, using machine language... Presenting the rules and characteristics carried by standards can improve the efficiency of standard knowledge utilization and enhance the adaptability of digital scenarios. GB/T 46687 "Standard Machine Language Expressions" is proposed to be divided into the following parts, which have different focuses but are also interconnected.

1. Basic Architecture and General Requirements for Element Expression. The aim is to establish a framework for drafting digital standards using machine language as the expression form. The overall requirements for on-time performance, and the basic framework of the corresponding digital standards.
2. Guidelines for Standard Document Content Markup Based on XML. The aim is to provide organizations and institutions with guidelines on using XML tags to mark up document content. References and suggestions are provided when marking up standard document content.
3. Feature Element Representation Methods. The aim is to provide a modeling and representation method for feature elements in standard machine language for various organizations and institutions. Provide the necessary expression methods when using it.
4. Specifications for using XML-based standard content structure tags. The purpose is to provide a framework for organizations and institutions to use XML. Tags provide rules to regulate the use of XML tags. This document is Part 1 of GB/T 46687, which standardizes digital standards that use machine language as their form of expression. This document provides a general overview; the other sections further detail the requirements for standard machine language expression content, methods, and applicable scenarios. It established the basic framework of digital standards using machine language as the form of expression, laying the conceptual foundation for digital standards and clarifying the standard machine

language. It serves to express the underlying logic. Standard machine language expression
Part

1 Scope

GB/T 46687.1-2025 is the Chinese national standard covering expressing a standard in a form a machine can execute - the architecture of the representation, the elements of a standard that get modelled, and the general rules the later parts build on. At 30,000 words, Part 1 of the series whose Part 3 on feature elements was published in 2026. First edition. It was issued on 2 December 2025 and has been in force since 1 July 2026, as a first edition. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document establishes the basic framework for digital standards using machine language as the form of expression, and specifies the general requirements for the expression of standard elements. It includes general requirements, basic elements of digital standards, characteristic elements, procedural elements, and auxiliary elements. This document applies to the development of digital standards that use machine language as their form of expression.

1.0

GB/T 37967-2019 XML-based national standard structured markup framework
interchangesyntax)

1.2 Standardization Work Guidelines Part

2.Rules for Drafting Standardization Documents Based on ISO /IEC Standardization Documents

GB/T 18793-2002 Information Technology - Extensible Markup Language (XML)

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 1.1-2020 Standardization Work Guidelines Part