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

GB/T 46848.4-2025

**Technical product documentation - Product design data
management requirements - Part 4: Authorization management**

技术产品文件 产品设计数据管理要求 第4部分：权限管理

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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 4 of GB/T 46848 "Requirements for the Management of Technical Product Documentation and Product Design Data". GB/T 46848 has been... The following sections were published.

1.General Provisions;

2.Numbering Principles;

3.Basic Procedures;

4.Access Control;

5.Document Management;

6.Product Structure Management;

7.Approval and Issuance;

8.Change Management;

9.Storage and Maintenance. 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 Technical Committee on Standardization of Technical Product Documentation (SAC/TC146). This document was drafted by: CRRC Qingdao Sifang Co., Ltd., CRRC Productivity Promotion Center Co., Ltd., and Wanxiang Qianchao. Joint-stock company, SAIC-GM-Wuling Automobile Co., Ltd., Beijing Aerospace Systems Engineering Research Institute, CRRC Dalian Locomotive & Rolling Stock Co., Ltd. The company, CRRC Qishuyan Locomotive

Co., Ltd., and China Machinery Research Institute (Beijing) Co., Ltd. The main drafters of this document are. Wen Bo, Wu Ying, Pan Kanghua, Wang Yunfeng, Shi Bomei, Gan Yutian, Li Junping, Pi Zan, Zhao Bo, Zhang Lichen, and Wang Hong. Dong Xianming, Xing Yingying, Gao Hongwei.

With the gradual application and promotion of 3D computer-aided design (CAD) technology, and the application of model-defined design (MBD) technology in manufacturing... Within enterprises, 3D digital models have gradually replaced 2D engineering drawings, becoming the core data carrier in the product development process. This shift... This change not only reflects the evolution of technological forms, but also signifies a profound transformation in product design methodologies and management models. Because 3D models are crucial in technological information... The data management and document control methods differ significantly from the traditional two-dimensional model in terms of information expression, data organization structure, and collaborative management. The process also faces systemic restructuring. To adapt to the development approach centered on 3D digital models, this system addresses the bottlenecks in product design data management within a 3D environment. The problem is to promote the popularization and engineering application of model-based definition technology, support the digital transformation and upgrading of my country's manufacturing industry, and formulate... GB/T 46848 "Requirements for the Management of Product Design Data in Technical Product Documentation". GB/T 46848 is based on the entire lifecycle of product design data. The management process is planned to consist of nine parts.

1.General Provisions. The purpose is to stipulate the general rules for the classification, compilation, archiving, copyright, and protection of product design data. It forms the foundation and framework for the entire series of standards.

2.Numbering Principles. The purpose is to define the general principles, basic requirements, and numbering methods for product design data files. This method ensures the consistency and traceability of data file identification.

1 Scope

GB/T 46848.4-2025 is the Chinese national standard covering who may see and change what - the roles and their rights over data at each state, the separation between the person who changes and the person who approves, and the record of every access. It is one of the seven parts of GB/T 46848 issued together, a first edition, and it belongs with the PLM system requirements of GB/T 47688-2026. It was issued on 31 December 2025 and has been in force since 1 April 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 specifies the classification, setting methods, and setting requirements for product design data permissions. This document applies to access control of product design data supported by information systems.

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 46848.1 Technical Product Documentation - Product Design Data Management Requirements - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 46848.1 and the following terms and definitions apply to this document.

3.1 permissions Information systems grant users permissions based on roles and processes, allowing them to perform certain operations on product design data. This is determined by the software system according to... According to the access control rules preset by the management department, automatic judgment and enforcement are performed based on the data attributes of the object being operated on.

3.2 Roles Named groups with specific permissions.

3.3 Revise Based on the data of the previously released product, a new version of the operation is generated.

3.4 owneruser Owner of product design data.

3.5 Access control rules Mapping relationship between users and roles for resource access permissions.

4. Classification of Product Design Data Access Permissions for product design data can be categorized into creation rights, browsing rights, editing rights, copying rights, deletion rights, downloading rights, printing rights, revision rights, and review rights. The meanings of various permissions, such as approval authority and change of ownership, are as follows:

a) Creation rights. Permission to create new product design data;