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**Industrial Internet platform - Application and implementation
guide - Part 3: Intelligentize manufacturing**

工业互联网平台 应用实施指南 第3部分：智能化制造

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Table of Contents

1 Scope	1
2 Normative references	1
2 Abbreviations	1
4 Main activities of intelligent manufacturing	2
2 Network Basics	3
4 Intelligent analysis	4
4 Performance Analysis	7
4 Performance Analysis	9
4 Performance Analysis	11
4 Performance Analysis	13
4 Performance Analysis	15
4 Performance Analysis	18
4 Performance Analysis	19
22 Reference	23

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 3 of GB/T 23031 "Industrial Internet Platform Application Implementation Guide": GB/T 23031 has been released The following parts:

---Part 1: General provisions;

---Part 2: Digital Management;

---Part 3: Intelligent Manufacturing;

---Part 4: Networked collaboration;

---Part 5: Personalization;

---Part 6: Service-oriented extension: Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents: This document is proposed by the Ministry of Industry and Information Technology of the People's Republic of China: This document is under the jurisdiction of the National Informationization and Industrialization Integration Management Standardization Technical Committee (SAC/TC573): This document was drafted by: China Academy of

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As a product of the deep integration of new generation information technology and manufacturing industry, the industrial Internet platform achieves all elements of industrial economy and all industries: The comprehensive connection of the entire value chain and the entire value chain supports the digital, networked, and intelligent transformation of the service manufacturing industry, and continuously promotes the creation of new models, new business formats, and new products: Industry: At present, my country's industrial Internet platform has entered a period of accelerated development: The depth and breadth of platform applications are constantly increasing: Enterprises generally start from digital management: Build a development model based on the industrial Internet platform in terms of management, intelligent manufacturing, networked collaboration, personalized customization, service extension, etc: It is of great significance in accelerating the digital

transformation, upgrading and innovative development of enterprises: However, there are common problems in the process of enterprise application and implementation of industrial Internet platforms: Facing problems such as irregular processes, unclear paths, and unclear methods, it is urgent to grasp the basic common laws of industrial Internet platform application and implementation, and research Formulated into a series of standards for industrial Internet platform application implementation guidelines to provide standardized, operable, and easy-to-promote implementation of industrial Internet platform applications: Guidance from a wide range of methods will accelerate the pace of digital transformation in the manufacturing industry: GB/T 23031 "Industrial Internet Platform Application Implementation Guide" aims to provide An implementation methodology for applying industrial Internet platforms and constructing innovative development models is planned to consist of six parts:

---Part 1: General principles: The purpose is to establish a universal method for enterprise application and implementation of industrial Internet platform, and propose the industrial Internet The main tasks and key steps of platform application implementation:

---Part 2: Digital Management: The purpose is to give the specific capability requirements of digital management for industrial Internet platforms and clarify the The service content and application methods of the industrial Internet platform required for the construction of a new digital management development model:

---Part 3: Intelligent Manufacturing: The purpose is to give the specific capability requirements of intelligent manufacturing for industrial Internet platforms and clarify the The service content and application methods of the industrial Internet platform required for the construction of a new development model of energy and chemical manufacturing:

---Part 4: Networked collaboration: The purpose is to give the specific capability requirements of networked collaboration for the industrial Internet platform and clarify the network The service content and application methods of the industrial Internet platform required for the construction of a new model of networked collaborative development:

---Part 5: Personalization: The purpose is to provide specific capability requirements for industrial Internet platforms for personalized customization, and to clarify individual The service content and application methods of the industrial Internet platform required for the construction of a new model of personalized customization development:

---Part 6: Service-oriented extension: The purpose is to provide the specific capability requirements for the industrial Internet platform for service-oriented extension and clarify the service requirements: The service content and application methods of the industrial Internet platform required to build a new model of service-oriented extension development: Industrial Internet Platform Application Implementation Guide Part 3: Intelligent Manufacturing

1 Scope

GB/T 23031.3-2023 is the Chinese national standard on industrial internet platform - application and implementation guide - part 3:intelligentize manufacturing, in the field of information technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 28 December 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2024. Classification: ICS 35.240.50, CCS L67. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document gives specific methods for implementing industrial Internet platform applications for intelligent manufacturing, starting from typical requirements and platform service selection: It provides solutions for building an intelligent manufacturing development model based on the industrial Internet platform in terms of selection, platform service application and implementation, and performance analysis: guide: This document is applicable to enterprises that plan to deploy and apply industrial Internet platforms, and third-party service providers that build and promote industrial Internet platforms: and scientific research institutes, focusing on factory internal equipment operation management, production planning and production scheduling, production operation execution, logistics and warehousing management, quality management, energy Intelligent transformation will be carried out in aspects such as source management, safety and environmental protection management:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB/T 23031:1-2022 Industrial Internet Platform Application Implementation Guide Part 1: General Principles

3 Terms, definitions and abbreviations 3:

1 Terms and definitions The following terms and definitions apply to this document: 3:1:

1 Facing the production and manufacturing links within the factory, relying on the industrial Internet platform for data aggregation, knowledge precipitation, intelligent analysis and agile