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

GB/T 32855.2-2020

**Advanced automation technologies and their applications. Requirements for
establishing manufacturing enterprise process interoperability - Part 2: Maturity
model for assessing enterprise interoperability**

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Foreword

GB/T 32855 "Advanced automation technology and its application manufacturing enterprise process interoperability establishment requirements" is divided into three parts:

---Part 1: Enterprise Interoperability Framework;

---Part 2: Evaluation of the enterprise interoperability maturity model;

---Part 3: Enterprise interoperability requirements driven by information and communication technology:

This part is Part 2 of GB/T 32855:

This section was drafted in accordance with the rules given in GB/T 1:1-2009:

The translation method used in this part is equivalent to the adoption of ISO 11354-2:2015 Advanced Automation Technology and its Application Manufacturing Enterprise Process Interoperability

Workability establishment requirements Part 2: Evaluation of the maturity model of enterprise interoperability:

This section has made the following editorial changes:

---The abbreviation "MMEI" was added, and the acronyms "ATHENA", "INTEROP" and

"SME" were deleted:

Please note that certain contents of this document may involve patents: The issuing agency of this document is not responsible for identifying these patents:

This part was proposed by China Machinery Industry Federation:

This part is under the jurisdiction of the National Automation System and Integration Standardization Technical Committee (SAC/TC159):

Drafting organizations of this section: Beijing Machinery Industry Automation Research Institute Co., Ltd., Qingdao Haier Industrial Intelligence Research Institute Co., Ltd., Bengbu

Keda Electric Co., Ltd., Beijing University of Aeronautics and Astronautics, Anhui Yinhan Electromechanical Technology Co., Ltd:

Introduction

This part is based on GB/T 32855:1, describes the background and purpose of GB/T 32855 (all parts), and provides a description and expression

The Enterprise Interoperability Framework (FEI) of the concerns, obstacles and methods to achieve enterprise interoperability has determined that it is important for enterprise interoperability

Meaningful concerns (business, process, service, and data) and three types of obstacles (conceptual, technical, and organizational), which clarify the processing concerns

Three ways to point and overcome obstacles (integrated, unified and joint):

The obstacles and concerns identified in Part 1 of GB/T 32855 are used to describe the five-level characteristics of interoperability maturity: These ones

Every combination of barriers and concerns and all levels of interoperability maturity specify several mechanisms to enable enterprises to interoperate with them

Sexual ability is evaluated, and these mechanisms can be compared and evaluated with the maturity level description: Then clarified the following two kinds of total

Methods of physical assessment:

a) through concerns and obstacles;

b) Pass the maturity level:

Provides an illustrative method to show how to combine focus assessment and obstacle assessment into a graphical representation to provide

An overall display of the company's existing interoperability capabilities ("realistic

capabilities"): In addition, these analyses and expressions can be used to determine the

These shortcomings require frequent investment and reforms ("future capabilities"):

GB/T 32855 (all parts) focuses on but not limited to enterprise (manufacturing or service) interoperability, and aims to focus on evaluating enterprise interoperability

Use by functional personnel, as well as to identify areas that need improvement in order to meet the needs and goals of the enterprise:

Advanced automation technology and its application

Manufacturing enterprise process interoperability establishment requirements

Part 2: Evaluate the Maturity Model of Enterprise Interoperability

1 Scope

This part of GB/T 32855 specifies:

- Indicates the level of interoperability between the company and other companies;
- Measures to evaluate the interoperability of specific enterprises with other enterprises;
- Combining these measures into two overall assessment methods:
 - * Maturity level based on concerns and obstacles;
 - * Evaluation of the four designated maturity levels:
- A method used to graphically express concerns and overall assessment of obstacles, this method is also used to determine the higher expectations

The capabilities required for a level of interoperability:

2 Normative references

The following documents are indispensable for the application of this document: For dated reference documents, only the dated version applies to this article

Pieces: For undated references, the latest version (including all amendments) applies to this document:

GB/T 32855:1-2016 Advanced Automation Technology and Its Application Manufacturing Enterprise Process Interoperability Establishment Requirements Part 1

Sub: Enterprise Interoperability Framework (ISO 11354-1:2011, IDT)

3 Terms and definitions

The following terms and definitions apply to this document:

3:1

Enterprise

One or more organizations that jointly undertake to determine the mission, goals and objectives to provide products or services and other outputs:

Note: This term includes related concepts such as expanded enterprise, virtual enterprise, etc:

[GB/T 18757-2008, definition 3:6]

3:2

Enterprise interoperability

The ability of an enterprise to communicate and interact effectively and the ability of an entity within the enterprise:

Note: If the interaction occurs in at least one of the four interoperability focus areas of data, service, process, and business, then interoperability is of great significance:

[GB/T 32855:1-2016, definition 2:1]

3:3

Enterpriseinteroperation

Interactions between business entities: