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

GB/T 34044.1-2019

**Automation systems and integration -- Key performance
indicators (KPIs) for manufacturing operations management --
Part 1: Overview, concepts and terminology**

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Foreword

GB/T 34044 "Key Performance Indicators for Automation System and Integrated Manufacturing Operation Management" is divided into the following sections.

--- Part 1. Overview, concepts and terminology;

--- Part 2. Definition and description;

--- Part 3. Interaction and use;

--- Part 4. Contact and subordinate.

This part is the first part of GB/T 34044.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to ISO 22400-1:2014 "Automatic systems and integrated manufacturing operations management key performance indicators

Part 1. General, Concepts and Terminology.

This section has made the following editorial changes.

--- The original standard Chapter 2 is incorrectly numbered, and is corrected from "2.1.1~2.1.9" to "2.1~2.9".

Introduction

Key Performance Indicators (KPIs) for Manufacturing Operations Management (MOM) can be used to improve the enterprise value creation process.

Businesses quantify all aspects of their activities by measuring performance. GB/T 34044 focuses on performance that is valuable for improved operational performance

measure. These performance measures can be achieved by combining various business measurements and forming key performance indicators (KPIs). Performance monitoring

The KPI value can be used to determine trends associated with certain business objectives.

Within the enterprise, various business areas such as sales, manufacturing, engineering, marketing, and other business support functions have different performance metrics. This

These different performance metrics are used together to monitor the achievement of business goals.

National standards for key performance indicators are useful for comparing business operations over time and comparing similar operations with other companies in the industry.

Camp situation.

Management of manufacturing operations is typically associated with intermediate levels in the functional hierarchy of the manufacturing enterprise. In IEC 62264-1 "Enterprise Control System

Integration Part 1. Models and Terminology, Manufacturing Operations Management (abbreviated as MOM) domains are enterprise domains (Tier 4) and control domains (Tier 1

Intermediate domain between and layer 2).

The KPIs defined in this section are calculated by the data of the control domain, and provide decision-making branches for the enterprise domain and the MOM domain.

Hold the information.

Part 1 of GB/T 34044 describes the general description, concepts and terminology of KPIs. Part 2 covers the calculation and measurement of KPI components.

Guiding Principles. The rest of GB/T 34044 will cover the content and background definitions of KPI exchanges and usage, relationship specifications, and KPIs.

Dependencies and the maturity of KPI collection and use.

Automation system and integration

Key performance indicators for manufacturing operations management

Part 1. Overview, concepts and terminology

1 Scope

This part of GB/T 34044 specifies an industry neutral framework for defining, organizing, exchanging and using key performance indicators.

(KPI). These KPIs are used in the manufacturing operations management of batch processes, continuous processes and discrete industries as defined in IEC 62264-1.

This part.

--- provides an overview of the KPI;

- introduced the relevant concepts of KPI, including the guidelines for building KPIs;
- Specification of KPI related terms;
- Describe how to use KPIs.

2 Terms and definitions

The following terms and definitions apply to this document.

2.1

Capability

The ability to take action.

Note. This definition includes qualifications and metrics for capabilities (similar to capacity).

[Changed from GB/T 20720.1-2019, 3.1.6]

2.2

Element element

Used for relevant measurements in the key performance indicator (2.5) formula.

2.3

Integrated integration

Two or more entities can constitute, or be observed as, the state or condition of a single individual; the individual exhibits a structure, a

Sex and a boundary are determined by the interoperability characteristics of the individual and perform common tasks as needed.

[Changed from GB/T 27758.1-2011, 3.9]

2.4

Interoperability

Two or more entities exchange items according to a set of rules and mechanisms through the interface of each entity in order to perform their respective tasks.

(item) ability.

Note 1. Examples of entities include equipment, equipment, machinery, personnel, processes, applications, software units, systems, and enterprises.

Note 2. Examples of matters include information, materials, energy, controls, assets, and opinions.

[GB/T 27758.1-2011, 3.12]

2.5

Key performance indicator keyperformanceindicator

A quantifiable level of achievement of key objectives.

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