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**Information technology - Digital twin for workshop - Reference
architecture**

信息技术 车间数字孪生 参考架构

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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Information Technology Workshop Digital Twin Reference Architecture

1 Scope

This document specifies the reference architecture of the workshop digital twin as well as the workshop digital entities, workshop digital twin applications, and information interaction.

This document is applicable to the specifications of digital twins of different types of workshops, such as discrete manufacturing workshops, process manufacturing workshops,

and hybrid manufacturing workshops.

Planning, construction, operation and maintenance.

2 Normative references

GB/T 43441.1-2023

3 Terms and Definitions

The terms and definitions defined in GB/T 43441.1-2023 and the following apply to this document.

3.1 physical workshop

In order to independently complete and execute actual production tasks, the required personnel, equipment, tools and materials, as well as workshop layout, process flow, etc.

The basic unit of composition.

Note. Physical workshops include three types. discrete manufacturing workshops, process manufacturing workshops, and mixed manufacturing workshops.

3.2 Express

Digitalization of the physical shop floor (3.1) with a data connection that ensures synchronization between the physical and virtual states at an appropriate rate and accuracy

4 Abbreviations

The following abbreviations apply to this document. CAD. Computer-Aided Design CAM. Computer-Aided Manufacturing