IEC 63082-1

Edition 1.0 2025-09

INTERNATIONAL STANDARD

Intelligent device management -
Part 1: Concepts and terminology

ICS 25.040.40

ISBN 978-2-8327-0689-3

IEC 63082-1:2025-09(en)

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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Intelligent device management - Part 1: Concepts and terminology

FOREWORD

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IEC 63082-1 has been prepared by subcommittee 65E: Intelligent Device Management, of IEC technical committee 65: Industrial-process measurement, control and automation. It is an International Standard.

This first edition cancels and replaces the first edition of IEC TR 63082-1 published in 2020. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC TR 63082-1:2020:

a) alignment with clause structure of IEC 63082-2.

The text of this International Standard is based on the following documents:

Draft	Report on voting
65E/1175/FDIS	65E/1182/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

A list of all parts in the IEC 63082 series, published under the general title *Intelligent device management*, can be found on the IEC website.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

The purpose of the IEC 63082 series is to define an environment that enables the effective use of intelligent devices. The IEC 63082 series defines common concepts, terminology, and management activities.

Intelligent device management (IDM) represents activities for managing intelligent devices through the facility life cycle and does not imply a particular asset management tool or set of those tools. Hardware and software tools are necessary to support work processes and procedures, but specification of the tools is not a part of the IEC 63082 series. IDM is one of many enterprise programs. IDM activities optimize the value from intelligent devices and supports integration of data from the production level with business systems. IDM is consistent with smart manufacturing initiatives.

Several stakeholders are responsible for delivering successful intelligent device management, including engineering, procurement, and construction (EPC) contractors, owner operators, system integrators, suppliers, and consultants.

The IEC 63082 series is not intended to replace or contradict other standards, for example IEC 61511 (all parts) for safety instrumented systems and IEC 62443 (all parts) for cybersecurity.

While the work processes and implementation practices specified in the IEC 63082 series might be used for non-automation equipment with some diagnostic capability, the IEC 63082 series does not cover these equipment types.

The IEC 63082 series consists of the following parts:

- IEC 63082-1: Concepts and terminology;
- IEC 63082-2: Requirements and recommendations.

This document defines intelligent device management concepts and terminology necessary for in-depth understanding and effective communication. It gives the basic concepts of how intelligent devices can be managed and an overview of how this device management works throughout the facility life cycle. This document provides basic knowledge to understand the concepts of intelligent device management necessary to implement an IDM program.

IEC 63082-2:2024 provides provisions (requirements and recommendations) in the body of the document. Additional information on why a requirement is given are provided in its Annex A. The information provided in this document is intended to be useful as background material for better understanding of the provisions in IEC 63082-2. As both IEC 63082-1 and IEC 63082-2 are based on the same lifecycle model effort has been made to align the clauses/headings between the two documents, thus making it easier for the reader to correlate content.

1 Scope

This part of IEC 63082 defines the concepts and terminology necessary to understand and communicate effectively about intelligent device management (IDM). This document explains the relationship between IDM and other existing asset management standards.

Additionally, this document describes principles and defines organizational and functional structures associated with IDM. This document also introduces the concept of IDM program for coordination of multiple stakeholders.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 63082-2:2024, *Intelligent device management - Part 2: Requirements and recommendations*