



BSI Standards Publication

Intelligent device management

Part 1: Concepts and terminology

National foreword

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TECHNICAL REPORT



Intelligent device management – Part 1: Concepts and terminology

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ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INTELLIGENT DEVICE MANAGEMENT –**Part 1: Concepts and terminology****FOREWORD**

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IEC TR 63082-1, which is a Technical Report, has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

The text of this Technical Report is based on the following documents:

Draft TR	Report on voting
65E/653/DTR	65E/677/RVDTR

Full information on the voting for the approval of this Technical Report can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The purpose of the IEC 63082 series is to define an environment that enables the effective use of industrial intelligent devices (IID). The documents provide common concepts, terminology, and management activities.

Intelligent device management (IDM) represents activities for managing intelligent devices through the facility lifecycle 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 can be one of many enterprise programs. IDM activities optimize the value from intelligent devices and supports the concepts of integration of data from the production level with business systems. IDM is consistent with smart manufacturing initiatives.

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 will consist of the following parts:

- IEC TR 63082-1: Concepts and terminology (informative);
- IEC 63082-2: Work process requirements (normative).

IEC 63082-1 describes 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 lifecycle. IEC 63082-1 provides basic knowledge to understand the concepts of intelligent device management necessary to implement an IDM program.

IEC 63082-2 will provide normative requirements for IDM.

INTELLIGENT DEVICE MANAGEMENT –

Part 1: Concepts and terminology

1 Scope

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

Additionally, this document provides activity structures and concepts associated with IDM programs. This document also introduces the concept of IDM programs for coordination of multiple stakeholders.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1.1 activity

set of actions that consume time and resources and whose performance is necessary to achieve, or contribute to, the realization of one or more objectives

Note 1 to entry: Includes work processes, procedures, and tasks.

[SOURCE: ISO/IEC TR 24766:2009, 3.1, modified – "outcomes" was replaced with "objectives" and the note has been added.]

3.1.2 alarm

notification to the operator of an equipment malfunction, process deviation, or abnormal condition requiring a unique, timely, and documented (predetermined) response from the operator

[SOURCE: IEC 62682:2014, 3.1.7, modified – "an audible and/or visible means of indicating" was replaced with "notification", "timely response" was replaced with "unique, timely, and documented (predetermined) response from the operator".]