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HORIZONTAL PUBLICATION
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**Industrial systems, installations and equipment and industrial products –
Identification of terminals within a system**

**Systèmes industriels, installations et appareils, et produits industriels –
Identification des bornes dans le cadre d'un système**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INDUSTRIAL SYSTEMS, INSTALLATIONS
AND EQUIPMENT AND INDUSTRIAL PRODUCTS –
IDENTIFICATION OF TERMINALS WITHIN A SYSTEM**

FOREWORD

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 61666 edition 2.1 contains the second edition (2010-08) [documents 3/1001/FDIS and 3/1008/RVD] and its amendment 1 (2021-06) [documents 3/1487/FDIS and 3/1514/RVD].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 61666 has been prepared by IEC technical committee 3: Information structures, documentation and graphical symbols

It has the status of a horizontal standard in accordance with IEC Guide 108.

This second edition constitutes a technical revision.

This edition includes the following substantial changes with respect to the previous edition:

- the terminology used in the publication has been adapted to the one used in IEC 81346-1 Ed.2;
- a more comprehensive description of the designation principles is provided;
- additional examples illustrating terminal designations related to the function aspect and location aspect are provided;
- an additional example illustrating the use of terminal designation sets is provided;
- the former informative Annex A has been turned into a clause in the standard.

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

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

- reconfirmed,
- withdrawn,
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INDUSTRIAL SYSTEMS, INSTALLATIONS AND EQUIPMENT AND INDUSTRIAL PRODUCTS – IDENTIFICATION OF TERMINALS WITHIN A SYSTEM

1 Scope

This International Standard establishes general principles for the identification of terminals of objects within a system, applicable to all technical areas (for example mechanical engineering, electrical engineering, construction engineering, process engineering). They can be used for systems based on different technologies or for systems combining several technologies.

Requirements for marking of terminal designations on products are not part of this publication.

NOTE The standard is based on the general principles for the structuring of systems including structuring of the information about systems, established in the International Standard ISO/IEC 81346 series, published jointly by IEC and ISO.

2 Normative references

The following referenced documents are indispensable for the application 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 60417, *Graphical symbols for use on equipment*

IEC 60445, *Basic and safety principles for man-machine interface, marking and identification – Identification of equipment terminals and conductor terminations*

IEC 60757, *Code for designation of colours*

IEC 61082-1:2006, *Preparation of documents used in electrotechnology – Part 1: Basic rules*

IEC 81346-1, *Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations – Part 1: Rules*

IEC 81714-3, *Design of graphical symbols for use in the technical documentation of products – Part 3: Classification of connect nodes, networks and their encoding*

3 Terms and definitions

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

3.1

object

entity treated in a process of development, implementation, usage and disposal

NOTE 1 The object may refer to a physical or non-physical “thing”, i.e. anything that might exist, exists or did exist.

NOTE 2 The object has information associated to it..

[IEC 81346-1, definition 3.1]