

SLOVENSKI STANDARD
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Osrednja vsebina [f] b] 'g]a Vc`cj `nUfUvc`bUcdfYa]!'%XY.`CV]_cj Ub^Y
 [f] b] 'g]a Vc`cj

Basic principles for graphical symbols for use on equipment - Part 1: Creation of symbol originals

iTeh STANDARD PREVIEW

Principes de base pour les symboles graphiques utilisables sur le matériel - Partie 1: Création des dessins originaux de symboles

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2001-06

**Principes de base pour les symboles graphiques
utilisables sur le matériel –**

**Partie 1:
Création des dessins originaux de symboles**

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Basic principles for graphical symbols
for use on equipment –**

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**Part 1:
Creation of symbol originals**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

BASIC PRINCIPLES FOR GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT –

Part 1: Creation of symbol originals

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this international standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 80416-1 has been prepared by IEC subcommittee 3C: Graphical symbols for use on equipment, of IEC technical committee 3: Information structures, documentation and graphical symbols.

This International Standard has been prepared in co-operation with ISO/TC145.

This standard replaces ISO 3461-1 (1988) and IEC 60416 (1988).

The text of this standard is based on the following documents:

FDIS	Report on voting
3C/600/FDIS	3C/654/RVD

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

In order to collect all requirements concerning relevant basic principles within one single numerical series, ISO technical committee 145: Graphical symbols and IEC technical committee 3 agreed to publish all parts of this International Standard within the 80416 series. The Technical Management Board of ISO and the Committee of Action of IEC have decided that, for each part of this series, one organisation shall be chosen responsible. The technical committees involved have agreed not to change any part of International Standard 80416 without mutual agreement.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

International Standard 80416 consists of the following parts, under the general title *Basic principles for graphical symbols for use on equipment*:

- | | |
|---------------|--|
| Part 1: 2001, | Creation of symbol originals (<i>published by IEC</i>) |
| Part 2: 2001, | Form and use of arrows (<i>published by ISO</i>) |
| Part 3, | Guidelines for the application of graphical symbols (<i>being prepared, and to be published by IEC</i>) |
| Part 4, | Supplementary guidelines for the adaptation of graphical symbols for use on screen and displays (icons) (<i>under consideration</i>) |

The committee has decided that the contents of this publication will remain unchanged until 2003. At this date, the publication will be

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

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Introduction

A graphical symbol is a visually perceptible figure used to transmit information independently of language. Graphical symbols are used on equipment for a wide range of purposes. For such symbols, consistency in the design of families of symbols used in one location or on similar equipment is an important issue, as is legibility when these symbols are reduced to small dimensions. Thus, there is a need to standardize the principles for creating graphical symbols for use on equipment to ensure visual clarity, to maintain consistency and thereby to improve recognition.

This multi-part standard addresses the basic rules used to create graphical symbols for use on equipment, including line widths, form and use of arrows, negation elements, and use of the basic pattern which serves as a guideline for drawing equipment symbols. These design principles are required to be used for all graphical symbols for use on equipment: the standardized graphical symbols of which are found in ISO 7000 and IEC 60417.

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BASIC PRINCIPLES FOR GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT –

Part 1: Creation of symbol originals

1 Scope

International Standard 80416 series provides principles and guidelines for the creation of symbol originals and the application of graphical symbols for use on equipment prepared within ISO and IEC.

This Part 1 of the standard specifies the key principles for the creation of symbol originals for use on equipment. In accordance with the intended meaning of the symbol originals, it contains rules for design such as shape and size, and also for preparation of the accompanying texts.

This standard applies to graphical symbols used:

- to identify the equipment or a part of the equipment (for example, a control or display);
- to indicate functional states or functions (for example, on, off, alarm);
- to designate connections (for example, terminals, filling points);
- to provide information on packaging (for example, identification of content, instructions for handling);
- to provide instructions for the operation of the equipment (for example, limitations of use).

This standard does not apply to symbol originals for:

- safety signs; <https://standards.iteh.ai/catalog/standards/sist/692f9449-9eef-4754-b49-8473b873669e/sist-iec-80416-1-2002>
- use on drawings and diagrams;
- use in technical documentation of products and in technical product documentation;
- use for public information.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 80416-2:2001, Basic principles for graphical symbols for use on equipment – Part 2: Form and use of arrows

ISO 7000, Graphical symbols for use on equipment – Index and synopsis

IEC 60417-1, Graphical symbols for use on equipment – Part 1: Overview and application

IEC 60417-2, Graphical symbols for use on equipment – Part 2: Symbol originals

ISO 3864, Safety colours and safety signs

3 Definitions

For the purpose of this International Standard, the following definitions apply.

3.1

graphical symbol

visually perceptible figure with a particular meaning used to transmit information independently of language

3.2

graphical symbol element

part of a symbol original with a particular meaning

NOTE 1 Letters, numerals, punctuation marks and mathematical symbols may be used as graphical symbol elements (see ISO 31 and IEC 60027).

NOTE 2 A graphical symbol element with a specific meaning may be used to provide a common concept in the construction of a symbol family.

3.3

symbol original

drawing of a graphical symbol, prepared in accordance with this standard, used for reference or reproduction purposes

3.4

corner marking

part of a symbol original, four of which define the frame of the symbol original; see 7.3 and figure 8

3.5

title

unique name by which a graphical symbol is identified and spoken of

NOTE The title should be as short as possible; it is only intended to provide a unique name for the graphical symbol and not to describe its application.

3.6

description

normative text attached to the graphical representation of the symbol original which defines the purpose, the application and the use of the symbol original

4 Meaning

4.1 Assignment

The meaning assigned to each symbol original is the result of associating a title, a graphical representation and a description of the application. The assigned meaning should be unambiguous and independent of terms related to a special technique or discipline.