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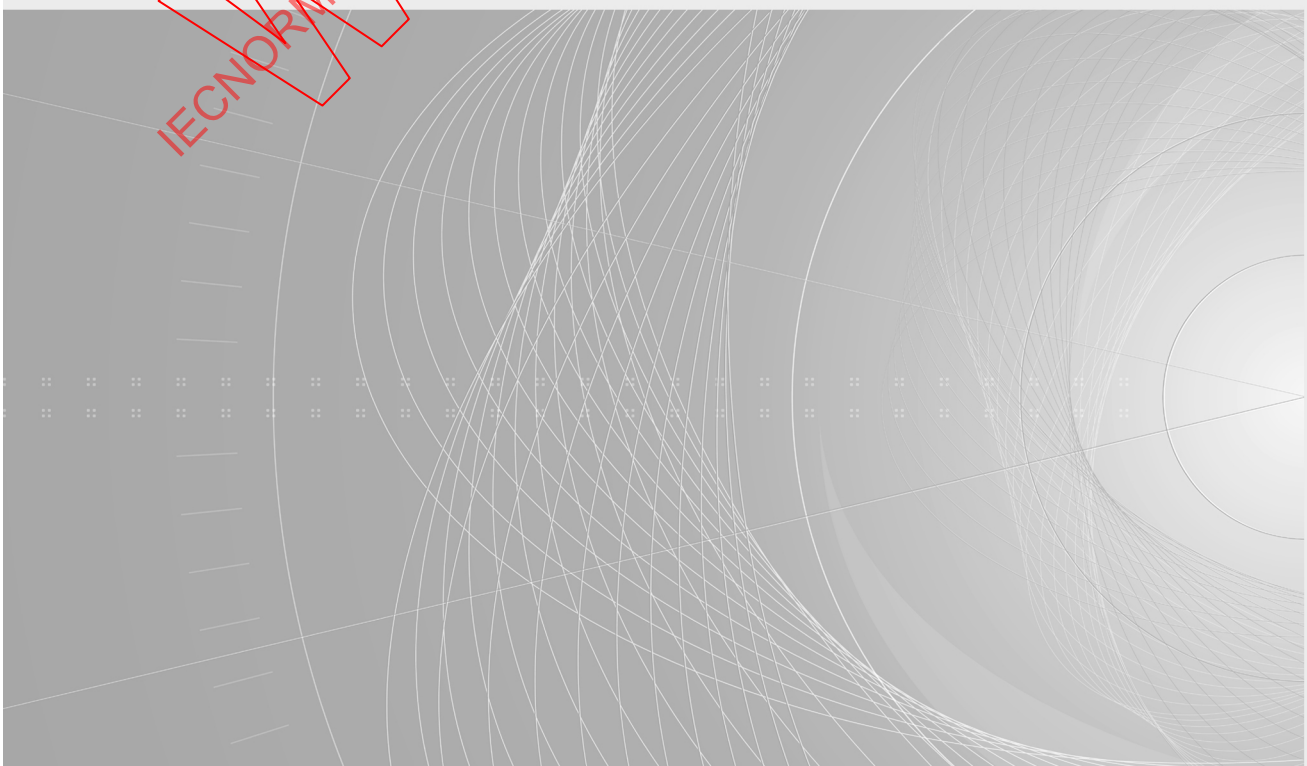
TECHNICAL REPORT

Graphical symbols for use on equipment – Terminology



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GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT – TERMINOLOGY

FOREWORD

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IEC 62687, which is a technical report, has been prepared by subcommittee 3C: Graphical symbols for use on equipment, of IEC technical committee 3: Information structures, documentation and graphical symbols.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
3C/1693/DTR	3C/1713/RVC

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

The committee has decided that the contents of this publication 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- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

The publications cited in the Bibliography, published by IEC, ISO and ITU constitute the source for the glossary in this Technical report.

The terms are primarily collected from Clause 3, “Terms and definitions” of these publications but in some cases terms are also taken from other parts of these publications.

GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT – TERMINOLOGY

1 Scope

This Technical Report contains a collection of terms (glossary) used in IEC, ISO and ITU publications in the field of graphical symbols for use on equipment including some related fields.

Some terms are annotated and/or modified for the purpose of clarification.

2 Normative references

None.

3 Terms and definitions

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

3.1
caution
signal word used to indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury

[ISO 17724:2003, 6]

3.2
danger
signal word used to indicate an imminently hazardous situation which, if not avoided, may result in death or serious injury

[ISO 17724:2003, 18]

3.3
dynamic graphical symbol
graphical symbol for use on a monitor screen and a console display whose colour and/or appearance change in accordance with the internal status of the piece of equipment

3.4
glyph
recognizable abstract graphic symbol which is independent of any specific design

[ISO/IEC 9541-1:1991, 3.12]

3.5
glyph image
image of a glyph, as obtained from a glyph representation displayed on a presentation surface

[ISO/IEC 9541-1:1991, 3.15]

3.6
graphic symbol
visual representation of a graphic character or of a composite sequence

[ISO/IEC 10646-1:1993, 4.19]

3.7
graphic character
character, other than a control function, that has a visual representation normally handwritten, printed, or displayed

[ISO/IEC 10646-1:1993, 4.18]

3.8
graphical symbol
visually perceptible figure with a particular meaning used to transmit information independently of language

[IEC 80416-1:2008, 3.4]

[ISO 17724:2003, 31]

NOTE 1 The unique nature of graphical symbols is their language independence. Therefore, the use of letters and punctuation marks as graphical symbol elements should be avoided.

NOTE 2 Graphical symbols are usually abstract representations that stand for something but that require learning on the part of users to take on their meaning.

3.9
graphical symbol for use on equipment
graphical symbol for use on associated assemblies intended to achieve a defined final objective

[Derived from IEC 80416-1:2008]

3.10
icon
graphical symbol presented on a screen or display

NOTE 1 Icons can be static, interactive and change as the result of user input or dynamic and change as the result of equipment status.

[ISO 80416-4:2005, 3.3]

NOTE 2 Alternative definitions depending on domains are as follows:

– user interface [symbol / object] representing an object or a function of the computer system [ISO/IEC FCD 11581-10, 3.4 modified]

– symbol or combination of symbols in graphical user interfaces representing a function of the computer system

– object of manipulation of a function of the computer system through graphical user interfaces for computer applications

  - Icons should be graphical representations that convey information with a minimum reliance on language.
  - Icons have dynamic nature depending on the function of the computer system.
  - Icons may be entirely abstract, like graphical symbols, or pictorial, like pictograms, or fall at some point between those extremes.

3.11
pictogram
simplified pictorial representations, used to guide people and tell them how to achieve a certain goal

[ITU-T E.121:2006, 3.1, modified]

NOTE 1 Pictograms should be graphical representations that convey information with a minimum of reliance on language.

NOTE 2 Pictograms are, as far as possible, self-explanatory, and require little or no learning on the part of users.

NOTE 3 Pictorial representation can be two- or three-dimensional.

3.12
safety related graphical symbol
graphical symbol for use on equipment that conveys a message with a relation to personal and/or equipment safety and that is not qualified as a safety sign, e.g. because the related risk is comparatively low

NOTE A safety related graphical symbol may e.g. express a prohibition (Do not ... !) or a warning related to a specific hazard (Caution! ...), however it is not required to use the safety colours and shapes according to ISO 3864. It can be standardized in IEC 60417 or ISO 7000.

3.13
safety sign
sign which gives a general safety message, obtained by a combination of colour and geometric shape and which, by the addition of a graphical symbol, gives a particular safety message

[ISO 17724:2003, 68]

3.14
sign
configuration of visual elements including symbols, text and shapes intended to communicate a given meaning

[ISO 17724:2003, 71]

3.15
signal word
word that calls attention to a potentially or imminently hazardous situation

[ISO 17724:2003, 73]

3.16
symbol
visual (audible or tactile) sign, single letter, numeral, punctuation mark each of which has a fixed meaning

NOTE 1 Symbols are usually graphical representations that convey information with little reliance on language.

NOTE 2 Symbols are usually abstract representations that stand for something but that require learning on the part of users to take on their meaning.

NOTE 3 Examples of symbols are graphical symbols, graphic symbols, character symbols, chemical symbols, mathematical symbols, musical symbols, sex symbols, status symbols, tactile symbols, audible symbols.

3.17
warning
signal word used to indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury

[ISO 17724:2003, 84]

Bibliography

IEC 60417, *Graphical symbols for use on equipment*

IEC 80416-1:2008, *Basic principles for graphical symbols for use on equipment – Part 1: Creation of graphical symbols for registration*

ISO/IEC 9541-1:1991, *Information technology – Font information interchange – Part 1: Architecture*

ISO/IEC 10646-1:1993, *Information technology – Universal Multiple-Octet Coded Character Set (UCS) – Part 1: Architecture and Basic Multilingual Plane*

ISO/IEC TR 15285:1998, *Information technology – An operational model for characters and glyphs*

ISO/IEC 11581-10:2010, *Information technology – User interface icons – Part 10: Framework and general guidance*

ISO 3864 (all parts), *Graphical symbols – Safety colours and safety signs*

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

ISO 17724:2003, *Graphical symbols – Vocabulary*

ISO 80416-4: 2005, *Basic principles for graphical symbols for use on equipment – Part 4: Guidelines for the adaptation of graphical symbols for use on screens and displays (icons)*

ITU-T Recommendation E.121:2004, *Pictograms, symbols and icons to assist users of the telephone and telefax services*