

BU fhcj Ub^Y[fUz b] \ `g]a Vc`cj `nU] dcfUvc`j `h\ b] b]`Xc_i a YbHUY]`]nXY_cj `!`&"
XY.`GdYV]Z_UY`U`nU[fUz bY`g]a Vc`Yj `fU i bU]b]y_c`dfYdcnbUj b]`cV`]zj`_`1 bc`n
[fUz b]a]g]a Vc`]`nUfYZfYb bc`_b]yb]Wc`zhYf`nU hYj Y`nU]b]`] cj c`]na Yb`Uj c`f97
, %&`% !&`&\$ \$* Ł

Design of graphical symbols for use in the technical documentation of products - Part 2:
Specification for graphical symbols in a computer sensible form, including graphical
symbols for a reference library, and requirements for their interchange (IEC 81714-
2:2006)

(standards.iteh.ai)

Gestaltung von graphischen Symbolen zur Anwendung in der technischen
Produktdokumentation - Teil 2: Spezifikation für graphische Symbole in
rechnerinterpretierbarer Form einschließlich graphischer Symbole für eine
Referenzbibliothek und Anforderungen für ihren Datenaustausch (IEC 81714-2:2006)

Création de symboles graphiques utilisables dans la documentation technique de
produits - Partie 2: Spécification pour symboles graphiques sous forme adaptée à
l'ordinateur, y compris les symboles pour bibliothèque de références et exigences
relatives à leur échange (IEC 81714-2:2006)

Ta slovenski standard je istoveten z: EN 81714-2:2007

ICS:

01.080.50

35.240.01

SIST EN 81714-2:2008**en,fr**

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English version

**Design of graphical symbols
for use in the technical documentation of products -
Part 2: Specification for graphical symbols
in a computer sensible form, including graphical symbols
for a reference library, and requirements for their interchange
(IEC 81714-2:2006)**

Création de symboles graphiques
utilisables dans la documentation
technique de produits -
Partie 2: Spécification
pour symboles graphiques
sous forme adaptée à l'ordinateur,
y compris les symboles pour bibliothèque
de références et exigences relatives
à leur échange
(CEI 81714-2:2006)

Gestaltung von graphischen Symbolen
zur Anwendung in der technischen
Produktdokumentation -
Teil 2: Spezifikation für graphische
Symbole in rechnerinterpretierbarer Form
einschließlich graphischer Symbole
für eine Referenzbibliothek
und Anforderungen
für ihren Datenaustausch
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This European Standard was approved by CENELEC on 2006-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 81714-2:2006, prepared by IEC TC 3, Information structures, documentation and graphical symbols, in cooperation with ISO subcommittee SC 1, Basic conventions, of ISO technical committee 10, Technical product documentation, was submitted to the formal vote and was approved by CENELEC as EN 81714-2 on 2006-10-01 without any modification.

This European Standard supersedes EN 81714-2:1998.

The main changes with respect to EN 81714-2:1998 are as follows:

Subclauses 6.16, 6.18 and Annex D contain the major changes; other changes are basically updates.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2007-10-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-10-01

Annex ZA has been added by CENELEC.

iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 81714-2:2006 was approved by CENELEC as a European Standard without any modification.

[SIST EN 81714-2:2008](http://standards.iteh.ai/catalog/standards/sist/en-81714-2-2008)

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

ISO 10303-1	NOTE	Harmonized as ENV ISO 10303-1:1995 (not modified).
ISO 10303-11	NOTE	Harmonized as ENV ISO 10303-11:1995 (not modified).
ISO 10303-21	NOTE	Harmonized as ENV ISO 10303-21:1995 (not modified).
IEC 60445	NOTE	Harmonized as EN 60445:2000 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60617	Data-base	Graphical symbols for diagrams	-	-
IEC 61082-1	- ¹⁾	Preparation of documents used in electrotechnology - Part 1: Rules	EN 61082-1	2006 ²⁾
IEC 61286 (mod)	2001	Information technology - Coded graphic character set for use in the preparation of documents used in electrotechnology and for information interchange	EN 61286	2002
IEC 61346-1	1996	Industrial systems, installations and equipment and industrial products - Structuring principles and reference designations - Part 1: Basic rules	EN 61346-1	1996
IEC 61346-2	2000	Industrial systems, installations and equipment and industrial products - Structuring principles and reference designations - Part 2: Classification of objects and codes for classes	EN 61346-2	2000
IEC 61360-1 A1	2002 2003	Standard data element types with associated classification scheme for electric components - Part 1: Definitions - Principles and methods	EN 61360-1 A1	2002 2004
IEC 61360-4	- ¹⁾	Standard data element types with associated classification scheme for electric components - Part 4: IEC reference collection of standard data element types and component classes	EN 61360-4 + corr. December	2005 ²⁾ 2005
IEC 61666	1997	Industrial systems, installations and equipment and industrial products - Identification of terminals within a system	EN 61666	1997

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61966-2-1	1999	Multimedia systems and equipment - Colour measurement and management - Part 2-1: Colour management - Default RGB colour space - sRGB	EN 61966-2-1	2000
IEC 81714-3	2004	Design of graphical symbols for use in the technical documentation of products - Part 3: Classification of connect nodes, networks and their encoding	-	-
ISO/IEC 646	1991	Information technology - ISO 7-bit coded character set for information interchange	-	-
ISO/IEC 7942-1	1994	Information technology - Computer graphics and image processing - Graphical Kernel System (GKS) - Part 1: Functional description	EN ISO/IEC 7942-1	1995
ISO/IEC 9592-1	1997	Information technology - Computer graphics and image processing - Programmer's Hierarchical Interactive Graphics System (PHIGS) - Part 1: Functional description	-	-
ISO 128-20	1996	Technical drawings - General principles of presentation - Part 20: Basic conventions for lines	EN ISO 128-20	2001
ISO 128-21	1997	Technical drawings - General principles of presentation - Part 21: Preparation of lines by CAD systems	EN ISO 128-21	2001
ISO 639-1	2002	Codes for the representation of names of languages - Part 1: Alpha-2 code	-	-
ISO 3098-0	1997	Technical product documentation - Lettering - Part 0: General requirements	EN ISO 3098-0	1997
ISO 3098-5	1997	Technical product documentation - Lettering - Part 5: CAD lettering of the Latin alphabet, numerals and marks	EN ISO 3098-5	1997
ISO 3166-1	1997	Codes for the representation of names of countries and their subdivisions - Part 1: Country codes	EN ISO 3166-1	1997
ISO 6428	1982	Technical drawings - Requirements for microcopying	EN ISO 6428	1999
ISO 6523-1	1998	Information technology - Structure for the identification of organizations and organization parts - Part 1: Identification of organization identification schemes	-	-
ISO 10303-201	1994	Industrial automation systems and integration - Product data representation and exchange - Part 201: Application protocol: Explicit draughting	ENV ISO 10303-201	1995

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 81714-1	1999	Design of graphical symbols for use in the technical documentation of products - Part 1: Basic rules	EN ISO 81714-1	1999

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

81714-2

Deuxième édition
Second edition
2006-06

**Création de symboles graphiques utilisables
dans la documentation technique de produits –**

**Partie 2:
Spécification pour symboles graphiques
sous forme adaptée à l'ordinateur, y compris
les symboles pour bibliothèque de références
et exigences relatives à leur échange**

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**Design of graphical symbols for use in the
technical documentation of products –**

**Part 2:
Specification for graphical symbols in a computer
sensible form, including graphical symbols
for a reference library, and requirements for
their interchange**

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International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



CODE PRIX
PRICE CODE XC

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DESIGN OF GRAPHICAL SYMBOLS FOR USE
IN THE TECHNICAL DOCUMENTATION OF PRODUCTS –****Part 2: Specification for graphical symbols in a computer sensible form,
including graphical symbols for a reference library, and requirements
for their interchange**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 81714-2 has been prepared by IEC technical committee 3: Information structures, documentation and graphical symbols in cooperation with ISO subcommittee SC 1: Basic conventions of ISO technical committee 10: Technical product documentation.

This publication is published as a double logo standard.

This second edition cancels and replaces the first edition published in 1998. It constitutes a technical revision. The main changes with respect to the previous edition are as follows:

Subclauses 6.16, 6.18 and Annex D contain the major changes; other changes are basically updates.

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

CDV	Report on voting
3/738/CDV	3/760A/RVC

Full information on the voting for the approval of this part of this standard can be found in the report on voting indicated in the above table. In ISO, the standard has been approved by 8 P members out of 8 having cast a vote.

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

In order to collect all requirements concerning relevant graphical symbols within one single numerical series, IEC technical committee 3 in conjunction with ISO technical committee 10: Technical product documentation, agreed to publish all parts of this International Standard within the 81714 series.

The Technical Management Board of ISO and the Standardization Management Board of IEC have decided that, for each part of this series, one organization shall be chosen responsible. The technical committees involved have agreed not to change any part of International Standard 81714 without mutual agreement.

International Standard 81714 consists of the following parts, under the general title *Design of graphical symbols for use in the technical documentation of products*:

- Part 1: Basic rules (*published by ISO*)
- Part 2: Specification for graphical symbols in a computer sensible form, including graphical symbols for a reference library, and requirements for their interchange (*published by IEC*)
- Part 3: Classification of connect nodes, networks and their encoding (*published by IEC*)

Part 2 serves as the basis for the design of graphical symbols for use in CAx-systems in all fields of the technical documentation of products. Applications of the standard are, for example, IEC 60617 and ISO 14617 as well as the web based databases of those standards.

This standard has been updated and is kept compatible with the 1st edition of this part of IEC 81714.

Annex A describes the relations between this standard, IEC 60617 and the edition of ISO 14617 [8] ¹.

Annex B contains information concerning the interchange of graphical symbol libraries among computer-aided systems.

Annex C contains the EXPRESS-G [2] ,[12] model of the requirements specified in this standard.

Annex E lists data types, recommended lengths and default values of the attributes used in the EXPRESS–G model of annex D.

1) Figures in square brackets refer to the bibliography.

Annex F contains requirements concerning lines actually not included in the present edition of the ISO 128 series.

Annex G contains requirements concerning text actually not included in the present editions of ISO 3098-0:1997 and 3098-5:1997.

Annex H specifies predefined hatching patterns for possible use in drawings and graphical symbols.

Annex I contains a description of different library versions which may be produced by implementing this standard.

Annex J contains requirements concerning global definitions of graphical symbols within a library.

Annex K specifies examples of data element types used in the context of IEC 60617.

A bibliography exists at the end of this standard.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

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