

Contribution to WG2

Graphical Symbol Recommendation

1. Use one 2D barcode to cover distribution, retail POS, consumer engagement, and regulatory needs (preventing confusion with multiple 2D barcodes)
2. If a graphical symbol is needed to guide a consumer to scan a 2D barcode, the use of the symbol must be optional for the product owner in Delegated Acts and the symbol must use a symbol developed per ISO/IEC Guide 74.
3. Once agreement on requirements is achieved, develop various proposals to meet them then conduct “blind experiments” with consumers from various regions of the world to ensure harmonisation across multiple regulations and regions.
4. Once symbols are selected, ensure there are no patent issues then submit the images for inclusion in ISO 7001 Public Information Symbols.
5. Until such an initiative and testing with consumers is undertaken, the inclusion of any graphical symbol in the Data Carrier standard must be deferred or a clear statement must be added that the frame is not for use with consumer products.

Introduction

- Consumer products have unique challenges
 - Small footprint to mark many products, especially cylindrical or odd shapes
 - Very high line speeds for production, printing and packaging lines
 - Transnational marking to permit substitution, reduce inflation and stock-outs
- Retail's 2027 2D and GS1 Digital Link URI Programme objectives allow...
 - No disruption to industrial back-end systems because current GS1 identifiers can be parsed from the GS1 Digital Link URI
 - The encoded URI can be used with smart devices to reach an extensible menu of information online including for consumers, supply chain actors and officials (one barcode many uses)
 - This means one 2D barcode and so there is no need for a graphical symbol in most cases, but if one is needed, it must be intuitive to consumers

The method to solve this problem

ISO/IEC Guide 74: Graphical symbols

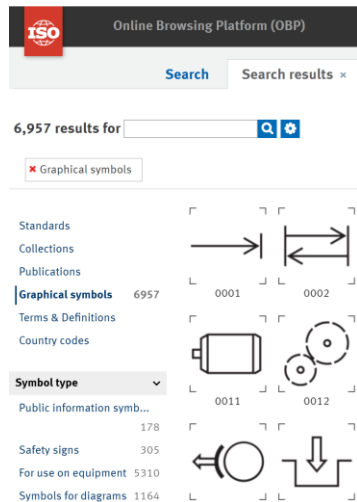
Technical guidelines for the consideration of **consumer** needs

“It is important **for consumers** that **graphical symbols should clearly and successfully convey the intended message**. In particular, they should differentiate between information that relates to safety requirements (including those associated with unsafe use or the misuse of products and equipment) and those which relate to non-safety information. It is **therefore recommended that when technical committees consider the development of graphical symbols intended to convey messages to consumers, they ensure that the *relevant groups are involved*** in the development process. This could be through **consumer representation on the committee, through undertaking research on consumer usage, or both.**”

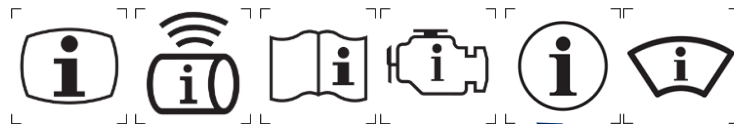
ISO Online Browsing Platform — Graphical symbols for “**Public Information**” per ISO 7001



Globally recognised symbol indicating to the public that information can be obtained



When enclosed by an outer element the intended design/scope intention is narrowed.
The below can all be found by filtering the graphical symbol library on the term “information”.



If you search for “*information link*” or “*identification link*”, you get this symbol
however it does not relate to consumers obtaining web info via their smartphone.

Browsing IEC Product & Service Portal

Graphical symbols for “**Equipment**” per IEC 60417-6452



IEC 60417-6452: To indicate the frame of an identification link which is used as a combination of a 2D code and contained data string in URL syntax, or as a combination of an RFID tag and contained data string in URL syntax. (**released**)



IEC 60417-6452-1 Pr: To indicate the frame of an identification link which is used as a combination of a 2D code and contained data string in URL syntax, or as a combination of an RFID tag and contained data string in URL syntax. (**Pre-release**)



IEC 60417-6452 frame around a QR Code

- **How would consumers know what a frame means?**
- Need to test in AIDC Labs for impact on Data Matrix finder pattern
- Need to ensure against patent infringement for using a frame surrounding an AIDC technology.
- Not currently available in the ISO 7000 search results.

Consumer products requirements (slide 1 of 2)

1. *Use one 2D barcode on a product or its packaging to cover distribution, retail POS, consumer engagement, and regulatory needs (preventing confusion with multiple 2D barcodes for “which 2D barcode” to scan).*
2. *If a graphical symbol is needed to guide a consumer to scan a 2D barcode, the use of the symbol must be optional in Delegated Acts and the symbol must be developed per ISO/IEC Guide 74 (involve testing with consumers).*
3. *Where more than one 2D barcode is unavoidable and a product owner decides to use a graphical symbol, place the graphical symbol adjacent to that 2D barcode used to connect to web information.*
4. *Develop the graphical symbol per ISO/IEC Guide 74: Graphical symbols — Technical guidelines for the consideration of consumers' needs.*
5. *Ensure the graphical symbol is internationally recognised and codified across all consumer products, all regions, all regulations to reduce costs and stock-outs.*

Consumer products requirements(slide 2 of 2)

6. *Ensure the graphical symbol is easy to recognise (e.g., 'H' for hospital, 'i' for information), easy to print (e.g., black/white).*
7. *Ensure the graphical symbol is as small as possible to allow its use on more products.*
8. *Establish rules to ensure the graphical symbol will never be used within the 2D barcode including the print free area (Quiet Zone) surrounding it (which is to say that the ISO specifications for 2D barcodes must be enforced and respected with consistent guidance).*
9. *Ensure graphical symbols are not specified for use exclusively in a specific country (e.g., flag, country code) or for a specific regulation (e.g., EUDR, DPP, FSMA) as a proliferation of graphical images will lead to consumer confusion and higher costs and/or stock outs as space on many products will not allow for many different image requirements.*
10. *The graphical image should be technology agnostic so when UHF RFID is implemented in all smart devices, a tag could appear without a 2D barcode and the image would work.*
11. *The use of the graphical symbols must come with guidance (e.g., placement, colour).*

Browsing ISO Online Platform — Graphical symbols

Potential Public Identification link symbol for ISO 7001



Globally recognised symbol indicating information is to be obtained **but not with a smartphone, but could it?**



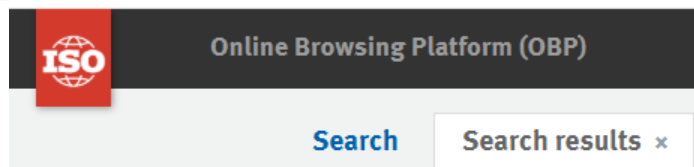
Example of a potential merger of the 'i' but inside a smartphone as a graphical symbol indicating information is to be obtained using a consumer smartphone.





With a 2D barcode, it could look like this on a product. It can be pre-printed on top, either side, or bottom. It could be printed vertically or horizontally. Product, product packing, or printing registration on one side.

Background material

Search on identification link in ISO OPB



1 result for  

 Graphical symbols

Standards

Collections

Publications

Graphical symbols

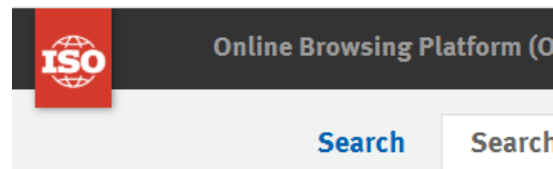
1

Terms & Definitions


Country codes



2760



1 result for  

 Graphical symbols

Standards

Collections

Publications

Graphical symbols

1


Terms & Definitions

Country codes



2760

Search on 6452-1

 **Products & Services Portal**
International Electrotechnical Commission

Symbols EN ▾ 6452-1 X

Search IEC 60417 6452 X

FILTERS

Release date

1996-05-31 2025-03-27

International Standard



☐ IEC 60417 - For use on equipment(2)




Geometric forms

☐ Polygons - single (1)




SORT BY Released date descending

Valid symbols only ☐


 

 IEC 60417 **6452-1** Proposed  
Identification link frame, bevelled corner

No preview


 IEC 60417 **6452-1Pr** Accepted for work  
Identification link frame, bevelled corner
To indicate the bevelled-cornered frame of an identification link which is used as a combination of a 2D code and contained data string in URL syntax, or as a combination of an RFID tag and contained data string in URL syntax.


Search on 6452

**Products & Services Portal**
International Electrotechnical Commission

Symbols EN ▾ 6452-1 X

Search IEC 60417 6452 [] X

IEC 60417 6452: IDENTIFICATION LINK FRAME **RELEASED**
2022-06-04 

**Description**
To indicate the frame of an identification link which is used as a combination of a 2D code and contained data string in URL syntax, or as a combination of an RFID tag and contained data string in URL syntax.

Files
6452.pdf
6452.gif

Publication ref

Notes
For technical details, see IEC 61406.

Geometric form
Misc - any filled or shaded areas
Squares - single