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Ships and marine technology — Graphical symbols for computer-based incident response systems

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 8, *Ship design*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document has been developed in order to standardize graphical symbols used in shipborne computer-based incident response systems. Typically, incident response systems are used in emergency situations and concise and intuitive representation of information is very important. Well-designed standard graphical symbols can avoid confusion and misunderstanding of information and the graphical symbols in this document are designed for such purpose.

Ships and marine technology — Graphical symbols for computer-based incident response systems

1 Scope

This document specifies the graphical symbols and representations for onboard incidents, response activities and boundaries and path as well as their usage. The graphical symbols are designed to be used for representing related information in shipborne computer-based incident response systems.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 3941, *Classification of fires*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
graphical symbol
visually perceptible figure which is used for the purpose of transmitting information independent of the medium of language

3.2
damage
physical harm that impairs the value, usefulness, or normal function of the vessel

3.3
incident
event that results in or may result in injury or ill-health to people, *damage* (3.2) or loss to property, materials or the environment, or a loss of a business opportunity

Note 1 to entry: Unlike an accident, incident does not necessarily result in actual injury or damage.

3.4
incident response system
set of tools that is intended to control an *incident* (3.3)

3.5
computer-based
software implementation of functionality that includes human machine interfaces for input and output

3.6
fire
rapid oxidation of a material in the exothermic chemical process of combustion, releasing heat, light, and various reaction products

3.7
flooding
liquid entering the vessel uncontrolled

3.8
state
progress of handling the incident

4 Type and use of graphical symbols

4.1 General

A computer-based incident response system shall employ, where applicable, the graphical symbols described in this document. Where this document provides no appropriate symbol, another symbol may be used. However, such symbol shall not be easily confused with the graphical symbols defined in this document and shall follow the same generic principles applied in this document with regard to colours, shapes and states.

4.2 Graphical symbols

4.2.1 The graphical symbols shall be of a suitable size and resolution to ensure they are clearly understandable to the user under all ambient light conditions and shall be at least 6 mm by 6 mm. Generally, graphical symbols shall not be framed.

4.2.2 See Table 1 for the graphical symbols for incidents to be plotted on the computer-based incident response system.

4.2.3 See Table 2 for the graphical symbols for response activities to be plotted on the computer-based incident response system.

4.2.4 See Table 3 for the graphical representations for boundaries and paths to be plotted on the computer-based incident response system.

4.2.5 A computer-based incident response system shall employ, where applicable, the graphical representations described in Table 1, Table 2 and Table 3. While each graphical symbol is designed in black and white according to the IEC 80416 series, coloured versions are also available for fire- and flooding-related symbols for a more intuitive understanding.

Table 1 — List of graphical symbols for incidents

No.	Symbol	Name	Symbol Registration No	Coloured version	Comments on use
A.1		fire	ISO 7000-3852		To indicate the location of fire and identify the fire type. A character in the middle shall be plotted to describe the type of fire: a question mark (?) for unknown fire type or a letter for the fire class as described in ISO 3941. Red colour may be used for flame symbol for more intuitive recognition.

Table 1 *(continued)*

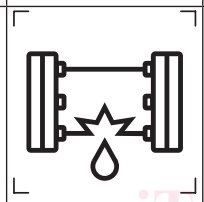
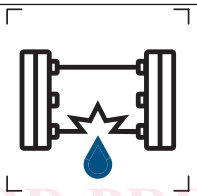
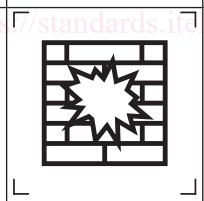
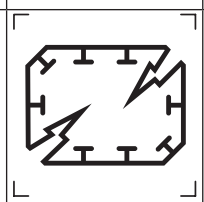
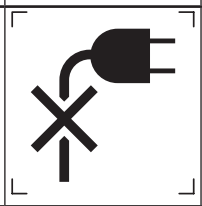
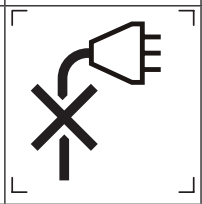
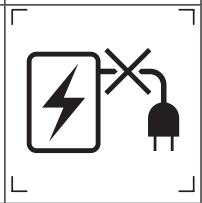
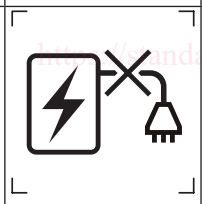
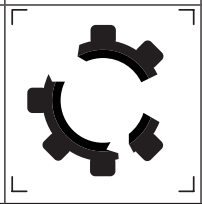
No.	Symbol	Name	Symbol Registration No	Coloured version	Comments on use
A.2		smoke	ISO 7000-3853		To indicate the location of smoke and identify the smoke type. A question mark (?) shall be placed in the centre for unknown type. No character shall be placed in the symbol to indicate white smoke. The symbol shall be filled with solid black colour to indicate black smoke.
A.3		flooding	ISO 7000-3854		To indicate the location where flooding is occurring or has occurred. The colour of water drops may be blue for more intuitive recognition.
A.4		pipe rupture	ISO 7000-3855		To indicate a pipe rupture has occurred and possibly its location. The colour of water drop may be blue for more intuitive recognition.
A.5		toxic spill	ISO 7000-3856		To indicate a toxic spill has occurred and possibly its location.
A.6		hole in deck	ISO 7000-3857		To indicate that a hole is present on a deck.
A.7		debris; fragmentation	ISO 7000-3858		To indicate debris or fragmentation is present.
A.8		structural damage	ISO 7000-3751		To indicate that structural damage has occurred.
A.9		pipe blocked	ISO 7000-3859		To indicate a pipe is blocked and possibly its location.

Table 1 *(continued)*

No.	Symbol	Name	Symbol Registration No	Coloured version	Comments on use
A.10 a)		electrical power lost A	ISO 7000-3860A		To indicate the loss of electrical power. A and B versions are available according to the plug type.
A.10 b)		electrical power lost B	ISO 7000-3860B		
A.11		communication lost	ISO 7000-3861		To indicate the loss of communication.
A.12 a)		backup power lost A	ISO 7000-3862A		To indicate the loss of backup or emergency power. A and B versions are available according to the plug type.
A.12 b)		backup power lost B	ISO 7000-3862B		
A.13		mechanical damage to equipment	ISO 7000-3863		To indicate the equipment has mechanical damage.
A.14		injuries or death	ISO 7000-3864		To indicate the location of an injured or dead person.