



SLOVENSKI STANDARD SIST EN IEC 62402:2019

01-oktober-2019

Nadomešča:
SIST EN 62402:2008

Upravljanje zastarelosti (IEC 62402:2019)

Obsolescence management (IEC 62402:2019)

Obsoleszenzmanagement (IEC 62402:2019)

Gestion de l'obsolescence (IEC 62402:2019)

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Ta slovenski standard je istoveten z: EN IEC 62402:2019

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ICS:

21.020	Značilnosti in načrtovanje strojev, aparatov, opreme	Characteristics and design of machines, apparatus, equipment
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EUROPEAN STANDARD

EN IEC 62402

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2019

ICS 21.020

Supersedes EN 62402:2007 and all of its amendments
and corrigenda (if any)

English Version

**Obsolescence management
(IEC 62402:2019)**Gestion de l'obsolescence
(IEC 62402:2019)Obsoleszenzmanagement
(IEC 62402:2019)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62402:2019 (E)**European foreword**

The text of document 56/1838/FDIS, future edition 2 of IEC 62402, prepared by IEC/TC 56 "Dependability" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62402:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-04-03
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-07-03

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IEC 60300-1	NOTE	Harmonized as EN 60300-1
IEC 62239-1	NOTE	Harmonized as EN IEC 62239-1
IEC/ISO 31010	NOTE	Harmonized as EN 31010
IEC 62474	NOTE	Harmonized as EN IEC 62474
IEC 62668-1	NOTE	Harmonized as EN 62668-1 ¹
IEC 62435-1	NOTE	Harmonized as EN 62435-1
IEC 62435-4	NOTE	Harmonized as EN IEC 62435-4
IEC 62668-2	NOTE	Harmonized as EN IEC 62668-2 ²

¹ Under preparation. Stage at the time of publication: prEN 62668-1

² Under preparation. Stage at the time of publication: FprEN IEC 62668-2



IEC 62402

Edition 2.0 2019-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Obsolence management

Gestion de l'obsolescence

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ELECTROTECHNICAL
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INTERNATIONALE

ICS 21.020

ISBN 978-2-8322-6960-2

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OBSOLESCENCE MANAGEMENT**FOREWORD**

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International Standard IEC 62402 has been prepared by IEC technical committee 56: Dependability.

This second edition cancels and replaces the first edition published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) this document has now been written with requirements as a standard, not a guide;
- b) this document continues to have guidance in the informative annexes;
- c) this document has been written as a general process for all technologies and items.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
56/1838/FDIS	56/1843/RVD

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

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

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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INTRODUCTION

For the purposes of this document, obsolescence management is a discipline used at all phases of an item's life cycle to ensure an item and its sub items can continue to fulfil their requirements over their expected useful life.

This document takes a different view of obsolescence from the standard dictionary definition. Instead of an item becoming outdated or no longer used, this document views obsolescence as the transition of a required item still in use from available to unavailable from the manufacturer. Any item that remains in use will be subject to obsolescence. Obsolescence manifests itself as difficulty in obtaining supplies, spares and/or support.

This document defines the requirements for managing the obsolescence of any type of item. Obsolescence management helps prevent unnecessary losses (for example loss of commercial service or capability) and treat risks associated with obsolescence. The assessment of risk associated with obsolescence takes account of factors including but not limited to: the likelihood of an item becoming obsolete during its expected useful life, the likelihood of an impact occurring during that projected useful life, and the severity of that impact. Obsolescence management treats risks associated with obsolescence by reducing the likelihood or severity of impact, or both.

It has become essential to include obsolescence management within planning activities from the earliest life cycle phases. The guidance provided in this document could be characterized as strategic obsolescence management when obsolescence management is planned and implemented during the early life cycle phases.

Even though this situation may not be a direct case of obsolescence, this document will also be of assistance in the management of items that have diminished manufacturing sources and materiel shortages that can result in long lead times, reduced availability and ultimately obsolescence of those items.

Managing obsolescence contributes to the dependability of an item, particularly supportability, which is defined as the 'ability to be supported to sustain the required availability with a defined operational profile and given logistic and maintenance resources'. As such, obsolescence management may be performed as part of an overall dependability management programme as described in IEC 60300-1 [1]¹.

¹ Numbers in square brackets refer to the Bibliography.

OBSOLESCENCE MANAGEMENT

1 Scope

This document provides requirements and guidance for obsolescence management applicable to any organization that is dependent on another organization to obtain value from the usefulness of the items that it provides. A cost-effective obsolescence management process and the activities used to implement the process are applicable throughout all phases of an item's life cycle.

This document covers the following areas:

- establishing an obsolescence management policy;
- establishing an infrastructure and an organization;
- developing an obsolescence management plan (OMP);
- developing strategies to minimize obsolescence during design;
- determining an obsolescence management approach;
- selecting obsolescence resolution and implementation;
- measuring and improving the performance of the outcomes of the obsolescence management activities.

Guidance on obsolescence management is included as notes, in the informative annexes and references in the Bibliography.

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2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1.1

alternative item

item whose characteristics can be different from that specified for one or more reasons

EXAMPLE Items with different quality or reliability level, tolerance, parameters, temperature range.

Note 1 to entry: See also 'substitutes' (10.4).

3.1.2

commercial off-the-shelf

COTS

conforming to the manufacturer's datasheet and available to any purchaser

Note 1 to entry: A single user is not able to influence the manufacturer's datasheet.

Note 2 to entry: This note applies to the French language only.

3.1.3 emulation

process that produces a substitute item for the purpose of replacing another item while maintaining the same form, fit and function, and interface

Note 1 to entry: Microcircuit emulation can replicate, with state-of-the-art, items that emulate the original item.

3.1.4 end of production EOP

date of discontinuance from manufacture

Note 1 to entry: This note applies to the French language only.

3.1.5 equivalent item

item which is functionally, parametrically and technically interchangeable

Note 1 to entry: This term is also known as 'form, fit, function and interface' F3I.

Note 2 to entry: See also 'substitutes' (10.4).

3.1.6 existing stock

sub item(s) from within the supply chain and inventory that can be allocated to the item without requalification

3.1.7 indenture level

level of sub-division within a system hierarchy

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EXAMPLE System, subsystem, assembly, and component.

Note 1 to entry: From the maintenance perspective, the indenture level depends upon various factors, including the complexity of the item's construction, the accessibility of sub items, skill level of maintenance personnel, test equipment facilities, and safety considerations.

[SOURCE: IEC 60050-192:2015 [2], 192-01-05]

3.1.8 item

subject being considered

Note 1 to entry: The item may be an individual part, component, device, functional unit, equipment, subsystem, or system.

Note 2 to entry: The item may consist of hardware, software, people or any combination thereof.

Note 3 to entry: The item is often comprised of elements that may each be individually considered. See sub item (3.1.21) and indenture level (3.1.7).

Note 4 to entry: IEC 60050-191:1990 (now withdrawn; replaced by IEC 60050-192:2015) identified the term "entity" as an English synonym, which is not true for all applications.

Note 5 to entry: The definition for item in IEC 60050-191:1990 (now withdrawn; replaced by IEC 60050-192:2015) is a description rather than a definition. This new definition provides meaningful substitution throughout this document. The words of the former definition form new note 1.

[SOURCE: IEC 60050-192:2015 [2], 192-01-01]

3.1.9 integrator

organization that assembles an item of complex sub items for the end user

Note 1 to entry: Examples of items for the end user are: car, ship, aeroplane, oilrig.

3.1.10 life of need buy LNB

procurement of sub items sufficient to support the item throughout its life cycle, or until the next planned upgrade

Note 1 to entry: Identified as a proactive LNB or a reactive LNB depending on which obsolescence approach is being used for the phase of the life cycle for which the procurement is taking place. (See 10.3).

Note 2 to entry: This term was previously known as lifetime buy.

Note 3 to entry: This note applies to the French language only.

3.1.11 manufacturer

organization or individual with responsibility for the design, manufacture, packaging and labelling of an item before placing the item on the market under their own name or trademark

3.1.12 obsolescence

transition of an item from available to unavailable from the manufacturer in accordance with the original specification

Note 1 to entry: In high reliability items, the sub item's original manufacturer and original specification are generally identified in the item's original configuration.

Note 2 to entry: Obsolescence might be because production has ended or because of the lack of availability of service provision, support of software or processed material.

Note 3 to entry: A specification can be of any form such as a drawing, datasheet, standard, written specification or a list of keywords and properties. A specification cancelled or an item's approval to a withdrawn specification can also cause obsolescence.

3.1.13 obsolescence issue

effect when the item is obsolete or when there is certainty as to when the item will become obsolete

Note 1 to entry: The item has an obsolescence issue when the PDN (see 3.1.18) has been issued by the manufacturer of the item.

3.1.14 obsolescence risk

measure of uncertainty as to when an item will become obsolete

Note 1 to entry: Obsolescence risk is often expressed in terms of a combination of the impact of an item becoming obsolete and the associated likelihood.

3.1.15 obsolete <tangible item>

no longer in production from the manufacturer in accordance with the original specification

Note 1 to entry: Examples include but are not limited to: materials, chemicals, components, electronics, and mechanical hardware.

Note 2 to entry: In high reliability items the sub item's original manufacturer, part number and/or original specification are generally identified in the item configuration.

Note 3 to entry: Discontinued is synonymous with obsolete.

3.1.16**obsolete** <intangible item>

no longer available from the manufacturer in accordance with the original specification

Note 1 to entry: Examples include but are not limited to: software, services, specifications, and processes.

Note 2 to entry: In high reliability items the sub item's original manufacturer and original specification are generally identified in the item configuration.

Note 3 to entry: Discontinued is synonymous with obsolete.

3.1.17**product change notice****PCN**

notification from a manufacturer announcing a change of process, properties, characteristics or specification of an item

Note 1 to entry: This note applies to the French language only.

3.1.18**product discontinuance notice****PDN**

notification of end of production of an item by the manufacturer

Note 1 to entry: This note applies to the French language only.

3.1.19**planned upgrades**

predetermination points during the item life cycle at which the design of all or part of the item will be brought up to date by replacing sub items with better performing sub items and/or replacing obsolete sub items or sub items at risk from becoming obsolete

Note 1 to entry: These upgrades will often involve changes to both the software and the underlying hardware. Between the planned upgrades, one of the other obsolescence resolutions can be necessary (see Clause 10).

3.1.20**reclamation**

use of a sub item that has a remaining useful life from a surplus or redundant item

Note 1 to entry: Reclamation is a controlled process (see 10.2 and recycled item in Annex A).

Note 2 to entry: Reclamation is sometimes referred to as cannibalization.

3.1.21**sub item**

part of the subject being considered

Note 1 to entry: A sub item becomes the item, when individually considered.

[SOURCE: IEC 60050-192:2015 [2], 192-01-02]

3.1.22**supply chain**

entire network of entities, such as organizations, people, technologies, activities, information and resources, directly or indirectly interlinked and interdependent, involved in serving the end user on delivering an item or service

Note 1 to entry: The supply chain is a part of an end-to-end process from the raw materials to the finished item delivered to the end user.

3.2 Abbreviated terms

COTS commercial off-the-shelf