

STN	Manažérstvo zastarávania	STN EN IEC 62402
		01 0379

Obsolescence management

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola označená vo Vestníku ÚNMS SR č. 11/19

Obsahuje: EN IEC 62402:2019, IEC 62402:2019

Oznámením tejto normy sa od 03.07.2022 ruší
STN EN 62402 (01 0379) z februára 2008

129757

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 62402

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)

This European Standard was approved by CENELEC on 2019-07-03. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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



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

This document supersedes EN 62402:2007 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62402:2019 was approved by CENELEC as a European Standard without any modification.

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



Obsolescence management

Gestion de l'obsolescence





THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2019 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Central Office
 3, rue de Varembé
 CH-1211 Geneva 20
 Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 000 terminological entries in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

67 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Recherche de publications IEC - webstore.iec.ch/advsearchform

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études,...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 000 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 16 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

Glossaire IEC - std.iec.ch/glossary

67 000 entrées terminologiques électrotechniques, en anglais et en français, extraites des articles Termes et Définitions des publications IEC parues depuis 2002. Plus certaines entrées antérieures extraites des publications des CE 37, 77, 86 et CISPR de l'IEC.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.

Electropedia - www.electropedia.org



IEC 62402

Edition 2.0 2019-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Obsolescence management**Gestion de l'obsolescence**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 21.020

ISBN 978-2-8322-6960-2

Warning! Make sure that you obtained this publication from an authorized distributor.

Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

CONTENTS

FOREWORD	5
INTRODUCTION	7
1 Scope	8
2 Normative references	8
3 Terms, definitions and abbreviated terms	8
3.1 Terms and definitions	8
3.2 Abbreviated terms	11
4 Obsolescence management	12
4.1 What is obsolescence	12
4.2 What is obsolescence management	13
4.3 Benefits of obsolescence management	13
4.4 Obsolescence management process	14
5 Obsolescence management policy	17
6 Infrastructure and organization	18
6.1 General	18
6.2 Management responsibilities	18
6.3 Obsolescence management organization	18
6.4 Customer/manufacturer management	18
6.5 Partnering agreements between organizations	19
7 Development of an OMP	19
7.1 OMP	19
7.2 OMP contents	19
8 Strategies to minimize obsolescence during design	21
8.1 Obsolescence as a consideration in design	21
8.2 Source code	21
8.3 Material characterization	21
8.4 Modularity	21
8.5 Transparency	21
8.6 Sustainable technologies including materials	22
8.7 Open standards	22
8.8 Obtaining IPR	22
8.9 Software licensing	22
8.10 Data acquisition	22
9 Obsolescence management approach	23
9.1 Introduction to risk assessment	23
9.2 Obsolescence monitoring	24
9.2.1 Monitoring background	24
9.2.2 Obsolescence notice monitoring	25
9.2.3 Direct contact monitoring	25
9.3 Risk assessment to select approach	25
9.4 Proactive approach	27
9.5 Reactive approach	27
10 Obsolescence resolutions	27
10.1 Resolution selection and implementation	27

10.2	Same item	28
10.3	Life of need buy	29
10.4	Substitutes	30
10.5	Emulation and reverse engineering	30
10.6	Design change	31
11	Measurement and improvement of obsolescence management activities	31
11.1	General	31
11.2	Metrics	31
Annex A (informative)	Vocabulary relating to obsolescence	33
Annex B (informative)	Obsolescence resolutions	36
B.1	Obsolescence management resolutions with EOP forecast	36
B.2	Obsolescence management resolutions with EOP announcement	37
B.3	Alternate manufacturers: example of a reactive approach in electronics	38
Annex C (informative)	Guidance on the effects of obsolescence	39
Annex D (informative)	Guidance on the OMP	40
Annex E (informative)	Examples of an obsolescence risk assessment	41
E.1	General	41
E.2	Example 1	41
E.3	Example 2	42
E.3.1	Risk assessment process	42
E.3.2	Likelihood assessment	43
E.3.3	Impact date assessment	43
E.3.4	Obsolescence risk	44
E.3.5	Review	44
Annex F (informative)	Example of an obsolescence management decision process	45
Bibliography	47	
Figure 1 – Obsolescence management activities	14	
Figure 2 – Assessments identifying obsolescence risks and issues	15	
Figure 3 – Item's life cycle versus obsolescence management activities	17	
Figure 4 – Proactive versus reactive approaches with resolutions	24	
Figure B.1 – Item production output with EOP forecast and obsolescence scenarios	36	
Figure B.2 – Item production output at EOP announcement and obsolescence scenarios	37	
Figure E.1 – Sample risk assessment process	43	
Figure F.1 – Initial decision process to recommend obsolescence resolutions	45	
Figure F.2 – Decision process to recommend obsolescence resolutions (long term repairs strategy)	46	
Figure F.3 – Decision process to recommend obsolescence resolutions (LNB)	46	
Table E.1 – Likelihood assessment	41	
Table E.2 – Impact assessment	41	
Table E.3 – Combination of likelihood and impact assessment	42	

Table E.4 – Level of proactive approach assessment.....	42
Table E.5 – EOP forecast	43
Table E.6 – Number of approved manufacturers	43
Table E.7 – Likelihood	43
Table E.8 – Impact date	44
Table E.9 – Risk level	44
Table E.10 – Obsolescence risk review.....	44

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OBSOLESCENCE MANAGEMENT

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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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.

2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN