

© Copyright SEK. Reproduction in any form without permission is prohibited.

Riktlinjer för hantering av utfasning

*Obsolescence management –
Application guide*

Som svensk standard gäller europastandarden EN 62402:2007. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62402:2007.

Nationellt förord

Europastandarden EN 62402:2007

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62402, First edition, 2007 - Obsolescence management - Application guide**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 21.020

Denna standard är fastställd av SEK Svensk Elstandard, som också kan lämna upplysningar om **sakinnehållet** i standarden.
Postadress: SEK, Box 1284, 164 29 KISTA
Telefon: 08 - 444 14 00. Telefax: 08 - 444 14 30
E-post: sek@elstandard.se. Internet: www.elstandard.se

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

SEK Svensk Elstandard

Box 1284
164 29 Kista
Tel 08-444 14 00
www.elstandard.se

EUROPEAN STANDARD

EN 62402

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2007

ICS 21.020

English version

**Obsolescence management -
Application guide
(IEC 62402:2007)**

Gestion de l'obsolescence -
Guide d'application
(CEI 62402:2007)

Anleitung zum
Obsoleszenzmanagement
(IEC 62402:2007)

This European Standard was approved by CENELEC on 2007-07-01. 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

© 2007 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Ref. No. EN 62402:2007 E

SEK Svensk Elstandard

Foreword

The text of document 56/1189/FDIS, future edition 1 of IEC 62402, prepared by IEC TC 56, Dependability, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62402 on 2007-07-01.

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) 2008-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-07-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62402:2007 was approved by CENELEC as a European Standard without any modification.

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

IEC 60300-3-3	NOTE Harmonized as EN 60300-3-3:2004 (not modified).
IEC 60300-3-12	NOTE Harmonized as EN 60300-3-12:2004 (not modified).
IEC 60812	NOTE Harmonized as EN 60812:2006 (not modified).
ISO 9000	NOTE Harmonized as EN ISO 9000:2005 (not modified).
ISO 9001	NOTE Harmonized as EN ISO 9001:2000 (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 60050-191	- ¹⁾	International Electrotechnical Vocabulary (IEV) - Chapter 191: Dependability and quality of service	-	-
IEC 60300-1	- ¹⁾	Dependability management - Part 1: Dependability management systems	EN 60300-1	2003 ²⁾
IEC 60300-2	2004	Dependability management - Part 2: Guidelines for dependability management	EN 60300-2	2004
IEC 62198	- ¹⁾	Project risk management - Application guidelines	-	-
IEC/TS 62239	- ¹⁾	Process management for avionics - Preparation of an electronic components management plan	-	-
IEC 62258	Series	Semiconductor die products	EN 62258	Series
IEC 62309	- ¹⁾	Dependability of products containing reused parts - Requirements for functionality and tests	EN 62309	2004 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

CONTENTS

1	Scope.....	7
2	Normative references	7
3	Terms, definitions and abbreviations	8
3.1	Definitions	8
3.2	Abbreviations	11
4	General principles	12
4.1	The obsolescence phase	12
4.2	Obsolescence management process	12
4.3	Documentation	14
5	Management responsibility	14
5.1	Management function on obsolescence	14
5.2	Meeting customer needs	15
5.3	Obsolescence contractual and regulatory implications	15
5.4	Obsolescence management planning	15
5.5	Responsibility.....	16
5.6	Management review	16
6	Resources	16
7	Managing obsolescence	16
7.1	Planning.....	16
7.1.1	General	16
7.1.2	Obsolescence management plan contents	17
7.1.3	Obsolescence management in the context of risk management	17
7.1.4	Planning	18
7.1.5	Assessment of impact, cost and probability of obsolescence	19
7.1.6	Determining the main strategy	19
7.1.7	Reactive strategy.....	20
7.1.8	Proactive strategy.....	21
7.1.9	Budgetary provision.....	21
7.1.10	Reviewing the strategy	21
7.2	Customer related activities	22
7.3	Reactive strategy recovery options (see Figure 8)	22
7.3.1	Overview	22
7.3.2	Product search	22
7.3.3	Cannibalization.....	23
7.3.4	Repair	23
7.3.5	Design revision.....	23
7.3.6	Product obsolescence	24
7.4	Proactive strategy options	24
7.4.1	Design considerations	24
7.4.2	Technology transparency.....	24
7.4.3	Obsolescence monitoring	25
7.4.4	Planned system upgrades.....	26

7.4.5	Lifetime buy.....	26
7.4.6	Additional factors affecting the choice of obsolescence management programme options.....	27
7.4.7	Skills training.....	27
7.5	Supply chain management	27
8	Measurement, analysis and improvement	27
9	Software obsolescence issues and strategies	28
9.1	Additional planning aspects for software.....	28
9.1.1	Software and hardware similarities and differences	28
9.1.2	Causes of software obsolescence.....	29
9.1.3	Determining the main strategy to combat software obsolescence	30
9.1.4	Reactive strategy – Do nothing until the need arises	31
9.1.5	Proactive strategy.....	31
9.2	Relationship between the customer and the supplier	32
9.3	Reactive strategy recovery options (see Figure 10)	32
9.3.1	Overview	32
9.3.2	Software search	32
9.3.3	Revision	32
9.3.4	Software obsolescence.....	33
9.4	Proactive strategy as applied to software separable from hardware (see Figure 11)	33
9.4.1	Overview	33
9.4.2	Design considerations	33
9.4.3	Technology transparency/open systems	33
9.4.4	Contract support.....	34
9.4.5	Planned upgrades	34
9.4.6	Additional factors affecting choice of obsolescence management programme options.....	34
	Annex A (informative) Check list	36
	Annex B (informative) Monitoring products.....	37
	Bibliography.....	39
	Figure 1 – Availability phases	12
	Figure 2 – Process steps for managing obsolescence.....	13
	Figure 3 – Obsolescence management versus product life cycle.....	13
	Figure 4 – Relationship between OCM, OEM and the customer	14
	Figure 5 – Process steps in project risk management versus obsolescence management.....	18
	Figure 6 – Reactive versus proactive strategy.....	20
	Figure 7 – Proactive strategy	21
	Figure 8 – Overview of reactive strategy recovery options	22
	Figure 9 – Reactive versus proactive strategy in relation to software obsolescence	31
	Figure 10 – Overview of recovery options	32
	Figure 11 – Proactive options overview (software)	33
	Figure B.1 – Simplified outline of monitoring of active electronic parts with suggested solutions (see 7.4.3)	38

OBSOLESCENCE MANAGEMENT – APPLICATION GUIDE

1 Scope

This International Standard gives guidance for establishing a framework for obsolescence management and for planning a cost-effective obsolescence management process that is applicable through all phases of the product life cycle, the term 'product' includes:

- capital equipment;
- infrastructure;
- consumer durables;
- consumables;
- software products.

Obsolescence management covers the following areas:

- a) design of new products;
- b) new technology insertion into existing products;
- c) support and maintenance of legacy products.

2 Normative references

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.

IEC 60050-191, *International Electrotechnical Vocabulary (IEV) – Part 191: Dependability and quality of service*

IEC 60300-1, *Dependability management – Part 1: Dependability management systems*

IEC 60300-2:2004, *Dependability management – Part 2: Guidelines for dependability management*

IEC 62198, *Project risk management – Application guidelines*

IEC/TS 62239, *Process management for avionics – Preparation of an electronic components management plan*

IEC 62258 (all parts), *Semiconductor die products*

IEC 62309, *Dependability of products containing reused parts – Requirements for functionality and tests*