
Sistem zvočnega arhiva - 1-1. del: DVD-plošča in prenos podatkov za dolgoročno hrambo zvočnih podatkov (IEC 62702-1-1:2016)

Audio Archive System - Part 1-1: DVD disk and data migration for long term audio data storage (IEC 62702-1-1:2016)

Audio Archivierungssystem - Teil 1-1: DVD Disk und Datenmigration für die Langzeit Audiodaten Speicherung (IEC 62702-1-1:2016)

Système d'archivage audio - Partie 1-1: Disque DVD et migration de données pour le stockage à long terme des données audio (IEC 62702-1-1:2016)

<https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016>

Ta slovenski standard je istoveten z: EN 62702-1-1:2016

ICS:

33.160.30	Avdio sistemi	Audio systems
35.220.30	Optične shranjevalne naprave	Optical storage devices

SIST EN 62702-1-1:2016**en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 62702-1-1:2016

<https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016>

EUROPEAN STANDARD

EN 62702-1-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2016

ICS 33.160.30; 35.220.30

English Version

**Audio Archive System - Part 1-1: DVD disk and data migration
for long term audio data storage
(IEC 62702-1-1:2016)**

Système d'archivage audio - Partie 1-1: Disque DVD et
migration de données pour le stockage à long terme des
données audio
(IEC 62702-1-1:2016)

Audio Archivierungssystem - Teil 1-1: DVD Disk und
Datenmigration für die Langzeit Audiodaten Speicherung
(IEC 62702-1-1:2016)

This European Standard was approved by CENELEC on 2016-06-16. 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.

SIST EN 62702-1-1:2016

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, 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: Avenue Marnix 17, B-1000 Brussels

EN 62702-1-1:2016**European foreword**

The text of document 100/2449/CDV, future edition 1 of IEC 62702-1-1, prepared by Technical Area 6 “Storage media, storage data structures, storage systems and equipment” of IEC/TC 100 “Audio, video and multimedia systems and equipment” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62702-1-1:2016.

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) 2017-03-16
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-06-16

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

Endorsement notice

The text of the International Standard IEC 62702-1-1:2016 was approved by CENELEC as a European Standard without any modification.

(standards.iteh.ai)

[SIST EN 62702-1-1:2016](https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016)

<https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016>

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 16448	2002	Information technology - 120 mm DVD - Read-only disk	-	-
ISO/IEC 16963	-	Information technology - Digitally recorded - media for information interchange and storage - Test method for the estimation of lifetime of optical disks for long-term data storage	-	-
ISO/IEC 29121	-	Information technology - Digitally recorded - media for information interchange and storage - Data migration method for DVD-R, DVD-RW, DVD-RAM, +R, and +RW disks	-	-

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 62702-1-1:2016](https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016)

<https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 62702-1-1:2016

<https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016>



INTERNATIONAL STANDARD

NORME INTERNATIONALE



Audio archive system –
Part 1-1: DVD disk and data migration for long term audio data storage

Système d'archivage audio –
Partie 1-1: Disque DVD et migration de données pour le stockage à long terme
des données audio

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 33.160.30; 35.220.30

ISBN 978-2-8322-3285-9

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.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	7
4 Disk and lifetime for long term audio data storage	9
4.1 Disk for long term audio data storage	9
4.2 Lifetime estimation	9
4.3 B_{mig} Life for long-term audio data storage.....	9
4.4 Estimated-lifetime rank and display colour	10
4.4.1 Estimated-lifetime rank and display colour identification	10
4.4.2 B_{mig} Life and display colour indication on disks and packages	10
5 Test condition, test methods and disks for audio data migration.....	10
5.1 Ambient conditions for testing.....	10
5.2 Test methods	11
5.2.1 Playback test drive.....	11
5.2.2 Test area of recorded disk.....	11
5.2.3 Recording test drive.....	11
5.3 Test drive calibration	11
6 Test result evaluation	11
6.1 Initial performance test result evaluation.....	11
6.2 Periodic performance test evaluation.....	12
6.3 Reporting items.....	13
6.3.1 Initial performance test result	13
6.3.2 Periodic performance test result.....	13
6.4 Management of reporting item	13
6.5 Test and migration intervals	13
7 Prevention of deterioration.....	14
Annex A (informative) Guideline of usage and indication.....	15
A.1 Usage of lifetime rank	15
A.2 Lifetime rank indication and place.....	15
A.2.1 Lifetime rank indication	15
A.2.2 Indication example	15
Annex B (informative) Recommendations on handling, storage and cleaning conditions for DVD-R, DVD-RW, DVD-RAM, +R, and +RW disks	16
B.1 Handling	16
B.2 Storage.....	16
B.3 Cleaning	17
Annex C (informative) Guideline of disk history record	18
Bibliography	24
Figure 1 – Data migration flow for DVD-R, DVD-RW, DVD-RAM, +R, and +RW disks.....	13
Figure A.1 – Indication example	15

Table 1 – Category of initial recording performance	12
Table 2 – Category of recording performance at periodic performance test.....	12
Table B.1 – Recommended conditions for general storage	16
Table B.2 – Recommended conditions for Controlled storage.....	16
Table C.1 – Sectors of the disk history file.....	19
Table C.2 – Byte content of sector 0 ~7 of the disk history file	20
Table C.3 – Byte format of sector 8 to 15 and 9 to the following of the disk history file.....	22

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 62702-1-1:2016](https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016)

<https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUDIO ARCHIVE SYSTEM –

Part 1-1: DVD disk and data migration for long term audio data storage

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 62702-1-1 has been prepared by technical area 6: Storage media, storage data structures, storage systems and equipment, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this standard is based on the following documents:

CDV	Report on voting
100/2449/CDV	100/2518/RVC

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

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

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

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 62702-1-1:2016](#)

<https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016>

INTRODUCTION

Sound recordings such as music, speech, and storytelling are an important human heritage and should be preserved for as long as possible. However, we were not able to record sounds in order to preserve them in the past. The first recoding was achieved by Edison in 1877.

Although various technologies were invented later, most of them have limitations for audio archives because storage life time is limited and the sound quality deteriorates when it is transferred to the next generation storage device.

The progress of LSI technology made digital recording of recorded sound possible. The digital recording is very suitable for audio archiving because the migration is performed by copying digital data.

For this purpose various recording materials exist, such as optical disks, magnetic disks, magnetic tape and nonvolatile memory such as a phase change memory.

This International Standard specifies physical and logical aspects for a standard of audio archives of various storage types which are typically used for audio archives in markets.

The IEC 62702 series currently consists of:

Part 1 specifies the minimum requirements on physical aspects of optical disks for digital sound recordings. Part 1-1 specifies DVD optical disks, and Part 1-2 specifies BD optical disks.

(standards.iteh.ai)

Part 2 specifies the minimum requirements for digitization of content, format of digitised content, content information and media inspection.

<https://standards.iteh.ai/catalog/standards/sist/84b26b83-49de-4266-8839-a93a153ebcf7/sist-en-62702-1-1-2016>