

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**





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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	10
4.1 Disk for long-term audio data storage	10
4.2 Lifetime estimation	10
4.3 B_{mig} life for long-term audio data storage	11
4.4 Estimated-lifetime rank and display colour	11
4.4.1 Estimated-lifetime rank and display colour identification	11
4.4.2 B_{mig} life and display colour indication on disks and packages	12
5 Test condition, test methods and disks for audio data	12
5.1 Ambient conditions of maximum data error measurement	12
5.2 Test methods	12
5.2.1 Playback test drive	12
5.2.2 Test area and sample disk	12
5.2.3 Recording test drive	13
5.2.4 Test drive check	13
6 Test result evaluation	13
6.1 Initial performance test result evaluation	13
6.2 Periodic performance test result evaluation	14
6.3 Report items	15
6.3.1 Initial performance test result	15
6.3.2 Periodic performance test result	15
6.4 Management of report item	15
6.5 Test and migration intervals	15
7 Prevention of deterioration	16
Annex A (informative) Guidelines for usage and indication	17
A.1 Usage of lifetime rank	17
A.2 Lifetime rank indication and place	17
A.2.1 Lifetime rank indication	17
A.2.2 Indication example	17
Annex B (informative) Recommendations on handling, storage and cleaning conditions for DVD-R, DVD-RW, DVD-RAM, +R format, and +RW format disks	18
B.1 Handling	18
B.2 Storage	18
B.3 Cleaning	19
Annex C (informative) Guidelines for disk history record	20
Bibliography	26
Figure 1 – Data migration flow for DVD-R, DVD-RW, DVD-RAM, +R format, and +RW format disks	15
Figure A.1 – Indication example	17

Table 1 – Category of initial recording performance 14

Table 2 – Category of recording performance at periodic performance test 14

Table B.1 – Recommended conditions for general storage 18

Table B.2 – Recommended conditions for controlled storage 18

Table C.1 – Sectors of the disk history file 21

Table C.2 – Byte content of sector 0 to 7 of the disk history file 22

Table C.3 – Byte format of sector 8 to 15 and 9 to the following of the disk history file 24

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AUDIO ARCHIVE SYSTEM –**Part 1-1: DVD disk and data migration
for long-term audio data storage**

FOREWORD

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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. It is an International Standard.

This second edition cancels and replaces the first edition published in 2016. This edition constitutes a technical revision.

In order to reflect the updates to ISO/IEC 29121:2021, this edition includes the following significant technical changes with respect to the previous edition:

- a) ISO/IEC 16963 has been identified as the referee test method for the estimation of lifetime;
- b) the ambient conditions for the measurement of maximum data error have been added;
- c) the requirements for test drives have been changed considering the use condition of users;
- d) the requirements for the estimated lifetime have been defined more clearly;
- e) the requirements for the periodic performance test have been defined more clearly.

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

Draft	Report on voting
100/3670/CDV	100/3742/RVC

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

The language used for the development of this International Standard is English.

A list of all parts in the IEC 62702 series, published under the general title *Audio archive system*, can be found on the IEC website.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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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 recording system, the phonograph, was invented by Édouard-Léon Scott de Martinville in 1860 and, after that, Thomas Alva Edison invented the recording and playback system known as the phonograph in 1877.

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

The progress of LSI (Large-Scale Integrated Circuit) technology made digital recording of recorded sound possible. 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 non-volatile memory (such as phase-change memory).

This International Standard specifies physical and logical aspects for standards of audio archives of various storage types which are typically used for audio archives on the market.

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.

NOTE DVD optical disks include DVD-R disk, DVD-RW disk, DVD-RAM disk and +R format disk, +RW format disk. BD optical disks include BD recordable disk and BD rewritable disk.

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