Optical Archive Group



Verbatim.



Ninnon Techno Lab Inc

Objectives

- Realizing high reliability data recording and archiving in professional optical disc field with good partnership between disc and drive manufacturers
- Offering high reliable combination of dedicated media and drives
- Stepping up a relationship with system solution providers
- Applying product certification service by official organizations and complying with international standards and Japanese Industrial Standards

Essential components

- > Superior professional disc strictly examined for high reliability and long-term archiving usage
- Superior professional drive composed of strictly selected parts to be able to measure the digital data error compliant with JIS Z 6017
- Specific scheme to identify OPARG media and OPARG drives and to provide high reliability recordings

Activities

- Proposing solutions for long-term storage systems that are compliant with JIS Z 6017
- Conducting tests to raise compatibility and adopting the uniform logo symbol
- > Expanding the OPARG product categories adding "Business Archive" to existing "Professional Archive"
- Promotional activities for optical disc archives
 Lobbying various relevant organizations with a view to acquiring certification, and expanding overseas

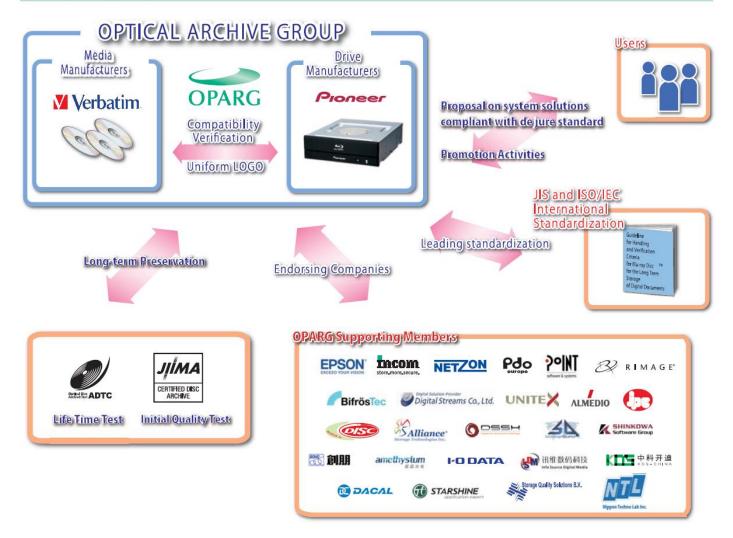
OPARG Supporting Members*1



*1 The companies endorse the OPARG activities.

* OPARG[™] and OPARG[™] logos are trademarks of Pioneer.

OPARG WORLD



Categories of OPARG Discs

- ▶ We offer discs for "Professional Archive" and "Business Archive"
- **OPARG** logos and **OPARG GENERAL** logos are marked respectively.

Professional Archive



Compliant with JIS Z 6017

The estimated Lifetime of a BD is over 200 years and a DVD is over 30 years by ISO/IEC 16963. Strict screening inspection is conducted for all discs before shipping to make discs less-defective and high quality compliant with JIS Z 6017, compared with consumer discs.

OPARG drives are dedicated tuned for recordings on OPARG discs, and this combination realize high reliability of recorded data for long-term preservation.

Business Archive



Adoption of Defect Management for Archive(DMA) function

The estimated Lifetime of a BD is over 100 years by ISO/IEC 16963.

OPARG GENERAL discs are recorded by the DMA function which compensates unexpected defect parts by alternative parts in the other secure area. This function realizes same recording quality as that of Professional Archive for long-term preservation of recorded data.

contact information