DSD Disc Format Specification

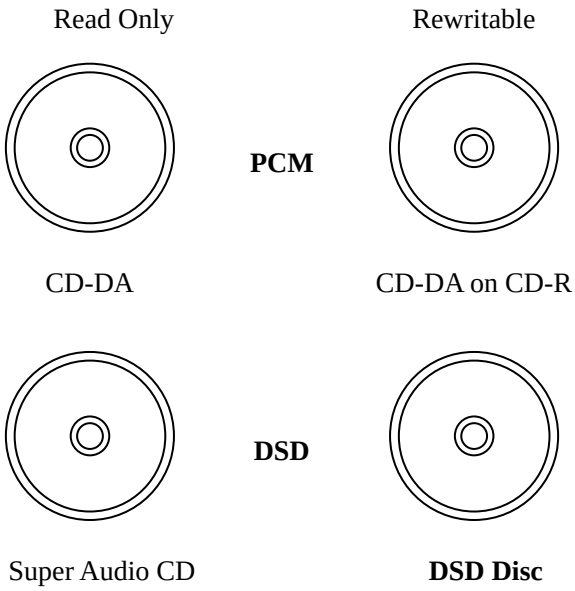
Version 1.00

Contents

I. DSD Disc

Long time have passed since CD-DA spread, it have become common to burn PCM data onto CD-R as CD-DA personally. And universal player that can reproduce the CD-R (compressed audio file of the PCM data is burned) spread too.

On the other hand, Super Audio CD corresponds to above-mentioned CD-DA for the DSD data. However, Super Audio CD is given the copy-protect because of the rights protection, and is unsuitable for the personal usage. Then we define the DSD Disc as a format that DSD data can be recorded or reproduced personally, and it offer equal means to burn CD-DA onto CD-R for the DSD world.



II. Support Media

Structure is applied to the all disc media that can construct a file system, however this version is written specifically for the use of DVD media. If necessary, other media will be supported. When there is a difference between the each media, it is mentioned in this specification.

III. File / Directory Structure

File system is UDF1.02, or UDF1.02 Bridge

Volume Identifier

Volume identifier is the disc title.

The character code is UNICODE according to UDF1.02 format.

32 bytes

Directory Structure

Create the /DSD_Disc directory in the root directory, and the /DSD_Disc directory includes subdirectory, media file and playlist. Playlist can be stored only in the /DSD_Disc directory. Media file shall be stored in a subdirectory. Media files can be classified by creating multiple subdirectories. The player identifies that as DSD Disc by existence of the /DSD_DISC directory and the contents.

Folder / File Name

The character code is UNICODE according to UDF1.02 format.

Directory/File name can be a maximum of 255 bytes.

Maximum Pathsize can be a maximum of 1023 bytes.

IV. Media File

Media File Type

Use DSF file for a description of DSD data. DSF file specification is prepared separately.

Metadata

The items supported by ID3V2 can be described as metadata according to the specification of DSF file.

The character code is ASCII or UNICODE according to ID3V2.

It is optional whether to handle the metadata on the player side. It is optional whether to display UNICODE when the display of the metadata is handled.

Coexistence with PCM data files

In this version, only DSF file is supported.

At present, coexistence with other files (wav, mp3, etc.) is not defined.

It is optional whether to support media files other than DSF file.

When reproducing, the player shall skip the file that cannot be read.

V. Playlist

Playlist Type

The playlist is a text file with a .ddp extension.

A part except extension from a file name, is playlist name.

Playlist Format

The path of the media files are described in order of the reproduction.

The line that starts by "#" can be added as a comment line.

Multiple path names and comment lines are delimited by the linefeed code (CR, LF or CR+LF).

It is necessary to make the player side can deciphered even by each linefeed code.

Number of playlists

Multiple playlists (0 or more) can exist under the DSD_DISC directory. It is optional whether to reproduce in order described in the playlist on the player side.

Path

The path shall be described either a relative to the playlist or an absolute to the root directory.

The directory name and the file name are delimited by “¥” or “/”.

It is necessary to make the player side can deciphered even by each delimitation.

The drive letter is not described in the path.

UTF-8 is used for 2 byte code expression.

Reproduction Order

The player shall support the reproduction that doesn't use the playlist, and the reproduction that uses the playlist. It is optional whether to support the reproduction that uses the playlist. In the reproduction that uses the playlist, the reproduction order applies to the playlist.

The ascending order by file name shall be used in the reproduction that doesn't use the playlist. However, the Search order of a directory may be arbitrary it in each player.

When multiple playlists exist, the reproduction order shall be an ascending order by file name of the playlist.

VI. Requirements and Restrictions for DVD media

Media Type

Any of the following DVD-R, DVD-RW, DVD+R or DVD+RW can be used.

Overwrite

Overwrite can be done. However there is a possibility that it becomes incompatible with DVD-ROM and it becomes impossible to reproduce by the player. It is necessary to care this on the writing side.

File System

File system is UDF1.02, or UDF1.02 Bridge

Number of Media Files

It is unrestricted on the writing side. However, it shall be cared that there is a player that can reproduce only up to 255 files.

The number of limitations can be set on the player side. However, it is necessary to be able to reproduce up to 255 files or more.

Number of Playlists

It is unrestricted on the writing side.

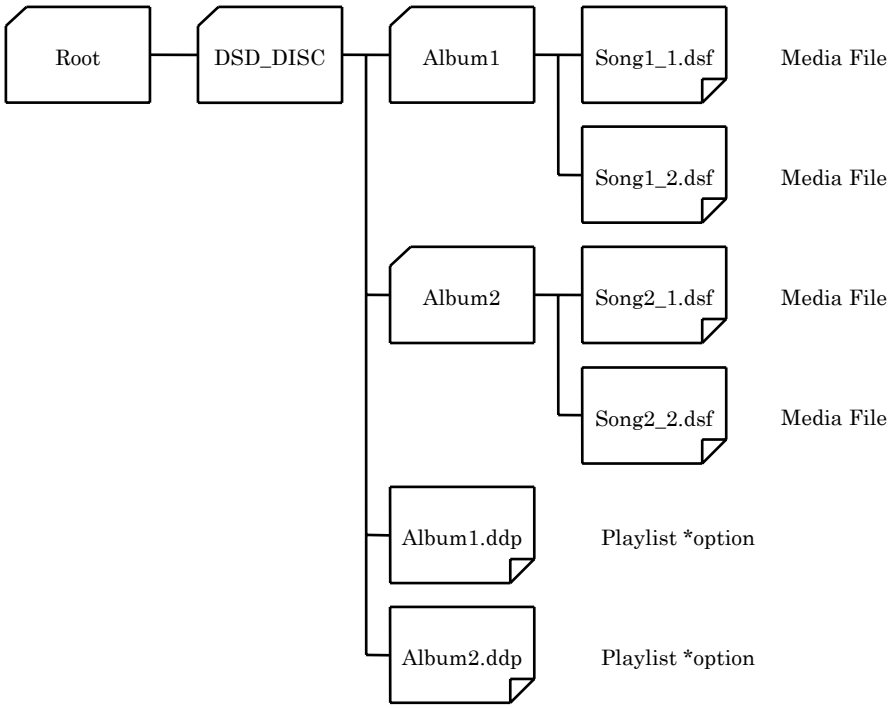
The number of limitations can be set on the player side.

Depth of Directory Tree

It is unrestricted on the writing side.

The number of limitations can be set on the player side. The directory should be able to be read up to 8 trees (included the root directory).

[Appendix 1]File/Directory Structure sample



[Appendix 2] Playlist sample

#Playlist Album1.ddp

./Album1/Song1_1.dsf

./Album2/Song1_2.dsf

[EOF]

Contact

If you have any question, send e-mail (in English) to dsd-format-info@sony.co.jp .

However, we will not guarantee that we provide support or answer your inquiry.

Change history:

[January 31, 2006 V1.0]

- Original release