

Current Status for Readability of Packet Written CD-R discs by CD-ROM drives

Orange Study Group of Japan (OSJ)

Packet Write Expert Working Group (EWG)

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OSJ-EWG Activities

- Purposes:
 - Promote CD-R packet writing from technical aspects
- Current Actions:
 - Organize readability test of packet written CD-R disc by CD-ROM drive vendors
 - Organize interchangeability test of packet written CD-R discs between CD-R writer vendors
- Members:
 - Ricoh (Chair), Mitsumi, MKE, Philips Japan, Pioneer, Sony, Yamaha

Target and Purposes of the Packet written CD-R readability test

- Targeted test participants
 - CD-ROM drive manufacturers who are OSJ members
- Purposes
 - Supply CD-ROM drive manufacturers with testing environment so that they can make their drives ready to read packet written CD-R discs.
 - Offer the snap-shot of CD-ROM manufacturers' attitude toward packet written CD-R discs.

Readability Level

- OSJ-EWG defined the readability level for CD-ROM drives based on Sony's proposal.
 - Level 1: Requires device drivers supporting Addressing Method-2. TD (Track Descriptor) shall be handled by applications.
 - Level 2: Requires device drivers supporting Addressing Method-2. TD shall be handled by CD-ROM drives.
 - Level 3: Do not require device drivers supporting Addressing Method-2. Addressing and TD shall be handled by CD-ROM drives.

Readability Level

	Level 1	Level 2	Level 3
CD-ROM Requirements	<ul style="list-style-type: none"> ● Packet Written disc readable (Physically) 	<ul style="list-style-type: none"> ● Packet Written disc readable ● Read TD* (*Track Descriptor) 	<ul style="list-style-type: none"> ● Packet Written disc readable ● Read TD ● Handle Addressing Method 2 for fixed packets
Device Driver Requirements	<ul style="list-style-type: none"> ● Handle Addressing Method 2 for fixed packets 	<ul style="list-style-type: none"> ● Handle Addressing Method 2 for fixed packets 	<ul style="list-style-type: none"> ●
Application Layer Requirements	<ul style="list-style-type: none"> ● Applications need to be designed so that TD may not be read by drives. 	<ul style="list-style-type: none"> ● 	<ul style="list-style-type: none"> ●

Test Procedures

- (1) Distribute test package to CD-ROM drive manufacturers
- (2) Perform readability test by CD-ROM drive manufacturers
- (3) After filled out according to the test results, questionnaire is returned to OSJ-EWG.
- (4) Collect results and make reports

Test package list

- Packet Written Test Disc
 - data in variable packets and fixed packets
- Test Program
 - generates log according to the reading test results
- Explanation on Readability Level by CD-ROM drives
 - Level 1, 2, 3
- Questionnaire Format

Test Disc and Test Program

- Test Disc:
 - Includes variable and fixed packets
 - CD-ROM Mode-1 data
- Test Program
 - Check ready status
 - Read TOC, Capacity
 - Read packets including multiple reading

Participants of test program

- EWG sent invitations to 18 manufacturers (OSJ members)
 - Aiwa, Alps, Gold Star, Denon, Sanyo, Samsung, Plextor, Sony, NEC HE, Pioneer, Hitachi, Philips, Funai, Matsushita, MKE, Mitsubishi, Mitsumi, Toshiba (planned member of OSJ)
- 13 companies returned questionnaire. (As of September, 26)

Questionnaire format

(1) Can CD-ROM drives manufactured by your company read packet written discs?

Yes

Then, from when were your drives ready to packet written CD-R disc?

No

(2) If no, do you have any plan to offer drives ready to packet written CD-R discs?

Yes

Then, what is your schedule?

No

(3) If any, please make comments to OSJ-EWG.

Collected results

- Number of returned answers: 13 out of 18

- Question 1

- Yes: 11

- from early in '95 (1) from '95 (1)

- from October, '95 (1)

- from December, '95 (2)

- from February, '96 (1)

- from March, '96 (1)

- from April, '96 (1)

- from October, '96 (1)

- Not specified timing (2)

- No: 2

- Question 2

- Yes: 2

- will be ready to packet written discs by November '96 and April '97.

Comments to OSJ-EWG

- Need definite methods to have their drives able to read packet written CD-R discs.
- Interchangeable file system for packet write shall be needed.
- It will be undesirable if the test materials are used in a different way from OSJ-EWG's intention.
- CD-RW needed be discussed in this group in the future