

To: X3T10 MMC Reflector
 doc# 95-~~xxxx~~0

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From: Mike Yokoyama - SONY Electronics Inc

Date: 9/21/1995

Subject: Proposal - Device Capability for CD devices

Dear MMC,

Since MMC has defined the Device Type for all CD devices as 5 for Inquiry Command, Initiator has no way to know what kind of CD devices are connected such as CD-ROM, CD-R, CD-E, ... This will cause the problem when Host needs to support the features of these devices. For example, Windows 95 is able to mount CD-R device if the device type is set to 5, but it won't allow any of write function.

To avoid this problem, SONY would like to propose using some fields to indicate the detail of CD device type in Capabilities page. Following table shows byte 2 and 3 as CD Function and CD Function field specifies the way to identify CD devices, such as CD-ROM, CD-R, CD-E and others.

SONY has no intention to keep those fields in CD-ROM Capabilities and Mechanical Status Page if there is more proper place for this purpose. It can be move to another place.

**** SONY Proposal for CD-ROM Capabilities Page for CD Devices ****

CD-ROM Capabilities and Mechanical Status Page

| Bit | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|------|-------------------|-----------|-----------------|-----------------------------------|----------|---------|----------|--------|
| Byte | | | | | | | | |
| 0 | PS | Reserved | Page Code (2Ah) | | | | | |
| 1 | Page length (12h) | | | | | | | |
| 2 | *CD Function | | | | | | | |
| 3 | | | | | | | | |
| 4 | Reserved | MultiSess | M2F2 | M2F1 | DP(2) | DP(1) | Compo | AudioP |
| 5 | Reserved | UPC | ISRC | C2Point | R-Wdeint | R-W raw | DAAccu | CD-DA |
| 6 | Loading Mech.Type | | | Reserved | Eject | PrvJump | LockStat | Lock |
| 7 | Reserved | | | | | | SepMute | SepVol |
| 8 | (MSB) | | | | | | | |
| | | | | Maximum Speed Supported (in KBps) | | | | |
| 9 | | | | | | | | (LSB) |
| 10 | (MSB) | | | | | | | |
| | | | | Number of Volume Levels Supported | | | | |
| 11 | | | | | | | | (LSB) |

| | | | | | | | | |
|----|-------|--|--------|------|-----|-----|----------|-------|
| 12 | (MSB) | Buffer Size supported by Drive (in KBytes) | | | | | | (LSB) |
| 13 | | | | | | | | |
| 14 | (MSB) | Current Speed Selected (in KBps) | | | | | | (LSB) |
| 15 | | | | | | | | |
| 16 | | Reserved | | | | | | |
| 17 | | Reserved | Length | LSBF | RCK | BCK | Reserved | |
| 18 | | Reserved | | | | | | |
| 19 | | Reserved | | | | | | |

Table xx - CD Function Field

| | | | | | | | | |
|------|----------|---------|---------|----------|---------|----------|---|---|
| Bit | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| Byte | | | | | | | | |
| 2 | Reserved | CD-E Wr | CD-E Rd | Reserved | CD-R Wr | Method 2 | | |
| 3 | Reserved | | | | | | | |

If Addressing Method-2 is set to one, the drive shall support read function of CD-R disc with Addressing Method-2.

If CD-R Write Field is set to one, the drive shall support write function of CD-R disc.

If CD-E Read Field is set to one, the drive shall support read function of CD-E disc.

If CD-E Write Field is set to one, the drive shall support write function of CD-E disc.

Note: The Reserved field should be reserved for future devices such as High Density CD devices.

Best Regards,

Mike

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