To: INCITS T10 Committee

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Subject: SSC-3: Sequential-Access Device log page

Related Documents:

03-010

There is a desire by IBM to have a method by which a device server can provide an indication to an application client of how much tape has been used and how much is available for use. We propose additional parameters be added to the Sequential-Access Device log page in SSC-3.

3.1.x native logical capacity - The capacity of the medium assuming one-to-one compression (e.g. compression disabled), the medium is in good condition, and that the device recommended typical block size is used.

8.2.2 Sequential-Access Device log page

The Sequential-Access Device log page defines data counters associated with data bytes transferred to and from the media and to and from the application client, and binary list parameters related to approximate position on medium relative to native logical capacities, and a list parameter of binary information on cleaning.

The default value for parameters 0 through 3 shall be zero.

> NOTE 37 The data in parameters 0 and 1 are intended to provide an indication of the compression ratio for the written data. Parameters 2 and 3 are intended to provide an indication of the compression ratio for read data. Parameters 4, 5, and 6 are intended to provide an indication of the remaining native logical capacity on the medium and the native logical capacity of the medium.

Support of the Sequential-Access Device log page is optional. Support of the individual parameters in the Sequential-Access Device log page are optional. If parameter 4 is supported then parameter 5 shall be supported. Parameters 4, 5, and 6 are only valid when a medium is mounted.

Table 50 defines the parameter codes for the Sequential-Access Device log page.

Parameter Code	Description
0000h	Number of data bytes received from application clients during WRITE command operations.
0001h	Number of data bytes written to the media as a result of WRITE command operations, not counting ECC and formatting overhead.
0002h	Number of data bytes read from the media during READ command operations, not counting ECC and formatting overhead.
0003h	Number of data bytes transferred to the initiator(s) during READ command operations.
0004h	Approximate remaining native logical capacity in Megabytes (10^6) from current tape position to EW. There is no guarantee that this amount of data can be written to media before reaching EW.
0005h	Approximate native logical capacity in Megabytes (10^6) between BOP and EW of the current partition.
0006h	Approximate native logical capacity in Megabytes (10^6) between EW and EOP of the current partition.
0007h - 00FFh	Reserved
0100h	Cleaning required.
0101h - 7FFFFh	Reserved
8000h - FFFFh	Vendor-specific parameters

EXAMPLE: If the loaded medium has a native logical capacity of 200 GB (10^9) with EW at 1GB prior to EOP and the medium is positioned at the point that is 75% of the logical length between BOP and EW, then the device server would use the following to determine parameters 0004h, 0005h, and 0006h.

Since 25% of logical length is remaining, (200 GB - 1 GB) * 25% = 49.75 GB   (EQ 1)

EQ 1 gives parameter 0004h = 49 750 (2616h), parameter 0005h = 199 000 (030958h), and parameter 0006h = 1 000 (03E8h). The parameter lengths would be 2 bytes for parameter 0004h, 3 bytes for parameter 0005h, and 2 bytes for parameter 0006h.