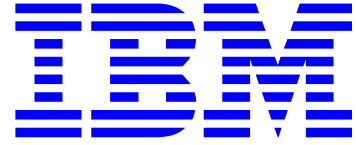To: INCITS Technical Committee T10
From: Kevin Butt
Date: Monday, December 08, 2008 12:55 pm
Document: T10/08-389r2 — SSC-3: Resolution to LB HPQ-070

Revisions

08-389r0   (23 September 2008) Initial revision

08-389r1   (29 September 2008) Add clarification of the order of CC between PEW and EW when PEWZ is entered and exited into EW on same command

08-389r2   (04 November 2008) Made changes during November T10 meeting. Approved for inclusion into SSC-3

Introduction

This proposal intends to resolve LB HPQ-070 with states:

> [4.2.5] First paragraph in the section - ". . . enough space in the partition for the application client to write any buffered logical object in the application client buffer to the medium." - What is the application client buffer? Is that different from the object buffer? If so then a definition is needed.

The working group gave me an assignment to word in a manner that does not use "buffer". While making this change I noticed what I think may be an issue about entering and exiting PEWZ prior to getting the PROGRAM-MABLE EARLY WARNING INDICATION. This needs reviewed closely.

Note that this proposal assumes that T10/08-388r0 is approved.

Key:

~~**This font indicates text that is deleted.**~~

This font indicates text that is added.

This font indicates text assuming T10/08-388r0 is accepted.

Proposal

4.2.5 Programmable early warning

When writing, the application client may need an indication prior to ~~that it is approaching~~ early warning (see 4.2.4) ~~while there is enough space in the partition for the application client to write any buffered logical objects in the application client buffer to medium~~ to allow for the application client to prepare to be ready for early warning (e.g., flush internal buffers).

Application clients that need this indication may set the PEWS field (see 8.3.8) to a value that creates a PEWZ of the specified size. ~~that allows sufficient recording space for the data that is in the application client buffer.~~

Editors Note 1 - KDB: Assuming T10/08-388r0— SSC-3: Resolution to LB IBM-027 passes, then the last paragraph of this section asit exists in SSC-3r04a is replaced by the text in **blue**, moved to this location and modified as follows.

The REW bit in the Device Configuration mode page (see 8.3.3) shall have no effect on the device server behavior in the PEWZ.

The device server shall return CHECK CONDITION status, with the sense key set to NO SENSE, the EOM bit set to one and the additional sense code set to PROGRAMMABLE EARLY WARNING DETECTED at the completion of a command that causesd the medium to transition into the PEWZ if that command is:

> **a) a WRITE(6);**
> **b) a WRITE(16);**
> **c) a WRITE FILEMARKS(6); or**
> **d) a WRITE FILEMARKS(16).**

Encountering the PEWZ shall not cause the device server to perform a synchronize operation or terminate the command. If processing this command results in any other exception condition except early-warning, the CHECK CONDITION status associated with that exception condition shall be reported instead. If early-warning is crossed prior to the PROGRAMMABLE EARLY WARNING DETECTED additional sense being reported, the PROGRAMMABLE EARLY WARNING DETECTED additional sense shall be reported before the early-warning CHECK CONDITION. If the PROGRAMMABLE EARLY WARNING DETECTED additional sense was not reported, the next write in PEWZ or beyond early-warning that would otherwise completes with GOOD status, shall return the programmable-early-warning CHECK CONDITION instead.

~~**The PEWZ shall have no effect on commands not listed in this subclause.**~~

If the PEWZ is entered and exited on the BOP side before the PROGRAMMABLE EARLY WARNING DETECTED additional sense code is returned, the device server does not report PROGRAMMABLE EARLY WARNING DETECTED CHECK CONDITION.