Accredited Standards Committee
X3, Information Processing Systems*

July 2, 1990
X3.131-199x

Mr. Delbert Shoemaker
Digital Equipment Corp.
1331 Pennsylvania Ave. NW
Suite 600
Washington, DC 20004

Dear Del:

Subject: Request for Interpretation, #2 on X3.131-199x, Small Computer System
             Interface (SCSI-2)

The Secretariat has received the attached request for interpretation of X3.131-199x, Small Computer Systems
Interface (SCSI-2). The request is from Mr. Brian Earle.

In accordance with the procedures established in the SD-2, Section 9.5, X3T9 needs to take the following action:
Please schedule this request on the agenda of your next meeting. After discussion and formal vote, respond again
to the originator and send all correspondence to the Secretariat.

Sincerely,

Lynn Barra

Lynn Barra
Coordinator, Nat'l. Stds. Processing, X3

Attachment: Request for
             Interpretation #2

cc: J. Lohmeyer, X3T9.2 Chair
       J. Ryland, SPARC Liaison
       B. Earle

TO: X3 Secretariat/CBEMA   June 14, 1990
         Lynn Barra, Administrator, Stds. Processing
         311 First Street, N.W.
         Suite 500
         Washington, DC 20001-2178

FROM: Brian Earle, Project Engineer
         Eventide, Inc.
         1 Alsan Way, Little Ferry, NJ 07643
         Phone: 1-201-641-1200 Fax: 1-201-641-1640

REQUEST FOR OFFICIAL INTERPRETATION OF ANSI STANDARD X3.131 SCSI-2

This question involves Sections 9.1.6, 9.2.3, and 9.2.6

         Sequential Access Devices, 4mm DAT (DDS) devices in particular
         Recorded Object Descriptors, LOCATE and READ POSITION commands

Question

         Should filemarks/setmarks be assigned block addresses for positioning
         purposes when using the LOCATE and READ POSITION commands?

Discussion

This question involves interchangability of media among "compatible" devices
from different manufacturors. Suppose a tape is recorded on drive A, then
played back. One block of critical data is discovered. READ POSITION is used
to determine the block address. The tape is sent to an analyst who inserts
the tape in drive B and uses LOCATE to find the critical data block,
specifying the block address reported by drive A. If drives A and B do not
assign block addresses the same way, the wrong data will be analyzed.

I've come across two interpretations of block addresses:

   1) Marks (filemarks or setmarks) do not have block addresses. LOCATE
      can't be used to position directly to a mark.

   2) Marks do have block addresses. LOCATE can be used to position to
      a mark.

I agree with Interpretation 2. This is supported by the precedent set for
3480-compatible tape cartridge devices as well as the following from section
9.1.6 (Recorded Object Descriptors), Rev 10b:

      "Filemarks and setmarks may or may not have recorded identifiers,
      but if identifiers are used in the format, then each mark is
      assigned a value even if it is not explicitly recorded."

This means that if identifiers are assigned to data blocks, they must also be
assigned to marks. I would infer from this that block addresses used with
LOCATE and READ POSITION should include marks.

The DDS standard does assign identifiers to marks; each mark appears as a
separate entry in a Block Access Table, along with entries for data blocks.
The information is on the tape, but some manufacturors may have chosen to
ignore marks in their implementation of LOCATE and READ POSITION.

The answer to the question above seems to be "yes".

                                        BRIAN C. EARLE, PROJ. ENG.