



Memo to: John Lohmeyer  
Chairman, X3T9.2  
NCR Corporation  
3718 N. Rock Road  
Wichita, KS 67226

Memo from: Robert Snively

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Subject: Suggested Editorial Correction of Tape Density Parameter

After careful review of the SCSI specification's description of the density code field for sequential access devices in section 9.3.3 of the SCSI-2 specification, we have come to the conclusion that the ambiguities of terminology in that section allow implementations that violate the intent of the SCSI committee. On page 9-40 of X3T9.2/86-109, revision 10b, the density code is explained. A table on the next page defines the standard density codes.

The intent of an initiator in sending a MODE SENSE command to a sequential access device is to learn as much as possible about the recording medium that is installed or may be installed. This is clearly explained in the second paragraph of the page. The intent of an initiator in sending a MODE SELECT command to a sequential access device is to set either the optimum density for medium or to set a special density for the medium. In some cases, the selected density may be an impossible density, which will be rejected. In other cases, the selected density may be an incompatible density, which will be either rejected or changed to the correct density, depending on the implementation.

The problem in the section is the ambiguous use of the word default. On page 9-40, the word default is used to describe the value to be returned by a MODE SENSE command, which is an actual description of a possible tape density or the actual installed tape density. In the table on page 9-41, the word Default is used to describe the value that is to be set by a MODE SELECT command to invoke the optimum density setting. Some implementations have misunderstood the intention of this section by choosing to report a