TEXAS INSTRUMENTS

D.W. (Bill) Spence
Project Engineer
Advanced Systems Division
Data Systems Group

PO Box 2909 • MS 2091 • Austin, Texas 78769 • 512 250-6627

MEMORANDUM

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TO: John Lohmeyer, Chairman X3T9.2

FROM: Bill Spence, Texas Instruments

SUBJECT: RECONCILIATION OF SEQUENTIAL-ACCESS POSITIONAL TERMS--STEP 1

The following material is a first step in a proposed effort to both rationalize the use of sequential-access positional terms and include new terms being introduced to meet the needs of new devices, as presented in such abundance by our esteemed colleague from Tucson.

This first step is an attempt to bring internal consistency to the terms presently used in SCSI-2 Rev 2. Not only does it not embark on the large task of digesting all the terms of Gary Stephens' Tape Model, 87-96, it does not attain the goal of fitting all the positional terms presently commonly used in the industry into into an appendix or glossary, as proposed in my 87-65 Rev 1. I still recognize my Action Item to try to accomplish all these tasks. It turns out that doing this has proven to be unexpectedly difficult, however, inasmuch as Gary's Tape Model not only introduces many new terms but also assigns new meanings to some terms presently used in the standard. In addition, reconciling the Tape Model to the present usage runs into the considerable obstacle that existing usage is not consistent.

In order to get a clear view of what positional terms are presently used in the standard and how the standard would look if the use of these terms were internally reconciled, I have done the work as presented below. It would represent a considerable improvement of the standard, even if nothing more is accomplish, although that is not what I intend.

WORKING GLOSSARY:

    End-of-data -- end of data on a medium, designated in format-specific manner.
    EOM -- EOM bit in Sense Data return.
    EOT -- EOT bit in LOAD/UNLOAD command.
    Early-warning -- a physical mark or device-computed position near but
            before the limit of travel on a track (in either direction).
    Load-point -- a physical mark or device-computed position near but after the
            beginning of a track (in either direction).
    Physical beginning-of-medium -- the extreme point along the medium in
            the reverse direction which can be accessed without use of the UNLOAD
            command.
    Physical end-of-medium -- the extreme point along the medium in the
            forward direction which can be accessed.

GENERAL RULES:

1. Replace "end-of-medium (EOM) bit" with "EOM bit".
2. Replace "early-warning end-of-medium (EOM) bit" with "EOM bit".
3. Replace "early-warning end-of-medium ..." [e.g., condition] with "early-warning ..." [e.g., condition]. In such phrase, delete "(EOM)", if present.
4. Replace "logical end-of-data" with "end-of-data".

The unqualified phrase "end-of-medium" is eliminated, except for such innocuous phrases as "end-of-medium side" (of a data block). As presently used, it has two meanings--both different from Gary's, I believe--and has a confusing relationship to the EOM bit which appears throughout Scn. 7.1.8 and all of Scn. 9.

It appears to me that making global replacements runs into too many exceptional conditions. The following list of specific changes is therefore appended.

SPECIFIC CHANGES:

Page	Par or Table	Line	Term	Replacement
7-28	4	1	end-of-medium (EOM)	EOM
7-28	4	1	end-of-medium condition	early-warning condition
7-28	4	4	early-warning end-of-tape	early-warning
7-28	4	5	beginning-of-tape	physical beginning-of-medium
7-32	7-25	Dh	end-of-medium	physical end-of-medium
9-3	1	2	early-warning end-of-medium	early-warning
9-3	last	last	beginning-of-medium	physical beginning-of-medir
9-4	2	2	beginning-of-medium	physical beginning-of-medi
9-5	2	2	EOT	physical end-of-medium
9-5	3	2	positioned at BOT	rewound completely
9-20	10	1	early-warning end-of-medium	early warning
9-21	2	1	early-warning end-of-medium	early warning
9-21	2	2	report the EOM condition	set the EOM bit
9-21	last	3	EOM	early warning
9-21	last	4	EOM	early warning
9-33	2	4	logical end-of-data	end-of-data
9-33	2	5	logical end-of-data	end-of-data
9-33	last	3	end-of-medium (EOM)	EOM
9-45	3	1	logical end-of-data	end-of-data
9-45	3	4	logical end-of-data	end-of-data
9-45	3	5	logical end-of-data	end-of-data
9-45	4	3	end-of-medium (EOM)	EOM
9-45	5	3	end-of-medium (EOM)	EOM
9-46	2	1	logical end-of-data	end-of-data
9-46	2	3	logical end-of-data	end-of-data
9-46	3	1	logical end-of-data	end-of-data
9-48	1	1	early-warning end-of-medium	early warning