

X3T9.2/88-124

TO: SCSI STANDARDS COMMITTEE X3T9.2

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SUBJECT: PROGRESS REPORTING

There has been a certain amount of discussion concerning Progress Reporting. The concept provides the host some means of determining how close the target is to completing the command. The current discussion has centered around allowing the host to obtain sense information while the format is in progress.

There are philosophical as well as implementation problems with this approach.

I.

Philosophically, SCSI does not allow multiple commands to be active simultaneously without a queuing structure. SCSI philosophy guarantees that there will be a single comand complete sequence per single command. There can be no confusion concerning which command complete pairs with which command.

II.

There is, and should be, an orthogonal structure throughout the commands. Format should not be an exception process.

III.

Returning sense information requires controller resource. Typically, when a host selection is detected while the controller is busy, the command is simply accepted and stored. The host is either given the busy status transfer sequence or disconnected, depending upon the identify disconnect bit. Returning sense information requires the command to be parsed, checked, and exception processes executed. This obviously increases complexity, particularly for embedded controller designs.

ALTERNATIVE

It seems that an alternative may exist using the message system. When the controller is busy for extended periods of time, an extended message may be returned to the host to inform approximately how long it will be before reconnection can occur.

The advantages are:

- The target can transmit this sequence to the host that requested the format before the disconnect sequence. The host now knows approximately how long before he can expect to receive a reconnect and can set up appropriate time-out loops.
- If an alternate host selects, information is transferred concerning approximate time before reconnection can be anticipated.
- The same philosophy can be extended to other lengthy commands such that format is not an exception case.

We will be happy to generate a specific proposal for review by a working group if so directed by the committee.