

Increased Self-Test Polling Time

To: T13 Technical committee
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Change History:

R0: 09/30/2004 Initial proposal
R1 01/13/2005 [Removed changes for short & conveyance test, made new proposal for long test time reporting, add new explanatory text](#)

1 Introduction

With the advent of larger capacity disk drives, the time required to complete the SMART extended self-test has increased. Currently the maximum time that can be reported (by SMART READ DATA) is 255 minutes. This may not be long enough for some large capacity devices.

In addition, a questionable use of these values must be noted:

While bytes 372-374 indicate a “recommended polling time”, some host vendors treat this as the “maximum allowable time”. If a device does not complete the extended self-test within xxx% of the stated time, the drive is marked as ‘failing’.

Table 49 “Device SMART data structure’ reports:

Bytes	F/V	Descriptions
364-365	V	Total time in seconds to complete off-line data collection activity
372	F	Short self-test routing recommended polling time (in minutes)
373	F	Extended self-test routing recommended polling time (in minutes)
374	F	Conveyance self-test routing recommended polling time (in minutes)
375-385	R	Reserved

2 Proposal

2.1.1 Add this text to SMART READ DATA

“The Polling Time that bytes 372-376 refer to indicate an estimate of the minimum time required to complete the test. The test may actually run longer or shorter than the estimate. The host should wait at least this long before sending the first SMART READ DATA command to check for test completion status.”

2.1.2 Modify table 49 as follows

Bytes	F/V	Descriptions
364-365	V	Total time in seconds to complete off-line data collection activity
372	F	Short self-test routine eg recommended polling time (7:0) (in minutes)
373	F	Extended self-test routine eg recommended polling time (7:0) (in minutes) <u>If FFh, use bytes 375 and 376 for the polling time.</u>
374	F	Conveyance self-test routine eg recommended polling time (7:0) (in minutes)
375	F	Short self-test routing recommended polling time (15:8) (in minutes) Extended self-test routine recommended polling time (7:0) (in minutes)
376	F	Extended self-test routine eg recommended polling time (15:8) (in minutes)
377	F	Conveyance self-test routing recommended polling time (15:8) (in minutes) Reserved
378-385	R	Reserved