

Increased Self-Test Polling Time

To: T13 Technical committee
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Change History:

R0: 09/30/2004 Initial proposal

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

Take some of the reserved bytes and define them 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 routing recommended polling time (7:0) (in minutes)
373	F	Extended self-test routing recommended polling time (7:0) (in minutes)
374	F	Conveyance self-test routing recommended polling time (7:0) (in minutes)
375	F	Short self-test routing recommended polling time (15:8) (in minutes)
376	F	Extended self-test routing recommended polling time (15:8) (in minutes)
377	F	Conveyance self-test routing recommended polling time (15:8) (in minutes)
378-385	R	Reserved