SCSI TOOLBOX, LLC

ATA Drive Confidence Test

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This new test is part of the STB Suite, version 8.1.
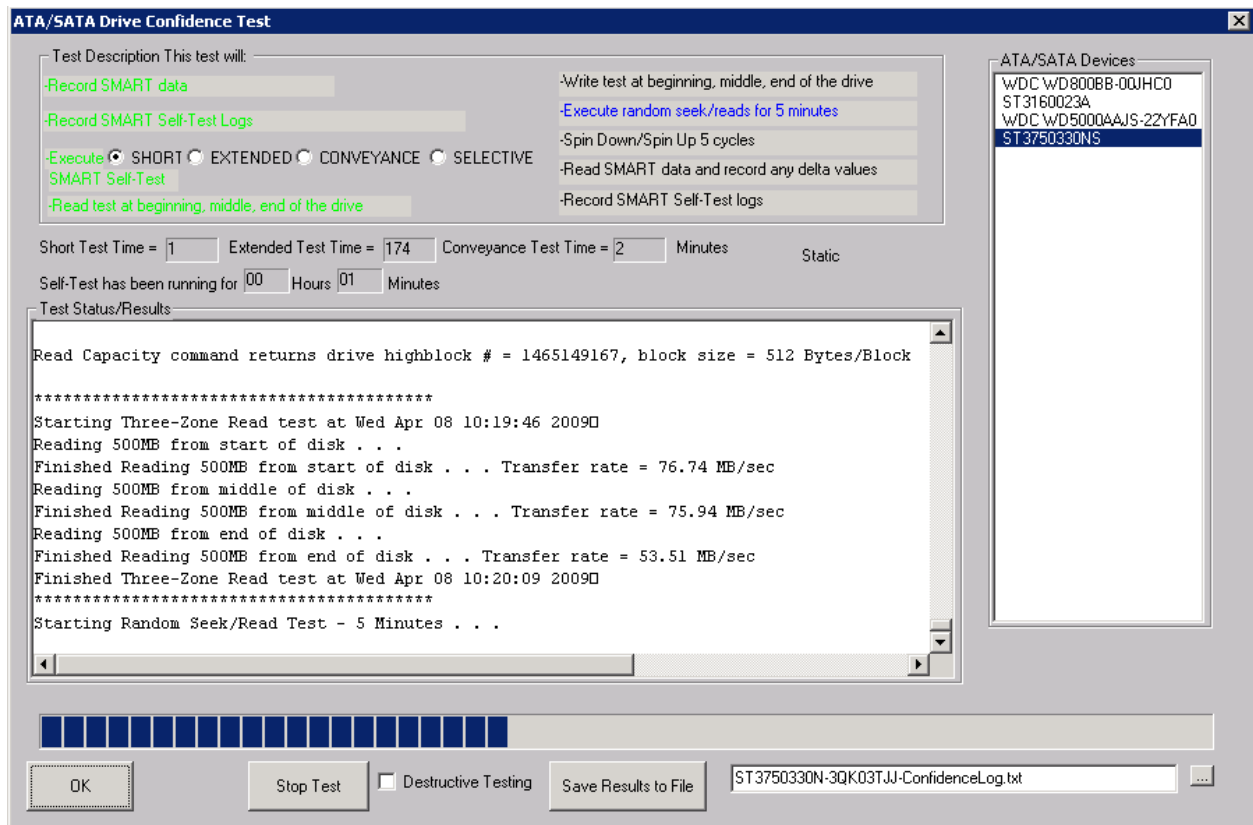
It tests all aspects of SATA drives, including write, read, data integrity, spin up/ spin down, and the state of the drives SMART data and logs. The progress and results of each test step is reported and may be written to a log file.

As each test step is begun its description will be colored **blue**. If the test results in an error the description will be marked **red.** If the test step is successful it will be marked **green.**
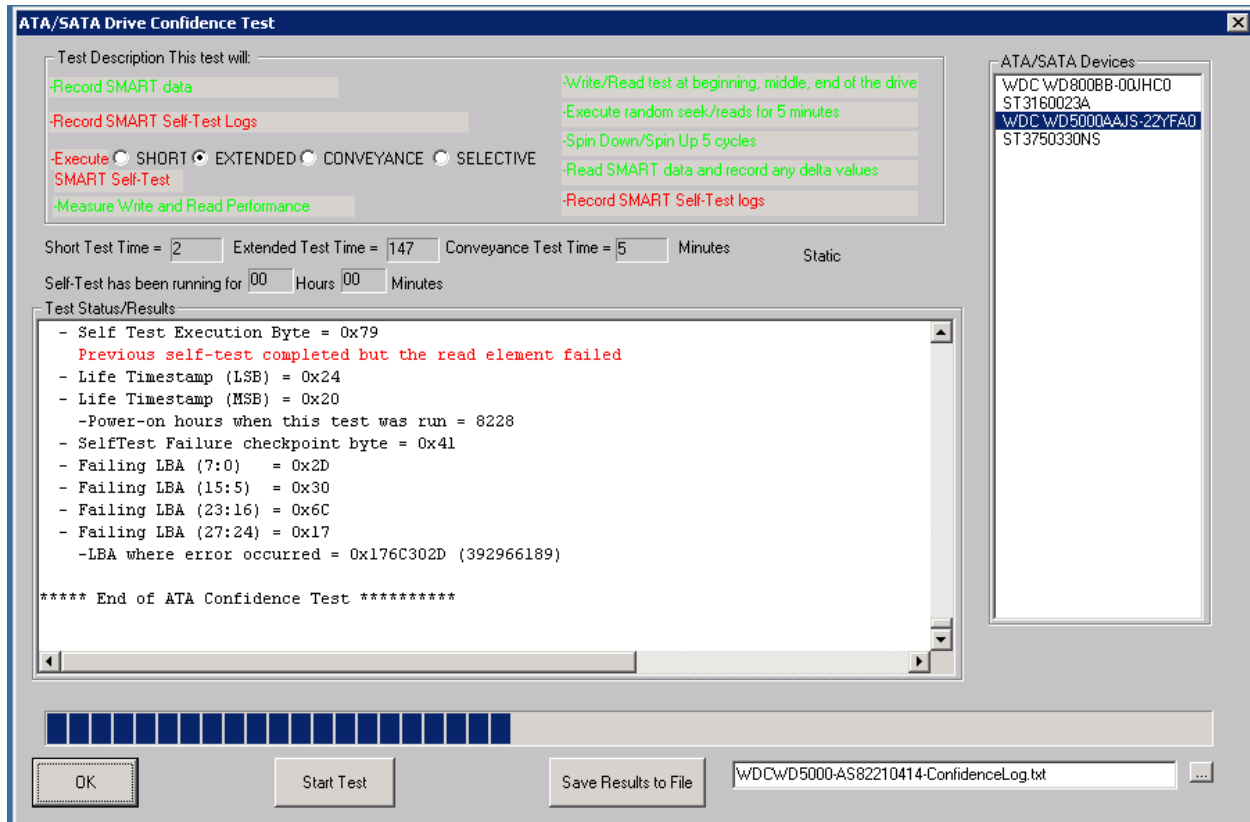
The test has several options:

-Destructive – with this option checked the test will run write data integrity tests on the beginning, middle, and end sections of the drive.

-Self-Test – you may choose to run either a SHORT, EXTENDED, CONVEYANCE, or SELECTIVE SMART self-test. The test displays how long each type of self-test will take to complete.

ATA/SATA Drive Confidence Test

Test Description This test will:

-Record SMART data

-Record SMART Self-Test Logs

-Execute ○ SHORT ⦿ EXTENDED ○ CONVEYANCE ○ SELECTIVE
SMART Self-Test
-Measure Write and Read Performance

-Write/Read test at beginning, middle, end of the drive
-Execute random seek/reads for 5 minutes
-Spin Down/Spin Up 5 cycles
-Read SMART data and record any delta values
-Record SMART Self-Test logs

ATA/SATA Devices
WDC WD800BB-00JHC0
ST3160023A
WDC WD5000AAJS-22YFA0
ST3750330NS

Short Test Time = 2   Extended Test Time = 147   Conveyance Test Time = 5   Minutes   Static

Self-Test has been running for 00 Hours 00 Minutes

Test Status/Results

```
   - Self Test Execution Byte = 0x79
     Previous self-test completed but the read element failed
   - Life Timestamp (LSB) = 0x24
   - Life Timestamp (MSB) = 0x20
     -Power-on hours when this test was run = 8228
   - SelfTest Failure checkpoint byte = 0x41
   - Failing LBA (7:0)   = 0x2D
   - Failing LBA (15:5)  = 0x30
   - Failing LBA (23:16) = 0x6C
   - Failing LBA (27:24) = 0x17
     -LBA where error occurred = 0x176C302D (392966189)

***** End of ATA Confidence Test **********
```

OK   Start Test   Save Results to File   WDCWD5000-AS82210414-ConfidenceLog.txt   ...

Errors

If a test segment encounters an error its description will be marked in **RED**.

SMART Data: In the case of SMART data the test will fail if any SMART parameter value has exceeded its corresponding threshold value. The failing parameter data will be marked in the results window in **RED**.

SMART Logs: If any SMART self-test log reports a failure the test segment will fail. The self-test log which indicates a failure will be marked in the results window in **RED**.

Notes: This test will only run on drives which are connected to a native (motherboard) SATA port. Nvidia based SATA ports are not currently supported.