

Hard Drive Test Report

Kjetil Erga

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Abstract

Hard drives were first connected to newer 64-bit system, but only around 5 or so of the disks were properly detected. So some of the drives were connected again on an older AMD-K6 system. The first test was simply to see if the BIOS POST test detected the hard drive correctly or not. After boot into Linux, ATA information was extracted with "smartctl", then partition information extracted with "fdisk". Finally, an attempt to read the entire disk with the "dd" command was attempted, to look for potential read errors.

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1 Quantum ProDrive ELS



ATA information:

Device Model: QUANTUM ELS85A
Serial Number: 168227960223
Firmware Version: 3.081
ATA Version is: 1

Partition information:

Disk /dev/hdc: 85 MB, 85038080 bytes
10 heads, 17 sectors/track, 977 cylinders
Units = cylinders of 170 * 512 = 87040 bytes
Disk identifier: 0x00000000

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	975	82866+	6	FAT16

DD test:

166090+0 records in
166090+0 records out
85038080 bytes (85 MB) copied, 81.0136 s, 1.0 MB/s

Status: Working

2 Quantum ProDrive LPS (2A0707)



ATA information:

Device Model: QUANTUM LP52A 950509105
Serial Number: 310912345
Firmware Version: 2.3
ATA Version is: 1

Partition information:

Disk /dev/hdc: 52 MB, 52293632 bytes
8 heads, 17 sectors/track, 751 cylinders
Units = cylinders of 136 * 512 = 69632 bytes

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	750	50991+	6	FAT16

DD test:

102136+0 records in
102136+0 records out
52293632 bytes (52 MB) copied, 64.2009 seconds, 815 kB/s

Status: **Working**

3 Quantum ProDrive LPS (1I0404)



ATA information:

Device Model: QUANTUM LP52A 950509105
Serial Number: 510413128
Firmware Version: 2.3
ATA Version is: 1

Partition information:

Disk /dev/hdc: 52 MB, 52293632 bytes
8 heads, 17 sectors/track, 751 cylinders
Units = cylinders of 136 * 512 = 69632 bytes

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	750	50991+	6	FAT16

DD test:

102136+0 records in
102136+0 records out
52293632 bytes (52 MB) copied, 64.5208 seconds, 810 kB/s

Status: **Working**

4 Seagate ST-1144A



ATA information:

Device Model: ST1144AT
Serial Number: 00KB8367890000000000
Firmware Version: rev 5.=0
ATA Version is: 1

Partition information:

Disk /dev/hdc: 130 MB, 130690560 bytes
15 heads, 17 sectors/track, 1001 cylinders
Units = cylinders of 255 * 512 = 130560 bytes
Disk identifier: 0x00000000

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	1001	127619	a9	NetBSD

DD test:

```
dd: reading '/dev/hdc': Input/output error
69600+0 records in
69600+0 records out
35635200 bytes (36 MB) copied, 131.41 s, 271 kB/s
dd: reading '/dev/hdc': Input/output error
69600+1 records in
69601+0 records out
35635712 bytes (36 MB) copied, 131.41 s, 271 kB/s
dd: reading '/dev/hdc': Input/output error
69600+2 records in
69602+0 records out
35636224 bytes (36 MB) copied, 131.41 s, 271 kB/s
dd: reading '/dev/hdc': Input/output error
69600+3 records in
```

```
69603+0 records out
35636736 bytes (36 MB) copied, 131.411 s, 271 kB/s
dd: reading '/dev/hdc': Input/output error
69600+4 records in
69604+0 records out
35637248 bytes (36 MB) copied, 131.411 s, 271 kB/s
dd: reading '/dev/hdc': Input/output error
69600+5 records in
69605+0 records out
35637760 bytes (36 MB) copied, 131.411 s, 271 kB/s
dd: reading '/dev/hdc': Input/output error
69600+6 records in
69606+0 records out
35638272 bytes (36 MB) copied, 131.411 s, 271 kB/s
dd: reading '/dev/hdc': Input/output error
69600+7 records in
69607+0 records out
35638784 bytes (36 MB) copied, 131.411 s, 271 kB/s
255247+8 records in
255255+0 records out
130690560 bytes (131 MB) copied, 627.337 s, 208 kB/s
```

Status: **Working** (But some read errors.)

5 Seagate ST-1239A



ATA information:

Device Model: 94354-230
Serial Number: KE165040
Firmware Version: 800034
ATA Version is: 1

Partition information:

Disk /dev/hdc: 211 MB, 211009536 bytes
14 heads, 36 sectors/track, 817 cylinders
Units = cylinders of 504 * 512 = 258048 bytes

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	817	205866	6	FAT16

DD test:

412128+0 records in
412128+0 records out
211009536 bytes (211 MB) copied, 320.531 seconds, 658 kB/s

Status: **Working**

6 Seagate ST-157A



ATA information:

Device Model: Seagate Technology ST157A
Serial Number: KE861924
Firmware Version: 4.2/064
ATA Version is: 1

Partition information:

Disk /dev/hdc: 44 MB, 44728320 bytes
7 heads, 17 sectors/track, 734 cylinders
Units = cylinders of 119 * 512 = 60928 bytes
Disk identifier: 0xf000e987

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	732	43545+	6	FAT16

DD test:

87360+0 records in
87360+0 records out
44728320 bytes (45 MB) copied, 79.9761 s, 559 kB/s

Status: **Working** (But unusually long detect time during BIOS POST.)

7 Seagate ST-3096A



ATA information:

Device Model: ST3096AT
Serial Number: 00KF3131580000000000
Firmware Version: rev =.40
ATA Version is: 1

Partition information:

Disk /dev/hdc: 89 MB, 89128960 bytes
10 heads, 17 sectors/track, 1024 cylinders
Units = cylinders of 170 * 512 = 87040 bytes

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	1023	86946+	6	FAT16

DD test:

174080+0 records in
174080+0 records out
89128960 bytes (89 MB) copied, 101.255 seconds, 880 kB/s

Status: **Working**

8 Seagate ST-3144A



ATA information:

Device Model: st3144AT
Serial Number: 00CS5778450000000000
Firmware Version: REV184.0
ATA Version is: 1

Partition information:

Disk /dev/hdc: 130 MB, 130690560 bytes
15 heads, 17 sectors/track, 1001 cylinders
Units = cylinders of 255 * 512 = 130560 bytes

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	1000	127491+	6	FAT16

DD test:

dd: reading '/dev/hdc': Input/output error
210928+0 records in
210928+0 records out
107995136 bytes (108 MB) copied, 3396.17 seconds, 31.8 kB/s

DD test: (2nd try)

255254+0 records in
255254+0 records out
130690048 bytes (131 MB) copied, 4826.23 seconds, 27.1 kB/s

Status: **Working** (But very slow read speed.)

9 Seagate ST-3195A



ATA information:

Device Model: ST3195A
Serial Number: 00CY385515
Firmware Version: 04.04.00
ATA Version is: 1

Partition information:

Disk /dev/hdc: 170 MB, 170772480 bytes
10 heads, 34 sectors/track, 981 cylinders
Units = cylinders of 340 * 512 = 174080 bytes
Disk identifier: 0x00000000

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	980	166583	6	FAT16

DD test:

333540+0 records in
333540+0 records out
170772480 bytes (171 MB) copied, 151.129 s, 1.1 MB/s

Status: **Working**

10 Seagate ST-351AX (CP406881)



ATA information:

Device Model: ST351A/X
Serial Number: 00CP4068810000000000
Firmware Version: 03.02.02
ATA Version is: 1

Partition information:

Disk /dev/hdc: 42 MB, 42649600 bytes
5 heads, 17 sectors/track, 980 cylinders
Units = cylinders of 85 * 512 = 43520 bytes
Disk identifier: 0x00000000

Device	Boot	Start	End	Blocks	Id	System
/dev/hdc1	*	1	979	41599	6	FAT16

DD test:

83300+0 records in
83300+0 records out
42649600 bytes (43 MB) copied, 69.4496 s, 614 kB/s

Status: **Working**

11 Seagate ST-351AX (CP423485)



Status: **Broken** (Not detected during BIOS POST.)

12 Conner CFA270A



Status: **Broken** (Detected, but fails during BIOS POST.)

13 Conner CP-3104



ATA information:

Device Model: Conner Peripherals 100MB - CP3104
Serial Number: C0YLGN
Firmware Version: 2.18
ATA Version is: 1

DD test:

```
dd: reading '/dev/hdc': Input/output error
8+0 records in
8+0 records out
4096 bytes (4.1 kB) copied, 450.475 seconds, 0.0 kB/s
```

Status: **Broken** (Too many read errors.)