

Hiren's Boot CD

Insert Hiren's Boot CD disc into CD or DVD drive and attempt to boot PC from CD media.

Note: You may need to check or change BIOS Boot order settings if PC defaults to booting from hard disk drive (C:) and ignores CD.

Assuming that Hiren's Boot CD can be booted, then you will see the following menu panel.

Choose the **Dos Programs** menu option – this will be used to check the hard drive integrity and repair any bad sectors present if this is possible.

```
Hiren's BootCD 13.2          GRUB4DOS0.4.5b20110327 639K/673M          2
-----
Boot From Hard Drive (Windows Vista/7 or Xp)
▲Dos Programs
Mini Windows Xp
Mini Linux

Windows Memory Diagnostic
MemTest86+
Offline NT/2000/XP/Vista/7 Password Changer
Kon-Boot
Seagate DiscWizard (Powered by Acronis Trueimage)
PLoP Boot Manager
Smart Boot Manager 3.7.1
Fix "NTLDR is Missing"
Darik's Boot and Nuke (Hard Disk Eraser)
Custom Menu... (Use HBCDCustomizer to add your files)
More...

Run Dos Programs
```

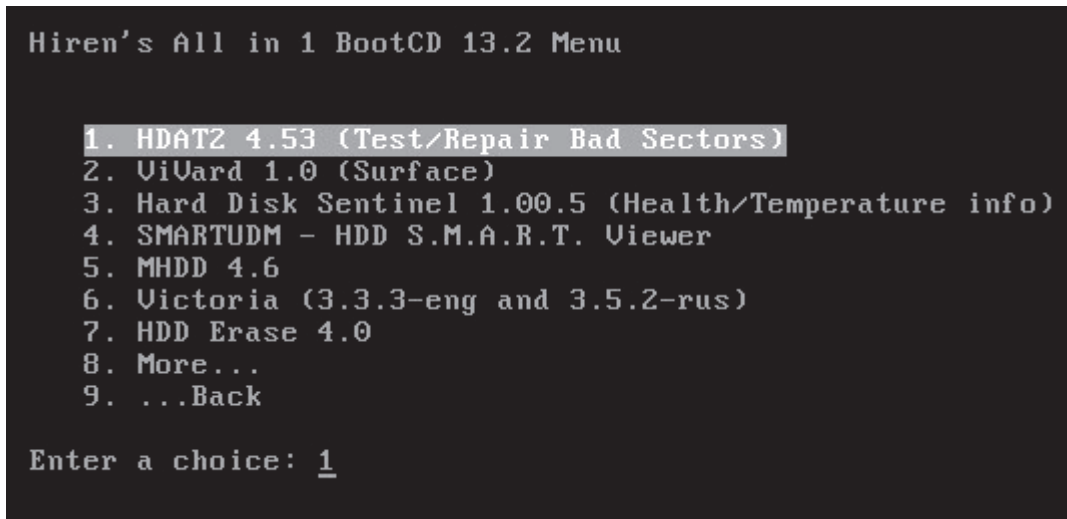
Choose the Hard Disk Tools. . . menu option 6.

```
Hiren's All in 1 BootCD 13.2 Menu

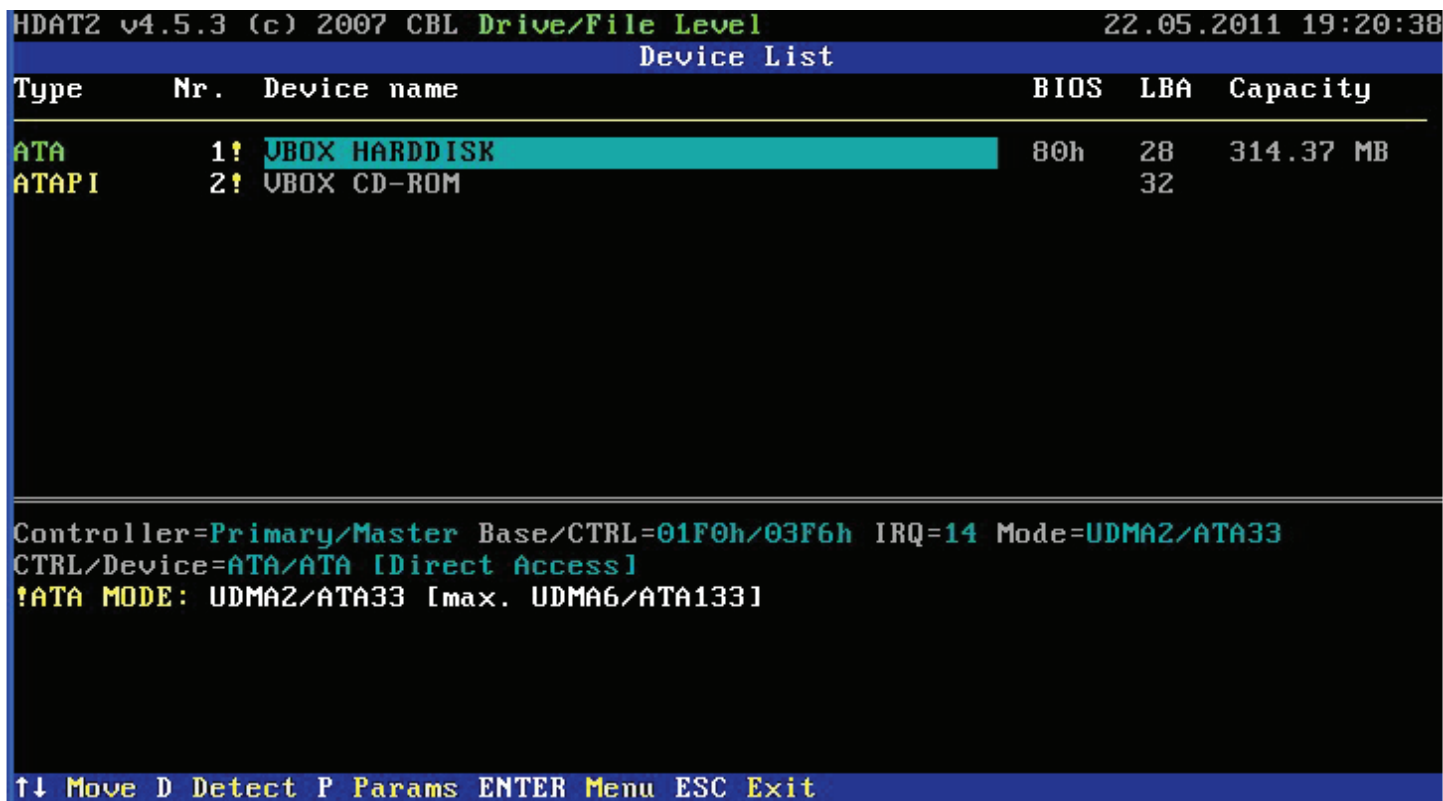
 1. Partition Tools...
 2. Backup Tools...
 3. Password & Registry Tools...
 4. Recovery Tools...
 5. Testing Tools...
 6. Hard Disk Tools...
 7. System Info Tools...
 8. Custom Menu... (Use HBCDCustomizer to add your files)
 9. Next...

Enter a choice: 6
```

Choose option 1. HDAT2 4.53 (Test/Repair Bad Sectors) – you will see various lines of text scroll by while HDAT2 loads before it shows a list of available hard drives found in the system.



Note: the image below was captured from a Virtual PC running the tool – you should be able to identify your hard drive by the Capacity size which should be in GB (gigabytes).



Select the problem hard drive and then press the Enter key to continue the tool analysis / repair.

Choose the first option to perform Drive Level Tests

```
HDAT2 v4.5.3 (c) 2007 CBL Drive/File Level 22.05.2011 19:20:38
Main Menu [VBOX HARDDISK]

▶Drive Level Tests Menu      Check and Repair bad sectors
▶File Level Tests Menu      Check bad sectors only
▶Device Information Menu    Read and Repair bad sectors
▶Dump/Save to File Menu    Read bad sectors
▶Commands Menu             Wipe drive
                           Seek drive
                           Most powerful test
                           User defined test

↑↓ Move ENTER Select ESC Return
```

Choose Check and Repair bad sectors – this may take a significant time to complete depending on the size of the hard drive and the number of bad sectors encountered.

Note: You will hear a bell type sound each time the tool encounters a bad sector, the next panel will show you progress status and also the number of bad and repaired sectors.

```
HDAT2 v4.5.3 (c) 2007 CBL Drive/File Level 22.05.2011 19:20:38
Drive Level Tests Menu [VBOX HARDDISK]

Check and Repair bad sectors
Check bad sectors only
Read and Repair bad sectors
Read bad sectors
Wipe drive
Seek drive
Most powerful test
User defined test

Controller=Primary/Master Base/CTRL=01F0h/03F6h IRQ=14 Mode=UDMA2/ATA33
→ Access=Ext.INT13h Test=VerifyWriteVerify
Fill buffer: 'HDAT'

↑↓ Move P Params →← Access ENTER Run ESC Return
```

When complete you will see **Pass 1 = 100%** and the size of the drive in brackets, plus you will see the count of Errors just above on the left side, i.e. **Errors: W/V/W/V = 0/0/0/0** where the 1st W is the count of errors encountered on the first Write attempt, then on the corresponding Verify attempt, then on the next Write attempt to the same sector and finally the Verify attempt following that second Write attempt. It sounds more complicated than it really is – it reads the data from a sector, attempts to write it back to the same place, then checks to verify if what was written is the same as it wrote, if not, it tries a further time- this process will identify if a sector has gone bad, if so it will be flagged as bad and the data reallocated somewhere else on the drive.

```

HDAT2 v4.5.3 (c) 2007 CBL Drive/File Level 22.05.2011 19:22:50
End of Test(s): Press any key...
Model: VBOX HARDDISK -> Access = Ext.INT13h

INTreg  EAX      EBX      ECX      EDX      EDI      ESI      FLAGS
Before  00004400h  00000000h  00000000h  00000080h  00000000h  00000000h  0000h
After   00000000h  00000000h  00000000h  00000080h  00000000h  00000000h  3002h
Flags

Errors:  W/V/W/V = 0/0/0/0

          000000.....614399          Block of sectors = 101
Sector  +614399          -000000          Pass 1 = 100% [314.37 MB]
-----|-----|-----|-----|-----|-----|-----|-----|
VERIFY
WRITE
VERIFY

Warnings    = 0
Bad sectors = 0Repaired    = 0
ESC Abort

```

If you have lots of bad sectors where the repair fails, i.e. high values in all four counters, then you will need to replace the hard drive, otherwise, the drive is probably still good and has most likely suffered some form of corruption due to a virus or power outage etc.

The next step is to press the ESC key and exit out of the HDAT2 utility until you get back to the initial menu panel, or else reboot the PC from the Hiren's Boot CD to do the same.