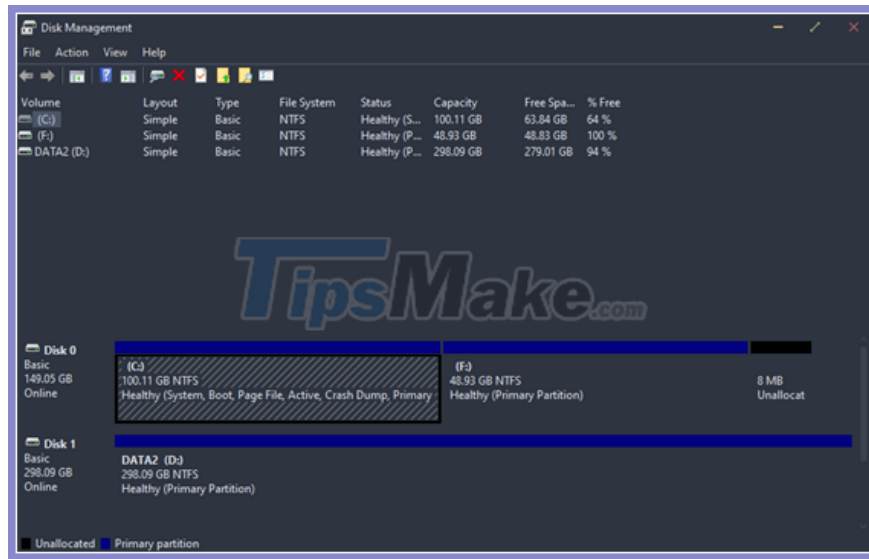


How to check and diagnose computer hard drive health

All of the hard drives in our computers use SMART (Self-Monitoring, Analysis, and Reporting Technology) systems to evaluate endurance and determine if they are working properly. .

This is an extremely important parameter to help users know by themselves the health of the hard drive.



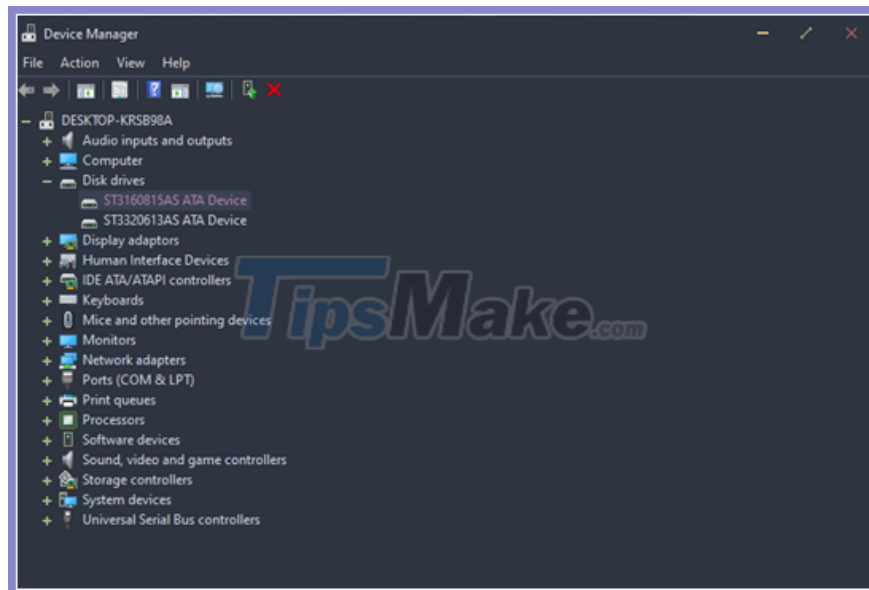
However, Windows does not allow users to easily find and understand this important parameter. Therefore, this article will give some suggestions to help you check the hard drive, assess the current operating status of the hard drive on the computer in use. From there, early detecting instabilities to take timely measures to avoid hard drive failure and data loss.

1. Use the hard drive manufacturer's tools

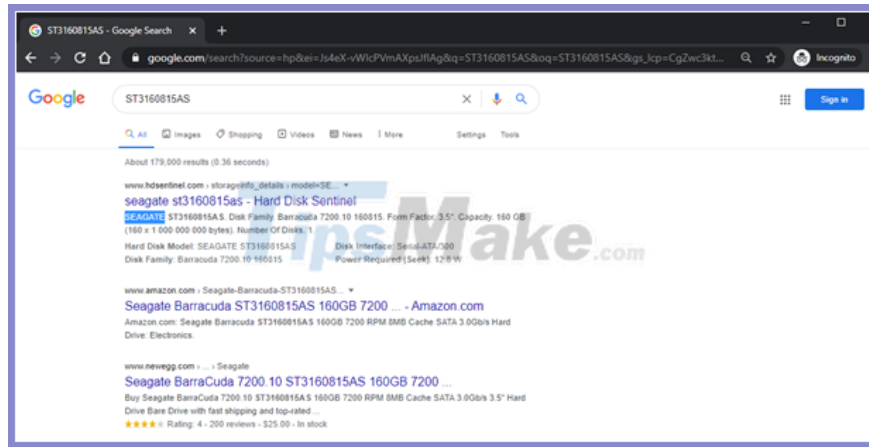
Most major hard drive manufacturers provide users with tools to help monitor the health and performance of their products. Of course, the first step is to know the manufacturer of your hard drive in order to be able to download and use the right tools.



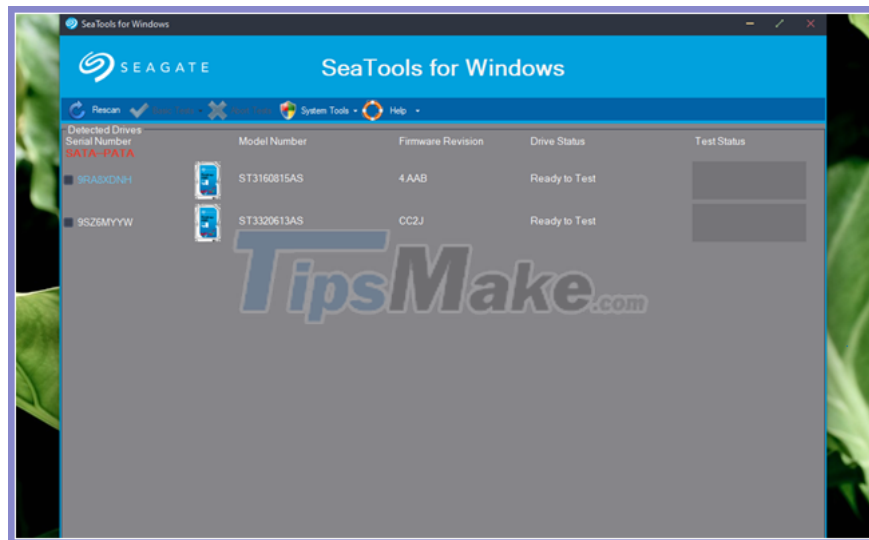
If the product still has a box, you can see the information in the box to see the manufacturer, but if the case is not there, you can check by opening Device Manager on Windows from the right-clicking menu at the Start button.



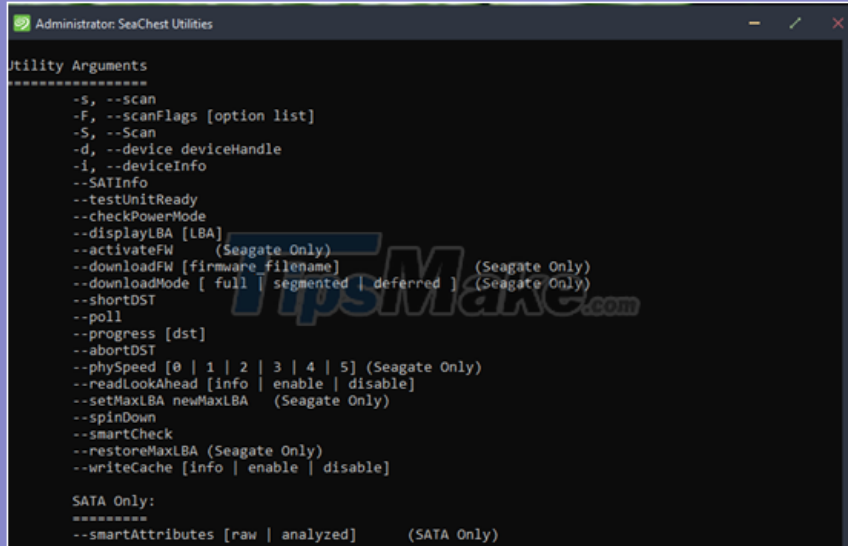
In the Device Manager window, navigate to Disk drives and note the model number of the hard drive.



Next, enter the model number into Google to display the results that will show you the hard drive manufacturer's name.



Once you know the manufacturer of the hard drive you are using, now you just need to visit this website and download the correct supporting software.



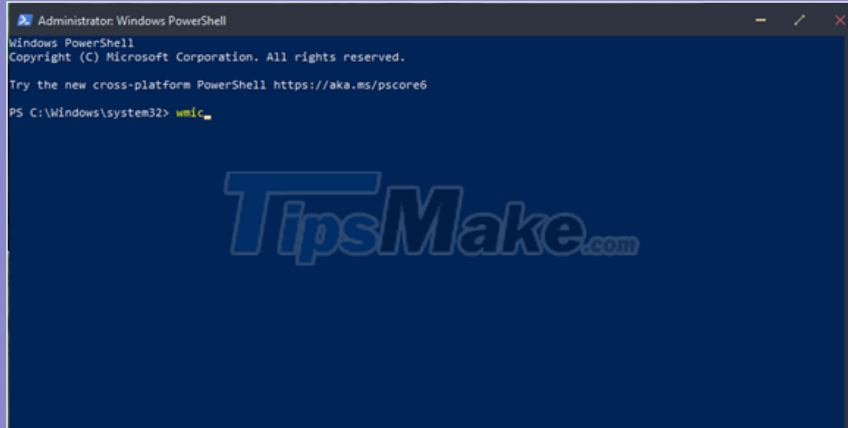
```
Administrator: SeaChest Utilities
Utility Arguments
=====
-S, --Scan
-F, --scanFlags [option list]
-S, --Scan
-d, --device deviceHandle
-I, --deviceInfo
--SATInfo
--testUnitReady
--checkPowerMode
--displayLBA [LBA]
--activateFW (Seagate Only)
--downloadFW [firmware filename] (Seagate Only)
--downloadMode [ full | segmented | deferred ] (Seagate Only)
--shortDST
--poll
--progress [dst]
--abortDST
--physSpeed [0 | 1 | 2 | 3 | 4 | 5] (Seagate Only)
--readLookAhead [info | enable | disable]
--setMaxLBA newMaxLBA (Seagate Only)
--spinDown
--smartCheck
--restoreMaxLBA (Seagate Only)
--writeCache [info | enable | disable]

SATA Only:
=====
--smartAttributes [raw | analyzed] (SATA Only)
```

Depending on the manufacturer, the software will have different interfaces and functions, but of course you should learn carefully before using it.

2. Use Windows PowerShell

In case you do not like to use the software, you can use Windows PowerShell available on Windows to quickly check the health of your hard drive by the following.



```
Administrator: Windows PowerShell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Windows\system32> wmic
```

Right-click the Start button and select Windows PowerShell (Admin). Then enter the command "wmic" and press Enter to execute.

```
Administrator: Windows PowerShell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Windows\system32> wmic
wmic:root\cli>diskdrive get status
```

Continue to enter the command "diskdrive get status" and press Enter again.

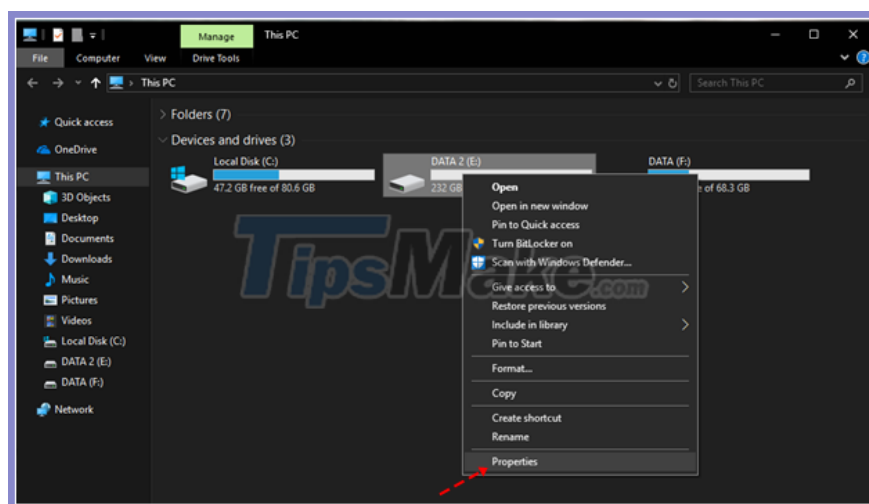
```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

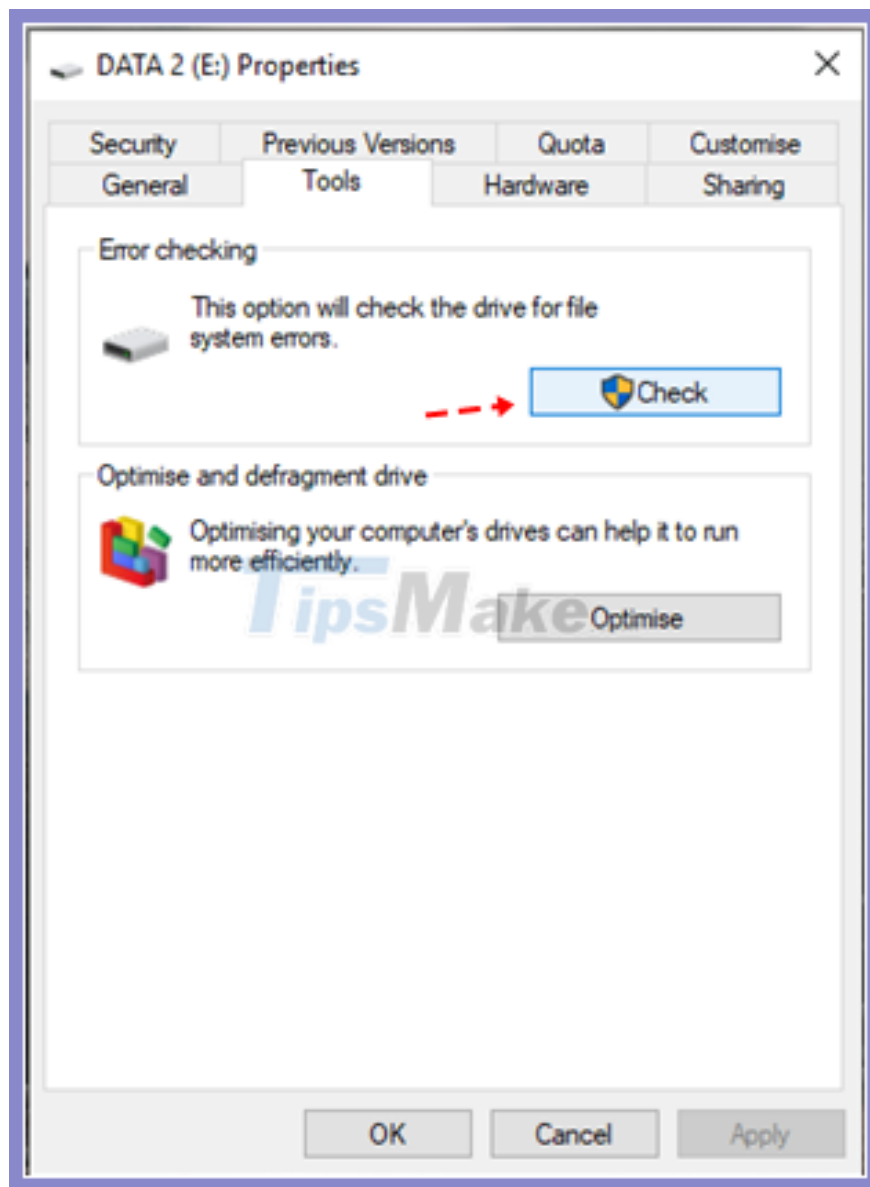
PS C:\Windows\system32> wmic
wmic:root\cli>diskdrive get status
Status
OK
OK
wmic:root\cli>
```

If you see "OK", the hard drive is working properly. If "OK" does not appear, then your hard drive is having problems and should be checked for errors immediately.

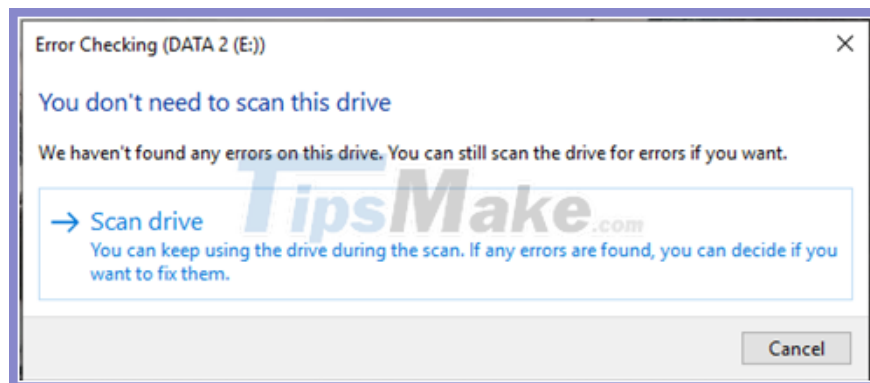
3. Use the Error checking tool available on Windows



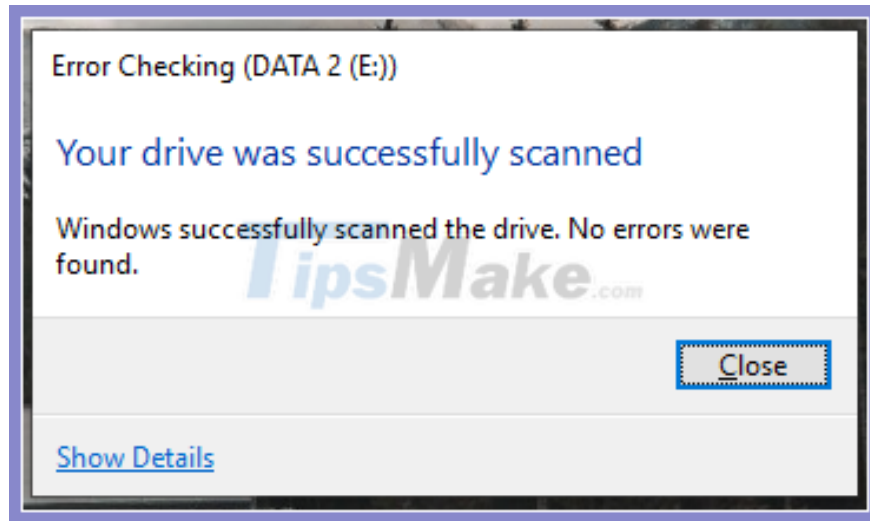
Start File Explorer and go to This PC. Right-click the partition of the drive to be checked and click "Properties".



The Properties dialog box appears, click the Tools tab and then click on the "Check" option under "Error checking".

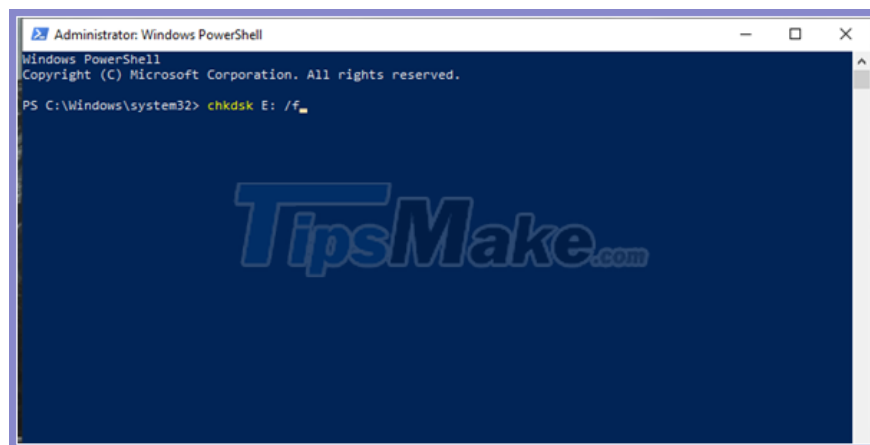


A confirmation dialog box appears, click "Scan drive" to allow the scan to start. Depending on the size of the partition and the amount of data contained therein, the scan takes place quickly or slowly.

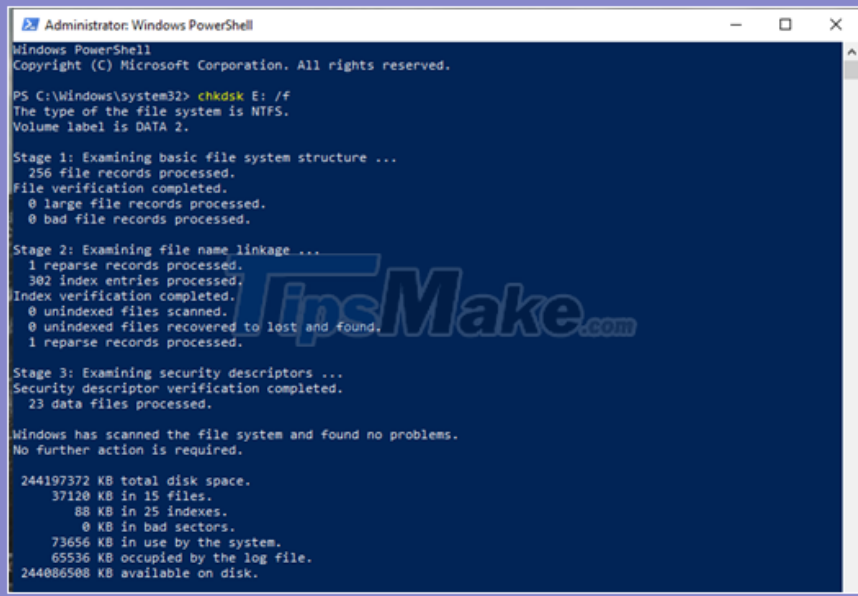


When the test is completed, a message window will appear and report to you the error checking results.

4. Use the CHKDSK tool



Start Windows PowerShell (Admin). Enter the command "chkdsk Region_Name: /f". Where "Partition_Name" is the name of the drive partition to be checked. Here the example is "E", the complete command would be: "chkdsk E: /f". Then press the ENTER key to execute the command.

A screenshot of a Windows PowerShell window titled "Administrator: Windows PowerShell". The window shows the execution of the command "chkdsk E: /f". The output indicates that the file system is NTFS and the volume label is "DATA 2". The scan proceeds through three stages: Stage 1 (Examining basic file system structure), Stage 2 (Examining file name linkage), and Stage 3 (Examining security descriptors). The scan concludes with the message "Windows has scanned the file system and found no problems. No further action is required." and a summary of disk space usage: 244197372 KB total disk space, 37120 KB in 15 files, 88 KB in 25 indexes, 0 KB in bad sectors, 73656 KB in use by the system, 65536 KB occupied by the log file, and 244086508 KB available on disk. A "TipsMake.com" watermark is visible in the center of the screenshot.

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Windows\system32> chkdsk E: /f
The type of the file system is NTFS.
Volume label is DATA 2.

Stage 1: Examining basic file system structure ...
 256 file records processed.
File verification completed.
  0 large file records processed.
  0 bad file records processed.

Stage 2: Examining file name linkage ...
  1 reparse records processed.
 302 index entries processed.
Index verification completed.
  0 unindexed files scanned.
  0 unindexed files recovered to lost and found.
  1 reparse records processed.

Stage 3: Examining security descriptors ...
Security descriptor verification completed.
 23 data files processed.

Windows has scanned the file system and found no problems.
No further action is required.

244197372 KB total disk space.
 37120 KB in 15 files.
   88 KB in 25 indexes.
   0 KB in bad sectors.
 73656 KB in use by the system.
 65536 KB occupied by the log file.
244086508 KB available on disk.
```

The scan will take place and show the results to you.

Other partitions follow the same procedure.

Very simple, right?

You finished reading the article "**How to check and diagnose computer hard drive health**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.