

## **Disk Tools**

Hard disks store information on your computer, including Windows, your programs, and your personal files. Managing a hard disk is different from managing the programs and data that are stored on it. Managing a hard disk involves changing the hard disk itself, such as formatting or repartitioning it, organizing files and folders, or using properties to better access information.

### **PC Disk Tools (hard drive management)**

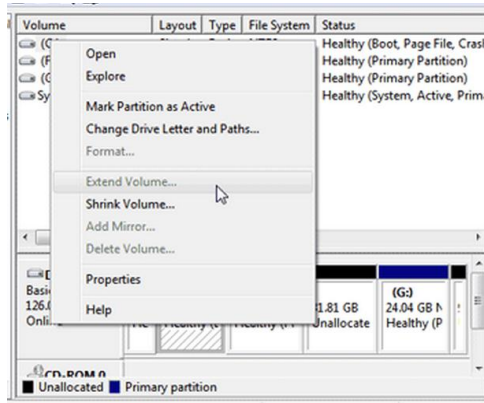
PC Disk Tools offers hard drive management that integrates [disk optimization](#) (it is a [cleanup tool](#)), a [defrag utility](#) and even a [partitioning](#) and [backup](#) tool. Whereas the [cleanup and optimize](#) feature of PC Disk Tools aims to reduce unnecessary files and indicates how much free disk space it's recovered for you at any one time. The [defrag](#) tool reorganizes files on your disk and should speed up your system and it supports both FAT and NTFS drives. The [Backup](#) feature allows you select which files you want to backup regularly either manually or via scheduler and finally the [Partition](#) feature allows you to create, merge, split, resize, delete, copy, and move partitions.

### **❖ Disk Management**

It displays the details of your disks and partitions which can help you diagnose disk and partition problem, but also it can be used for performing disk-related tasks such as resizing partition (extending system partition or shrinking partition), creating, formatting, and deleting partitions.

#### **Ways to get Windows Disk Management**

- Right click "Computer" → select "Manage" → open "Storage" and choose "Disk Management" in submenu.
- Click "Start" → "Control Panel" → "System and Security" → "Administrative Tools", then double-click the "Computer Management" → "Disk Management".
- Click Run, Type "**diskmgmt.msc**".



### ❖ Check your hard disk for errors

Sometimes, your computer is noticeably slower or programs suspend when you access certain files. This problem might occur because there are errors on your hard disk drive. So that from time to time, it is a good practice to check your hard drive (hard disk) for errors using a [Check Disk tool](#) built in to Windows called [CHKDSK](#). You can troubleshoot the problem by using this tool.

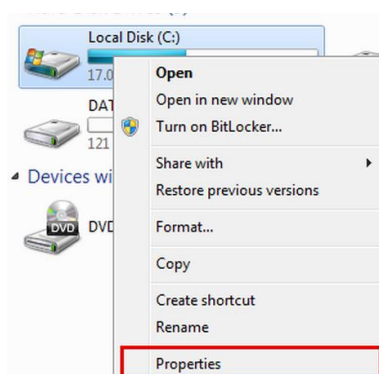
#### How do hard disk errors happen?

The hard disk is the only component with moving parts, spinning at speeds up to 7200 revolutions per minute. Due to this alone, file errors or even bad sectors on the physical disk itself can occur.

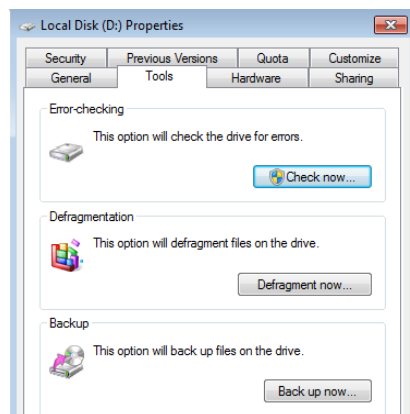
#### What can CHKDSK do?

Check Disk can identify and automatically look for cluster errors as well as file problems ,correct file system errors and make sure that you can continue to load and write data from the hard disk. You can solve some computer problems by checking a drive or drives for errors and improve the performance of your computer by making sure that your hard disk has no errors.

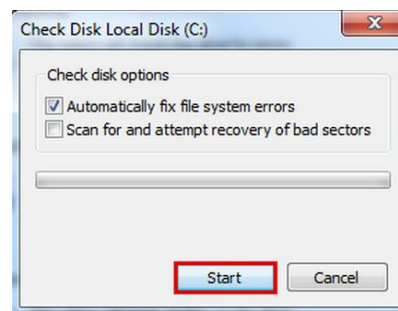
1. Open *Computer*.
2. Right-click the hard disk that you want to check, and then click *Properties*.



3. Click the *Tools* tab, and then, under Error-checking, click *Check now*. If you are prompted for an administrator password or confirmation, type the password or provide confirmation.



To automatically repair problems with files and folders that the scan detects, select *Automatically fix file system errors*. Otherwise, the disk check will report problems but not fix them.



if you attempt to run this on your Windows partition, it will tell you that the file system is in use, and do you want to check for errors the next time you start your computer? Click 'Schedule disk check' and then the next time you restart your Windows PC the CHKDSK utility will run before Windows starts up. When it finishes, it will display an onscreen report.

```
C:\Windows\system32>chkdsk c: /r
The type of the file system is NTFS.
Cannot lock current drive.

Chkdsk cannot run because the volume is in use by another
process. Would you like to schedule this volume to be
checked the next time the system restarts? (Y/N) n
```

To perform a thorough disk check, select *Scan for and attempt recovery of bad sectors*. This scan attempts to find and repair physical errors on the hard disk itself, and it can

take much longer to complete. If Check Disk finds a bad sector, it automatically attempts to recover any information stored in the sector and it marks the sector as defective so that no information can be stored there in the future.

To check for both file errors and physical errors, select both Automatically fix file system errors and Scan for and attempt recovery of bad sectors.

#### 4. Click Start.


Depending on the size of your hard disk, this might take several minutes. For best results, don't use your computer for any other tasks while it is checking for errors.

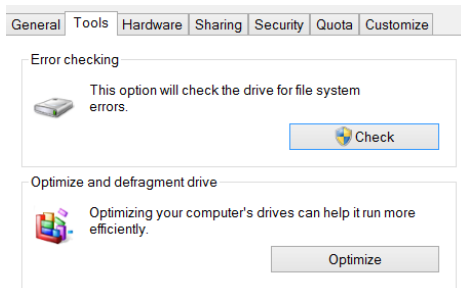
### ❖ Disk Defragment

Fragmentation makes your hard disk do extra work that can slow down your computer. Removable storage devices such as USB flash drives can also become fragmented. Disk **Defragmenter rearranges fragmented data so your disks and drives can work faster and more efficiently.**

Fragmentation happens to a hard partition over time as you save, change, or delete files. The changes that you save to a file are often stored in a different place on the hard partition than the original file. This doesn't change where the file appears in Windows only where the bits of information that make up the file are stored on the hard partition.

#### Ways to get Windows Disk Defragment

- By clicking the **Start** button . In the search box, type Disk Defragmenter, and then, in the list of results, click **Disk Defragmenter**.
- By **Accessories**, select **system tools**.
- By **Run** write **dfrgui**
- Select partition, right click, **properties**, **tool** tab, **defragment**.
-



1	2	3	4	5	6	7	1	2	6
7	8	9	10	1	2	3	1	2	3
4	5	6	8	4	5	1	2	3	4
5	6	7							


1	2	3	4	5	6	7	8	9	10
1	2	1	2	3	4	5	6	7	8
1	2	3	4	5	6	1	2	3	4
5	6	7							



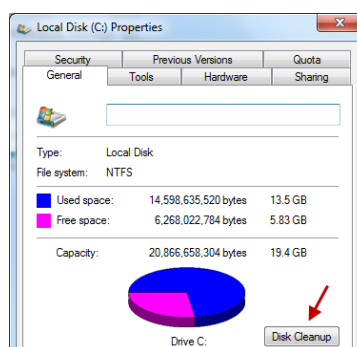
## ❖ Disk Cleanup

**Disk Cleanup** is a computer maintenance utility included in Microsoft Windows designed to free up disk space on a computer's hard drive. If you want to reduce the number of unnecessary files on your hard disk to free up disk space and help your computer run faster, use Disk Cleanup. It removes temporary files, empties the Recycle Bin, and removes a variety of system files and other items that you no longer need.

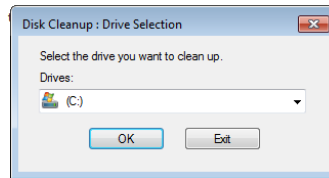
### Ways to get Windows Disk Cleanup

- By clicking the **Start** button . In the search box, type Disk Defragmenter, and then, in the list of results, click **Disk cleanup**.
- By **Accessories**, select **system tools**.
- By **Run** write **cleanmgr**

1. open Disk Cleanup.( from my Computer do Right-click the system drive, and then select Properties, on the General tab, click Disk Cleanup).



2. In the Drives list, click the hard disk drive that you want to clean up, and then click OK.



3. In the Disk Cleanup dialog box, on the Disk Cleanup tab, select the check boxes for the file types that you want to delete, and then click OK.



4. In the message that appears, click Delete files.

