

Using Defraggler to Optimize Your Windows System

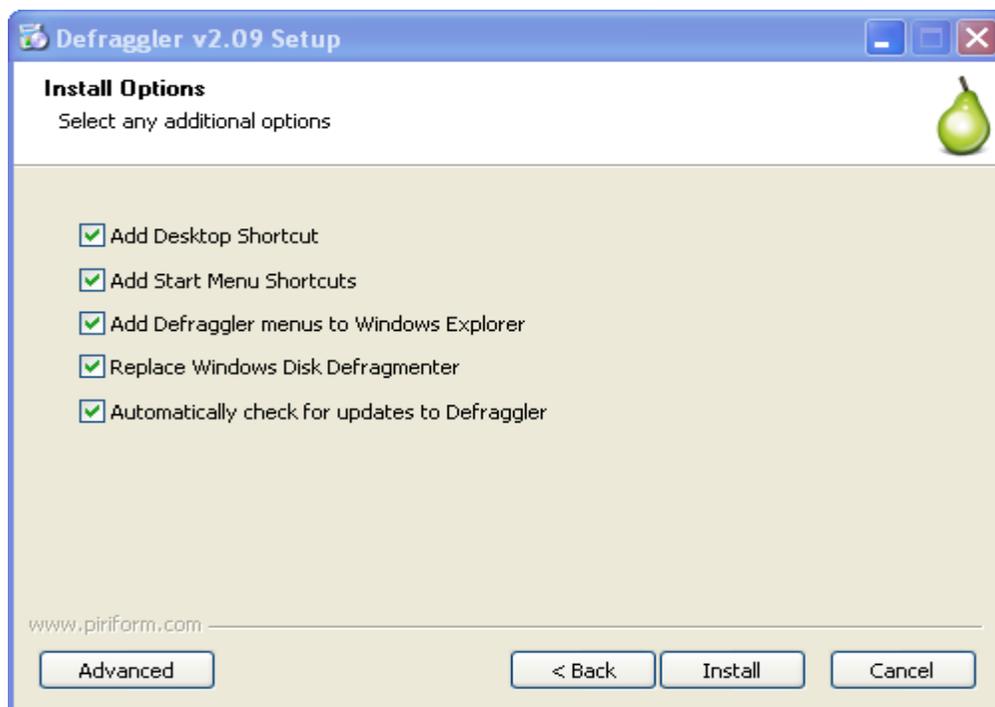
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Today we will have a look at an interesting alternative to the Windows hard disk defragment utility. That alternative is Piriform's Defraggler, which provides a number of useful features not present in the Windows utility. As with many free software packages, there are also professional versions which you have to pay for, and which pays the bills so that we can enjoy a free version. You can download Defraggler at:

<http://www.piriform.com/defraggler>

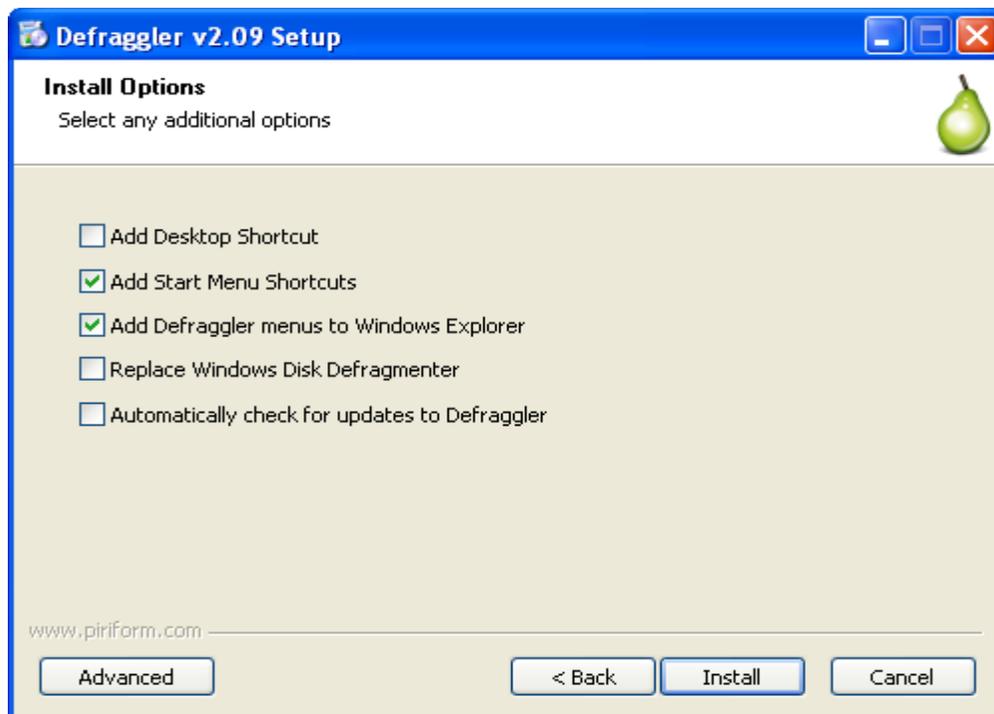
We will have a brief look at the install process, and then move on to highlight some of the useful features that Defraggler offers. After downloading the binary, go ahead and run the install. We are going to run this on Windows XP, but Defraggler is fully supported on Windows 7, and other modern versions of Windows. Below we see one of the install pop-ups, with important installation options to be subsequently explained.



The selections we have made below involve both personal taste as well substantive feature configuration. To start with, we have unchecked Add Desktop Shortcut. Here personal taste dictates that the desktop not be cluttered with pointless shortcut icons. The Add Start Menu Shortcuts is important because this is where I would rather find an application when launching it; also a matter of taste. Others may have different preferences.

The next choice, Add Defraggler menus to Windows Explorer, is more substantive. This will allow us to run Defraggler directly from Windows Explorer. We will be able to defragment individual folders and even files in this way. This feature is something that is not present in the Windows defragmentation utility. Having this level of granularity can be quite useful when you just want to target the analysis and/or defragmentation of a specific folder, for instance.

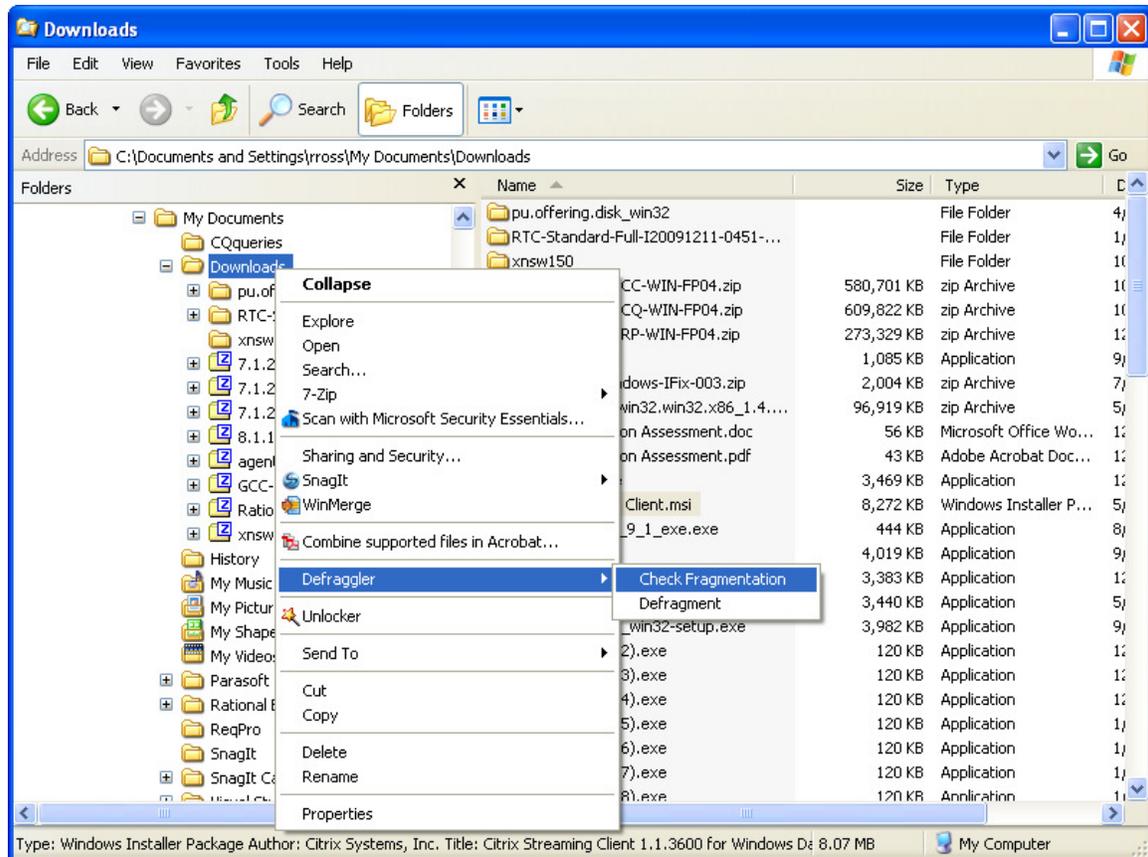
On the other hand, I'm not ready to fully replace the Windows Disk Defragmenter. If you are ready, by all means check the box. Lastly, I'm not interested in being pestered with update notices, so I uncheck that box. If I want the latest version, I'll go and look for it myself, again a matter of taste.



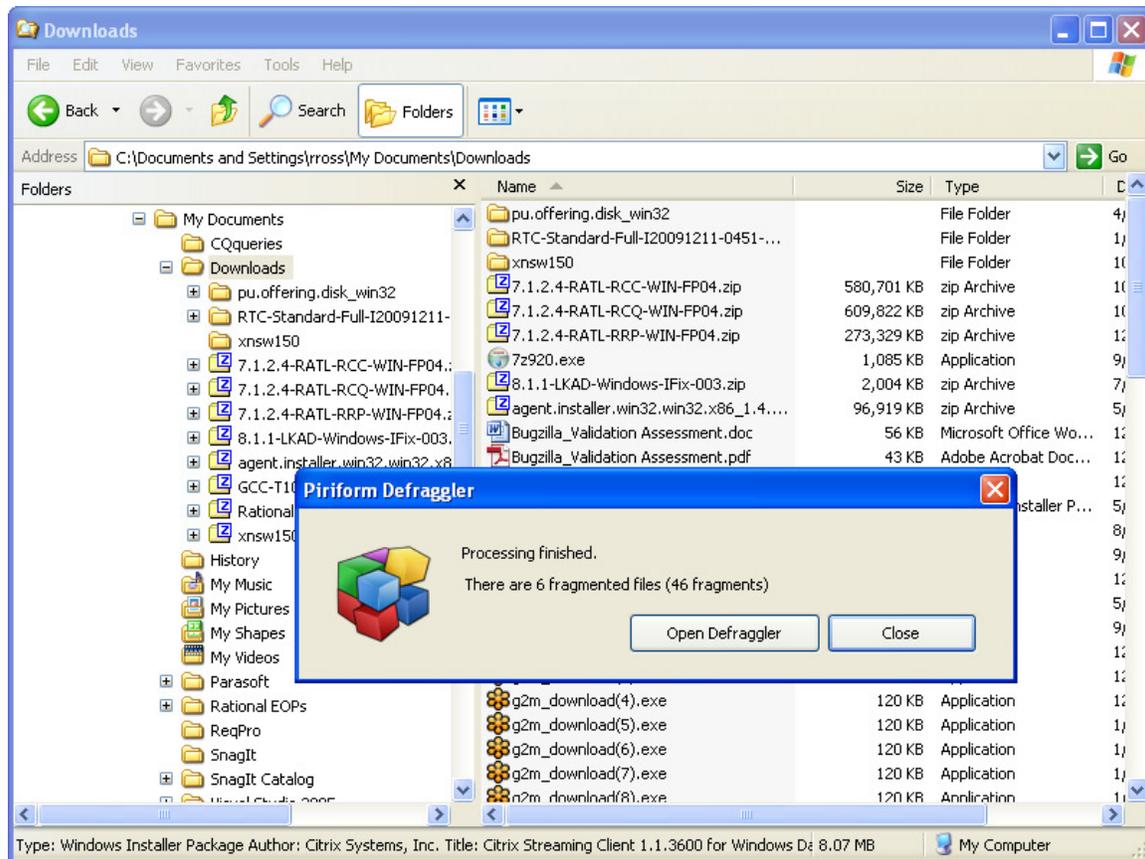
After going through the remaining setup screens (not shown), you will eventually need to reboot. Do so, now or later. Next we will have a look at how to invoke and use Defraggler.



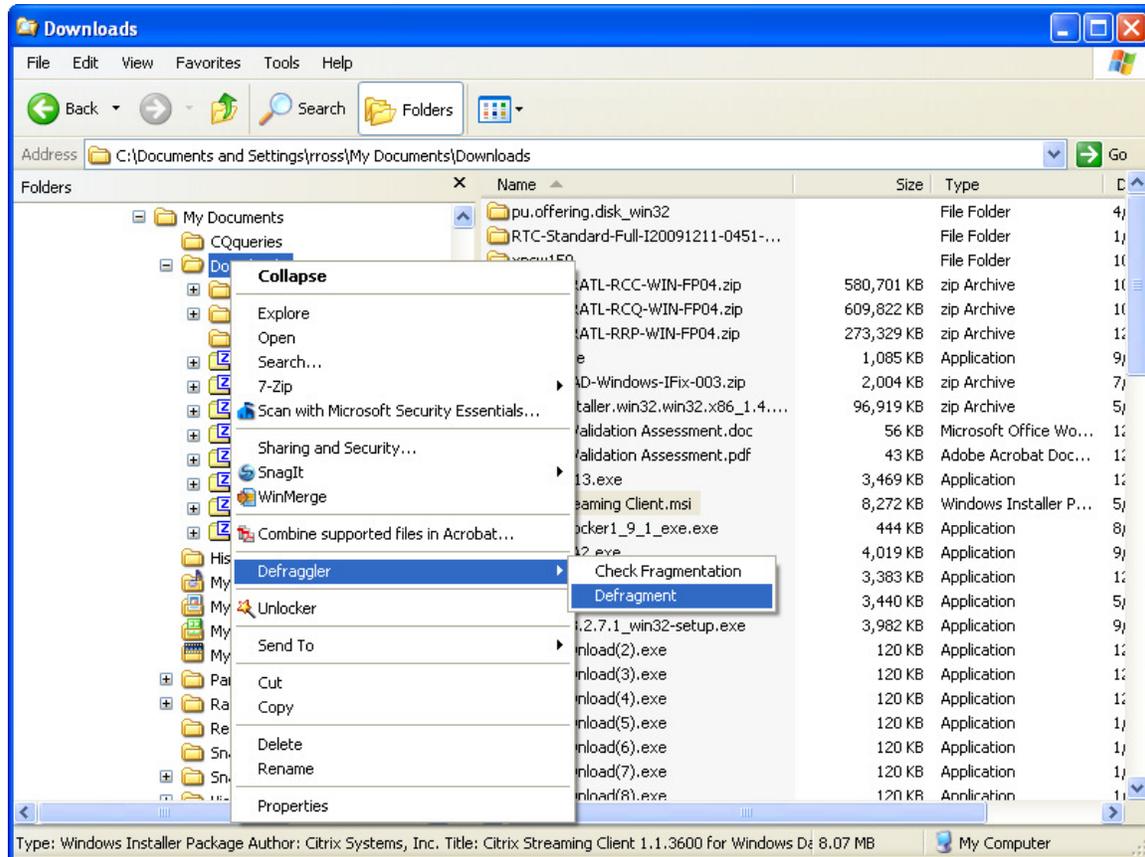
After the Defraggler install has completed, we first look at its capabilities by bringing up Windows Explorer. We right-click on a folder, and we see that now Defraggler is one of the options. In our example below, we select the analyze option – Check Fragmentation. We can see the results in the next screenshot.



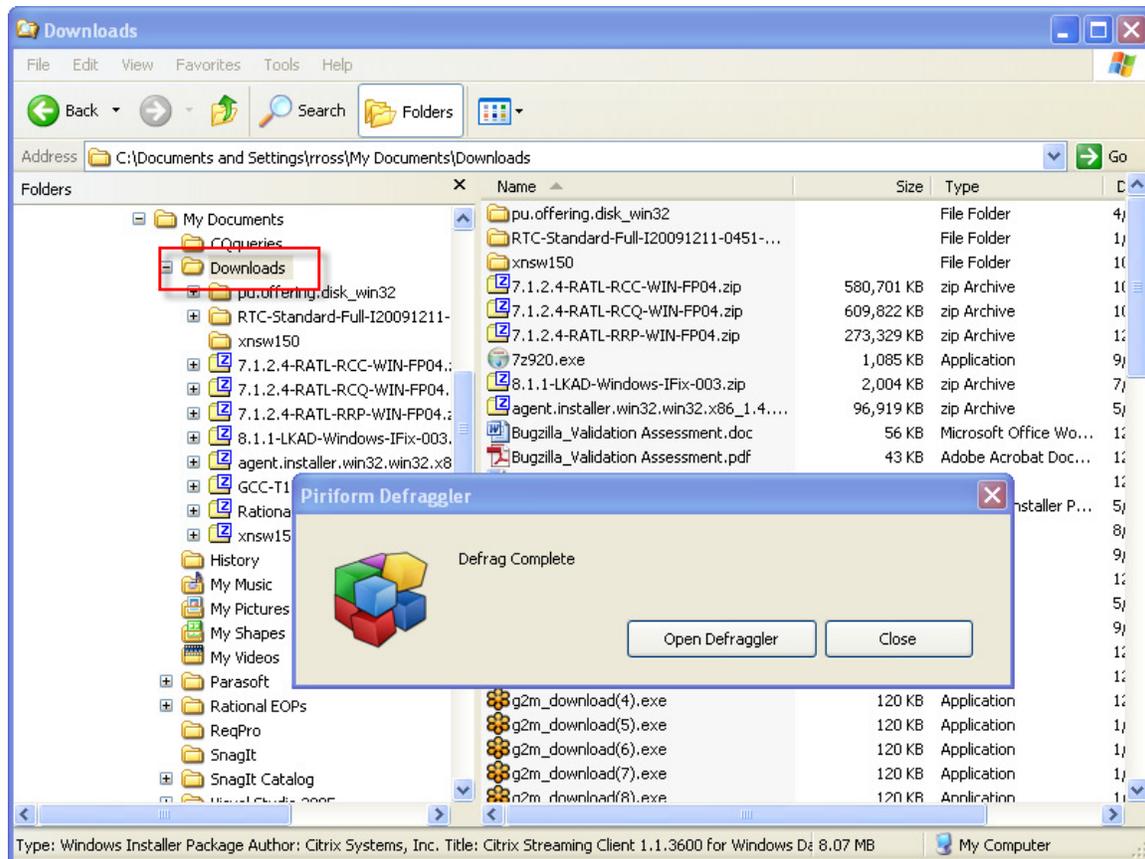
We see the result of the analysis in the pop-up below. Both the number of fragmented files, and the number of fragments are displayed. In the next screenshot, (after closing the current pop-up) we will run Defraggler to defragment the same folder.



Here we again select the same folder, but this time we specify Defragment, instead of simply analyzing how fragmented the files are contained in that folder. The next screenshot shows the result.

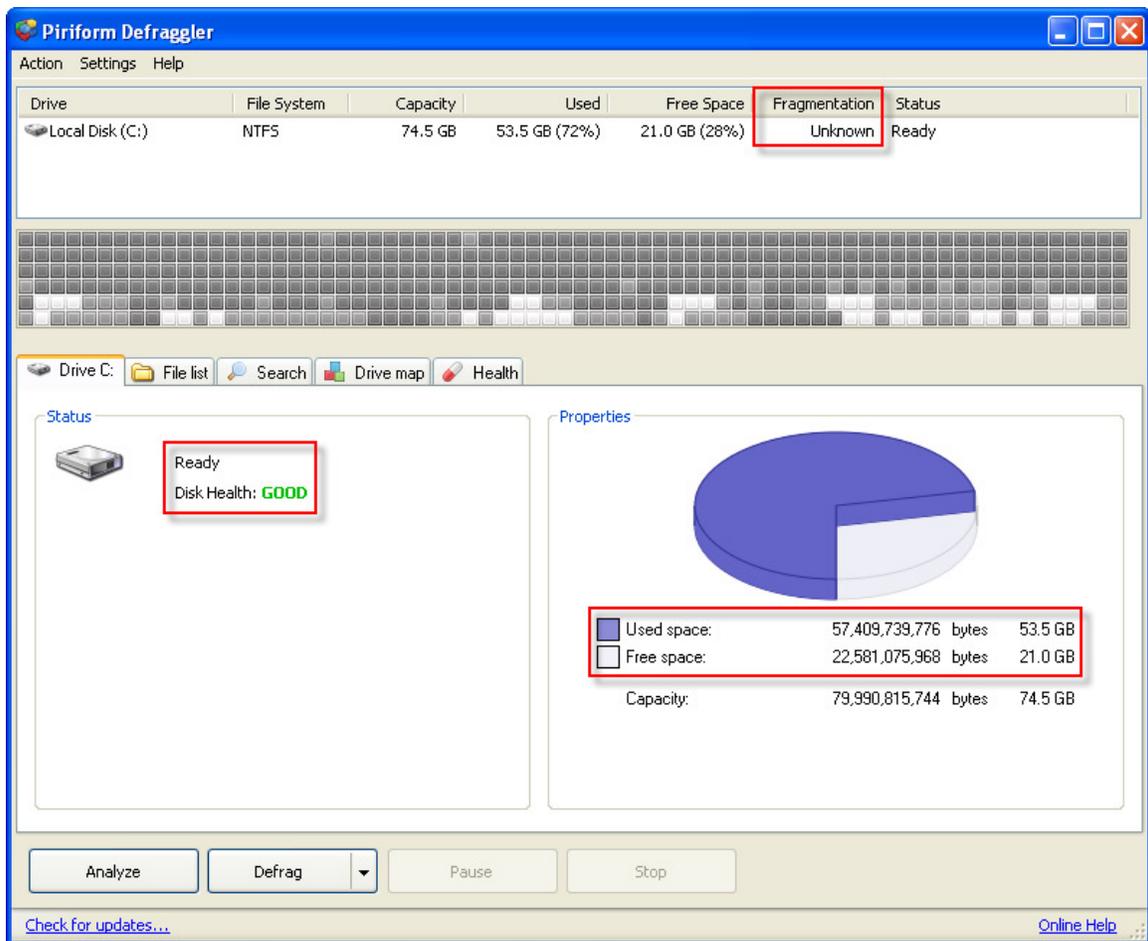


Here we see that defragmentation of the Downloads folder has been completed. In the next screenshot, we launch the Defraggler application directly, and begin to have a look at how to use it.



After launching Defraggler, we see that it presents preliminary statistics about the state of hard disk drives associated with the computer. Note first that the fragmentation statistics are unknown because we have yet to analyze the disk drive. Another thing to watch is the used vs. free space stats. Note that they may continually adjust themselves in real time as Defraggler monitors these values.

In the next screenshot, we will analyze the disk drive to see what level of fragmentation the disk drive is currently at.



The screenshot displays the Piriform Defraggler application window. At the top, a menu bar includes 'Action', 'Settings', and 'Help'. Below this is a table listing drive information:

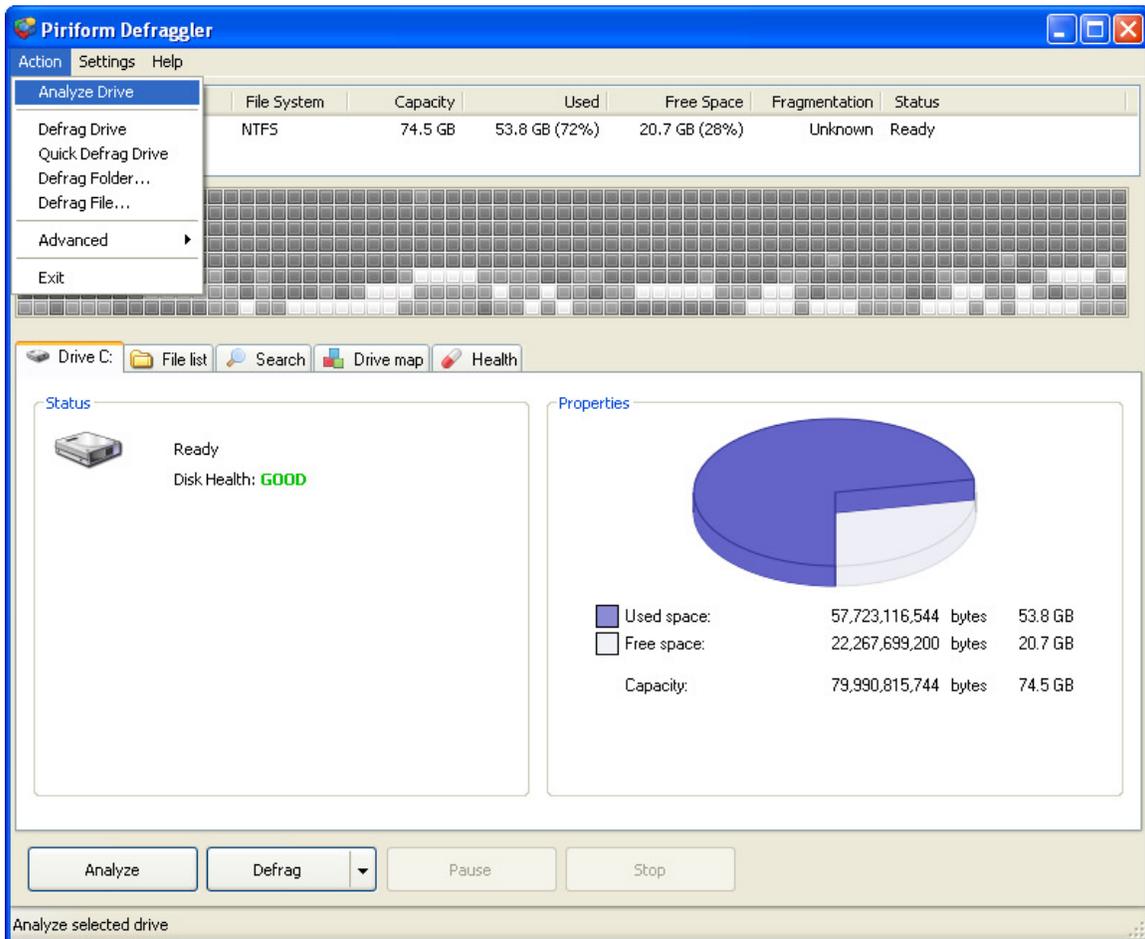
Drive	File System	Capacity	Used	Free Space	Fragmentation	Status
Local Disk (C:)	NTFS	74.5 GB	53.5 GB (72%)	21.0 GB (28%)	Unknown	Ready

The 'Fragmentation' cell in the table is highlighted with a red box. Below the table is a progress bar. Underneath the progress bar are icons for 'Drive C:', 'File list', 'Search', 'Drive map', and 'Health'. The 'Health' icon is selected, showing a status window with a 'Ready' indicator and 'Disk Health: GOOD' (highlighted with a red box). To the right, a 'Properties' section features a 3D pie chart and a table of disk usage statistics (highlighted with a red box):

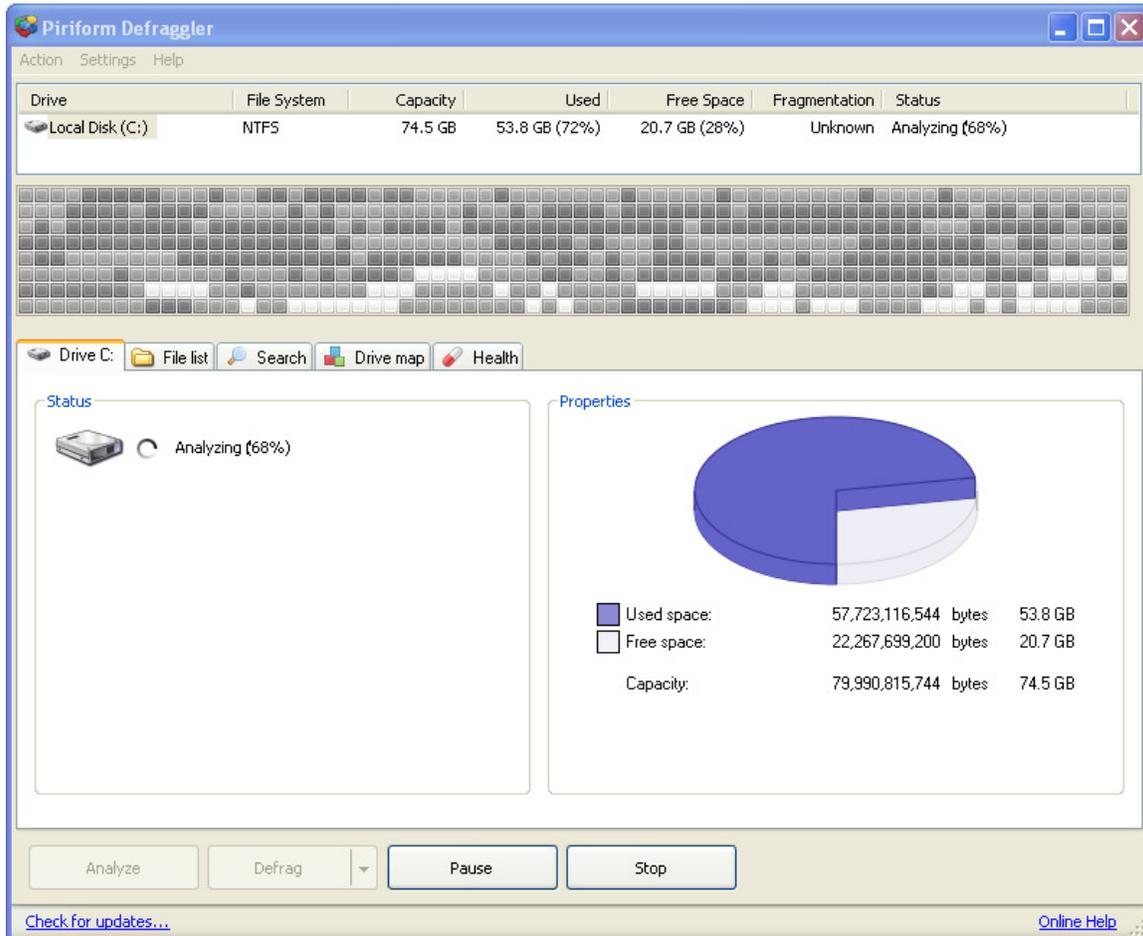
Used space:	57,409,739,776 bytes	53.5 GB
Free space:	22,581,075,968 bytes	21.0 GB
Capacity:	79,990,815,744 bytes	74.5 GB

At the bottom of the window, there are buttons for 'Analyze', 'Defrag', 'Pause', and 'Stop'. A 'Check for updates...' link is on the bottom left, and an 'Online Help' link is on the bottom right.

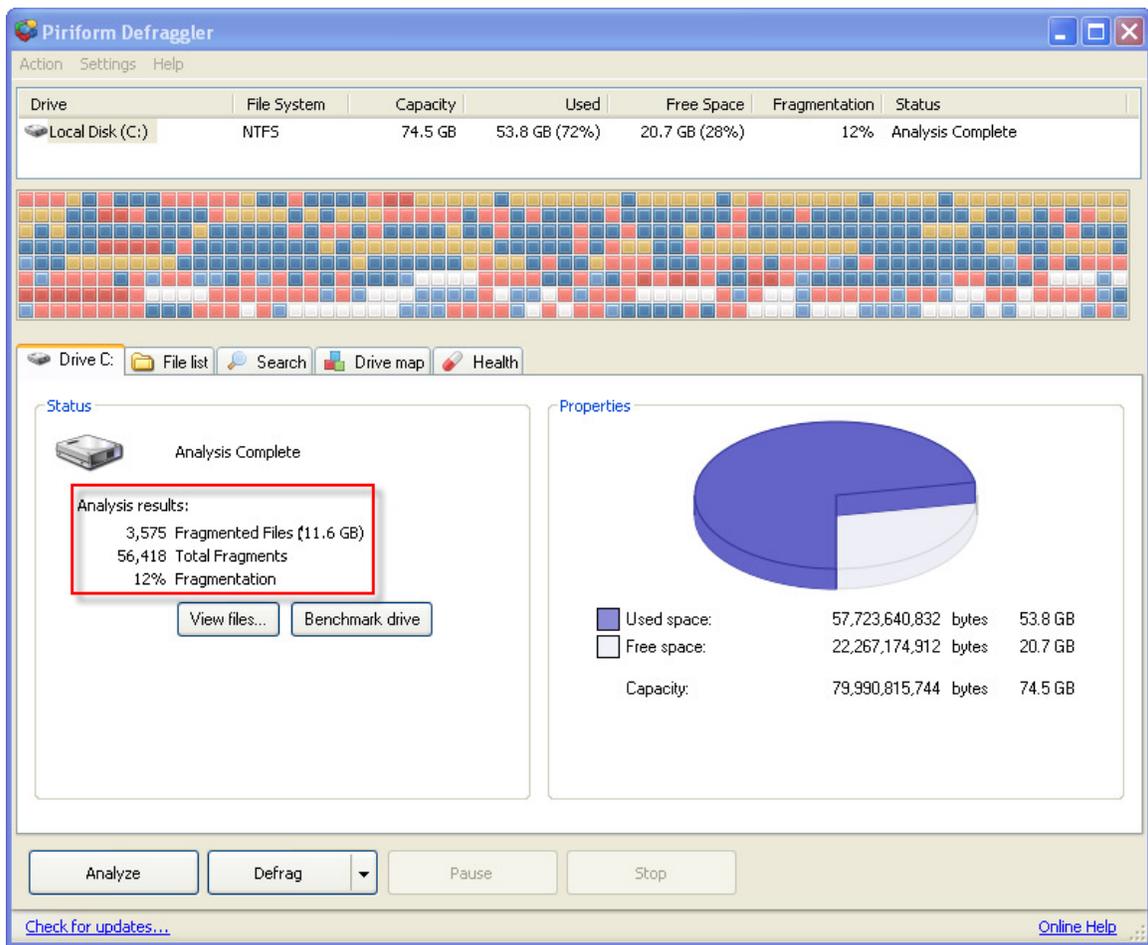
To begin the defragmentation process, we pull down the Action menu, and select Analyze Drive. The next screenshot displays the analysis in process.



Defraggler analyzes the disk drive, and presents the results in the next screenshot.



The results are in. We see that there are 3,575 fragmented files, with 56,418 total fragments. The broader statistic for drive fragmentation is 12%, not too bad, but something that can be improved. So let's see how much we can improve the statistics that we have been presented with. The next screenshot depicts launching the defragmentation process.



The screenshot displays the Piriform Defraggler application window. At the top, a table provides a summary of the drive's status:

Drive	File System	Capacity	Used	Free Space	Fragmentation	Status
Local Disk (C:)	NTFS	74.5 GB	53.8 GB (72%)	20.7 GB (28%)	12%	Analysis Complete

Below the table is a colorful grid representing the drive's fragmentation. The main interface is divided into two panes: 'Status' and 'Properties'. The 'Status' pane shows 'Analysis Complete' and a red-bordered box containing the following analysis results:

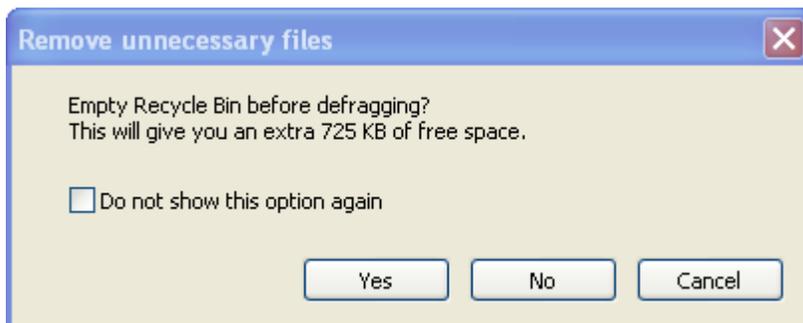
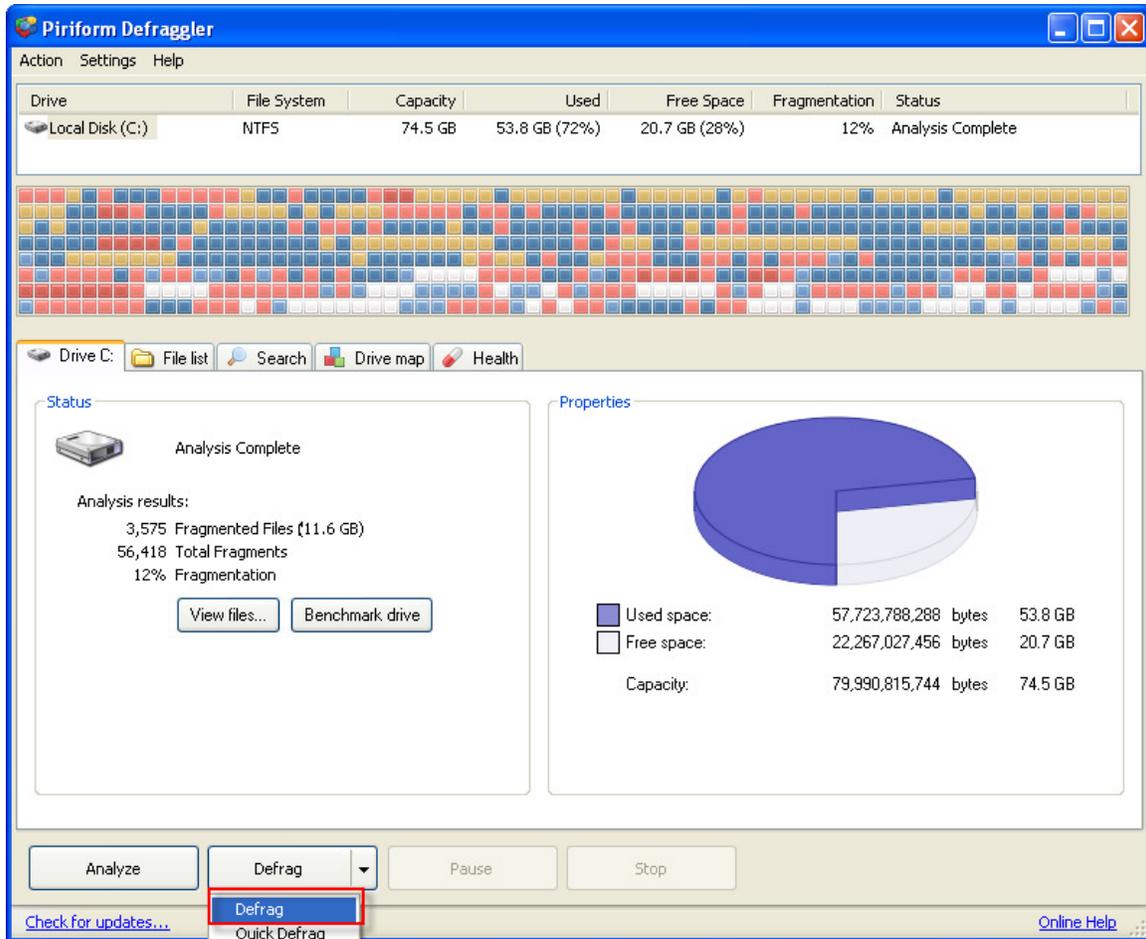
- 3,575 Fragmented Files (11.6 GB)
- 56,418 Total Fragments
- 12% Fragmentation

Buttons for 'View files...' and 'Benchmark drive' are located below the results. The 'Properties' pane features a 3D pie chart and a table of drive statistics:

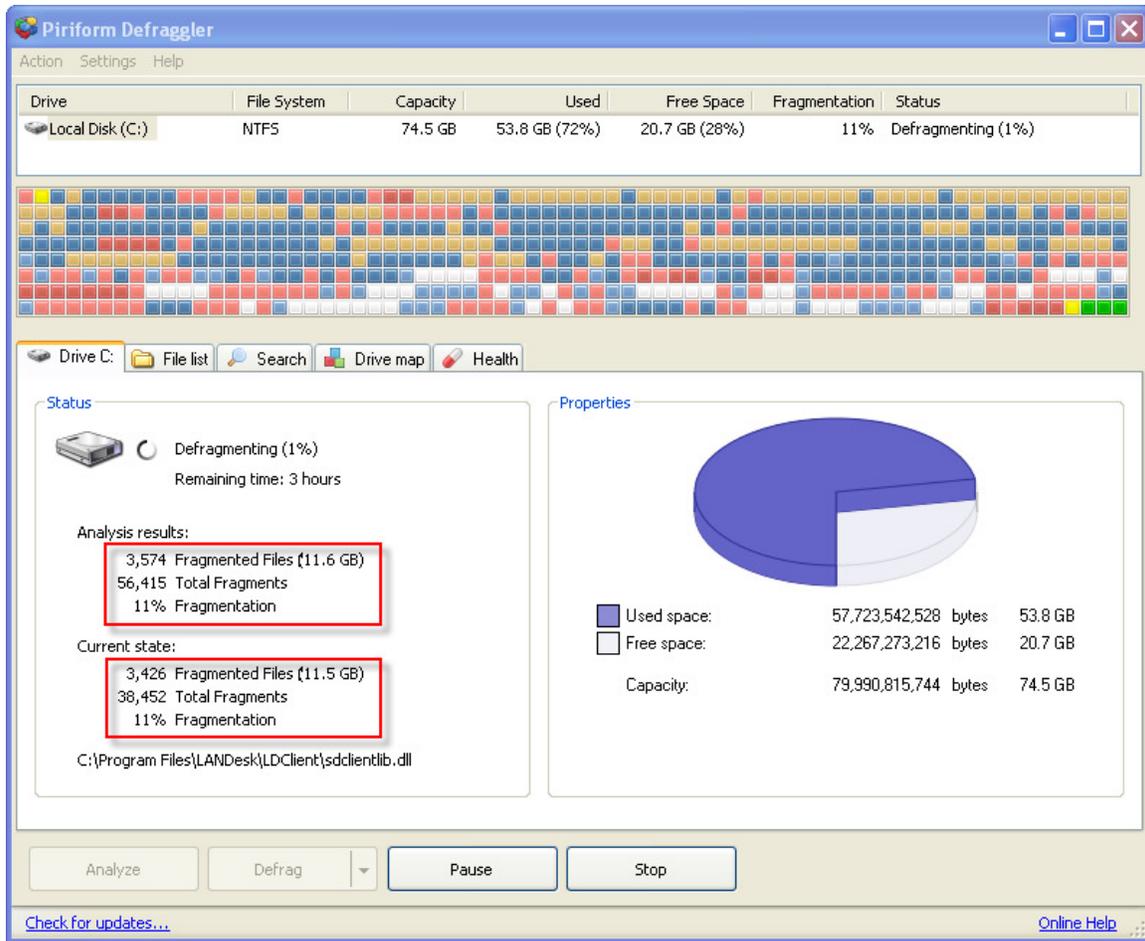
Category	Value	Percentage
Used space:	57,723,640,832 bytes	53.8 GB
Free space:	22,267,174,912 bytes	20.7 GB
Capacity:	79,990,815,744 bytes	74.5 GB

At the bottom of the window, there are buttons for 'Analyze', 'Defrag', 'Pause', and 'Stop'. A 'Check for updates...' link is on the bottom left, and 'Online Help' is on the bottom right.

Here we launch the full defragmentation process for the disk drive. Note that if there are files in the Recycle Bin, there will be a query to ask if they should be deleted before defragmentation begins. The next screenshot shows defragmentation in process.



The defragmentation process is shown here as underway. Note the differences between the number of fragmented files and also the total file fragments in the highlighted sections below. The subsequent screenshot on the next page shows the end result of the defragmentation.



Piriform Defraggler

Action Settings Help

Drive	File System	Capacity	Used	Free Space	Fragmentation	Status
Local Disk (C:)	NTFS	74.5 GB	53.8 GB (72%)	20.7 GB (28%)	11%	Defragmenting (1%)

Drive C: File list Search Drive map Health

Status

Defragmenting (1%)
Remaining time: 3 hours

Analysis results:

3,574 Fragmented Files (11.6 GB)
56,415 Total Fragments
11% Fragmentation

Current state:

3,426 Fragmented Files (11.5 GB)
38,452 Total Fragments
11% Fragmentation

C:\Program Files\LANDesk\LDClient\sdclientlib.dll

Properties

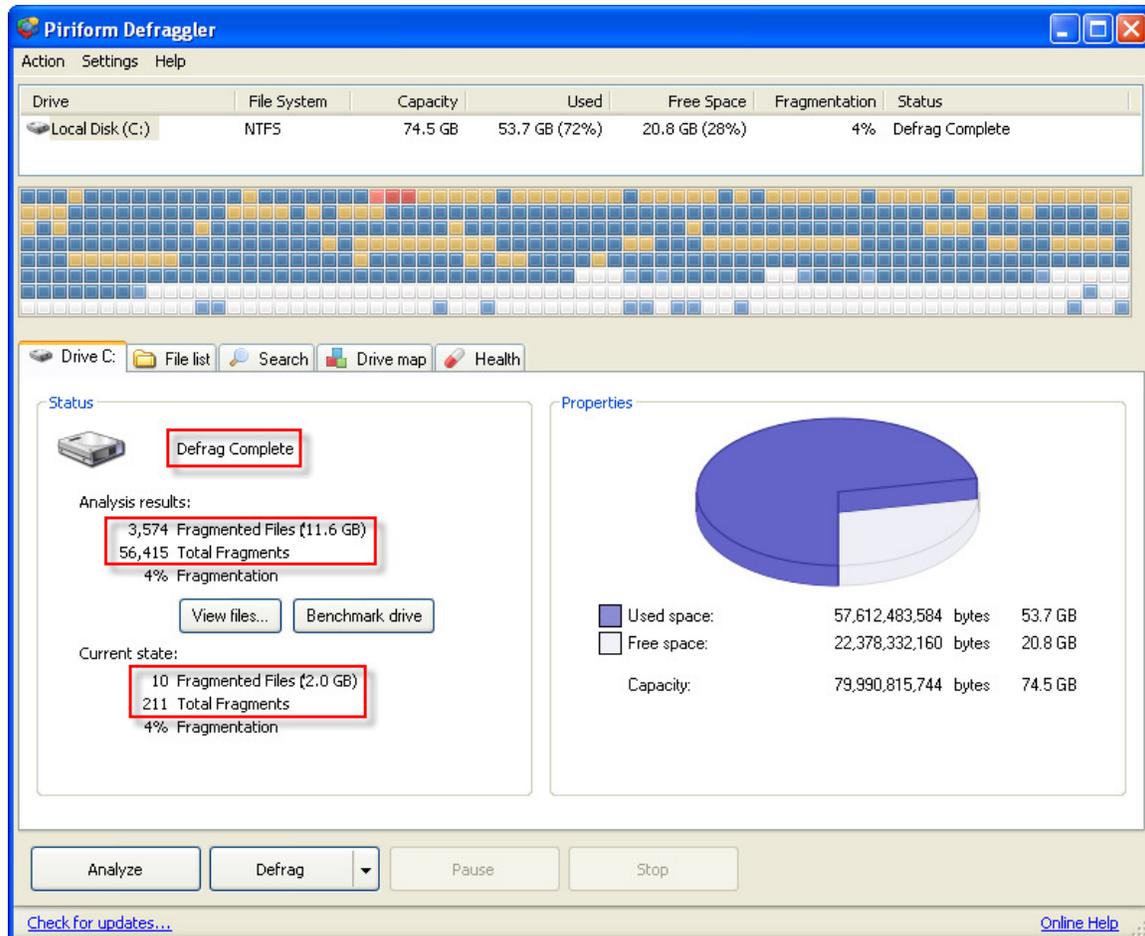


Used space:	57,723,542,528 bytes	53.8 GB
Free space:	22,267,273,216 bytes	20.7 GB
Capacity:	79,990,815,744 bytes	74.5 GB

Analyze Defrag Pause Stop

[Check for updates...](#) [Online Help](#)

Here the defragmentation has been completed. We can note that the 3,574 fragmented files have been reduced to 10. Also, 56,415 total fragments is now 211, which is a very large improvement. Also, we started with a disk drive that was 12% fragmented, and now we are down to 4%.



Defraggler is a useful supplement (or even replacement) to the Windows Defragment utility. As we have seen, it is capable of much finer granularity than Windows Defragment. Another feature, which we did not explore, is Defraggler's ability to consolidate all the free space on a drive into a single unit. Download Defraggler, try it out, and explore some of the additional options. You may find it a very useful tool!