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Using CCleaner to Maintain Your Windows System

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Today we're going to have a look at what I consider to be a very useful Windows maintenance utility. I'm talking about CCleaner, which is put out by Piriform. As is usual for 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 CCleaner at: <u>http://www.piriform.com/ccleaner</u>

We will go through the download and install process, and then point out many of the useful features that CCleaner offers. After downloading the binary, go ahead and run the install. We are going to run this on Windows XP, but CCleaner is fully supported on Windows 7.

Open File - Security Warning 🛛 🔀					
Do you want to run this file?					
Name: ccsetup312.exe Publisher: <u>Piriform Ltd</u>					
Type: Application					
From: C:\Documents and Settings\rross\My Documents\D					
Run Cancel					
Always ask before opening this file					
While files from the Internet can be useful, this file type can potentially harm your computer. Only run software from publishers you trust. What's the risk?					

Click Run, and the install begins, followed by the first install choice, which language to use.



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Installer Language
Please select a language.

English
OK
Cancel

Select the language of choice, and click OK.



At this point, the install can begin. Click Next to continue.



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🐻 CCleaner v3.12 Setup
License Agreement Please review the license terms before installing CCleaner v3.12.
Press Page Down to see the rest of the agreement.
þoftware Licence Agreement
1. SOFTWARE LICENCE AGREEMENT
In this Licence, "the Product" means the software product "CCleaner".
This Licence is a legal agreement between you and Piriform Limited ("Piriform"), a UK Limited Company for the Product.
By proceeding to download or install the Product, and in consideration of your use of the Product, you are deemed to agree to be bound by the terms of this Licence.
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install CCleaner v3.12.
www.piriform.com

Have a look at the license, and if you decide to continue, click on "I Agree".



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🐞 CCleaner v3.12 Setup	
Install Options Select any additional options	Ò
✓ Add Desktop Shortcut ✓ Add Start Menu Shortcuts	
 Add 'Run CCleaner' option to Recycle Bin context menu Add 'Open CCleaner' option to Recycle Bin context menu 	
Automatically check for updates to CCleaner	
www.piriform.com	Cancel

Here is where it gets more interesting. Make the choices in the Install Options that suit your tastes. I don't much care for shortcuts cluttering up my desktop, for example, but you may feel differently. Click Install or Advanced to continue. Here, we are going to click Advanced, which will take us to the next panel.



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🐻 CCleaner v3.12 Setup
Choose Users Choose for which users you want to install CCleaner v3.12.
Select whether you want to install CCleaner v3.12 for yourself only or for all users of this computer. Click Next to continue.
 Install for anyone using this computer
O Install just for me
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Usually the default for this install option is best, but perhaps you are sharing this computer with a child, or some other person that you don't fully trust to always do the right thing when it comes to computers. Make your choice and click Next.



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🐻 CCleaner v3.12 Setup	
Choose Install Location Choose the folder in which to install CCleaner v3.12.	
Setup will install CCleaner v3.12 in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.	
Destination Folder C:\Program Files\CCleaner\ Browse	
Space required: 9.2MB Space available: 26.6GB	
< Back Next > Cancel	

The default is usually good, but maybe you have a policy for putting applications on a drive that is separate from the usual system drive C. Keep or change the location and click Next.



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🐻 CCleaner v3.12 Setup	
Install Options Select any additional options	Ò
Add Desktop Shortcut Add Start Menu Shortcuts	
Add 'Run CCleaner' option to Recycle Bin context menu Add 'Open CCleaner' option to Recycle Bin context menu	
Automatically check for updates to CCleaner	
www.piriform.com	Cancel

Now we are back to the panel we were at before looking at the Advanced options. You can see what my choices here look like before we click Install.



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6	CCleaner v3.12 Setup	
Ir	nstalling Please wait while CCleaner v3.12 is being installed.	Ò
	Extract: lang-1059.dll	
	Extract: lang-1050.dll Extract: lang-1066.dll Extract: lang-1058.dll Extract: lang-1061.dll Extract: lang-1065.dll	
	Extract: lang-1067.dll Extract: lang-1079.dll Extract: lang-9999.dll Extract: lang-1068.dll Extract: lang-1060.dll	
ww	Extract: lang-1059.dll w.piriform.com <back next=""></back>	Cancel

During the install, there is a button to show Details, which I have clicked. Not all that much to see, the install bar pretty much tells us all we want to know.



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🐻 CCleaner v3.12 Setup			
	Completing the CCleaner v3.12 Setup Wizard		
•	CCleaner v3.12 has been installed on your computer.		
	Click Finish to close this wizard.		
	 ✓ Run CCleaner v3.12 ✓ View Release notes 		
	< Back Finish Cancel		

OK, it's done. I'm going to uncheck the View Release notes check box and let the application launch. Let's get right at seeing what CCleaner can do! Oh, you need to click Finish.



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Here I've started by showing the options for CCleaner by clicking on the Options icon. We're looking at About, seen in the lower left corner of the panel. Note that you can check for updated versions of the application in the lower right corner. The extreme lower left corner (Online Help) brings up a very helpful set of web documentation for CCleaner.



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Here we are looking at the Advanced Options. There are a variety of options that are pretty self-explanatory. These are pretty useful, and you may want to customize the application a bit to meet your particular needs.



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We are now looking at the Settings Option for CCleaner. If for some reason you didn't get the settings right for yourself when you installed CCleaner, it's no problem. You can make changes here to alter the application behavior. One interesting point, when files are deleted by CCleaner (it's a file cleaner program, after all) there is an option to first overwrite the deleted files as a security precaution.

See the Secure Deletion option in the middle of the page, which can be set to various levels of security. We will take a look at this in more detail when we look later at the



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Disk Wiper feature. Some people think that if you've got nothing to hide, this isn't important. But really, if you're deleting things that you don't want anyone else to ever see (think tax records, etc., and issues of identity theft) these things are recoverable by a determined hacker. That's where the option to add CCleaner to the Recycle Bin context menu is really useful.

That way, simply right click on the recycle bin, and select "Run CCleaner", or "Open CCleaner...". Run CCleaner will then securely delete whatever is in the Recycle Bin. Note that files previously deleted without using CCleaner are not securely deleted. Piriform tells us that they have a tool called Recuva which accomplishes this, but that's a topic for another day.

I'll leave the other Options for you to explore and at this point we will move on to the Tools Uninstall feature.



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Separate Piriform	CCleaner			
8	CCleaner.com v3. M5 Windows XP Professiona Intel Core2 Duo CPU E4500	12.1572 I SP3 @ 2.20GHz, 2.0GB RAM, Intel Q35 Express Chipset Family		Ò
Cleaner Registry Tools Options	Uninstall Startup System Restore Drive Wiper	Uninstall Select a program from the list you want to remove from your Programs to Remove © .TEST for Visual Studio 2005/2008 Propriation of the second s	Publisher Image: Computer Parasoft Image: Computer Adobe Systems Incorpor Image: Computer Atmel Image: Computer Image: Computer Piriform Image: Computer Image: Computer Wave Systems Corp Image: Computer Image: Computer Google Inc. Image: Computer Image: Computer Rational Software Image: Computer Image: Computer Intel Corporation Image: Computer Image: Computer <t< th=""><th>Run Uninstaller Rename Entry Delete Entry Search</th></t<>	Run Uninstaller Rename Entry Delete Entry Search
Online Help		L		Check for updates

By clicking on Tools, and then Uninstall, we see that CCleaner gives us something similar to our Control Panel, Add/Delete option. But Add/Delete can take awhile to populate, and CCleaner is very quick. CCleaner also allows you to remove the entry from the list if the application had been previously uninstalled, but the entry remains for some reason.



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S Piriform CC	leaner					
G C MS	Cleaner.com v3 Windows XP Profession el Core2 Duo CPU E4500	. 12. 1572 al SP3) @ 2. 20GHz, 2	2.0GB RAM, Intel Q	35 Express Chipset Family		Ò
<u>(l</u> eaner	Uninstall	Startup These progr) rams are set to run	when your computer star	ts	
	System Restore	Yes	HKCU:Run HKCU:Run	MSMSGS ctfmon.exe	"C:\Program Files\Messenger\msi C:\WINDOWS\system32\ctfmon.	Enable
Registry	Drive Wiper	Yes Yes	HKCU:Run HKCU:RunOnce	Google Update FlashPlayerUpdate	"C:\Documents and Settings\rros "C:\Program Files\LANDesk\LDCli	Disable
<u>I</u> ools Options	Drive Wiper	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	HKLM:Run HKLM:Run	McAfeeUpdaterUI dla UpdateManager PDVDDXSrv Acrobat Assistant 8.0 CCDoctorLogonTesting SunJavaUpdateSched SoundMAXPnP IgfxTray HotKeysCmds Persistence atchk ChangeTPMAuth WavXMgr SecureUpgrade EmbassySecurityCheck SDClientMonitor NuTCSetupEnviron Adobe ARM UnlockerAssistant MSC Windows Search.Ink	"C:\Program Files\McAfee\Comm C:\WINDOWS\system32\da\tfsw "C:\Program Files\CyberLink\Pow "C:\Program Files\QyberLink\Pow "C:\Program Files\Atlone\Qear C:\Program Files\Atlone\Qear C:\Program Files\Analog Devices' C:\WINDOWS\system32\igfxtray C:\WINDOWS\system32\igfxtray C:\WINDOWS\system32\igfxtray C:\WINDOWS\system32\igfxtray C:\Program Files\Mave Systems C:\Program Files\Wave Systems "C:\Program Files\Wational\Ration "C:\Program Files\Unlocker\Unloc "c:\Program Files\Unlocker\Unlocker \Unlocker\Unlocker Systems Deskb	Delete :
Online Help						Check for updates

Here is another nice feature of CCleaner. Do you have too many things that start up and slow the machine down when it is booted up? Here you can conveniently shut those things off until you might want them again for some reason. This can be pretty useful. You don't have to fuss with each individual application, just select the ones you want to disable here, and it's taken care of.



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Separate Piriform CCl	eaner			
S CC	Cleaner.com v3 Windows XP Profession el Core2 Duo CPU E4501	3.12.1572 al SP3) @ 2.20GHz, 2.0GB RAM, Inte	l Q35 Express Chipset Family	Ò
Cleaner Cleaner Registry Tools Options	Uninstall Startup System Restore Drive Wiper	System Restore Manage all your System Rest Date and Time 11/23/2011 1:03:31 PM 11/23/2011 11:55:48 AM 11/23/2011 11:55:55 AM 11/22/2011 1:03:27 PM 11/20/2011 1:02:51 PM 11/20/2011 1:03:51 PM 11/12/2011 1:03:52 PM 11/15/2011 1:03:45 PM 11/15/2011 1:03:45 PM 11/15/2011 1:03:59 PM 11/15/2011 1:03:59 PM 11/15/2011 1:03:51 PM 11/12/2011 1:03:51 PM 11/12/2011 1:03:51 PM 11/12/2011 1:03:51 PM 11/12/2011 1:03:51 PM 11/12/2011 1:03:51 PM 11/12/2011 1:03:51 PM 11/6/2011 1:03:52 PM 10/30/2011 1:255:09 PM 10/30/2011 1:255:09 PM 10/28/2011 1:257:37 PM 10/28/2011 1:257:37 PM 10/28/2011 1:01:14 PM 10/28/2011 1:01:14 PM 10/28/2011 1:01:26 PM 10/28/2011 1:01:26 PM 10/23/2011 1:02:40 PM	tore points (The latest one is disabled for Description Software Distribution Service 3.0 Installed DB2 Run-Time Client Lite Software Distribution Service 3.0 Software Distrib	
<u>Online Help</u>				Check for updates

Have too many system restore points? Here's a quick way to manage them. Remove the ones that no longer make any sense to keep. But one thing, the latest system restore point can't be removed, and that's not a bug, it's a safety feature!



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Se Piriform	CCleaner				
	CCleaner.com v3 MS Windows XP Profession Intel Core2 Duo CPU E450	3.12.1572 Nai SP3 0 @ 2.20GHz, 2.0	IGB RAM, Intel Q35 Express Chip	set Family	Ò
Gleaner Registry Iools Options	Uninstall Startup System Restore Drive Wiper	Drive Wi Securely erase Security Drives	per a the contents or free space on a Free Space Only Simple Overwrite (1 pass) Image: Cocal Disk (C;)	Indrive	
<u>Online Help</u>					<u>Check for updates</u>

OK, now we return to the topic of destroying previously deleted files. CCleaner has an option to wipe any free space remaining on the disk. This includes previously deleted files. Downside – it can take a good bit of time. If you're going to do this, maybe start it up right before you go out to lunch. But, once it's been done, you can maintain security by wiping files as they are deleted from the Recycle Bin. Some further options are displayed below.



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Separate Piriform	CCleaner				
	CCleaner.com v3 MS Windows XP Profession Intel Core2 Duo CPU E4500	.12.1572 al SP3 @ 2.20GHz, 2.0GB RAM,	Intel Q35 Express Chipset Family		Ò
Cleaner Registry Tools Options	Uninstall Startup System Restore Drive Wiper	Drive Wipe Securely erase the cont Wipe Security Drives	tents or free space on a drive Space Only Drive (All data will be erased) Local Disk (C:) Wipe		
<u>Online Help</u>				Check for up	dates

Here we see that there is an option to wipe the entire disk. It's no joke, so be very sure of what you are doing before you choose this. To be clear, if you choose this, all your data is forever destroyed (oops!) The system drive is excluded from this option (again, think safety feature!)



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Here we see that you can choose multiple overwrites of a file to make sure that nobody can ever restore or reconstruct this digital data. OK, the feature is here, but in most cases a Simple Overwrite (1 pass) is good enough. Unless you work for the Pentagon or some other employer you can't talk about, a single pass ought to suffice. Remember that if you select more than 1 pass, it's going to take that much more time to finish the job.



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Se Piriform	CCleaner			
8	CCleaner.com v3.12.1572 M5 Windows XP Professional SP3 Intel Core2 Duo CPU E4500 @ 2.20GHz, 2.0GB I	RAM, Intel Q35 Express Ch	ipset Family	Ò
Cleaner Registry Iools Options	 Registry Cleaner Missing Shared DLLs Loused File Extensions ActiveX and Class Issues Type Libraries Applications Fonts Application Paths Help Files Installer Obsolete Software Run At Startup Start Menu Ordering Sound Events Windows Services 	Problem Data - - -	Registry Key	
<u>Online Help</u>				Check for updates

Now we get to the registry cleaner. Having this feature provides a utility that is much more full featured. Click "Scan for Issues" and a list of potential problems will be displayed. See the following screenshot for an example.



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S Piriform	CCleaner		
8	CCleaner.com v3.12.1572 MS Windows XP Professional SP3 Intel Core2 Duo CPU E4500 @ 2.20GHz, 2.0GB R/	AM, Intel Q35 Express Chipset Family	Ò
Cleaner Cleaner Registry Jools Options	 Registry Cleaner Missing Shared DLLs Unused File Extensions ActiveX and Class Issues Type Libraries Application Fonts Help Files Installer Obsolet Software Run At Startup Start Menu Ordering Mul Cache Sound Events Windows Services 	44% Problem Data Missing Shared DLL C:\WINDOWS\Microsoft.NET\Framework\v1.0.3705\Syst Missing Shared DLL C:\Program Files\Common Files\System\Ole Db\Resources Mis	tem.W tem.Er osoft. osoft. tem.Dr oree.t orlib.tl tem.ltl osoft. s\1026 s\1031 s\1034 s\1036 s\1034 s\1034 s\1045 s\1055 s\2052 m.ratik m.ra
<u>Online Help</u>		<u>Check for up</u>	Jaates

Here we see the registry scan in progress. When it is done, the list can be examined, and all, some, or none of the issues can be fixed. After the list of issues to be fixed is decided upon, click the "Fix selected issues" button. As a failsafe, you will be presented with an option to save off the current registry, so that it can be restored if needed. This should provide a greater feeling of security before proceeding with the registry fixes.



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OK, after the previous preliminaries, we finally we get to the main feature of CCleaner. Under the Windows tab, we see the many items that we can direct CCleaner to check for. One notable item is the Hotfix Uninstallers. After Windows installs its many patches, these uninstallers are left behind, are rarely used, and can add up to a good chunk of space. Clicking the Analyze button will give us a list of items that can be removed. But before we do that, let's first take a look at the Applications tab.



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S Piriform CCleaner CCleaner.com v3.12.1572 MS Windows XP Professional SP3 Intel Core2 Duo CPU E4500 @ 2.20GHz, 2.0GB RAM, Intel Q35 Express Chipset Family Windows Applications Firefox/Mozilla ~ ✓ Internet Cache ⊆leaner Internet History Cookies
Download History
Session Site Preferences Registry Saved Form Information Saved Passwords -0-Compact Databases 💿 Google Chrome ✓ Internet Cache Internet History Cookies 1 Download History Session Options Saved Form Information Saved Passwords Compact Databases Applications Adobe Acrobat 8.0 Adobe Acrobat 9.0 Adobe Reader 10.0 Adobe Reader 8.0 McAfee AntiVirus MS Office Picture Manager Office 2003 Office 2007 💼 Internet FileZilla 🔽 Sun Java Multimedia Adobe Flash Player Microsoft Silverlight Windows Media Player 🔳 Utilities 🔽 7-Zip 🔽 Snagit 9 Windows MS AntiMalware MS Management Console MS Search 🔽 MS Wordpad ¥ Analyze Run Cleaner Check for updates... <u>Online Help</u>

The Applications tab displays a list of applications for which CCleaner will search for unused files. This can be useful if you want to remove anything remaining from a removed or upgraded application. Let's go ahead and click Analyze now.



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Constraints Constr	Cleaner CCleaner.com v3.12.1572 45 Windows XP Professional SP3 ntel Core2 Duo CPU E4500 @ 2.20GHz, 2.0GB RA	AM, Intel Q35 Express Chipset Family		
Cleaner Registry Jools Qptions	Windows Applications Image: Internet Explorer Image: Amplications Image: Amplications Image: Amplications	ANALYSIS COMPLETE - (1.912 secs) 29.3 MB to be removed. (Approximate size) Details of files to be deleted (Note: No files have Internet Explorer - Temporary Internet Files Internet Explorer - Ookies System - Empty Recycle Bin System - Temporary Files System - Windows Log Files Philoations - Office 2003 Windows - MS AntiMalware Windows - MS Search Windows - Remote Desktop Mindows - Remote Desktop	been deleted 6,683 KB 128 KB 1 KB 4 KB 552 KB 1,470 KB 8 KB 44 KB 128 KB 21,011 KB	yet) 358 files 4 files 2 files 11 files 15 files 0 files 13 files 7 files 1 files 1 files 1 files
<u>Online Help</u>				Check for updates

Here we see the result of the CCleaner analysis. Obviously, this machine has had CCleaner run on it previously, since not a great deal was found. I think you'll be surprised at how much is found the first time CCleaner is run on your machine. Once the list has been presented, you can elect to click on Run Cleaner to remove the files.



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CC Piriform CCL S MS Inte	eaner Cleaner.com v3.12.1572 Windows XP Professional SP3 el Core2 Duo CPU E4500 @ 2.20GHz, 2.0GH	8 RAM, Intel Q35 Express Chipset Family	
Cleaner Registry Tools Options	Windows Applications Internet Explorer Internet Explorer Gokies Recently Typed URLs Index.dat files Last Download Location Autocomplete Form History Saved Passwords Windows Explorer Recent Documents Run (in Start Menu) Search Autocomplete Other Explorer MRUs Network Passwords System Empty Recycle Bin Temporary Files Clipboard Memory Dumps Chidsk File Fragments Windows Log Files DNS Cache Start Menu Shortcuts Desktop Shortcuts Window Size/Location Cache Environment Path User Assist History IIS Log Files Whofix Uninstallers Custom Files and Folders Wipe Free Space	ANALYSIS COMPLETE - (1.912 secs) 29.3 MB to be removed. (Approximate size) Details of files to be deleted (Note: No files have been deleted yet) Image: Second State St	
<u>Online Help</u>		Analyze Run Cl	eaner

After clicking Run Cleaner, we are presented with an option to cancel the cleaning activity. But if you've previously reviewed the list of files to be removed, there's not much to be concerned about. Go ahead and click OK to proceed. The next screenshot shows the results of the action.



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S Piriform CCleaner		
CCleaner.com v3.12.1572 M5 Windows XP Professional SP3 Intel Core2 Duo CPU E4500 @ 2.20GH	2.0GB RAM, Intel Q35 Express Chipset Family	Ò
Windows Applications Cleaner Internet Explorer Image: Segistry Cookies Registry Recently Typed URLs Iools Index.dat files Iools Saved Passwords Image: Segistry Saved Passwords Iools Search Autocomplete Form Hist Iools Search Autocomplete Options Empty Recycle Bin Image: Segistry Empty Recycle Bin Iools Search Autocomplete Other Explorer Recent Documents Run (in Start Menu) Search Autocomplete Other Explorer MRUs Network Passwords Mindows Log Files Clipboard Windows Log Files DNS Cache Start Menu Shortcuts Desktop Shortcuts Image: Start Menu Start Menu Start Menu Desktop Shortcuts Image: Start Menu Start Menu Desktop Shortcuts Image: Advanced Old Prefetch data Menu Order Cache Tray Notifications Cache Image: Start Menu Start Menu Image: Start Menu Start Menu Image: Start Menu Image: Start Menu Start Menu	CLEANING COMPLETE - (9.432 secs) 29.5 MB removed. Details of files deleted Internet Explorer - Temporary Internet Files 6,874 KB 36 Internet Explorer - History 128 KB 35 Internet Explorer - Cookies 1 KB System - Empty Recycle Bin 4 KB System - Windows Log Files 1,472 KB System - Windows Log Files 1,472 KB Windows - Office 2003 8 KB Windows - MS AntiMalware 44 KB Windows - Remote Desktop 21,011 KB	 66 files 4 files 4 files 1 files 1 files 1 files 1 files 1 files 1 files 1 files 1 files
Online Help		Check for updates

Here we see that all the selected files have been removed. Note also the message at the top of the screen which gives the total amount of storage reclaimed and also the amount of time it took to accomplish this.



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So, to wrap up, CCleaner is a veritable Swiss Army knife of tools. Here is a recap on what is included:

- Reclaim space by deleting unneeded files
- Feature to overwrite files deleted from Recycle Bin
- Program uninstall manager
- System startup program manager
- System restore point deletion manager
- Disk wiper for unused disk space
- Registry cleaner

This is quite a good number of tools to have, all in one package. And if you want support for CCleaner, there are paid versions of the tool which will allow for this. My advice, download, install, and try it out. You may find that you don't want to do without it.