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## Using Recuva to Restore Deleted Files on Windows

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Today we will have a look at a tool which can recover deleted files. Losing files or deleting them by mistake is an unsettling experience. Fortunately, solutions exist to address this situation. Today, I'll be talking about Recuva, which is put out by Piriform, a utility which can recover deleted files. As is usual for many free software packages, you can also pay for personal and business support, but why not start out with the free download and see what it can do? Downloads for both free and supported versions of Recuva are at:

## http://www.piriform.com/recuva

We won't go through the download and install process, since it's pretty self explanatory after clicking on the link above. Let's just launch the tool and have a look at what it can show us.

In the initial Recuva pop-up, we read how the tool can help us. Let's use the wizard and see what it can do. Click Next.

Recuva Wizard		×			
	Welcome to the Recuva Wizard				
	This wizard will help you recover your deleted files. Just answer a few simple questions and Recuva does the rest.				
	If you don't want to use this wizard, simply press Cancel and you will have access to the advanced features of Recuva.				
Do not show this Wizard on startup.					
	< Back Next > Cance				



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We are going to let Recuva find all deleted files, so we select Other from the list of options. If you have a more limited search in mind, by all means select the option that best describes what you are looking for. Click Next.

Recuva Wizard 🛛 🔀
File type What sort of files are you trying to recover?
<ul> <li>Pictures         Show only files of common image formats, such as digital camera photos.     </li> <li>Music         Show only files of common audio formats, like MP3 player files.     </li> <li>Documents         Show only files of common office document formats, such as Word and Excel files.     </li> <li>Video         Show only video files, like digital camera recordings.     </li> <li>Compressed         Show only compressed files.     </li> <li>Emails         Show only emails from Thunderbird, Outlook Express and Windows Mail.     </li> <li>Other         Show all files.     </li> </ul>
< Back Next > Cancel



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Again, here we select the option which gives us the largest possible list of possibilities, for the sake of this demonstration. The "I'm not sure" option will begin a search that is not limited to any particular location on the computer. In your particular situation, it may be more appropriate to select "In My Documents", or "In the Recycle Bin", for example. Click Next.

Recuva Wizard 🗙
File location     Where were the files?
<ul> <li>I'm not sure Search everywhere on this computer.</li> <li>On my media card or iPod Search any removable drives (except CDs and floppies) for deleted files.</li> </ul>
O In My Documents Search user documents folders.
In the Recycle Bin Search for files deleted from the Recycle Bin.
O In a specific location
C:\ Browse
< Back Next > Cancel



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Here we note that there is another option: Enable Deep Scan. Recuva will usually locate your file without using the Deep Scan option, but if it doesn't, try again using this option. The main difference here is time. If you're in a hurry, don't select the option. If the file is not found, or if time is not an issue, select the Deep Scan option for the most accurate and comprehensive result. Click Start.





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Recuva then makes a couple of passes over the computer storage to locate missing files:

Scan	×
Stage 1 of 2: Scanning drive for deleted files Current progress: 57%	
Estimated time left: 5 seconds Cancel	

And below we see example results of deleted files found by Recuva. Note that files are designated by color, red, yellow and green. In the example below, we see the first highlighted file designated as red. Looking to the right, we see that its state is believed to be unrecoverable, although you can try to recover it, and maybe some portion of the file might have useable data. Chances are, however, the data is lost.

The second file highlighted is green, with "excellent" chances of recovery. The longer a file remains lost and unrecovered, the greater the chances that it will be overwritten by some other file and become unrecoverable. Let's recover this file in the next screenshot.

💐 Piriform Recuva									
	Recuva.com v1.43.623 M5 Windows XP Professional SP3 Intel Core2 Duo CPU E4500 @ 2.20GHz, 3.2GB RAM, Intel Q35 Express Chipset Family								
Select For th	t the files you want to ne best results, restor	<ul> <li>Recover by ticking the boxes and then pressing Re- re the files to a different drive.</li> </ul>	cover.			Switch to advanced mode			
	Filename	Path	Last Modified	Size	State	Comment			
	MSS04A17.log	C:\Documents and Settings\All Users\Applicatio	10/1/2012 10:57	128 KB	Unrecoverable	This file is overwritten with "C:\Syste			
	🖲 00010010.ci	C:\Documents and Settings\All Users\Applicatio	9/29/2012 19:12	4 KB	Unrecoverable	This file is overwritten with "C:\WIND			
	MSS04A10.log	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:54	128 KB	Unrecoverable	This file is overwritten with "C:\Docur			
	MSS04A11.log	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:54	128 KB	Unrecoverable	This file is overwritten with "C:\Docur			
	MSS04A12.log	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:54	128 KB	Unrecoverable	This file is overwritten with "C:\Docur			
	MSS04A13.log	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:54	128 KB	Unrecoverable	This file is overwritten with "C:\Docur			
	MSS04A14.log	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:56	128 KB	Unrecoverable	This file is overwritten with "C:\Syste			
	MSS04A32.log	C:\Documents and Settings\All Users\Applicatio	10/2/2012 10:28	128 KB	Unrecoverable	This file is overwritten with "C:\Syste			
	🔵 00010005.wid	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:55	64 KB	Unrecoverable	This file is overwritten with "C:\Progr			
	🔴 00010005.ci	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:55	264 KB	Very poor	This file is overwritten with "C:\Docur			
	00010008.wid	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:55	64 KB	Excellent	No overwritten clusters detected.			
	A0156558.lnk	C:171	8/2/2012 06:45	2 KB	Unrecoverable	This file is overwritten with "C:\Syste			
	🔵 00010008.ci	C:\Documents and Settings\All Users\Applicatio	9/28/2012 15:55	4 KB	Unrecoverable	This file is overwritten with "C:\Docur			
	A0156668.dir	C:\?\	8/8/2012 17:45	4 KB	Unrecoverable	This file is overwritten with "C:\Syste			
	A	e isi	014010040 4F 44	4.005					
5									
NTF5, 74.4 GB. cluster size: 4096. file record size: 1024. Found 699 files in 19.83 sec.									
Onlin	e Help					Check for updates			



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Here we take the step of recovering a file, which has been designated as green. Check the tick box next to the file, and click the Recover button in the lower right hand corner of the dialog box. The next screenshot shows the next pop-up which designates the destination folder for the recovered file.

😽 Pi	riform Recuva						
4	MS Window Intel Core2	<b>a.com</b> v1.43.623 s XP Professional SP3 Duo CPU E4500 @ 2.20GHz, 3.2GB	RAM, Intel Q35 Expr	ess Chipsel	: Family		Ò
Select For th	the files you want to best results, restor	Recover by ticking the boxes and the files to a different drive.	hen pressing Recove:	r.		(	Switch to advanced mode
	Filename	Path	Last Modified	Size	State	Comment	~
	MSS04A17.log	C:\Documents and Settings\All	10/1/2012 10:57	128 KB	Unrecoverable	This file is overwritten with "C	System Volume Inform
	🔵 00010010.ci	C:\Documents and Settings\All	9/29/2012 19:12	4 KB	Unrecoverable	This file is overwritten with "C	\WINDOWS\Prefetch\P
	MSS04A10.log	C:\Documents and Settings\All	9/28/2012 15:54	128 KB	Unrecoverable	This file is overwritten with "C	Documents and Settin
	MSS04A11.log	C:\Documents and Settings\All	9/28/2012 15:54	128 KB	Unrecoverable	This file is overwritten with "C	Documents and Setting
	MSS04A12.log	C:\Documents and Settings\All	9/28/2012 15:54	128 KB	Unrecoverable	This file is overwritten with "C	Documents and Settin
	MSS04A13.log	C:\Documents and Settings\All	9/28/2012 15:54	128 KB	Unrecoverable	This file is overwritten with "C	Documents and Settine
	MSS04A14.log	C:\Documents and Settings\All	9/28/2012 15:56	128 KB	Unrecoverable	This file is overwritten with "C	System Volume Inform
	MSS04A32.log	C:\Documents and Settings\All	10/2/2012 10:28	128 KB	Unrecoverable	This file is overwritten with "C	System Volume Inform
	00010005.wid	C:\Documents and Settings\All	9/28/2012 15:55	64 KB	Unrecoverable	This file is overwritten with "C	Program Files Recuval
Ē	00010005.ci	C:\Documents and Settings\All	9/28/2012 15:55	264 KB	Very poor	This file is overwritten with "C	Documents and Setting
	00010008.wid	C:\Documents and Settings\All	9/28/2012 15:55	64 KB	Excellent	No overwritten clusters detect	ed.
	A0156558.lnk	C:171	8/2/2012 06:45	2 KB	Unrecoverable	This file is overwritten with "C	System Volume Inform
Π	🔘 00010008.ci	C:\Documents and Settings\All	9/28/2012 15:55	4 KB	Unrecoverable	This file is overwritten with "C	Documents and Settine
	A0156668.dir	C:171	8/8/2012 17:45	4 KB	Unrecoverable	This file is overwritten with "C	System Volume Inform
	A	a isi	alkalaata ta ta	1105			· · · · · · · · · · · · · · · · · · ·
							2
NTFS,	74.4 GB. cluster size	: 4096. file record size: 1024. Foun	d 699 files in 19.83 s	вс.			Recover
Onlin	e Help						Check for updates



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Once the file recovery is initiated, we need to say where the recovered file will be located. In this case, we designate C:\Temp

Browse For Folder	<b>?</b> X
Select location for recovery	
	~
🗉 🧰 MSOCache	_
🚞 mvfslogs	
🗉 🚞 Perl	
🗉 🧰 Program Files	
	≡
🗉 🚞 Rational.preserve	
RationalSDLC_Temp	_
E C RQ_Temp	
	~
Make New Folder OK Ca	incel

This next pop-up tells us that the best way to recover a file is to target a folder on some other drive, like a USB flash drive. The reason, obviously, is that we will be writing to the same storage unit where the lost file is located. Any additional writes to this storage device involves the chance that the recovered file might be overwritten. For our purposes, we will take this chance, and click Yes to proceed.

Warning	×
1	Do you want to restore to the same drive? (This can reduce the chance of a successful recovery.)
	Yes No



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And here we see the results of our recover operation. We have a total of 1 recovered file, and it was fully recovered. We were successful. Let's now look to see what we have in the next screenshot.

Operation completed				
i)	Total recovered 1 file(s): Fully recovered 1 file(s) Partly recovered 0 file(s)			
Operation completed in 0.01 sec.				
	ОК			

Here in Windows Explorer, we see the file we selected in Recuva for recovery now placed in the C:\Temp folder. Recuva has performed as advertised.

😂 Temp						
File Edit View Favorites	Tools Help					<b>**</b>
🕒 Back 🝷 🕥 - 🏂	🔎 Search	Folders				
Address 🗁 C:\Temp						💌 🄁 Go
Folders		×	Name 🔺	Size	Туре	Date Modified
🞯 Desktop		~	cq_diagnotics1.log	218 KB	Text Document	8/30/2011 9:46 AM
🗉 븝 My Documents			🗐 00010008.wid	64 KB	WID File	9/28/2012 3:55 PM
🖃 😼 My Computer						
🖃 🥯 Local Disk (C:)						
🗉 🚞 altera						
🗉 🚞 ccase						
🗉 🚞 cosnap		~ <		Ш	l	>
Type: Text Document Date Modifi	ied: 8/30/2011 9	9:46 AM Size: 2	217 KB	217 KB	🔙 😼 My C	omputer

There is even more to Recuva, here is a brief list of what is available:

- Word files can be recovered after a crash because Recuva rebuilds the file from the temporary files that Word uses.
- Recuva can find lost files on any writable media, whether it is a USB flash drive, hard disk drive (HDD) or even a iPod.
- Lost pictures on your camera's memory? Insert the card into your computer's applicable bay and mount it. Recuva support Nikon's RAW and Canon's RAW (.CRW) formats.
- Deleted email can be recovered from email programs like Outlook, Thunderbird, etc.



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- After a hard disk crash, Recuva uses the hidden index present on the drive to quickly locate your files.
- Even after doing a NTFS Quick Format, Recuva can still find your files (unless they have been overwriten).

Hopefully what you get from all this is that Recuva is a good un-delete program that can prove very useful to you when you find yourself in a jam due to missing or deleted files. Download it, install it, and give it a try. It's always good to have tools like this available when the unforeseen emergency occurs.