

File Garbage Can

A Windows program by [Denam Systems](#) to delete those sensitive files.

The following is a list of available topics:

[General](#)

[Program Menu](#)

Exit

This menu option allows you to quit the program.

Help Menu Selection

This menu selection takes you to this help file.

Denam Systems is the one that brought you this program.

We would be more than willing to custom design a program for you. Contact us for details.

Freeware

Freeware is software that the author is giving away. It doesn't cost you anything. "Garbage Can" is **NOT** Freeware.

Commercial Software

Commercial software is the high priced stuff but not necessary high powered . Sometimes it fits your needs and sometimes it doesn't. Most of the time, you don't get a chance to take it for a test drive before you plunk down your bucks.

General

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Sectors



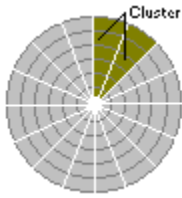
Your disks are divided into pie shaped sections called sectors. All sectors hold the same amount of data - typically, 512 bytes for diskettes and most hard disks. The number of sectors on the disk is set by the operating systems and will vary, depending on the type of disk drive.

Tracks



When your disk is formatted, the operating system arranges it into tracks. Tracks are ring shaped, similar to a phonograph record. The tracks help the disk operating system determine where files are located.

Clusters



Clusters are combinations of sectors and are the smallest amount of space that the operating system will use when a file is saved on the disk. The total sectors/cluster is determined by the type of disk. For example, some disks use 2 sectors/cluster while other disks may use 8 sectors/cluster.

Let's assume your disk uses 2 sectors/cluster and each sector is 512 bytes in size. Therefore, each cluster will be 1024 (512 X 2) bytes in size. If you save a file that is 100 bytes in size, the file will occupy 100 bytes of the 1024 byte cluster. The remaining 924 (1024 - 100) bytes is a dead space called slack and can **NOT** be used by any other file.

Slack



Slack area is a section of a disk that is filled with random bytes of information. This occurs when a file is saved, that is less in size, than the cluster size. This is a dead zone, that can **NOT** be used by any other file.

Disk Format

When a disk is formatted, the operating system maps it into sections called [tracks](#) and [sectors](#). These sections are used to find a particular location on the disk.

Because of the way that the disk is used, data is saved in chunks of space called [clusters](#). Each cluster occupies a specific amount of space and this space is the smallest amount of area a file will occupy. Any unused space in the cluster is referred to as the [Slack Area](#).

By now, you may be asking yourself, "Why should I care?" Well, if you are worried about the security of your data and files, you better.

After you save a file, the remaining [Slack Area](#) is filled with random information. This information comes from your computer. It could be anything that just happens to be laying around in memory. For example, it might be something as simple as a listing of your hard disk directory (what network hacker wouldn't love to have that information) or something as complex as your next years budget.

WARNING

While the disk format is pretty much set in stone, how a program operates is left up to the imagination of the programmer. Some programs may be leaving hidden data on your disk. For example, when you save a document, some editor programs create a new file before deleting the original file. Even though the deleted original file doesn't show up in a directory listing, the document is still on your disk until it happens to get overwritten.

Garbage Can Registration

[Registering By Mail](#)

[Registering Through CompuServe](#)

Program Menu

File

[Delete](#)

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Options

[Set Options...](#)

Info

[About Garbage Can](#)

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[Caveat Emptor](#)

Help

Hotkeys

Hotkeys (Accelerator Keys) are shortcuts to the normal menu functions. They allow you to enter a 1 or 2 keystroke combination that takes you directly to a "Garbage Can" function. The following hotkeys are defined:

F1	Brings up this help file.
Del	<u>Delete</u>
Alt+X	<u>Exit</u>

Delete

When you select the "Delete" menu option, a file selection dialog box appears. From the dialog box, you can select the file you want to delete.

Caveat Emptor

The Caveat Emptor (Let the buyer beware) menu selection appears only if you are **NOT** using the "Program Manager" shell program (progman.exe) that Microsoft supplies with the Windows system.

Your installed shell program provides the base that the rest of your Windows applications operate from. You can change to other shell programs but if they are not 100% compatible, they may cause strange things to happen to other applications.

You can tell what shell program is being used by looking at your SYSTEM.INI file. For example, if you are using Microsoft's "Program Manager", you will find the line:

shell=progman.exe

We have made "Garbage Can" compatible with the Microsoft "Program Manager". If you are using an alternate shell program and experience a problem with "Garbage Can", please drop us a line, describing the problem and your setup. We may be able develop a solution.

About

This provides general information about the program, such as, production date, and copyright information.

Department of Defense

Basics

When you save a file on a disk, the data is placed in a location, on the disk, called a track. The operating system then saves the track's location in the FAT (File Allocation Table). When you ask for the disk's directory, the operating system looks for the filename in the FAT, so it knows which track to read.

When you use the ordinary DOS or Windows file delete feature, the operating system marks the filename in the FAT as being unused but it does nothing with the data in the track. The data in the track remains intact until some other data happens to overwrite it.

There are many freeware, shareware, and commercial disk scanner programs that allow the user to directly read the tracks, while bypassing the FAT. You can just imagine how embarrassing or bothersome it could be, if some of your so-called, 'deleted data' was being viewed by the outside world.

Assuming you are using the "Secret" or "Top Secret" Security Level option, "Garbage Can" is guaranteed to make your data completely unrecoverable. Someone may be able to recover (using the "Undelete" DOS program) the filename but the data in the file is gone forever.

Shareware

This informs you that this program is [Shareware](#) and provides information on ordering the program.

Testing

You can test "Garbage Can" without having access to a disk scanner program.

Create a text file using the Windows "Notepad" program. Enter a couple of lines of text and save the file. Now delete the file using the Windows "File Manager" or the DOS "delete" command.

Now use the DOS "undelete" command to recover the deleted file. Reload the file into the "Notepad" program. You will find that the text you entered is still present.

Again, delete the file but this time, use "Garbage Can". Make sure the "Secret" or "Top Secret" [Security Level](#) option is active. Now use the DOS "Undelete" to recover the filename. When you reload the file into the "Notepad" program, you will find that the text lines you entered, are gone. This action works on **ANY** type of file.

Introduction

"File Garbage Can" is an application for Microsoft's Windows 95 & 3.1. It provides a way to make sure the files you delete are truly gone. It is marketed as [Shareware](#) so you get a chance to evaluate its usefulness before purchasing it.

Archived File

The "Garbage Can" archived file (GCxxxx.ZIP) contains several files. Most of them are self-explanatory but 4 of them could use some additional explanation.

CAN32.EXE

This is the 32-bit, Windows 95 version of "Garbage Can".

CAN16.EXE

This is the 16 bit version of "Garbage Can". It is designed to take advantage of Windows 3.1 "Drag & Drop" feature. You can drag files from the Windows "File Manager" program and drop them into the "Garbage Can" program.

Windows Startup Folder

In Windows 3.1, you can place a program in a folder called 'StartUp'. Any program in this folder is automatically run each time the Windows system is started.

Boot Time

You can run the "Garbage Can" program every time Windows is activated by including that information in your WIN.INI file. To do this, edit the WIN.INI file with a text editing program (do not use a word processing program that will not save a file as an ASCII file).

Load the WIN.INI file and look for the 'Windows' section. In the 'Windows' section, add the following line :

```
run=can32.exe
```

Now the WIN.INI file will contain these two lines (plus a lot more lines).

```
[Windows]  
run=can32.exe
```

After doing this, "Garbage Can" will automatically run each time Windows is activated.

For those of you that prefer the quick and easy method, you can drop the "Garbage Can" program into the [StartUp](#) folder. This eliminates the process discussed above.

Shareware Info

This program is distributed as Shareware. This is a simple concept. Basically, we retain all rights to the software under the Copyright laws but allow distribution to your system to be done freely. You may look at, copy, etc. this type of software, but if you use it, you are expected to register.

The advantage of Shareware is real. You get a chance to test the software on your computer to make sure it is compatible with your system and to make sure it works to your satisfaction before you 'buy' it with your registration fee.

Email

For help or for submitting suggestions, you can contact us by mail or phone but the best way we feel, is by contacting us through email. Mail has a long turnaround period and if you call, you may only get a recording. Email will most likely get a quicker response.

We try to respond to your questions on the same day they are received. With email you don't end up playing phone tag and you can even ask CompuServe to notify you when the message has been delivered.

Please use the following addresses to send email to us:

Internet

denam@kagi.com
denam@navicom.com
70405.1422@compuserve.com

CompuServe

70405,1422

Fax

503-363-0198

An additional benefit of being a CompuServe user is that you can [register your "Garbage Can" program through CompuServe](#) and have the registration fee billed to your CompuServe account.

Newest Version

You can always find the newest version of "Garbage Can" on [CompuServe](#). It can be found on the "Windows Users Group Network" forum. Get there by entering:

GO WUGNET

after you have connected with CompuServe.

Since the names of the libraries change from time to time, we can not tell you exactly which library "Garbage Can" is in but you can search on the keyword:

DENAM

to help you find the file. You can also [register your "Garbage Can" program by using CompuServe](#).

For those of you that have access to the [Internet](#), the newest version of Garbage Can can be downloaded using FTP or WWW.

Disclaimer

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In no event will Denam Systems be liable for direct, indirect, incidental, consequential damages resulting from any function or defect in the software, even if Denam Systems has been advised of the possibility of such damages.

Upgrades

July 1997 (GC0797)

(1) Add dialog tips - User can turn option on/off. (2) The folder (directory) structure will be saved during file deletes - User can turn option on/off. (3) Program will return to desktop taskbar after a file delete - User can turn option on/off. (4) Program screen size is saved upon quitting. (5) Fix program screen draw location problem. Older versions could cause the program to be drawn off the desktop, making it appear that the program was not working. (6) Program options are now set in a tabbed dialog box (property sheet) instead of menu selections. (7) User can now turn the list of deleted files on/off. (8) User can now turn the toolbar on/off. (9) Toolbar is now dockable. (10) User can now turn the status bar on/off. (11) Convert C code to C++. (12) Change from Borland to Microsoft compiler. (13) Drop File Manager version (canf16.dll) of Garbage Can. (14) Update documentation to reflect new Internet provider.

January 1997 (GC0197)

(1) Add listbox to main screen. This allows a list of deleted files to be displayed. This list is **not** saved and is destroyed when you exit the program. (2) Move security level notification from main screen to status window. (3) Add Directory Delete menu explanation. (4) Add option that keeps Garbage Can the top most program. In other words, other programs will not be displayed over the top of Garbage Can.

Dec 1996 (GC1296)

(1) Display security level on main screen. (2) Change way that internal security flag is stored/retrieved in memory. Early routines could cause flag to change on its own. (3) I goofed. I forgot to remove the 60 day trial period that is mentioned in the November 1996 version. Now, program will **not** cancel after 60 days.

Nov 1996 (GC1196)

(1) Remove Shift key option. This option caused confusion to users and could accidentally allow an unsecure delete. (2) Add registration program that allows registering via the Internet by using Visa, Master Card, American Express, or First Virtual accounts. (3) Earlier versions would quit working after 60 days trial period. This version removed that feature. It now merely displays a reminder to register. (4) If user was dragging files from the Explorer program, Garbage Can informational message dialogs might appear on the taskbar instead of the desktop. This was because Garbage Can was not the top most program. This problem was fixed by forcing Garbage Can to the top, if a message box is displayed.

May 1996 (GC0596)

Internet provider changed FTP and WWW addresses. Update documentation and About dialog to reflect the changes. Since no changes were made to the program, this version was only uploaded to Internet server.

April 1996 (GC0496)

Add directory delete functions to drag & drop feature. This allows the user to drag a directory from the Explorer program, causing the directory (along with all associated sub-directories and files) to be deleted. Modify splash dialog functions so all files being deleted are displayed. Change from Shareware to Trialware. This allows a 60 day evaluation period before the program stops functioning. Add 'Planned Future Upgrades' section to documentation.

March 1996 (GC0396)

Add toolbar functions.

February 1996 (GC0296)

Save the last directory location and then go to that directory the next time a user uses the File Dialog Box method to delete.

January 1996 (GC0196)

Update to Windows 95 format. This allows program to use long file names. File Manager remained a 16-bit program so the File Manager extension version (canf16.dll) was not updated. Remove Borland DLL. Change initialization file (.ini) routines to registry routines.

May 1995 (GC0595)

Fix bug that caused Garbage Can menu selection not to appear in the File Manager version. Fix error that caused the icon color menu selection (in standalone version) to remain unchecked. This is the last Windows 3.1 version.

April 1995 (GC0495)

Add three addition desktop icons. This allows the user to select the color of the icon that will appear on the desktop. Include new registration procedures.

December 1994 (GC1294)

Change the Delete menu hotkey 'F3' to 'Del'. Change the menu to the *Windows User Interface Design Guide* standards. Add the Shift key function that temporarily resets the user set [Security Level](#) to the *Restricted* quick delete mode.

July 1994 (GC0794)

Drop Windows 3.0 version. Create Garbage Can DLL ([canf16.dll](#)) that will attach itself to the File Manager program as an extension. Add install program. Add another level of security that exceeds [DoD](#) requirements.

February 1994 (GC0294)

Add another level of security by adding code to take care of the [Slack Area](#). Add DoubleSpace information to documentation.

September 1993 (GC0993)

Add another level of security to the [Security Level](#) feature. Remove command-line feature. Add initialization file (garbage.ini) feature that replaces the need for command-line.

August 1993 (GC0893)

Do some clean-ups. Make minor change to [Security Level](#) feature. Add help file but then forget to include it in the ZIP file.

April 1992 (GC0493)

Change to updated [BWCC.DLL](#) file.

October 1992 (GC1092)

First upgrade of program. Add Windows "Drag & Drop" feature.

1991

First release of program.

Registering Garbage Can

U.S. Checks & Money Orders

If you are paying by U.S. check/money order, you can register this program by merely printing out the order form and sending the required payment. You can print the form by going to the [Order Form](#) topic and then selecting the 'Print Topic' option of the 'File' menu selection.

Out of country check/money orders

If you are paying with a check drawn on an account, which is out of the U.S.A., you MUST use Kagi (<http://www.kagi.com>). This method of payment insures proper processing. This registration form is available from the *Garbage Can* <Info><Register Using Kagi> menu selection. Instructions will be provided when the program (register.exe) runs.

Visa - Master Card - American Express - Diners Club - Discover - First Virtual

Credit card owners also must use Kagi (<http://www.kagi.com>). This registration form is available from the *Garbage Can* <Info><Register Using Kagi> menu selection. Instructions will be provided when the program (register.exe) runs.

Internet orders

If you have an Internet & credit card account, you can use Kagi (<http://www.kagi.com>) to make your payment. This registration form is available from the *Garbage Can* <Info><Register Using Kagi> menu selection. Instructions will be provided when the program (register.exe) runs.

Phone orders

Phone orders can be placed at +1 (510) 658-5244 using Kagi (<http://www.kagi.com>). There is an additional **\$5.00 surcharge**.

CompuServe accounts

If you are a user of CompuServe, you can have your registration fee billed to your [CompuServe](#) account.

Registering Garbage Can through CompuServe

You can register your *Garbage Can* program through CompuServe's Shareware Registration Program by typing:

GO SWREG

after connecting with CompuServe. Then just follow their instructions. You can do a search on the keyword:

DENAM

to help you find the correct registration form. Once you have completed the form, the registration fee will be billed to your CompuServe account.

You can also [register Garbage Can by mail or credit card](#). You want to make sure you do order by mail, if you are registering 5 or more programs, since there is a discount for large quantity orders.

Order Form

From:

Remit to:

Denam Systems
1115 Madison St NE
Suite 226
Salem, Oregon 97303

Contact Individual

Email Address

Quantity of Computers

Per Computer

1-4	\$19.95
5-9	\$17.95
10-14	\$15.95
15-19	\$13.95
20+	Agreed Price

Qty

Per Computer

Total

____ Garbage Can Software X _____ = _____

Note that GC0197 Software has been delivered and accepted by the customer.

Registration

In the Name field, enter your name or the name of your business.

In the Number field, enter your registration number.

Note:

This menu selection will no longer appear after you have entered your registration information.

Internet Access

The newest version of Garbage Can is always available on the Internet. The files can be located at:

<http://www.kagi.com/denam>
<http://www.navicom.com/~denam>

You can send email to us at either of the following addresses:

denam@kagi.com
denam@navicom.com
70405.1422@compuserve.com

Windows 95

A lot of things changed when Windows 95 was released. Some of these changes affected Garbage Can.

Some of the Windows 3.1 desktop features were replaced by the Windows 95 taskbar. Minimized active applications now appear on the taskbar instead of appearing as an icon on the desktop.

The Windows 3.1 File Manager is being replaced by the Windows 95 Explorer. While File Manager is still usable, it is a 16-bit, short file name (8.3) application. Explorer is a 32-bit, long file name program. To take advantage of the new operating system, you should be using Explorer.

The old Windows 3.1 version of Garbage Can allowed you to drag a file from File Manager and then drop it on to the minimized Garbage Can icon. Windows 95 will not allow this. To get the same affect, do the following.

Drag a file from Explorer and hold it above the Garbage Can application icon on the taskbar. After a couple of seconds, Garbage Can will appear on the desktop. You can then drop the file on to the Garbage Can program. It's that simple.

Register Using Kagi

This menu selection takes you to a program that allows you to use your Visa, Master Card, American Express, Diners Club, Discover, or First Virtual account to register Garbage Can. The order can then be sent by postal mail or Internet email. See [Registering Garbage Can](#) for further details.

Set Options

Security Level Tab

The Security Level indicates what type of function will be used to delete your files. The levels available are:

Restricted - This is the lowest level of security but the fastest acting. Your file will be deleted as if you used the DOS "Erase" command. Your file and its data may be recoverable using the DOS "Undelete" command.

Confidential - Any data in the deleted file is guaranteed **NOT** to be recoverable. The file name may be recoverable using the DOS "Undelete" command.

Secret - Any data in the deleted file is guaranteed **NOT** to be recoverable. The file name and file creation date are also scrambled. While the DOS "Undelete" command may determine that something once existed, there will be nothing worth looking at. Even the [Slack Area](#) is taken care of.

Top Secret - This is the highest level of security and the slowest speed. It has the same characteristics of the 'Secret' delete **PLUS** adds the overwrite requirements of [DoD](#) standards, prior to the final overwrite of unclassified data.

Window Tab

Appearance Group

Toolbar

When this option is active, a toolbar is visible. The toolbar is dockable, meaning you can move it to where you want it.

File list

When this option is active, the list of deleted files is visible.

Status bar

When this option is active, the status bar is visible. The status bar shows you your current security level and gives you an explanation of what the menu options do.

Dialogs Group

Dialog box tipping

When this option is active, dialog box fields will show tips. Tips explain what type of actions the field produces. Merely let your cursor hover above the field to display the tip.

Taskbar Group

Start on taskbar

When this option is active, *Garbage Can* will run in the minimized form, each time it starts. The program appears on the taskbar.

Return to taskbar

When this option is active, *Garbage Can* will return to the taskbar after a 'Drag & Drop' file delete. It also causes the 'Keep Garbage Can on top' option to become inactive. This option has no effect on the <File><Delete...> menu selection form of deleting a file.

Desktop Group

Keep Garbage Can on top

When this option is active, the *Garbage Can* program will always remain the top appearing application. This option has **no** affect on the security level or on which application is active.

Folder Tab

Folder (directory) Group

Use last folder (directory)

When this option is active, the folder (directory), where you deleted the last file, will be saved. The next time you ask to delete a file, the File Dialog Box will open in that folder (directory).

When this option is inactive, the File Dialog Box will open to the folder (directory) where the *Garbage Can* program is located.

Allow folder (directory) delete

When this option is active, you can 'Drag & Drop' a folder (directory) from the Explorer program and the folder (directory), along with all associated sub-directories and files, will be deleted.

When this option is inactive, you can not do a folder (directory) delete.

Save folder (directory) structure

When this option is active, the folder (directory) structure remains on your disk. Only the files in the folder (directory) are deleted. This option is active only if the 'Allow folder (directory) delete' option is active.

Delete Tab

Delete Group

Confirm delete

When the "Confirm Delete" option is active, you will be asked to confirm that you want to delete each file, before it is actually deleted. When inactive, each file is deleted without confirmation.

