

Laplink® SafeErase

User Guide

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Laplink SafeErase is the solution for the secure removal of sensitive data on your hard disk and offers your data valuable protection. Laplink SafeErase does not simply erase files, but it destroys them using recognized and recommended methods.

The reasons for using secure deletion of data are manifold. Old E-mail files, Internet history, file caches, financial data, business information and private data should be protected from unauthorized access.

You can choose from different algorithms to erase files. Methods are offered, which are recommended and used by the US Department of Defense (DoD) to that by the German Federal Office of Information Security (BSI). In other words, the highest standard in security.

Hackers nor data spies stand a chance to restore your data once it has been deleted with Laplink SafeErase.

After using Laplink SafeErase on your computer it can be easily sold, given away, or recycled with the secure feeling that no data will be reconstructed or accessed.

We hope you take joy in using our product! We will be very happy to answer all your questions about this and any other of our products.

Laplink Software Inc.

<http://www.laplink.com>

System Requirements

- Max. 60 MB free hard disk space for the installation and the subsequent use.
- For the program help to function properly, it is required to use Internet Explorer 6 or higher.
- Windows™ 2000, Server 2003, XP, Vista®, Server 2008, Windows 7 (all Editions, from Windows™ XP/Server 2003: 32-bit/64-bit).

Note Permissions: It is required that you be a member of your system's local group of administrators or possess comparable permissions in order to install and register Laplink SafeErase. If you are a domain administrator, you normally already possess such permissions.

Installing Laplink SafeErase

Note: To complete Laplink SafeErase registration, your PC must be connected to the Internet.

1. Turn on the computer on which you would like to install Laplink SafeErase.

2. Login as a local Administrator.

3. Insert the data medium with the required software in its respective disk drive, e.g. your CD-ROM drive, or start the installation file provided (SETUP.EXE).

4. Please follow the installation guide and confirm the End-User license Agreement (EULA). Please read it carefully before the installation, since it is binding for the use of the application.

5. To complete the installation of the application, please restart your computer, if you have not been prompted to do so already.

Note: In order to activate the product after installation or to gain access to the Full Version at a later time, you must possess a valid license key. This license key is also called a registration code, serial number, or product ID.

Laplink SafeErase needs to be licensed per computer; in other words, you have to purchase a license for each computer where you want to employ Laplink SafeErase.

If you do not enter a valid license key, you will only be able to use a trial version of Laplink SafeErase for up to a maximum 30 days. The functions Delete Free Space and Delete Entire Computer are not available in the trial version. Should you have any questions, please contact our Support Team.

Registration

Note: In order to activate the product after installation or to gain access to the Full Version at a later time, you must possess a valid license key. This license key is also called a registration code, serial number, or product ID.

The dialogue for licensing always appears automatically at the start to guide you if you are using an unregistered version or have entered the license key incorrectly.

1. Select **Enter License Key**. A dialogue box will appear where you can enter the registration code you received when purchasing the software.

Note: Please make sure that you do not confuse the digit "1" with "l" or enter any empty spaces where they don't belong.

2. Press **Next** to save the license data or **Cancel** to leave the dialogue without saving the data.

3. When you have correctly entered the license code you will receive confirmation in the dialog window.

Should you run into any problems when entering your registration code, please contact our Support Team.

Installing Updates of SafeErase

If you want to update Laplink SafeErase to a newer version, you might need a new license key. Please follow the directions below:

1. Start the new installation of Laplink SafeErase.
2. Simply follow the normal installation instructions.
3. Once finished, the new version is fully installed.
4. When first starting Laplink SafeErase, enter the license key when prompted.
5. Restart your computer, when first starting Laplink SafeErase, when asked to do so.

Uninstalling

To remove Laplink SafeErase from your PC, please follow the instructions below:

1. Open the Control Panel in the Windows start menu and then click **Add/Remove Programs**.
2. Please select **Laplink SafeErase** from the list of installed software and click **Remove**.
3. Confirm uninstallation. Once uninstallation is complete you will receive a confirmation message. When prompted, restart your computer.

Introduction to Data Deletion

Deleting is more complicated than it sounds. Moving a file to the recycle bin and emptying said bin does not really remove it from the hard disk. The directory entry is removed, but the data themselves remain on the hard disk and can therefore be restored. Even formatting partitions and low-level formatting at the BIOS level does not completely remove the data. In this case, data can still be restored, even if the effort required is then greater.

Laplink SafeErase is different. It does not just erase files but destroys them using proven methods. Data deleted with SafeErase is securely removed with no possibility of being restored.

IMPORTANT: Data deleted with Laplink SafeErase cannot be restored, even when using special restoration software! Please make sure that before you delete anything, you really do want to delete the data or that you have saved a back-up copy in another location (security copy).

The function Delete Entire Computer deletes all data on your computer without any necessary boot disk type medium. Once you have confirmed the execution of this function, all data on your computer will be deleted, after which all data and setting will be lost. If, by mistake, you have activated this function, do not reboot your computer.

Instead, contact our technical support. They can be helpful as long as the actual process of deletion has not already taken place.

Data deleted just once with Laplink SafeErase can never be reconstructed. Not even the use of special software or data recovery hardware will bring it back.

If there is even a possibility that you might need a specific piece of data, it is strongly advised that you make a back-up copy prior to deletion. Otherwise this data will be lost.

Laplink SafeErase is not a toy to be used "just for fun." This program works and will definitely delete your data.

Overview of Important Features

- NEW: Selection of pre-defined deletion profiles
- NEW: Creation of individual deletion profiles
- NEW: Re-use last settings
- NEW: Different selection possibilities to securely delete temporary files.
- NEW: Different selection possibilities to securely delete various browser data.
- NEW: Different set up possibilities for the secure deletion of free space.
- NEW: Detailed reports as proof of the deletion process
- NEW: Overwriting data with zeros (very quick deletion)
- NEW: Deletion of system volumes in the offline mode
- NEW: Supports multi-core processors
- NEW: User interface with all main functions
- Integration in the context menu
- Securely erasing files and folders
- Securely erasing hard disks and partitions
- Deleting the free storage space
- Securely erasing an entire computer
- Five deletions methods following recognized standards
- Securely move files and folders – deletes the original file securely after moving it
- Securely erasing data in the recycle bin
- Optional command-line-based control – Enables the easy automation of repeated tasks
- Progress monitor of current program activity in the Task Tray

Laplink SafeErase Definitions

Secure Deletion: If data is deleted securely, then it will be lost forever. Even special restoration software is not able to bring it back. On the other hand, “normally” deleted data can be easily restored, even if you have emptied the Windows trash can. Laplink SafeErase offers various methods for deletion, so that you can erase your data using different methods.

Drive/Partition: A drive is a reserved area of the hard disk. Multiple drives can be found on a hard disk. In the following text, the term “drive” will be used to depict (single) partitions as well as logical drives in expanded partitions.

Drives are used, for example, to separate documents from programs. A division in two partitions has become generally accepted:

- Drive C: for operating systems and programs
- Drive D: for documents, e.g. photos, Office documents, music, etc.

Context Menu: As a rule, the context menu will open whenever you right-click on an object (picture, word, interface etc). Laplink SafeErase is integrated in the context menu as “Secure Deletion”. As a result, you can also execute your deletion from there.

Laplink SafeErase Deletion Methods

Depending on the importance of securely deleting your files and the amount of time you have available, you can select one of six deletion processes, all offering a different level of security. The method with the highest level of security is set as the default.

See either the **Laplink SafeErase User Interface** section or the **Laplink SafeErase Context Menu** section for instructions on how to delete data using Laplink SafeErase. Regardless of what method you use to start SafeErase, or what type of data you choose to delete, you can select from the following deletion processes.

Note: The higher levels require a longer amount of deletion time than the lower levels. The higher the level is, the higher number of deletion cycles have to be completed.

- **35 Cycles (Highest Security):** The method that offers the highest level of security is based on a process developed by Peter Gutmann and presented in his article “Secure Deletion of Data from Magnetic and Solid-State Memory”. In this method, deleted data are overwritten by a series of 35 different deletion cycles that are executed in a random order.
- **7 Cycles (High Security):** The method for high security is based on the January 1995 “National Industrial Security Program Operating Manual” by the DoD. In this seven

cycle variation (DoD 5220.22-M ECE), data is first overwritten three times with DoD 5220.22-M (E) Standards, then with a specific random value, and finally once again with DoD 5220.22-M (E).

- **6 Cycles (Medium Security):** This method for medium security conforms to the standards of the German BSI as described in the “BSI IT Baseline Protection Manual”. Data are overwritten with a random value and then with this values compliment. This procedure is completed with new random values three times.
- **3 runs (Low security):** The method, offering only low security, but operating very fast, is based on the “National Industrial Security Program Operating Manual”, NISPOM (US DoD 5220.22-M) of the DoD of January 1995. The variation (DoD 5220.22-M E) offers 3 runs in which the data are overwritten with first a set value, then its compliment, and then a random value.
- **1 Cycle (Lowest Security):** This method is quick in deleting data securely. Here the data is overwritten with only a single random value in one cycle.
- **Overwrite with Zeros:** This method is the fastest to securely delete data. The selected files will be overwritten with zeros.

Using Laplink SafeErase - 2 Methods

• Start Laplink SafeErase (User Interface)

The intuitive user interface of the Laplink SafeErase Assistant facilitates your work.

1. Go to the Windows Start button, then All Programs/Laplink/Laplink SafeErase/Laplink SafeErase.
2. Afterwards, the user interface displays all available program functions.

• Use Laplink SafeErase over the context menu

Laplink SafeErase integrates itself into your Windows Explorer. You can access Laplink SafeErase by way of Explorer’s Context Menu. Select one or more files or folders and click this selection with the right mouse button to activate the context menu.

The entry Secure Deletion lets you boot up Laplink SafeErase for the selected files and folders. In order to avoid the accidental deletion of important files, you will be asked to confirm this action.

Note: You also have the option to run the SafeErase User Interface directly from the CD. However, if you do run SafeErase directly from CD without previous installation (e.g. from the BlueCon CD or the Start CD of the PartitionManagers), the following program functions will not be possible:

- **Secure deletion over the context menu**
- **Secure moving**
- **Securely emptying the Recycle Bin**
- **Securely erasing an entire computer**

SafeErase User Interface - Using Profiles

Laplink SafeErase offers the possibility to save various program functions as a profile. In that way it is possible to execute certain activities synchronized and with the same settings (i.e. deletion method).

Setup Profile

1. Select an activity in the start page, e.g. **Delete Temporary Internet Files**.
2. Choose your settings in the corresponding action pane.
3. Afterwards, you have the choice of either running the activity now by selecting **Run Now** or saving the settings as a profile by clicking on **Apply**.
5. The start page displays how many objects (settings) were run for each activity.
6. If you click on **Run** on the start page, you still have to select the deletion method for the created profile. You can start the deletion process afterwards.

Note: The button **Simulate** creates a report on the simulated deletion process.

Use Preset Profiles

Laplink SafeErase offers pre-defined deletion profiles as a standard.

1. Select your desired Profile from the menu bar.
2. Then click on **Run** and select a deletion method.
3. Start the deletion process with **Delete Now**.

If you are not sure, you can also first simulate the deletion process and have a look at the provisional report.

SafeErase User Interface - Deleting Data

Delete Files and Folders

1. Select the function **Delete Individual Files and Folders** in the Start page.
2. Select the file or the folder in Windows Explorer that you want to erase under **Add File**

or **Add Folder**.

3. **Apply** saves all your settings as a Profile and you will be brought to the start page.
4. Click **Run Now** and you will be prompted to select the **Deletion** method. Afterwards, you can initiate the deletion process.

Delete Hard Disks and Partitions

1. In the start page, click on **Delete Hard Disks/Partitions**.
2. In the pop-up window, select the partition or hard disk for deletion.
3. **Apply** saves all your settings as a Profile and you will be brought to the start page.
4. Click **Run Now** and you will be prompted to select the **Deletion** method. Afterwards, you can initiate the deletion process.

Delete Free Disk Space

Normally, you already have deleted data before installing Laplink SafeErase. In order to be safe, and make sure that this data will never be reconstructed, Laplink SafeErase includes a feature that wipes your free space clean.

1. Select the function **Delete Free Hard Disk Space** in the start page.
2. In the pop-up Window, you can select the drive from which free disk space should be deleted.
3. **Apply** saves all your settings as a Profile and you will be brought to the start page.
4. Click **Run Now** and you will be prompted to select the **Deletion** method. Afterwards, you can initiate the deletion process.

Delete Temporary Files

The operating system often buffers files temporarily to unburden the memory. Normally, these temporary files are automatically deleted after having been used. Yet, even those deleted temporary files can be restored. If you want to delete temporary files securely, then proceed as follows:

1. On the start page of Laplink SafeErase, click on **Delete Temporary Windows Files**.
2. Activate the check for the desired options.
3. **Apply** saves all your settings as a Profile and you will be brought to the start page.
4. Click **Run Now** and you will be prompted to select the **Deletion** method. Afterwards, you can initiate the deletion process.

Temporary File - Deletion Options:

- **Delete Last Accessed Documents:** Deletes temporary files of documents, which were created to open the document faster.
- **Delete Temporary Files:** Programs occasionally save temporary information in the folder TEMP. Near the end, the program normally erases temporary information. You can delete temporary files, which have not been modified for a week, without hesitation.
- **Empty Preview Cache:** Deletes picture from the cache. The cache enables you to open pictures faster, if done so repeatedly.
- **Delete Recycle Bin:** Removes files from the Windows Recycle Bin.

Delete Temporary Internet Files

Temporary Internet files are automatically created when you use the Internet. It is therefore retroactively traceable as to which Internet pages have been visited by you. Sometimes, even login data is saved on your computer. If you want to delete this temporary data, proceed as follows:

1. On the start page of Laplink SafeErase, click on **Delete Temporary Internet Files**.
2. Select the Internet browser you use. If you are not sure which browser or which version of it you are using, you will find more information in the online help of your browsers.
3. Activate the checks for the desired options.
4. **Apply** saves all your settings as a Profile and you will be brought to the start page.
5. Click **Run Now** and you will be prompted to select the **Deletion** method. Afterwards, you can initiate the deletion process.

Temporary Internet File - Deletion Options:

- **Delete Cookies:** Deletes files that were saved on the computer by web pages to save settings, such as login information.
- **Delete Temporary Files:** Deletes copies of web pages, pictures and media files, which were saved to allow faster access.
- **Delete History:** Deletes the list of URLs that you have visited.
- **Deletes Form Data:** Deletes information that you have entered in forms.
- **Deletes entered URLs:** Deletes entered URLs in the address line.

Securely Erasing Data from the Recycle Bin

Also possible is the secure deletion of the Recycle Bin. This is especially practical when you make a habit of collecting files there that you don't need anymore.

1. Select **Delete Temporary Windows Files** in the start page of Laplink SafeErase and set a check in the dialogue to activate **Delete Recycle Bin**.
2. **Apply** saves all your settings as a Profile and you will be brought to the start page.
3. Click **Run Now** and you will be prompted to select the **Deletion** method. Afterwards, you can initiate the deletion process.

SafeErase User Interface - Delete Entire Computer

The function **Delete Entire Computer** enables you to delete an entire computer, without having to create a start medium (e.g. disks or CD-Rs. All data, settings, applications etc. will be deleted. A restoration is not possible.

Deleting your entire computer enables you to rest assured when you sell, give away or throw away your computer. Hence you can be assured that nobody will be able to restore and abuse your data.

Important: Data deleted with Laplink SafeErase cannot be restored, even when using special restoration software or hardware. Keep this in mind and avoid an accidental deletion of your data!

Start the deletion process for the entire computer:

1. Select **Delete Entire Computer** in the start page.
2. Over **Run Now** you will get to the selection of the Deletion method. Select the Deletion method you desire.
3. **Delete Now** leads to renewed security prompts.
4. After confirming the first security prompts, you will be asked to re-enter the six digit security code you are given in the second security prompt.
5. If you confirm the dialogue, the deletion process will start and all data will be erased irrevocably from your computer.

Note: 'Simulate' simulates the deletion process and creates a deletion report.

IMPORTANT: The function 'Delete Entire Computer' erases all data from your computer without additional boot disk type media. Once you have confirmed the execution of this function, all data on your computer will be deleted, after which all data and settings will be lost.

If, by mistake, you have activated this function, do not reboot your computer. Instead, contact our technical support and they can be helpful as long as the actual process of deletion has not already taken place.

Delete Entire Computer - Security Confirmation

Prior to running the 'Delete Entire Computer' process, a list of security confirms must be satisfied. Follow the instructions in the dialogue windows. It can be cancelled at anytime to avoid the unnecessary deletion of your computer.

IMPORTANT: Please pay attention to the warnings and confirm the security questions if necessary. When the computer reboots all data will be securely erased; this can take up some time. Do not shut down the computer during this time, otherwise the deletion process cannot be completed correctly!

Completing the Deletion Process

The computer will be restarted after completing the security questions. During the restart, all hard disk drives connected to the computer will be erased. The system partition is then deleted so that the system can be restarted and complete the deletion process. Please note that once a deletion process has begun, it cannot be cancelled!

After completing the deletion, the computer will restart. On the screen you will see an error message informing you that no operating system could be found. You can now install a new operating system or sell it. Either way, all data on this computer is now completely deleted.

IMPORTANT: If, by mistake, you have activated this function, do not reboot your computer. Instead, contact our technical support and they can be helpful as long as the actual process of deletion has not already taken place.

SafeErase Over the Context Menu

Laplink SafeErase integrates itself into your Windows Explorer. You can access Laplink SafeErase by way of Explorer's Context Menu. Select one or more files or folders and click this selection with the right mouse button to activate the context menu.

The entry **Secure Deletion** lets you boot up Laplink SafeErase for the selected files and folders. In order to avoid the accidental deletion of important files, you will be asked to confirm this action.

Context Menu - Delete files and folders

1. To delete files and folders, right click on them with your mouse and select **Securely Erase** from the Context Menu, exactly like the normal Windows deletion function.

Note: If you would like to delete more than one file, hold down the 'Ctrl' key and highlight the files with the left mouse button.

2. After initiating Laplink SafeErase, the program will prompt you to select a method of deletion.

3. Choosing **Delete Now** starts the deletion process.

4. You will see a dialog box that shows you the progress of the deletion process. A tray icon will be displayed, if you minimize the window. It will inform you on the status of the deletion process.

Note: 'Simulate' simulates the deletion process and creates a deletion report of it.

IMPORTANT: If you click on 'Stop', the program will ask if you want to cancel immediately. If you say 'Yes', the actual process will be stopped with some files still in restorable condition. Should you say 'No', however, the last file will be completely removed and then the process will be aborted. Clicking 'Cancel' will resume the deletion process.

Context Menu - Securely Erase a Hard Disk Partition

1. Find the partition in Windows Explorer you would like to erase and right-click on it to display the Context Menu.

2. Click on the entry **Securely Erase Partition**.

3. Set the method of deletion if desired. Then confirm the deletion of this partition.

Note: Depending on the size and number of deletion cycles requested, this process of deletion can be very time-consuming.

4. After the partition has been erased it is necessary that you reformat the partition in order to use it again. More information about the formatting of a hard disk drive can be found in the Window's Help file.

Context Menu - Delete Data Retrospectively

1. Select the function **Secure Deletion of Free Disk Space** from the context menu of the drive where you would like to wipe the free space.

2. Set the method of deletion if desired. Then confirm the deletion.

Important: No existing files or data will be deleted, rather specific pieces of data that are marked free on the hard disk. After this process has been completed, you will not longer be able to restore this data ever again.

Context Menu - Securely Delete Data From the Recycle Bin

1. Select the Recycle Bin and right-click on it to view the context menu.
2. Click on **Securely Empty Bin**.
3. A confirmation window appears warning that these files will be securely erased. Confirm deletion.

IMPORTANT: Windows diverts only a set amount of disk space to the Recycle Bin. When the total size of the files exceeds this set amount, the oldest data is deleted. This deletion method, however, is still the Windows' standard and therefore not secure.

Please be sure to always use SafeErase if you want to securely empty the Recycle Bin. If files were deleted from the Recycle Bin, this function is the only method to make sure they are securely overwritten.

Feedback and Support

We invite your comments about Laplink SafeErase. Please feel free to contact us at:

feedback@laplink.com

In addition to the contact information for Customer Service at the top of this page, you can engage in a live chat online with a Technical Support Representative at the link below, during the hours listed on the Web page:

<http://www.laplink.com/contact/mychat.html>