



# BLANCCO – Software Manual

## Digital Media Shredder



VERSION 1.0

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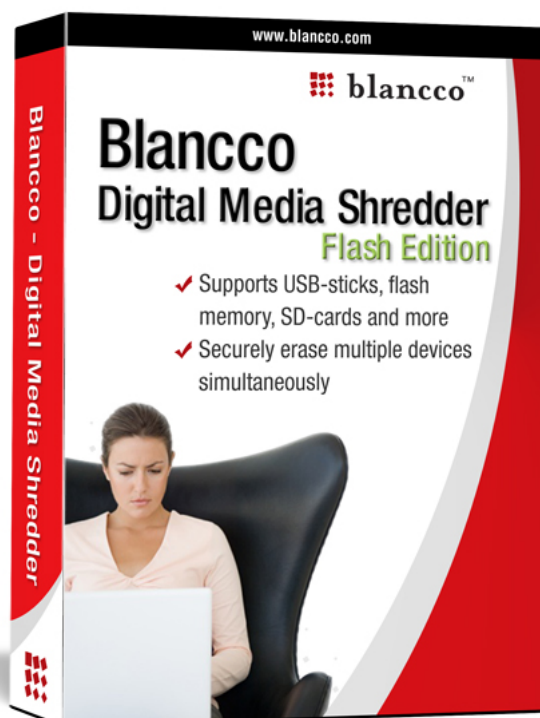
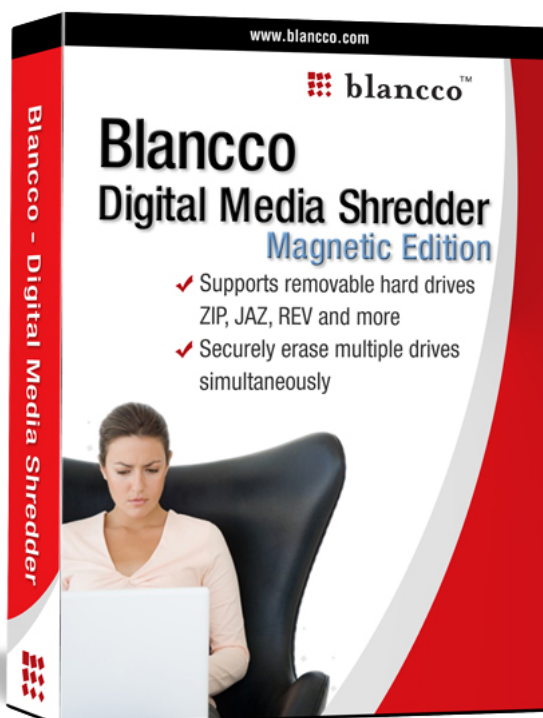
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## BLANCCO – DIGITAL MEDIA SHREDDER

USB memory drives, ZIP-disks, Secure Digital Card memories and other removable storage are rapidly increasing in both popularity and capacity. It is entirely easy and affordable to carry around gigabytes of data in your pocket on media no larger than your thumb. This poses a potential problem since increased storage and availability also increases the risk losing sensitive information.

All your storage media contains potentially sensitive information about you, your personal life and your work. Make sure that your information is properly shredded before disposing or reorganizing any digital storage media. Blancco - Digital Media Shredder helps you to shred sensitive information and to comply with company policies and your local legislation.

Blancco Digital Media Shredder is a Windows based software. That means it has the ability to erase all units that Windows can detect and use when connected as a USB memory device or similar. Restricted memories, demanding any kind of log in before windows can access a restricted area need to be logged onto before erasure is possible.



## FEATURES AND USAGE

Blancco – Digital Media Shredder is an application for permanently removing data on various removable storage media such as USB thumb drives, ZIP-drives, Secure Digital card (SD) memories, CompactFlash cards and other removable storage. The application effectively wipes any information on the media, thereby making recovery impossible. Blancco – Digital Media Shredder provides a 100% secure erasure on most solid-state removable storage media available on Microsoft Windows.

Blancco – Digital Media Shredder is highly scalable and supports multiple drives making concurrent shreddings possible. No matter if you are shredding your personal iPod or your company's entire collection of USB memory sticks; this is the solution for you. Blancco – Digital Media Shredder is designed to meet your erasure needs efficiently, effectively and profitably. The application is very easy to use, and does not require any training or technical expertise.

### Key Features

- Shred any type of flash based removable storage media supported by Microsoft Windows.
- Easy to use - "plug and shred" - graphical interface.
- Supports automatic formatting after shredding.
- Multiple drives can be shredded concurrently.
- Supports a number of renowned shredding algorithms, use the one your company policy dictates.
- Available in multiple languages.

### System Requirements

Windows 2000 / XP / 2003 / Vista

- 15 MB of free disk space
- 10 MB of free RAM
- Mouse or keyboard
- Appropriate hardware for storage media to be erased



## TWO VERSIONS

There exist two different versions of Blancco – Digital Media Shredder. Each one is specifically designed for securely erasing different types of removable storage media. The different versions are listed below. Make sure to use the version designed for the memory types you are planning to shred.

### Flash Edition

Blancco – Digital Media Shredder *Flash Edition* has been designed specifically for solid-state flash type memories. Most overwriting standards are meant to handle the specific requirements of magnetic type storage devices. As the design and structure of flash memories are fundamentally different than those of magnetic drives, these algorithms are flawed. Blancco – Digital Media Shredder *Flash Edition* take into account the special considerations of flash specific technology such as wear levelling, error correction and finite erase-write cycles. The application has also been heavily optimized to achieve speed close to the theoretical maximum of flash memories.

### Magnetic Edition

Blancco – Digital Media Shredder *Magnetic Edition* has been designed specifically for magnetic type storage media. The application has been designed to support the secure shredding of a large number of disks concurrently. Through advanced threading and optimization a single individual can shred a large number of disks easily and efficiently, without requiring special knowledge. Up to 14 different renowned international shredding standards are supported with up to 35 overwriting passes.

## FLASH EDITION SUPPORTED DEVICES

Blancco – Digital Media Shredder *Flash Edition* supports solid-state removable media such as flash based memory storage and similar. This edition has been designed to handle the specific methods and technologies used in these types of media.

Flash based memories works differently than magnetic storage media. Although they appear similar in Windows they act very differently on a hardware level. Due to limitations of flash based memories they incorporate a number of techniques to avoid and minimize them.

One limitation of flash memory is that although it can be read a byte at a time, they must be erased an entire "block" at a time. This is different from magnetic type storage that has random access read/write cycles. Flash memory also uses different wear-leveling techniques that are used to decrease the number of erase operations required to update data and to decrease the number of overwrites to a single segment of the memory. Due to a finite number of erase-write cycles flash file systems are usually log-structured, which writes modified data to a new location in memory with the exact details being handled by a cleaning policy. For example, if a file is created and overwritten 100 times on a flash memory this will only result in many copies of the data being written to different storage locations, followed by the actual data. Because of this Blancco – Digital Media Shredder *Flash Edition* bypasses the file system on a flash memory to reduce potential remanence effects.

Because of the fundamental differences in hardware design it is unsuitable to utilize common file shredding software on flash based media. Most shredding software are created with magnetic type storage in mind and might leave not only remanence of information but entire files and other types of sensitive information on the memories. Blancco – Digital Media Shredder *Flash Edition* has been designed with a number of enhancements specifically developed to remove any sensitive information on flash based media.

### Supported devices

- USB flash drive
- SmartMedia
- SecureDigital (SD/SDHC/miniSD)
- MultiMediaCard (MMC/MMCMobile/RS-MMC)
- Compact Flash (CF)
- Memory Stick
- Digital cameras with flash drives
- MP3 players with flash drives
- Other flash based storage media



If you have questions concerning specific memory types not listed here, please contact us and we will get back to you with a response within short.

## Security Technology

Blancco – Digital Media Shredder *Flash Edition* supports 4 sanitizing algorithms for erasing flash-type media including:

- Army Regulation, AR380-19
- U.S. Department of Defence, 5220.22-M
- Navy Staff Office Publication, NAVSO P-5239-26. Classification level SECRET or CONFIDENTIAL
- Navy Staff Office Publication, NAVSO P-5239-26. Classification level TOP SECRET



## MAGNETIC EDITION SUPPORTED DEVICES

Blanco – Digital Media Shredder Magnetic Edition supports magnetic type storage media. This edition has been designed to handle the specific methods and technologies used in these types of media.

### Supported devices

- Most hard disk based removable media
- ZIP drives
- JAZ drives
- REV drives

If you have questions concerning specific memory types not listed here, please contact us and we will get back to you with a response within short.

### Security Technology

Blanco – Digital Media Shredder *Magnetic Edition* supports 14 sanitizing algorithms for erasing magnetic type removable media including:

- HMG Infosec Standard 5, The Baseline Standard
- HMG Infosec Standard 5, The Enhanced Standard
- Peter Gutmann's algorithm
- U.S.Department of Defense Sanitizing (DOD 5220.22-M)
- Bruce Schneier's algorithm
- Navy Staff Office Publication (NAVSO P-5239-26) for RLL
- The National Computer Security Center (NCSC-TG-025)
- Air Force System Security Instruction 5020 (AFSSI-5020)
- US Army AR380-19
- German Standard VSITR
- OPNAVINST 5239.1A
- Bundesamt für Sicherheit in der Informationstechnik (BSI)
- National Security Agency (NSA/CSS Manual 130-1) – for magnetic storage only.
- U.S.Department of Defense Sanitizing (DoD 5220.22-M ECE)





## **INSTALL/UNINSTALL**

Blanco – Digital Media Shredder is available through your local Blanco representative. Contact us to receive an evaluation version of the software or for licensing information.

### **Install**

Install the application with the self extracting compressed executable – DigitalMediaShredder.exe

This opens an installation wizard that will guide you through the necessary installation steps.

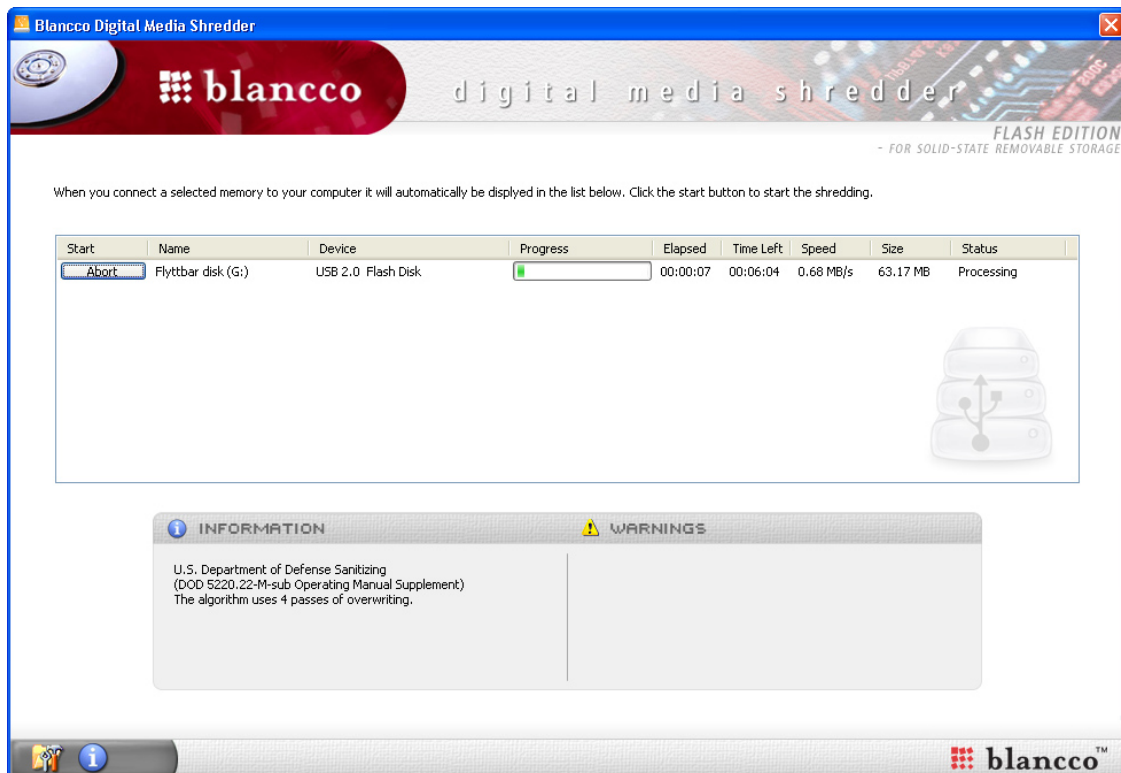
### **Uninstall**

Use “Add/Remove Programs” in the Control Panel to remove Blanco – Digital Media Shredder.

## USER GUIDELINES

Open the application through the Start menu or the icon on your desktop.

When the application has launched a list of available removable media will be displayed.



Press the “Start” button on one or more devices to commence the shredding process. Depending on the algorithm, speed and size this operation might take a while. After the operation has completed you can review the result of the operation in the “Status”-column. Remove the shredded devices and insert new ones if you wish to continue shredding more devices.

### Drivers

Sometimes a USB memory stick or other devices requires additional drivers to be installed. This might take a while so please be patient while Windows installs new hardware.

On older memories are not always supported on newer versions on Windows. Windows Vista is known to have limited support for old USB thumb sticks. This might require you to shred these devices on Windows XP or visit the manufacturer’s homepage for drivers. Laptops often require additional and updated drivers to use built in media slots (like SD and similar).

### Concurrent shreddings

The application supports up to 16 devices for concurrent shredding. Optimal speed can be achieved by assigning each device to a separate hardware controller. USB hubs and other similar devices are able to handle a larger number of unit but will divide the speed between active devices.

## SHREDDING STATION

Blanco – Digital Media Shredding has been designed to facilitate bulk shredding of removable media. A dedicated computer can easily be set up to support large scale erasure of various media. This chapter discusses how such a shredding station can be configured to maximize efficiency and speed.

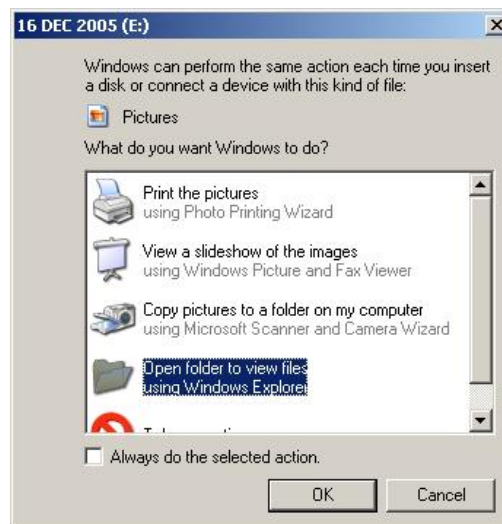
### Multiple devices

In order to maximize the number of concurrent shreddings it is recommended that a shredding station is equipped with a large number of suitable media devices. A shredding station designed for ZIP shredding can, for example, be equipped with more than one ZIP disk drives. USB memory card readers or USB hubs are also useful for increasing the number of devices that can be shredded at the same time.

### Format after successful shredding

The settings dialog has an option for formatting drives after a successful shredding. This will reformat the shredded devices after a successful operation. The file format on the device will be FAT regardless of previous file systems and partitions.

*Important: Note that this option is not specified by the shredding standards and is therefore an optional setting.*



The default Windows action for handling removable storage is autoplay which can be disruptive when handling a large number of drives. This setting can be modified in Windows using the Registry Editor and modifying the “NoDriveTypeAutoRun” value.

### Start shredding automatically

A useful setting for a shredding station is the automatic shredding setting. This option will start the shredding operation automatically when you insert a new device while the Blanco – Digital Media Shredder is running. Devices that are attached while opening the application will not be shredded. This setting decreases the manual handling of storage media.

## FREQUENTLY ASKED QUESTIONS

The following are questions frequently asked by our customers concerning Blanco – Digital Media Shredder. Please visit our homepage or contact support if you have additional questions.

### NAVSO P-5239-26 (FEPROM)

The Navy Staff Office Publication dictates a 2 minutes waiting period when shredding FEPROM (Flash Erasable Programmable Read Only Memory) type memories. Therefore this waiting period has been included into the algorithm. The standard also recommends retaining the data storage media under Government control for four hours after shredding. Please note that these recommended procedures only applies to devices with the classification level of TOP SECRET. This algorithm is available in Blanco – Digital Media Shredder *Flash Edition*.

### Memory card readers

Memory Card Readers might cause problems with automatic shredding enabled. The reason for this is that they list any empty devices. It is therefore recommended to turn of the “Start shredding automatically” setting when using memory card readers.

An issue with the a notification when new devices are added to the card reader might cause the software to display an unupdated list of devices. Please restart the application if any devices aren't properlu displayed when using memory card readers.

## ABOUT BLANCCO LTD.

With several million end-users, an impressive clientele and a broad network of trusted partners, Blancco has proved to be the global specialist in the field of professional data destruction and computer reuse management. Blancco has achieved many security awards worldwide. Founded in 1997, Blancco Ltd. has its corporate headquarters in Joensuu, Finland. Besides its 7 international offices, Blancco has partners in all continents and in more than 20 countries. Blancco – Digital Media Shredder has been research developed in cooperation with SafelT Security.

## CONTACT AND SUPPORT

If you have any questions regarding our products and services, please feel free to contact us.

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We are always looking to improve our products. Please let us know if you have any suggestions!