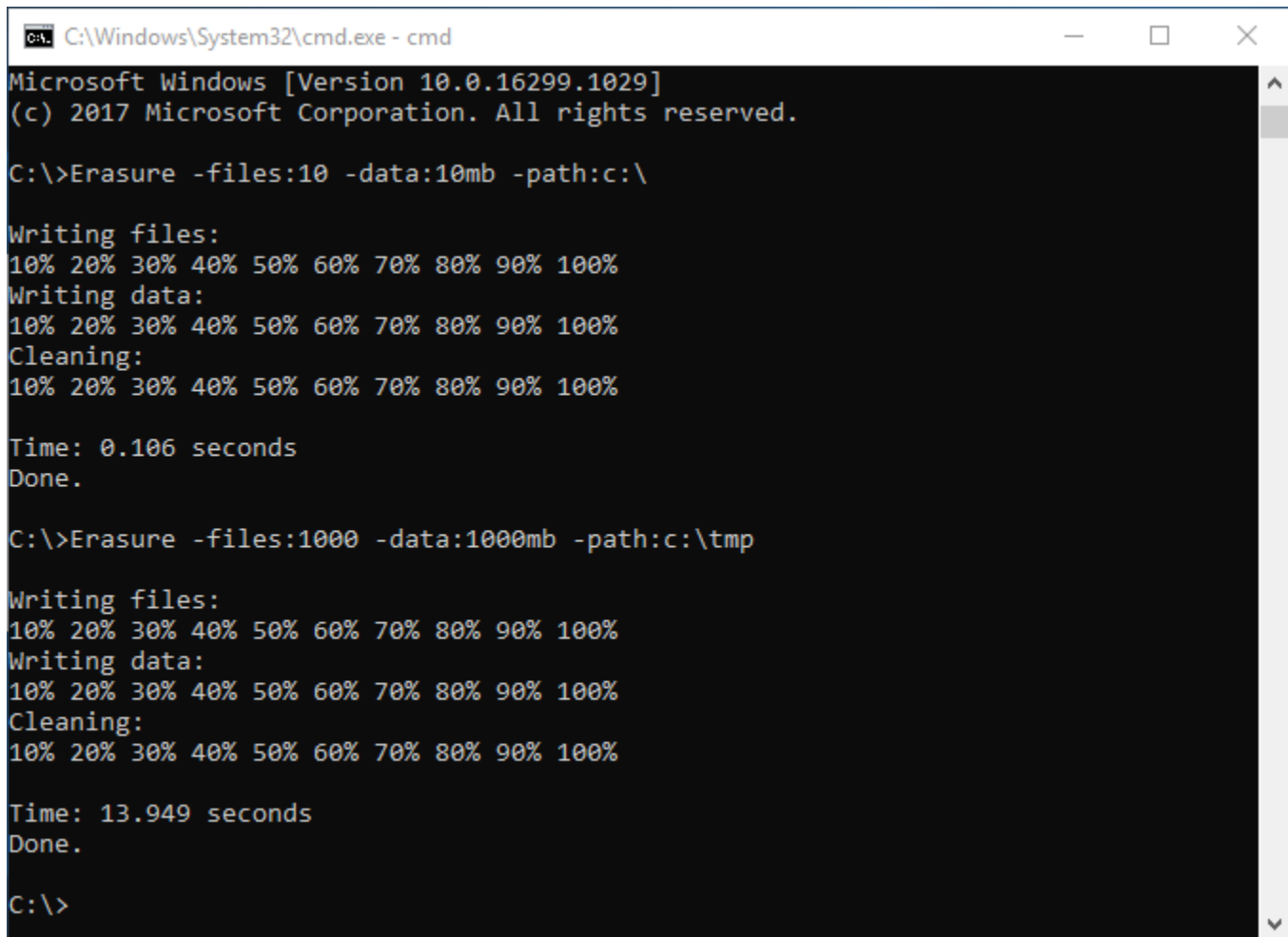


# Erasure

Erasure is a program that overwrites empty space on disk.



```
C:\Windows\System32\cmd.exe - cmd
Microsoft Windows [Version 10.0.16299.1029]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\>Erasure -files:10 -data:10mb -path:c:\

Writing files:
10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Writing data:
10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Cleaning:
10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Time: 0.106 seconds
Done.

C:\>Erasure -files:1000 -data:1000mb -path:c:\tmp

Writing files:
10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Writing data:
10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Cleaning:
10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Time: 13.949 seconds
Done.

C:\>
```

The empty space on disks can contain **sensitive data** and information that can be recovered with recovery software and **forensics**, this can be **privacy and security risk**.

The operating systems and programs automatically write and delete data on disks, for example text editors may save copies of the document for recovery and later delete them. Also when users delete files they are only marked as deleted but the files remain on disk and can be recovered.

To protect privacy and security the remaining data on empty space on disks **has to be overwritten**.

To properly clean remaining data both metadata as file names and content has to be overwritten, this program has parameters as -files and -data that specify quantity of **metadata and data** has to be overwritten.

## Features

- It is **safe**, does not overwrite existing files, and uses operating system for overwrite.
- Can be used on different file systems and operating systems, as NTFS EXT4 FAT Windows Linux.
- Different options can be specified, as block size, number of files, quantity of data.
- It is free and open source with general public licence.

# Download

Source code and executables for different architectures and operating systems can be found in code repositories.

Erasure program is written in C programming language it is contained in one file, can be compiled on different operating systems and also can be used without compilation, the source code can be run directly with Tiny C compiler ex: `tcc -run Erasure.c`

## Source Code and Executables

- <https://github.com/muhammd/Erasure>

# Usage

overwrite empty space on disk, write small files and data.

### USAGE:

Erasure [-h -v -test -one -rand -block:] (-files: &| -data:) -path:

-h	Print help and usage message.
-v	Print program version.
-test	For test, don't delete written files.
-one	Erasure with 1, default with 0.
-rand	Erasure with random data, default with 0.
-block	Block size, default 4096 bytes as NTFS and EXT4.
-files	Number of files to write, block size each.
-data	Quantity of data to write, ex: 1mb, 1gb, all.
-path	Path to directory where to write data.

### EXAMPLE:

# Write 10 files and 10Mb data, on Windows

Erasure -files:10 -data:10mb -path:c:\

# Write random data, block size 512 bytes on Linux

Erasure -rand -block:512 -files:10 -data:10mb -path:/mnt/usbdisk/

Copyright GPLv3 <http://github.com/muhammd/Erasure>

# References

- [Data Remanence](#)
- [Data Recovery](#)
- [Data Erasure](#)
- [File System](#)
- [File Deletion](#)