

Balena Etcher vs Rufus - Create Bootable Media

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Bottom line

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Until a few years before, converting a USB drive into a bootable drive was a nearly out of the question. No matter how hard you wanted it, it was impossible to perform this function. However, as technology advanced, creating Bootable Media became quick and seamless.

Especially with tools like balena Etcher and Rufus, the process has eased down like never before. Want to learn more about balenaEtcher and Rufus? If yes, join us as we dive into the comprehensive guide of "balenaEtcher Vs. Rufus".

The article will highlight both utilities as a standalone and then bring out what makes them different. By the end, you will be able to choose whether balenaEtcher or Rufus serves which serves better for you.

balenaEtcher Vs. Rufus- An Introduction

balenaEtcher (generally known as Etcher) and Rufus are popular tools for creating bootable USB flash drives, but their functionalities and origins differ.

balenaEtcher is a product by Balena and is licensed under Apache License 2.0. The utility was originally named Etcher; however, in October 2018, Resin.io rebranded as Balena and its name changed to balenaEtcher. This free and open-source utility enables writing image files like .img and .iso, along with zip files and folders, onto storage media.

balenaEtcher's primary role is to create live SD cards and USB flash drives. This utility offers cross-platform operations be it Windows, macOS, or Linux. It is designed using the Electron framework (JavaScript, HTML, Node.js). With its user-friendly interface balenaEtcher has become a popular choice for many users.

Whereas Rufus, aka "The Reliable USB Formatting Utility with Source," is a product for Microsoft. This free and open-source portable application is designed dedicatedly for Windows users. The utility aims to format and create bootable USB flash drives or Live USBs.

Its initial usage was to create a replacement for the HP USB Disk Storage Format Tool for Windows, which was commonly used to create DOS bootable USB flash drives, though currently, it creates bootable media. Rufus is known for its user-friendly interface and a range of customization options.

Even though balena Etcher and Rufus are used for creating bootable USB drives, both utilities are different. The point of dissimilarities lies in their supported platforms and specific functionalities. Here's more to the same.

Etcher Vs. Rufus Features

balenaEtcher - Features

1. It features a Graphical User Interface (GUI) for ease of use.
2. For advanced users, it comes with the Active development of a command line interface (CLI).
3. Creating live SD cards and USB flash drives supports writing image files such as .iso, .img, and zipped folders.
4. It offers compatibility with different operating systems, including Windows, macOS, and Linux.
5. Its Future Planned feature includes support for persistent storage. With that, it enables live SD cards or USB flash drives. Not only that, but this feature also can flash multiple boot partitions to a single SD card or USB flash drive.

Rufus - Features

1. It supports various bootable .iso files, including Linux distributions and Windows installation .iso files.
2. It supports raw disk image files like compressed formats.
3. To make a flash drive bootable, it installs bootloaders such as SYSLINUX or GRUB.
4. It enables installing MS-DOS or FreeDOS onto a flash drive.
5. It allows the creation of Windows To Go bootable media.
6. It supports various formatting flash drives via FAT, FAT32, NTFS, exFAT, UDF, and ReFS filesystems.
7. It calculates MD5, SHA-1, and SHA-256 hashes of selected image files.
8. It can directly download retail ISO DVD images. This feature downloads images of Windows 8.1, some builds of Windows 10, and Windows 11 from Microsoft's servers. However, for that, it requires PowerShell 3.0 or later).

balenaEtcher Vs. Rufus Pricing

Since balenaEtcher and Rufus are open-source utilities, both are free to use. They offer features and functionalities at no cost to the users. Users can simply download the utility they wish and start using it without any subscription fee.

However, balenaEtcher has different subscription plans for their additional services and features. Whereas Rufus accepts donations (voluntary).

balenaEtcher Vs. Rufus Pros and Cons

balenaEtcher Pros and Cons

Pros

- It offers multi-platform compatibility with Mac, Linux, and Windows operating systems.
- Its graphical interface is extremely user-friendly.
- The utility is free to use and modify.
- It enables faster burning of images.

Cons

- The utility lacks some advanced tweaking options.
- It, by default, sends data to balenaEtcher; however, users can manually turn it off.

Rufus Pros and Cons

Pros

- It offers several advanced features
- It is easy to use.

- It enables automatic USB detection.
- It is 100% free and open source.
- It supports GPT/UEFI.

Cons

- It is only available on Windows.
- Users can use it only to install one distribution on a USB.

balenaEtcher Vs. Rufus - How to Use?

Both balenaEtcher and Rufus are easy to use, and even a non-techie can make it through these utilities. However, for our readers' ease, we have included a step-by-step process for using both utilities.

Note: Both these tools do not require installation

How to Use Etcher?

1. Launch balenaEtcher and connect a USB drive to your laptop/ computer.
2. Now select the source image; to do so, drag and drop it into the Etcher dashboard.
3. Next, choose the Flash Drive you want to boot and then click on Flash. The process will take a few minutes to complete, have patience as it happens.

How to Use Rufus?

1. Launch Rufus and connect a USB drive to your laptop/ computer.
2. Now allow Rufus to identify the USB drive (automatically). Follow by tapping on Device, and from the drop-down menu, select your USB.
3. The Boot Selection option should be set to Disk or ISO image. If not, click on Select and choose an ISO file. You can also configure the partition scheme, volume label, and file system (if you wish to). It is ok to change the name to the Volume label. However, we recommend keeping File System and Cluster size to their default setting.
4. Now click Start, and as the process begins, click OK on the pop-up window.

balenaEtcher Vs. Rufus - Which is Better?

Both balenaEtcher and Rufus, as free and open-source utilities for creating Bootable media, are incredible. Both are best in their functionality and help create bootable media easily. However, balenaEtcher and Rufus may climb each other in a few terms. Although Rufus is compatible only with Windows, it offers more features and options to boot external drives.

Whereas balenaEtcher is compatible with different platforms. However, despite that, since balenaEtcher use a system drive for detecting its target devices, using it can be slightly risky. Upon selecting the system drive wrongly, users may also lose their data. But since Rufus doesn't list the local drive, this risk isn't associated with this utility.

Bottom Line

Overall, both Etcher and Rufus are good at their stands. It is slightly tricky to define one as better since that depends on the user's preference and convenience. If you are a Windows user, go with balenaEtcher. However, if you are a Linux or macOS user, go with Rufus, but be cautious about the risk involved.

We hope the above comparison will help you make an informed choice between balenaEtcher and Rufus.

References

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