

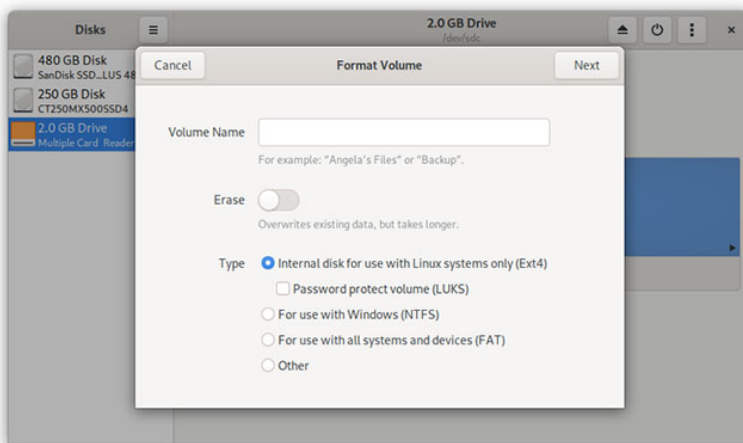
Should use the Ext4 or Btrfs file system?

Linux has many different file system options. The current default option is ext4. Users are always motivated to change the default file system to btrfs. But is btrfs better than ext4? Find the answer through the following article!

Windows and macOS users have little reason to care about the file system, because they really only have one option, NTFS and HFS +, respectively. On the other hand, Linux has many different file system options, with the current default being Fourth Extended Filesystem (ext4).

Users are always motivated to change the default file system to B-Tree File System (btrfs). But is btrfs better than ext4? Find the answer through the following article!

Pros and cons of ext4



Fourth Extended Filesystem (ext4) is the default choice for many distros

Ext4's limits are impressive. The largest volume / partition you can perform with ext4 is 1 exbibyte, which is equivalent to about 1,152,921.5 terabytes. The maximum file size is 16 terabytes, equivalent to about 17.6 terabytes, which is far larger than any hard drive that regular consumers can currently buy.

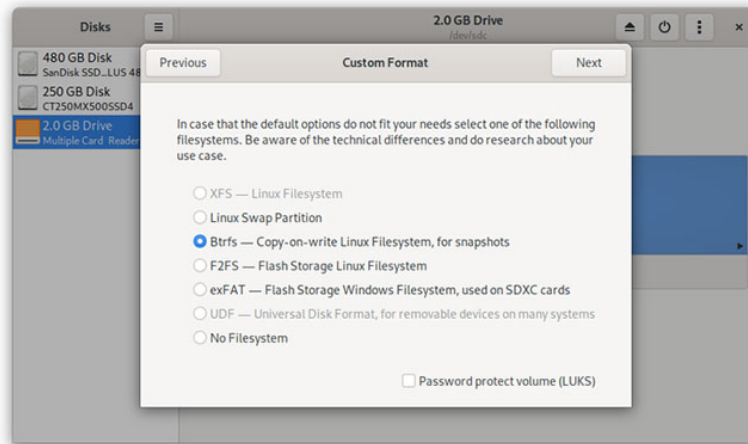
Ext4 is known to bring about speed improvement compared to ext3 by using many different techniques. Like most modern file systems, it's a journaling file system, which means it keeps a 'journal', recording where files are located on the drive and any other changes on it.

However, ext4 does not support transparent compression (lossless compression does not make a big difference), transparent encryption or data deduplication. Snapshot is supported technically, but it is only an experimental

feature.

Theodore Ts'o, a developer who played a key role in creating ext4, described ext4 as a temporary replacement release based on the outdated technology of the 1970s and believes that Btrfs brings A better direction.

Pros and cons of Btrfs



Btrfs is a newer file system

Btrfs is a newer file system that has been rebuilt from scratch. Btrfs exists because developers want to extend the functionality of a file system, so that it includes additional functions such as pooling, snapshots and checksums.

The project started at Oracle, but other large companies have played a part in the development. This list includes Facebook, Netgear, Red Hat and SUSE.

While the improvements found in btrfs may benefit the general consumer, some additional features are of more interest to businesses. This function is for demanding use cases and often requires a more durable hard drive.

For organizations that use very large database programs, having a seemingly continuous file system on multiple hard drives can make data merging much easier. Data deduplication will reduce the actual amount of space that data will take up and make Data mirroring easier when there is a single, large file system that needs to be copied.

Of course, you can still choose to create multiple partitions. The maximum partition size of the btrfs file system and the maximum file size are 16 exbibyte. Thus btrfs supports 16 times more disk space than ext4.

Has the Linux distro made the transition yet?

Btrfs has been a stable part of the Linux kernel since 2013 and you can reformat your hard drive with this file system today. But btrfs is not the default Linux file system. Most distros continue to choose ext4.

Why is that? Files are the most important data bits on the hard drive. Personal data cannot be replaced. You can reinstall the operating system and download the application again, but without a backup, the lost files will be no more. That is why it is important to prove a file system is reliable before moving millions to use it by default.

Ext4 may be old and prone to problems, but it has also been shown to be resilient and reliable. If something goes wrong, a high rate of ext4 will keep your saved data safe.

For most people, such situations are the most important factor. How well a file system works when things are going well is not as important as what it does when something goes wrong.

OpenSUSE now uses btrfs as the default option for the / root partition, where the operating system is located. However, for the / home partition containing individual files, openSUSE decided to use the XFS file system instead.

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