Ext4 (Fourth Extended File System) is the default file system of most modern Linux distributions, such as Debian and Ubuntu. As with NTFS it is a journaling file system, meaning it keeps track of any pending changes that have not yet been made to the file system, so that in case of a loss of power data loss and corruption can be minimized. Ext4 is a successor to ext3 and improves upon its predecessor in many ways, including increased file system size limits, faster file system checks, and improved file system performance.

One of the main improvements of Ext4 over Ext3 is the ability to support much larger file systems and files. The maximum volume size for Ext4 is 1 exabyte, and the maximum file size is 16 terabytes with a 64 kilobyte block size. This is significantly more than the maximum file size and volume size of Ext3, which were 2 terabytes and 32 terabytes respectively.

Ext4 also has better performance than Ext3, especially for large files and file systems. It uses a technique called delayed allocation to improve write performance, which delays the allocation of the data blocks until the data is actually written to the disk. This also reduces fragmentation by allocating larger amounts of data at a time.

Since Ext4 started off as a series of extensions to Ext3 it is fully backwards compatible with Ext3, you can mount an ext4 partition as ext3 or ext3 as ext4, meaning you don’t need to reformat the drive when upgrading. Despite using NTFS, Windows can also access ext4 file systems.