

## USB Flash Drive

A USB flash drive is a small, portable flash memory device that plugs into a computer's USB port and functions as a portable hard drive. USB flash drives are touted as being easy-to-use as they are small enough to be carried in a pocket and can plug into any computer with a USB drive. USB flash drives have less storage capacity than an external hard drive, but they are smaller and more durable because they do not contain any internal moving parts.

USB flash drives also are called *thumb drives*, *jump drives*, *pen drives*, *key drives*, *tokens*, or simply *USB drives*.

Above information from: [http://www.webopedia.com/TERM/U/USB\\_flash\\_drive.html](http://www.webopedia.com/TERM/U/USB_flash_drive.html)



Because a flash drive appears as a USB-connected hard drive to the computer, the drive can be reformatted to any file system.

USB flash drives are typically removable and rewritable, much shorter than a floppy disk (1 to 4 inches), and weigh less than 2 ounces. Storage capacities typically range from 64 MB to 32 GB with steady improvements in size and price per gigabyte. Some allow 1 million write or erase cycles and have 10-year data retention, connected by USB 1.1 or USB 2.0.

USB flash drives offer potential advantages over other portable storage devices, particularly the floppy disk. They are more compact, faster, hold much more data, have a more durable design, and are more reliable for lack of moving parts. Additionally, it has become increasingly common for computers to ship without floppy disk drives. USB ports, on the other hand, appear on almost every current mainstream PC and laptop, and Apple computers. These types of drives use the USB interface, supported by modern operating systems such as Windows XP and Vista, and Mac OS X.

It is called a "drive" because it appears to the computer operating system (and the user) in a manner identical to a mechanical disk drive.

A flash drive consists of a small printed circuit board typically in a plastic or metal casing. This makes the drive sturdy enough to be carried about in a pocket, for example as a key fob, or on a lanyard. Only the USB connector protrudes, and it is typically protected either by a removable cap or by retracting into the body of the drive. Most flash drives use a standard USB connection allowing them to be connected directly to a port on a personal computer.

Flash drives are active only when plugged into a USB connection and draw all necessary power from the connection.

Above information from: [http://en.wikipedia.org/wiki/USB\\_flash\\_drive](http://en.wikipedia.org/wiki/USB_flash_drive)

Do not defragment a flash drive because a small portion of the flash memory's wear life is consumed.

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## Uses for flash drives:

1. Transport data between computers.
2. Back-up data, for instance at the end of the day. This strategy has several advantages. First, it can be made relatively simple for the end-user. Second, because the drive is small, it is easy to carry away from the computer. Third, flash drives are very robust and reliable, particularly compared to other backup media (e.g. CDs). Finally, flash drives are often far cheaper than alternatives, which may require additional hardware or recurring media costs (e.g. CDs).
3. Carry applications that run on the host computer without requiring installation. <http://portableapps.com/>
4. Booting operating systems.
5. Computer Forensics - Law enforcement use of a USB Flash Drive as an application carrier is to carry the Computer Online Forensic Evidence Extractor (COFEE) application, developed by Microsoft to search for and extract digital evidence on computers confiscated from suspects.
6. Music storage.
7. Brand/product promotion. Usually, such drives will be custom-stamped with a company's logo, as a form of advertising to increase mind share and brand awareness. Sometimes, the drive is simply an ordinary blank drive for the customer's use, and simple advertising is the only purpose. Often, however, the drive's storage may be preloaded with graphics, documentation, web links, animation or multimedia, and even free or demonstration software.
8. USB Flash Drives can also be set up with an autorun feature to display or start up preloaded presentations, websites and articles immediately on insertion of the drive. The auto run feature is often used on promotional flash drives to increase the probability that the recipient reads the preloaded promotional material or visits a particular website.

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## Security

Some flash drives feature encryption of the data stored on them. This prevents an unauthorized person from accessing the data stored on it. The disadvantage is that the drive is accessible only in the minority of computers which have compatible encryption software.

Some encryption applications allow running without installation. The encrypted data can be accessed on any computer running the correct operating system. Other flash drives allow the user to configure secure and public partitions of different sizes. Executable files for Windows, Macintosh, and Linux may be on the drive, depending on manufacturer support.

Some newer flash drives support biometric fingerprinting to confirm the user's identity.

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Edge Tech Corp make the DiskGO™ Secure USB 2.0 Flash Drives.

1. Security: Data secured by the U.S. government standard and Blowfish encryption algorithm.
  2. Password Protection: Easy to secure, hide and password protect: drives, lock folders and encrypt files. This does NOT require security software on the computer.
  3. Plug & Play: Via USB port on any PC or MAC
- <http://www.edgetechcorp.com/usb-flash-drives/diskgo-secure-flash-drives.asp>