

# Fix ~~Windows~~ Life the Universe & Everything with a Linux Live Drive

## What is a Live Drive?

A live drive is a 'live' CD, DVD, or USB flash-drive that contains a complete bootable computer Operating System, using a portion of memory as a 'RAM-drive' containing the OS kernel.

## The Whippet Pup

Some Lite Live Drives such as 'Puppy' are designed to run the entire .iso image from RAM-drive. Depending on amount of available RAM this can provide a significant boost in performance compared to a system installed on a hard drive.

## Live CD vs Live USB.

USB operation gives a significant speed advantage by eliminating the CD reader's intrinsic mechanical latencies. CDs are ROM devices and cannot be used in persistence mode.

## Persistence

is a USB config. option which allow certain RAM drive changes to be written back to a Live USB.

## A Live Drive Enables the User to:-

- experience and evaluate an Operating System without installing it on the hard drive or making any changes to the existing Operating System.
- run 'try b4 u buy' testing on hardware before installing a Linux distro.
- harvest information about system hardware that may not be available via the currently installed operating system.
- test and manipulate a faulty/virus infected/or otherwise unworkable hard drive to repair damage and/or rescue valuable data from the drive.
- carry a personal computer including a test/repair system their pocket

## Other uses include:

- high security/non-invasive environment for a guest user (child or grand-child perhaps)
- cracking/repairing passwords
- network security testing
- Providing a backup options for any drive/partition/file on a computer
- computer forensics
- manage file systems not supported by your computer's OS (eg TV SetTop Box recorder?).

## File System which Linux support include:

adfs, affs, autofs, cifs, coda, coherent, cramfs, debugfs, devpts, efs, ext, ext2, ext3, ext4, hfs, hfsplus, hpfs, iso9660, jfs, minix, msdos, ncpfs, nfs, nfs4, ntfs, proc, qnx4, ramfs, reiserfs, romfs, smbfs, sysv, tmpfs, udf, ufs, umsdos, usbfs, vfat, xenix, xfs, xiafs.

## Restore on Reboot.

By default, almost all ordinary Live Drives do not write to the hard drive so a computer can be returned to its original state when rebooted.

## Configuring the BIOS

To boot from a live drive it is necessary to reconfigure the BIOS pressing one of the following keys during boot **Delete, F2, F1, F8, F10, F11, F12** will usually allow access to the BIOS.

**If You Come to a Stop Use Plop.** <http://www.plop.at/en/downloads.html>

If you want to boot from a USB but the hardware will not use Plop. Plop is a boot manager installed on a floppy or CD which will provide the drivers enabling booting from a USB.

## Demonstration Examples

### **1) Any Linux Distro.**

### **2) Parted Magic** (Not to be confused with Norton/Symantec PartitionMagic US\$69.95)

<http://linux.softpedia.com/get/System/Operating-Systems/Linux-Distributions/Parted-Magic-21659.shtml>

Parted Magic is a LiveCD/USB for partitioning hard drives. GParted and Parted are the main programs, but the CD/USB also offers programs like partimage, testdisk, fdisk, sfdisk, dd, etc...

**3) Kaspersky Rescue Disk** <http://support.kaspersky.com/viruses/rescuedisk>  
scans and disinfects **x86** and **x64**-compatible computers that have been infected by malware. Using Rescue Disk prevents malware gaining control of the OS during the boot process.

### **Getting Your Foot in the Door**

If you are a Windows only user you will need a way to get your first Linux Live Drive; try one of the following.

#### **UNetbootin** <http://unetbootin.sourceforge.net/>

UNetbootin allows you to create bootable Live USB drives for various Linux distributions without burning a CD. It runs on Windows, Linux, and Mac OS X. You can either let UNetbootin download one of the many distributions supported out-of-the-box for you, or supply your own Linux .iso file if you've already downloaded one or your preferred distribution isn't on the list.

#### **LiLi & the Universal USB Installer** <http://www.linuxliveusb.com/>

LinuxLive USB Creator is a free and open-source software for Windows. It will help you in your journey of discovery with Linux. LiLi creates portable, bootable and virtualized USB stick running Linux.

## **Discussion Points**

**Linux Users -root user, ordinary user, su, sudo.**

**Linux File System, root, home, root user's home (root)**

**Mounting & Mount points media, mnt. Windows mounting a drive in a folder.**

**Microsoft Win8 and UEFI**