Multiboot UFD

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Introduction

Using a UFD for booting a single bootable .iso image and re-writing it every time you want to boot something else is not efficient. This page is about creating UFDs offering a choice of boot images.

We have used both Easy2Boot (a.k.a E2B) and MultiSystem (a.k.a LiveUSB MultiBoot) to create bootable UFDs . Based on that experience, we are tending to prefer MultiSystem.

E2B - Easy2Boot

sources:

- https://sites.google.com/a/rmprepusb.com/www/tutorials/114
- http://linuxmusicians.com/viewtopic.php?f=19&t=11479

Pros:

- Simple enough
- Clear
- Works with most iso's
- Loads directly the iso

Cons:

- Slower than other solutions

Prepare the drive

Format your USB Flash Drive to use a Single Partition (FAT32 type 0C - or if posible add a small 2nd partition too, to help bootability) using **gparted** - or do it the hard way using fdisk as follows:

- Open a terminal and type sudo su
- Type **fdisk -l**   (and note which device is your USB Drive)
- Type **fdisk /dev/sdx** (replacing x with your actual usb device)
- Type **d**   (to delete the existing partition) (press d again to delete the next partition, etc.)
- Type **n**   (to create a new partition)
- Type **p**   (for primary partition)
- Type **1**   (to create the first partition)
- Press Enter   (to use the first cylinder)
- Press Enter again   (to use the default value as the last cylinder)
- Type **a**   (for active)
- Type **1**   (to mark the first partition active "bootable")
- Type **t**   (for partition type)
- Type **c**   (to use fat32 partition)
- Type **w**   (to write the changes and close fdisk)

Create a Fat32 Filesystem on the USB Flash Drive:

*umount /dev/sd**x**1*   *(to unmount the mounted partition if it is mounted)*
*sudo mkfs.vfat -F 32 -n MULTIBOOT /dev/sd**x**1 (to format the partition as fat32)*

Download the necessary files

grub4dos: https://code.google.com/p/grub4dos-chenall/downloads/list

Easy2boot (at the bottom of the page): http://www.rmprepusb.com/tutorials/72---easyboot---a-grubdos-multiboot-drive-that-is-easy-to-maintain/e2bv1#TOC-Downloads

defragfs script: http://defragfs.sourceforge.net/

Install grub4dos & Easy2boot

- Mount the partition you just formatted.

- Uncompress the grub4dos archive.

- Install grub4dos onto the USB Flash Drive:

Assuming that the bootlace.com executable is on /mnt/mysrc and the USB drive is sdx, use the following command to install grub4dos to the MBR with 0 seconds timeout

*sudo /mnt/mysrc/bootlace.com --time-out=0 /dev/sd**x**   (note that we specify the whole disk sdx)*

If you have formatted the drive as NTFS using gparted, you may need to add the --ntfs parameter to the command line

- Extract the Easy2Boot files from the E2B zip file and copy it onto the USB Flash drive

e.g.

unzip /mnt/mysrc/Easy2Boot_v1.10.zip -d /mnt/newusb/

Add iso to the USB stick

- Copy all your linux livecd ISOs to the _ISO\MAINMENU or _ISO\LINUX folder using the GUI File Manager in linux.

For other ISOs or for linux ISOs+Persistence, follow the instructions in the Easy2Boot tutorial.

Finalize the install
The iso files need to be contiguous or they will not be read properly.

df
sudo perl defragfs.pl /mnt/newusb/ -f

MultiSystem

Introduction

⚠️ The text below is old, in early draft and may not be thoroughly researched. Maybe more at https://jira.bluelightav.org/browse/BLUE-1882

Website of the project: http://liveusb.info/dotclear

Pro:

Cons:

- Does a lot of tricky things on your system,
- Many iso will not work properly

Requirement

- ubuntu 12.04 (only works on systems with apt-get)
- xterm
- UFD formated in FAT32 with non spaced label

Install

1. Get the tarball. Attachment: install-depot-multisystem.sh.tar.bz2. Repository: rose:home/share/resources/software/Linux/install-depot-multisystem.sh.tar.bz2).
2. Extract：`tar -xjf install-depot-multisystem.sh.tar.bz2`
3. Run **install-depot-multiboot.sh**

```
gksu install-depot-multiboot.sh
```

Add images to the drive

- Insert the UFD (better let it be automounted as the mount point should be /media/<label>)
- Launch the software: **Multisystem**
- Select the USB device to use and click **Validate**
- drag and drop the images you want to add.