# Operating System

## Manual – Bootable USB

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|---|---|---|---|
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| **Course** | **Course Code** | **Section** | **Instructor** |
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Before moving to play with Ubuntu, first of all we should know that how we make a boot-able USB using software (built-in or others) and command prompt.

# 1   Making a Bootable USB using LiLi Software on Windows

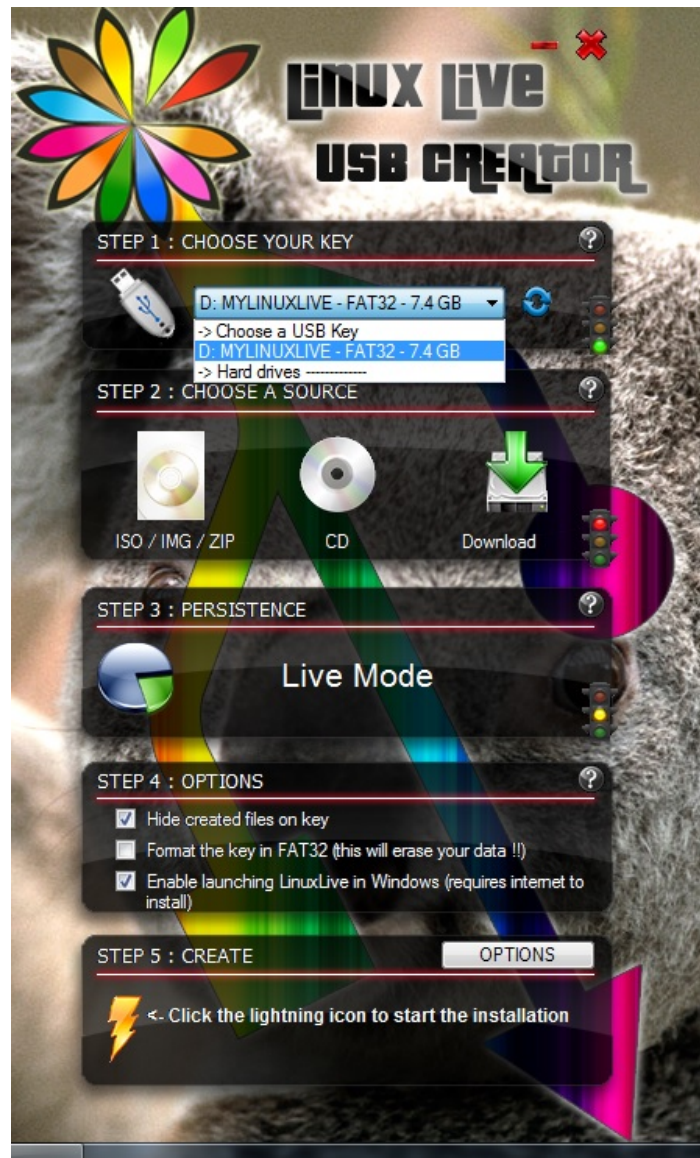1. Start LinuxLive USB Creator from your Start Menu → All Programs → LinuxLive USB Creator



Figure 1: LinuxLive USB Creator

2. **Step 1 – Choose USB Device:**  First step is choosing your USB device (drive or key) on which you want to create a Linux Live USB key.

3. **Step 2 – Selecting a source** Select an ISO/Image file, CD or folder containing the extracted LinuxLive ISO's/Image files.

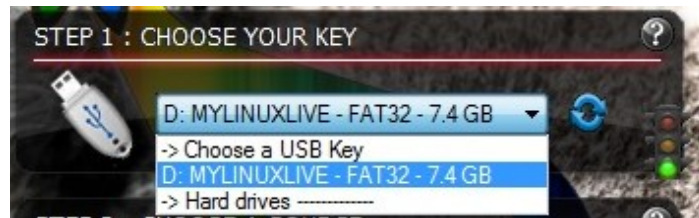4. Navigate to your source image and select 'Open'.

Figure 2: Choose USB
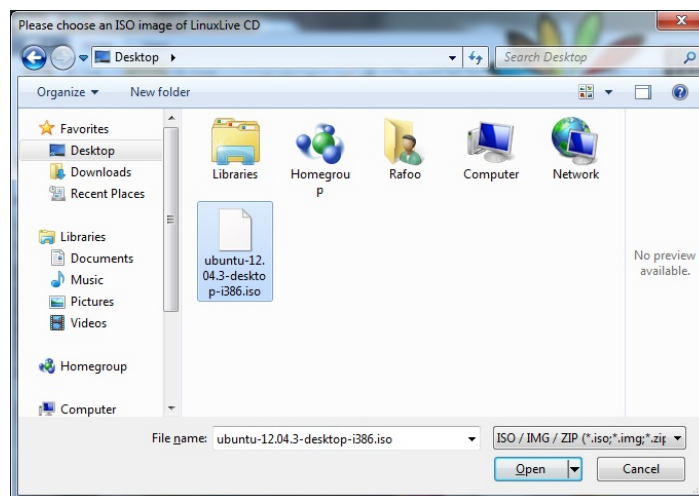

Figure 3: Choose ISO/Image


Figure 4: Select Source File

Then Checking a source whether it is compatible. For that operation, LinuxLive USB Creator has a complex algorithm to recognize what source you selected.
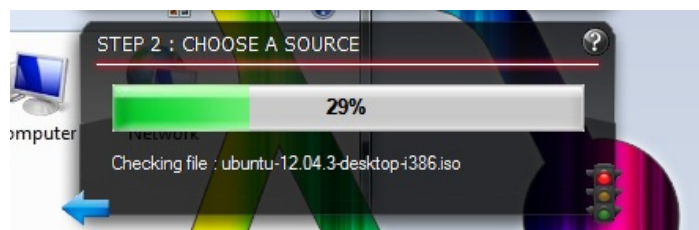

Figure 5: Checking Source File

5. **Step 3 – Persistence** In this step, you have to choose the size of the persistent data that could be stored. **But this feature is currently available on some Linux.**
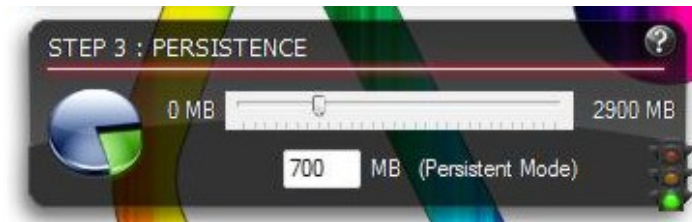
Figure 6: Persistence

6. **Step 4 – Options** There are three options in **Step 4**.

   (a) Hide created files on the USB key.
   (b) Format the USB key in FAT32.
   (c) Enable launching LinuxLive in Windows (= Virtualization.

7. **Step 5 – Create**

   (a) Formatting the USB key (if option checked) (1 min.)
   (b) Cleaning previous install (< 1 min.)
   (c) Downloading VirtualBox as a background task * (5 - 10 min. but in the background)
   (d) Copying source files to the USB key (5 - 10 min.)
   (e) Renaming some files (< 1 min.)
   (f) Hiding files (if option checked) (< 1 min.)
   (g) Creating the persistence file (1 min. per 100 MB)
   (h) Formating the persistence file (1 - 5 min.)
   (i) Installing boot sector (< 1 min.)
   (j) Uncompressing and installing VirtualBox on the USB key (3 - 7 min.)

## 1.1   How to make a Boot-able USB using Startup Disk Creator

The first step is to identify the name of the USB drive partition.

1. Insert the USB stick into a USB port.

2. Open up Startup Disk Utility (Click on START button and Type "**Startup Disk Creator**" and press ENTER OR

   Click "**Startup Disk Creator**" Program).

   OR

   Run the following command in the terminal (Ctrl+Alt+t):
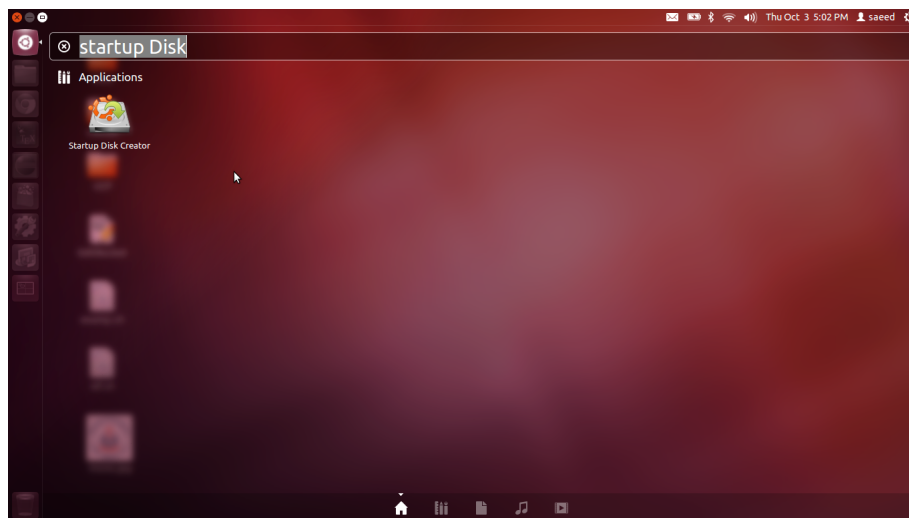
```
usb−creator−gtk
```



Figure 7: Startup Disk Creator

3. After Opening **Startup Disk Creator** Program. Click on **Other** button to select Source CD/Image of Operating System (Ubuntu 12.04.3 LTS).

4. Navigate to your source image and select 'Open'.

5. Choose your Desired Disk e.g. USB Disk.

   Make sure you have connected and selected your USB stick with a minimum **2GB** of free space, then click 'Make Startup Disk'

6. If you want to erase DISK than Click on **Erase Disk** button to format USB.

7. After Successfully format a USB than Enter in **Make Startup Disk** button to start installation.
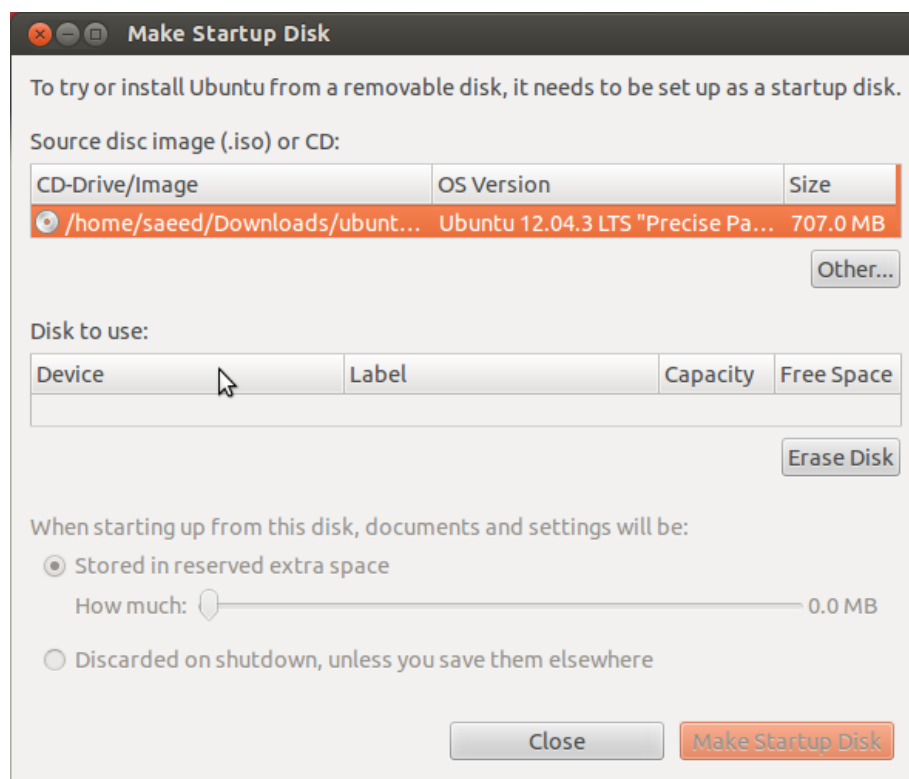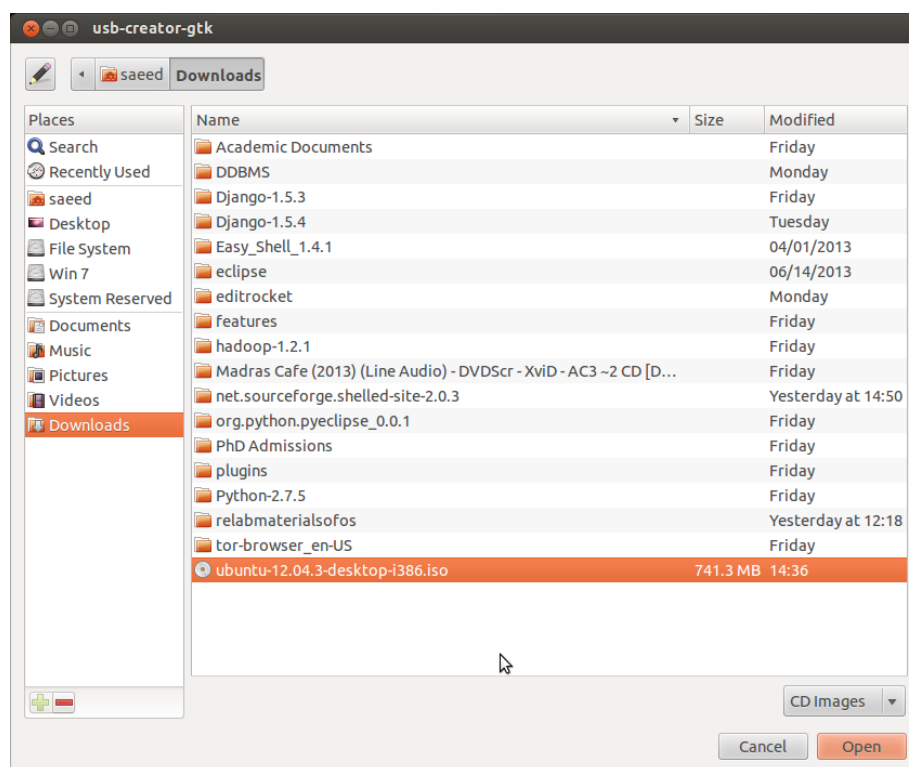
8. Press "Quit".

Figure 8: Select Source Image
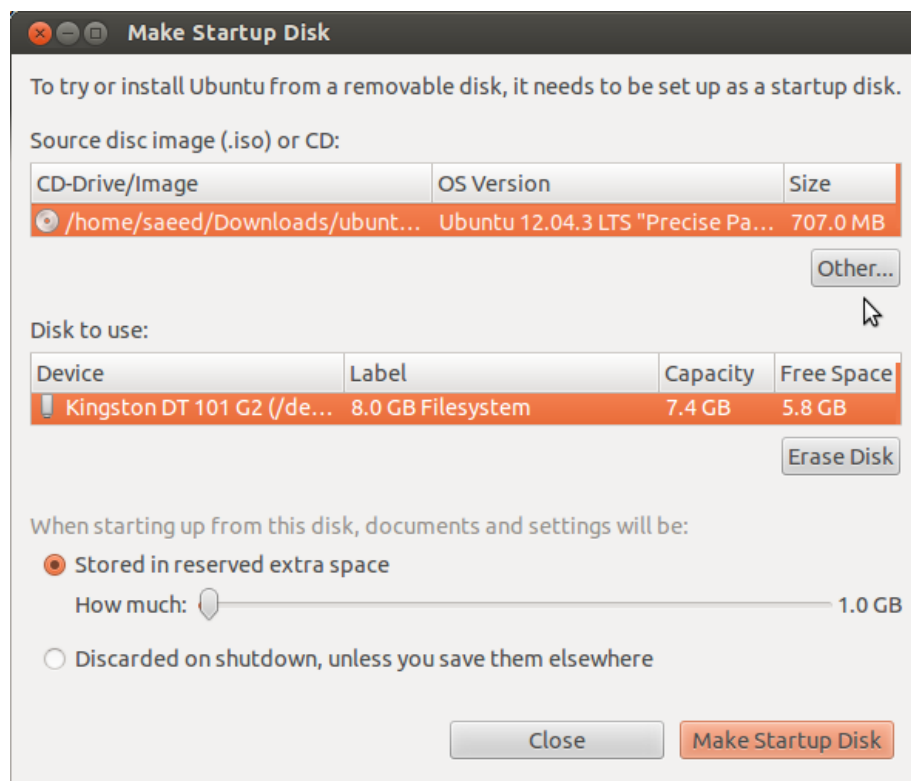


Figure 9: Select Source Image
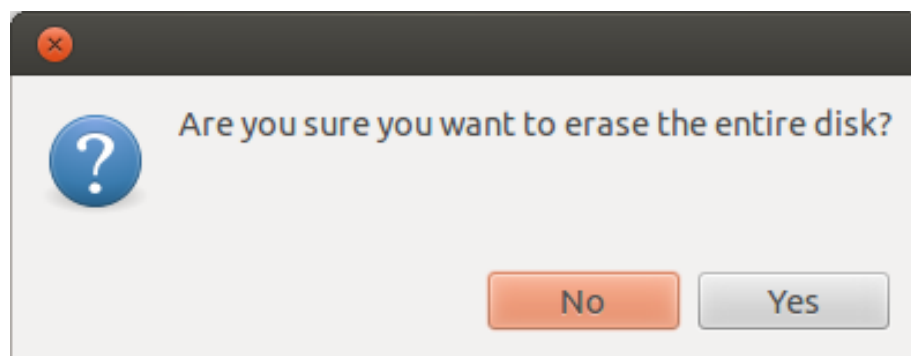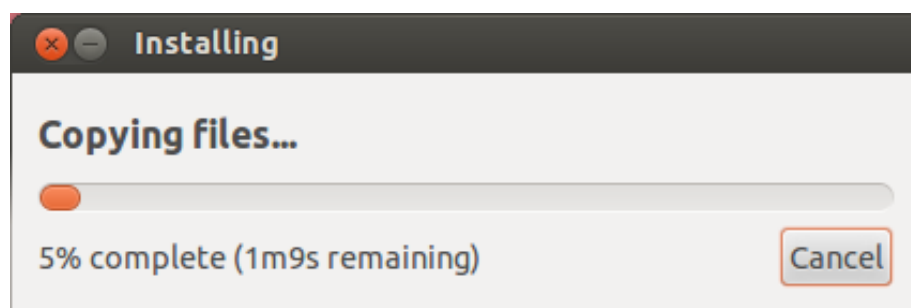
Figure 10: Select Destination Disk


Figure 11: Erase Disk


Figure 12: Installation Progress

## 1.2   How to make a boot-able USB using Terminal

There are different software to make a Boot-able USB, But no one knows about that how to operate these softwares or any other problem like (registration key, make a USB only once time, etc). So here I'll tell you about that how we make a boot-able USB using Terminal:

1. Insert the USB stick into a USB port.

2. First of All Open Terminal (Ctrl + Alt + T).

```
saeed@Dell−PC:~$ sudo  fdisk  −l
```

Then run the below command, replace path-to-iso with the path to where the iso file is on your disk and the **?** with drive letter for your USB.

```
dd  if=/home/saeed/Downloads/ubuntu−12.04.3−desktop−i386.iso  of=/dev/sdc
```

Then enter the below command:

```
saeed@Dell−PC:~$ sync
```