Raspbian OS Setup

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Raspbian OS Installation

Requirements

1. Raspbian OS Image File (http://www.raspberrypi.org/downloads)
2. 2 GB SDHC Card
3. Windows/Mac OS X/Linux Personal Computer

Procedure

Step 1: Download the Raspbian OS image file from http://www.raspberrypi.org/downloads

Step 2: Extract the .zip file of Raspbian OS on Desktop

Step 3: Make the SDHC card bootable.

Step 3.1 [Windows]:

• Download Win32 Disk Imager (http://sourceforge.net/projects/win32diskimager/)
• Connect the SDHC card and make sure it is formatted as FAT32 or ExFat.
• Browse the image file of Raspbian OS on desktop
• Click on Write & wait for some time
• Once the process is complete, you will have a bootable SDHC card which you can use with the Raspberry Pi

Step 3.2 [Linux]:

• Connect the SDHC card and make sure it is formatted as Fat32 or ExFat
• Open Terminal application
• Make sure the Raspbian OS disk image is on desktop
• Type sudo fdisk -l
• Find the device which is your SDHC card. Usually it will be named as /dev/sdb
• Now type sudo umount sdb1
• Now type sudo dd bs=4M if=~/Desktop/image-file-name.img of=/dev/sdb


```
255 heads, 63 sectors/track, 966 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x00000000

   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1               1         967     7761919    b  W95 FAT32
Partition 1 has different physical/logical beginnings (non-Linux?):
     phys=(1023, 254, 63) logical=(0, 0, 3)
Partition 1 has different physical/logical endings:
     phys=(1023, 254, 63) logical=(966, 80, 10)
nayan@nayan-ununtu:~$ sudo umount /dev/sdb1
nayan@nayan-ununtu:~$ sudo dd bs=4M if=~/
```

sudo dd bs=4M if=~/Desktop/2012-12-16-wheezy-raspbian.img of=/dev/sdb
command to write the operating system files to sd card

- Wait for about 2 minutes and the Terminal application will give confirmation.
- Once the process is complete, you will have a bootable SDHC card which you can use with the Raspberry Pi

Step 3.2 [Mac OS X]:

- Connect the SDHC card
- Open Disk Utility application
- Select the main drive of SDHC Card which contains all the sub partitions
- Select Erase in sidebar
- Select Fat (MS DOS) from drop down
- Select Erase at bottom
- Open Terminal application
- Make sure the Raspbian OS disk image is on desktop
- Type cd Desktop
- Type diskutil list
- Find the device which is your SDHC card. Usually it will be named as /dev/disk* where * is the number
- Now type sudo umount disk* where * will be the number
- Now type sudo dd bs=1m if=image-file-name.img of=/dev/disk* where * will be the number
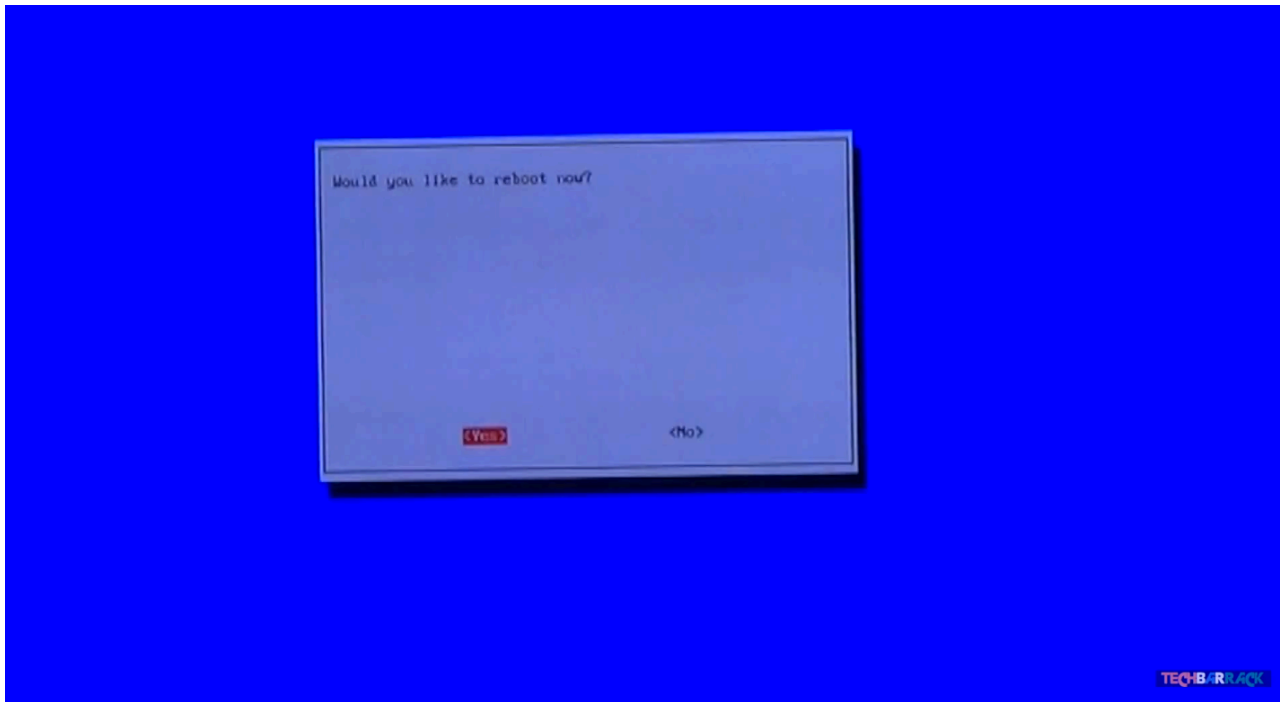

- Wait for about 5-7 minutes and the Terminal application will give confirmation.
- Once the process is complete, you will have a bootable SDHC card which you can use with the Raspberry Pi

Step 4:

- Connect the 5V and 700 mA output micro USB powered connector to the Raspberry Pi

- Connect the HDMI cable to the Raspberry Pi and the screen on which you want the display
- Connect the SDHC card to Raspberry Pi
- Connect a USB keyboard
- Power on the micro USB
- Now the Raspberry Pi will boot the files from SDHC Card and a blue screen will appear
- Select change_locale and change_timezone and apply the settings
- Now select expand_rootfs
- Now select Yes to reboot

- Once the Pi boots, type login: pi and password: raspberry
- Type startx

Now the Raspberry Pi is ready to be used. For more information on Raspbian OS setup, see the video at http://youtu.be/4WdiNQEkiFc