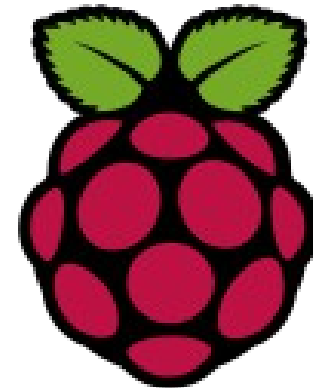


Raspbian Operating System

Tushar B. Kute,
<http://tusharkute.com>



Raspbian

- Raspbian is a Debian-based computer operating system for Raspberry Pi. Since 2015 till now it is officially provided by the Raspberry Pi Foundation as the primary operating system for the family of Raspberry Pi single-board computers.
- Raspbian was created by Mike Thompson and Peter Green as an independent project.
- The initial build was completed in June 2012.
- The operating system is still under active development. Raspbian is highly optimized for the Raspberry Pi line's low-performance ARM CPUs.

Raspbian



- Raspbian uses PIXEL, Pi Improved Xwindows Environment, Lightweight as its main desktop environment as of the latest update.
- It is composed of a modified LXDE desktop environment and the Openbox stacking window manager with a new theme and few other changes.
- The distribution is shipped with a copy of computer algebra program Mathematica and a version of Minecraft called Minecraft Pi as well as a lightweight version of Chromium as of the latest version.


Basic features

- Developer **Raspberry Pi Foundation**
- OS family **Unix-like**
- Source model **Open source**
- Latest release **Raspbian Jessie with PIXEL / 16.02.2017**
- Marketing target **Raspberry Pi**
- Update method **APT**
- Package manager **dpkg**
- Platforms **ARM**
- Kernel type **Monolithic**
- Userland **GNU**
- Default user interface **PIXEL, LXDE**
- License **Free and open-source software licenses (mainly GPL)**
- Official website **<https://www.raspberrypi.org/downloads/raspbian/>**

Downloads

https://www.raspberrypi.org/downloads/raspbian/ Search ☆ 📁

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RASPBIAN JESSIE WITH PIXEL

Image with PIXEL desktop based on Debian Jessie

Version: April 2017
Release date: 2017-04-10
Kernel version: 4.4
Release notes: [Link](#)

[Download Torrent](#) [Download ZIP](#)

SHA-1: 6d7b11bb3d64524203edf6c80c499456fb5fef53



RASPBIAN JESSIE LITE

Minimal image based on Debian Jessie

Version: April 2017
Release date: 2017-04-10
Kernel version: 4.4
Release notes: [Link](#)

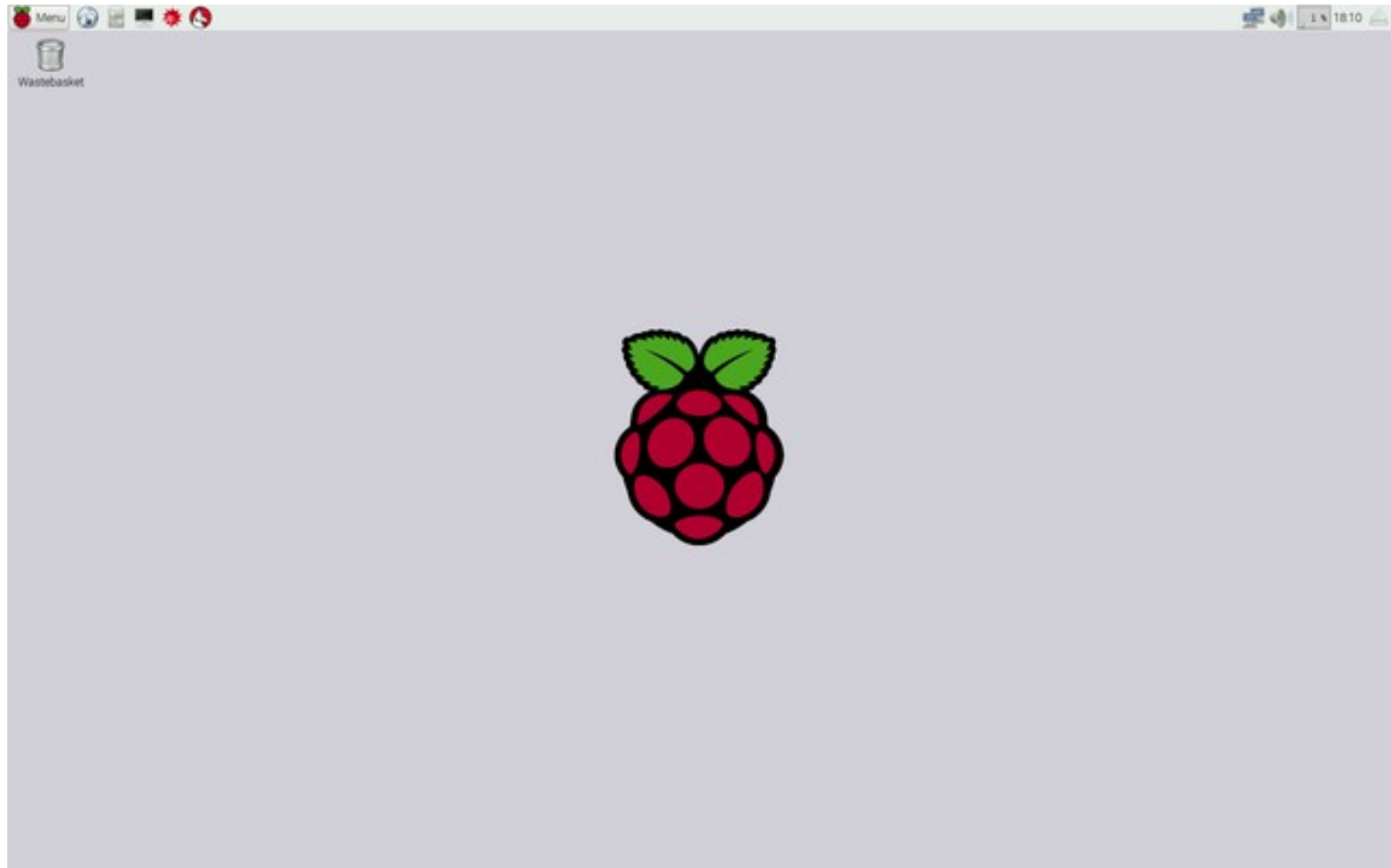
[Download Torrent](#) [Download ZIP](#)

SHA-1: c24a4c7dd1a5957f303193fee712d0d2c0c6372d

Note: Raspbian and NOOBS contain Java SE Platform Products, licensed to you under the Oracle Binary Code Licence Agreement available [here](#).

Mathematica and the Wolfram Language are included in this release under license and with permission of Wolfram Research, Inc. and may be used for non-commercial purposes only. By using this software you agree to be bound by the Wolfram Raspberry Pi Bundle License Agreement available [here](#).

GUI



How to write disk image?

Make Startup Disk

To try or install Ubuntu from a removable disk, it needs to be set up as a startup disk.

Source disc image (.iso) or CD:

CD-Drive/Image	OS Version	Size
/home/tushar/Desktop/ubuntu-14.04-desktop-i386.iso	Ubuntu 14.04 LTS "Trusty Tahr" - Release i386 (20140417)	970.0 MB
/media/tushar/Tushar Portable/OS/2016-11-25-raspbian-jes...		4.1 GB

[Other...](#)

Disk to use:

Device	Label	Capacity	Free Space
Generic Mass-Storage (/dev/sdb1)	boot	62.9 MB	42.2 MB
Seagate Portable (/dev/sdc)		931.5 GB	0.0 B

The device is not large enough to hold this image. [Erase Disk](#)

When starting up from this disk, documents and settings will be:

Stored in reserved extra space
 How much: 0.0 MB

Discarded on shutdown, unless you save them elsewhere

[Close](#) [Make Startup Disk](#)

Finalization

- Complete the disk image writing process.
- Now insert the SD card in Raspberry Pi.
- Plug-in the power supply to the kit.
- Lets see the OS....

Programming Languages

- Python [Recommended for coding]
- C
- C++
- Java
- Scratch

Software Management on Pi

- `sudo apt-get update`
- `sudo apt-get upgrade`
- `sudo apt-get install <package>`
- `sudo apt-get download <package>`
- `sudo apt-get remove <package>`
- `sudo apt-get purge <package>`
- `sudo apt-get dist-upgrade`

Accessing Pi in Linux

- The Rpi can be accessed in Linux terminal by secure shell.
- `ssh pi@raspberrypi`
- `ssh pi@192.168.1.3`
- The Pi GUI can be accessed using VNC server.

Thank you

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Web Resources

<http://mitu.co.in>
<http://tusharkute.com>

Blogs

<http://digitallocha.blogspot.in>
<http://kyamputar.blogspot.in>

tushar@tusharkute.com