



UNIVERSITY OF BRIGHTON

INTERIM PLANNING AND INVESTIGATION REPORT

Generation of Raspbian images

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November 28, 2016

Abstract

As of the 8th September 2016, in a blog post by raspberry pi founder Eben Upton[1], mentions that the ten millionth raspberry pi has just been sold. The official operating system for these devices is called Raspbian, it is a port of Debian which is available as a standalone image or in a 'New Out Of the Box Software' package for beginners. 'NOOBS' is pre-installed on SD cards that can be bought from many retailers, before the images can be burned to the cards they need to be somehow generated. The current method of generating these images can be found on GitHub[2], it is a set of shell scripts which from the commits look to be predominantly maintained by a single developer. The problem with this is that if the developer decided to move on and depart from the project it might take some time before someone else understands the code well enough to be able to carry it on; this can be simply described as the 'Bus Factor.'[3] Since the release of the raspberry pi in February 2012, new tools have been developed and standards decided; so it might be a nice idea to freshen up the current method.

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Chapter 1

Introduction

What I am planning to develop?

1.1 Aims

What is my overall aim?

1.2 Objectives

What I aim to get out of the project?

Chapter 2

Background Research

2.1 Deployment Management Tools

Quick description on deployment management tools

2.1.1 Chef

Chef short

2.1.2 Puppet

Puppet short

2.1.3 Salt

Salt short

2.1.4 Ansible

Ansible long

2.2 Virtualization

Quick description of virtualization

2.2.1 ESXi

ESXi short

2.2.2 VirtualBox

VirtualBox short

2.2.3 Docker

Docker short

2.2.4 Vagrant

Vagrant long

2.2.5 QEMU

QEMU long

2.3 Current generation method

Short description

2.3.1 Analysis

Show research

2.3.2 Potential improvements

Show research

Chapter 3

Project Planning

Standards and Quality check

3.1 Methodologies

Short comparison of methodologies

3.2 Stakeholders

List stakeholders and their interests

3.3 Project schedule

Add a graph for stages

Bibliography

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- [3] Wikipedia. (2016). Bus Factor.
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