

JSPowerLin core features

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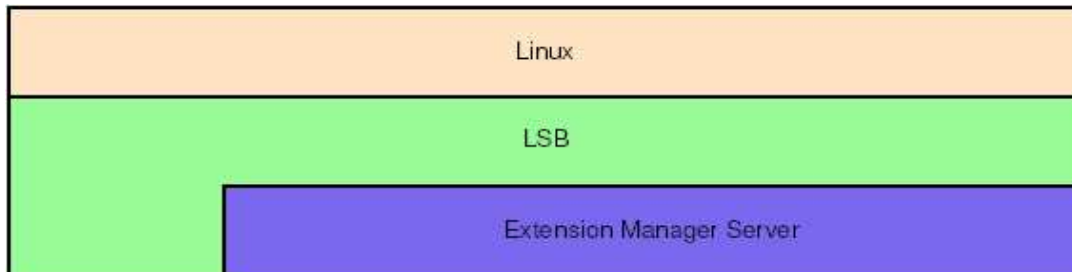
2. Preface

Before reading on with this document it is important to know what we mean by Linux and LSB. Linux is a kernel developed by Linus Torvalds. It is important to know that Linux as itself can do nothing, because it is a kernel not an operating system. A LSB system on the other hand, is an operating system because it does incorporate “Linux” and all the side components needed to run the system. When the kernel is meant we will use “Linux” and when the system is meant we will use “LSB”.

This document is build upon the ideas of the LSB organisation, the website of this organisation is at <http://www.linuxbase.org>. Some of the sources in this documentation are to be found at the Linux From Scratch website, which is at <http://www.linuxfromscratch.org>.

3. Components

The first step of a new LSB based system is the selection of different important operating system components. One of the key components is the kernel, Linux, itself. There upon the LSB components are placed and the extension manager will be placed on. This will look like a structure as the following:



In this task we will only focus on the underlying linux system with LSB compatibility, not the extension manager.

The following decomposition gives an idea of how the system evolvement should take place.

<i>Step</i>	<i>Minimal implementation</i>
Bootable Linux	At first a bootable linux is needed. This can be accomplished by using the guidelines found at http://www.linuxfromscratch.org and http://www.linuxbase.org .
Installable Linux	The bootable linux should be installable on ATAPI and SCSI capable Hard Drives. The installation process should be made using an XML descriptor and RPM packages as proposed in the LSB documents. This to easily modify the setup without recreating trivial pieces of it.
LSB Compliance	The components to get LSB compliance should be set up on the right places.

It may be a good idea to check the LSB-si implementation for ideas about how do develop such a system.

Bootable Linux

The bootable linux is a linux distribution which loads the kernel and the minimal set of drivers and finally display a shell. This linux will expand to finally produce the “Installer” and the “Distribution.” It is the first task needed to be done and it should boot from both Floppy disk as well as CD-ROM.

Installable Linux

This version actually covers two linux based systems. One system is the same bootable linux described in chapter four with the exception that it now can be loaded from hard disk. The second version will not launch a console but a installer which installs the previous mentioned bootable linux onto a ATAPI or SCSI compatible hard disk (the first versions do not have to do partitioning). The components needed to run the bootable linux should be packed into RPM packages and installed according to an XML descriptor.

LSB Compliance

The bootable linux should be appended with the support for LSB compatibility to enhance support for other parties to develop upon JSPowerLin. Documents about how to accomplish this can be found at <http://www.linuxbase.org>. Other meaningful documentation can be found at <http://www.linuxfromscratch.org>.