



## File Hierarchy Standard (FHS)



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This article lists and describes the OpenSTLinux file-system hierarchy (Weston and core).



## 1 Introduction

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Linux<sup>®</sup> is a file-oriented operating system. This means that any application, library, or other information related, for example, to configurations and running applications is stored in files only.

The **Filesystem Hierarchy Standard (FHS)** defines the directory structure and directory contents in Linux distributions. It is maintained by the Linux Foundation. **The latest version is 3.0, released on June 3<sup>rd</sup> 2015<sup>[1]</sup>**

The main parts described by the FHS are:

- the physical filesystem: any mass storage devices (NAND/eMMC/... partitions, USB key partitions, and so on)
- pseudo filesystem: created dynamically at boot-up (and/or at runtime) to store various information and configurations related to the software being run
- remote filesystem: rootfs can contain links to a network filesystem

OpenSTLinux images respect the latest FHS definition: 3.0



## 2 Root filesystem content

- The filesystem root of any Linux Distribution (OpenSTLinux included) is named '/' or 'root' (*do not confuse with the 'root' super user name*).

There are no files in the root path, only directories that shape the Linux FHS, as listed below:

bin/	Essential command binaries
boot/	Static boot loader files
dev/	Device files ( <i>temporary filesystem devtmpfs</i> )
etc/	Host-specific system configuration
lib/	Essential shared libraries and kernel modules
media /	Mount point for removable media
mnt/	Mount point for temporarily mounting a filesystem
proc/	Kernel and process information ( <i>pseudo filesystem procfs</i> )
opt/	Add-on application software packages
run/	Data relevant to running processes
sbin/	Essential system binaries
sys/	Kernel and system information ( <i>pseudo filesystem sysfs</i> )
srv/	Data for system-provided services
tmp/	Temporary files
usr/	Secondary filesystem-hierarchy
var/	Variable data

- As a standard Linux distribution, the OpenSTLinux distribution includes the optional user directories:

/home	User home directories ( <i>optional</i> )
/root	Home directory for the root user ( <i>optional</i> )

Details of the directory purpose, content or sub-hierarchy can be found in the official documentation: FHS-3.0

- OpenSTLinux also integrates a vendorfs filesystem, mounted on a dedicated Flash-memory partition (*that is, /dev/mmcblk0p5*):

/vendor	Vendor dedicated directory
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This directory allows the storage of specific vendor libraries.



### 3 References

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- <http://refspecs.linuxfoundation.org/>

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File Hierarchy Standard defines by Linux® Foundation

former spelling for e•MMC ('e' in italic)

Flash memory shortened to gain space in titles, tables and block diagrams