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# **Alpine Linux Documentation**

***Release 3.2***

**Alpine Linux Development Team**

March 03, 2016



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## About Alpine Linux

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Alpine Linux is an independent, non-commercial, general purpose Linux distribution designed for power users who appreciate security, simplicity and resource efficiency.

### 1.1 Small

Alpine Linux is built around musl libc and busybox. This makes it smaller and more resource efficient than traditional GNU/Linux distributions. A container requires no more than 8 MB and a minimal installation to disk requires around 130 MB of storage. Not only do you get a fully-fledged Linux environment but a large selection of packages from the repository.

Binary packages are thinned out and split, giving you even more control over what you install, which in turn keeps your environment as small and efficient as possible.

### 1.2 Simple

Alpine Linux is a very simple distribution that will try to stay out of your way. It uses its own package manager called apk, the OpenRC init system, script driven set-ups and that's it! This provides you with a simple, crystal-clear Linux environment without all the noise. You can then add on top of that just the packages you need for your project, so whether it's building a home PVR, or an iSCSI storage controller, a wafer-thin mail server container, or a rock-solid embedded switch, nothing else will get in the way.

### 1.3 Secure

Alpine Linux was designed with security in mind. The kernel is patched with grsecurity/PaX out of the box, and all userland binaries are compiled as Position Independent Executables (PIE) with stack smashing protection. These proactive security features prevent exploitation of entire classes of zero-day and other vulnerabilities.





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## Getting Started

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### 2.1 Download release

Visit our website at: <http://alpinelinux.org/downloads/> and choose the version that fits your hardware.

### 2.2 Release differences

#### 2.2.1 Standard

Choose this type if you want to have a pre selected packages already located in the media. The selected packages are mostly targetted at embedded solution like routers etc.

#### 2.2.2 Mini

Choose this type if you have a decent internet connection. The installer will automatically downloaded the needed packages.

#### 2.2.3 Vanilla

Choose this type if you do not need a kernel with grsecurity patches.

#### 2.2.4 Xen

Choose this type if you want to setup an Xen hosts. It has a patched kernel with Xen patches and grsecurity.

#### 2.2.5 Raspberry Pi

Choose this type if your device is of type Raspberry Pi 1/2.

#### 2.2.6 Generic ARM

Choose this type if you device has an ARM processor.

## 2.3 Installation

Alpine can be used in any of the following three modes.

### 2.3.1 Diskless mode

Alpine will run from tmpfs, which means the system will be installed in memory. This means that your system will be reset to defaults after each reboot. To be able to save your running state, you will have to use Alpine Linux Backup Utility also known as LBU.

### 2.3.2 Data mode

This mode is like many other distributions do, it will setup your storage device and install Alpine Linux onto it.

### 2.3.3 Sys mode

This is a mixed mode between the two modes mentioned above. Your system will run from RAM (tmpfs) but you are able to mount specified directories (ie var,home) to a specified storage device/location.

## 2.4 Basic configuration

When your installation medium has finished booting, you can start the basic installer by typing:

```
setup-alpine
```

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## Indices and tables

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- `genindex`
- `modindex`
- `search`