

How to get regular stuff working

Alpine comes with busybox by default. Busybox is set up as an endpoint for numerous symlinks that substitute various utilities. Since busybox tries to be a minimalistic package, the busybox commands may still be missing some functionality.

To replace the busybox symlinks, you can install the relevant packages:

Basic utilities

Very basic utilities ranging from `cd`, `ls`, `lsblk`, `grep`, are all busybox symlinks by default. To have the complete packages:

```
# apk add util-linux (https://pkgs.alpinelinux.org/packages?name=util-linux&branch=coreutils) (https://pkgs.alpinelinux.org/packages?name=coreutils&branch=edge&repo=&arch=x86\_64&maintainer=)  
grep (https://pkgs.alpinelinux.org/packages?name=grep&branch=edge&repo=&arch=x86\_64&maintainer=)  
findutils (https://pkgs.alpinelinux.org/packages?name=findutils&branch=edge&repo=)
```

Bash shell

Main article: [Change default shell](#)

The default shell used by Alpine Linux is the busybox variant of the `ash` (https://en.wikipedia.org/wiki/Almquist_shell) shell. To install bash:

```
# apk add bash (https://pkgs.alpinelinux.org/packages?name=bash&branch=edge&repo=&arch=x86\_64&maintainer=)  
bash-completion (https://pkgs.alpinelinux.org/packages?name=bash-completion&branch=)
```

Hardware Management

Install `pciutils` (https://pkgs.alpinelinux.org/packages?name=pciutils&branch=edge&repo=&arch=x86_64&maintainer=) and `usbutils` (https://pkgs.alpinelinux.org/packages?name=usbutils&branch=edge&repo=&arch=x86_64&maintainer=) for configuring PCI and USB hardware respectively. You can always remove these packages once the hardware is configured.

```
# apk add pciutils (https://pkgs.alpinelinux.org/packages?name=pciutils&branch=edge&repo=&arch=x86\_64&maintainer=)  
usbutils (https://pkgs.alpinelinux.org/packages?name=usbutils&branch=edge&repo=&arch=x86\_64&maintainer=)
```

The packages `hwdata-pci` (https://pkgs.alpinelinux.org/packages?name=hwdata-pci&branch=edge&repo=&arch=x86_64&maintainer=) and `hwdata-usb` (https://pkgs.alpinelinux.org/packages?name=hwdata-usb&branch=edge&repo=&arch=x86_64&maintainer=) are dependencies for the above utilities and they are installed automatically.

Disk Management

Managing (removable) disks is much easier with udisks.

```
# apk add udisks2 (https://pkgs.alpinelinux.org/packages?name=udisks2&branch=edge&repo=&arch=x86\_64&maintainer=)
```

To see the mounted disks:

```
# udiskctl status
```

Network Management

For network, you may want to install `iproute2` (https://pkgs.alpinelinux.org/packages?name=iproute2&branch=edge&repo=&arch=x86_64&maintainer=).

```
# apk add iproute2 (https://pkgs.alpinelinux.org/packages?name=iproute2&branch=edge&repo=&arch=x86\_64&maintainer=)
```

Development environment

Compiling in Alpine may be more challenging because it uses `musl-libc` (<https://musl.libc.org/>) instead of `glibc`. Alpine offers the regular compiler stuff such as `gcc` (https://pkgs.alpinelinux.org/packages?name=gcc&branch=edge&repo=&arch=x86_64&maintainer=).

```
# apk add gcc (https://pkgs.alpinelinux.org/packages?name=gcc&branch=edge&repo=&arch=x86\_64&maintainer=)
```

The `alpine-sdk` (https://pkgs.alpinelinux.org/packages?name=alpine-sdk&branch=edge&repo=&arch=x86_64&maintainer=) meta package is provided to build packages for Alpine. It includes `abuild` (https://pkgs.alpinelinux.org/packages?name=abuild&branch=edge&repo=&arch=x86_64&maintainer=), `build-base` (https://pkgs.alpinelinux.org/packages?name=build-base&branch=edge&repo=&arch=x86_64&maintainer=), and `git` (https://pkgs.alpinelinux.org/packages?name=git&branch=edge&repo=&arch=x86_64&maintainer=).

```
# apk add alpine-sdk (https://pkgs.alpinelinux.org/packages?name=alpine-sdk&branch=edge&repo=&arch=x86\_64&maintainer=)
```

To install CMake:

```
# apk add cmake (https://pkgs.alpinelinux.org/packages?name=cmake&branch=edge&repo=extra-cmake-modules)
```

`ccache` (https://pkgs.alpinelinux.org/packages?name=ccache&branch=edge&repo=&arch=x86_64&maintainer=) and a lot other tools are also available in Alpine.

Functional differences between musl and glibc (<https://wiki.musl-libc.org/functional-differences-from-glibc.html>)