

### How OpenRC Works

`/etc/inittab`

Init needs a configuration file that specifies what actions need to be taken. This configuration file is `/etc/inittab`

`sysinit`

init's first action is to mount all file systems. This is defined in the following line from `/etc/inittab`. `si::sysinit:/sbin/openrc sysinit`

`bootwait`

init's second action is to execute all scripts that had symbolic links in `/etc/runlevels/boot/`. This is defined in the following line from `/etc/inittab`. `rc::bootwait:/sbin/openrc boot`

`initdefault`

init checks its configuration file to see what runlevel it should run. To decide this, it reads the following line from `/etc/inittab`. `id:3:initdefault:`

`runlevel`

In this case the runlevel id is 3. Using this information, init checks what it must run to start runlevel 3. `l3:3:wait:/sbin/openrc default`. The line that defines level 3, again, uses the `openrc` script to start the services (now with argument `default`)

### How OpenRC Works (cont)

`consoles`

init decides what virtual consoles it should activate and what commands need to be run at each console.

```
c1:12345:respawn:/sbin/agetty 38400
tty1 linux
c2:12345:respawn:/sbin/agetty 38400
tty2 linux
c3:12345:respawn:/sbin/agetty 38400
tty3 linux
c4:12345:respawn:/sbin/agetty 38400
tty4 linux
c5:12345:respawn:/sbin/agetty 38400
tty5 linux
c6:12345:respawn:/sbin/agetty 38400
tty6 linux
```

### Configuration

`/etc/rc.conf`

### Runlevels

`sysinit`

`shutdown`

`reboot`

`boot`

`default`

`nonetwork`

`single`

### Initscripts

Working with initscripts

The scripts that the `openrc` process starts are called init scripts. Each script in `/etc/init.d/` can be executed with the arguments `start`, `stop`, `restart`, `zap`, `status`, `inneed`, `iuse`, `iwant`, `needsme`, `usesme`, or `wantsme`.

Start a service

`/etc/init.d/postfix start`

Stop a service, but not the services that depend on it

`/etc/init.d/postfix --nodeps stop`

See what status a service has

`/etc/init.d/postfix status`

Ask what dependencies the service has

`/etc/init.d/postfix inneed`

Ask what services require the service

`/etc/init.d/postfix needsme`

### Configuring services

`/etc/conf.d`

Every init script that can be configured has a file in `/etc/conf.d/`. For instance, the `apache2` init script (called `/etc/init.d/apache2`) has a configuration file called `/etc/conf.d/apache2`, which can contain the options to give to the Apache 2 server when it is started. Such a configuration file contains only variables.



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Published 17th May, 2019.

Last updated 17th May, 2019.

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### Replacing default runlevel

#### Replace runlevel

Add a new entry in the bootloader configuration for the desired runlevel. In that entry, add `softlevel=desired` as a boot parameter.

### Working with runlevel

Change to nonetwork runlevel	<code>rc nonetwork</code>
Change to default runlevel	<code>rc default</code>
Change to shutdown runlevel	<code>rc shutdown</code>
Change to reboot runlevel	<code>rc reboot</code>
Show status info about runlevels	<code>rc-status [runlevel]</code>
Locate and run an OpenRC service	<code>rc-service service cmd [...]</code>
Adding services	<code>rc-update add postfix default</code>
Removing services	<code>rc-update del postfix default</code>
Showing services	<code>rc-update show</code>



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