

How it works...

`fsck` is just a frontend for filesystem specific `fsck` programs written for those filesystems. When we run `fsck`, it automatically detects the type of the filesystem and runs the appropriate `fsck.fstype` command where `fstype` is the type of the filesystem. For example, if we run `fsck` on an `ext4` filesystem, it will end up calling the `fsck.ext4` command.

Because of this, you will find that `fsck` itself supports only the common options across all such filesystem-specific tools. To find more detailed options, look at the man pages of specific commands such as `fsck.ext4`.

Further, simulating the actions `fsck` performs is useful when there is a suspicion of a filesystem being corrupt and we run `fsck` to fix it, it is sometimes important to make sure that `fsck` doesn't perform an operation which we don't want. An example maybe that `fsck` might want to mark some sectors as bad, but we might want to try recovering data from it. In this case, we ask `fsck` to just do a dry run and print the actions instead of actually performing the actions.

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Administration Calls

In this chapter, we will cover:

- ▶ Gathering information about processes
- ▶ Killing processes and send or respond to signals
- ▶ Sending messages to user terminals
- ▶ Gathering system information
- ▶ Using /proc for gathering information
- ▶ Scheduling with cron
- ▶ Writing and reading the MySQL database from Bash
- ▶ User administration script
- ▶ Bulk image resizing and format conversion
- ▶ Taking screenshots from the terminal
- ▶ Managing multiple terminals from one

Introduction

A GNU/Linux ecosystem consists of running programs, services, connected devices, filesystems, users, and a lot more. Having an overview of the entire system and managing the OS as a whole is the primary purpose of system administration. One should be armed with enough knowledge of commonly-used commands and proper usage practices to gather system information and manage resources. It also helps in writing script and automation tools that perform management tasks. This chapter will introduce several such tools.