



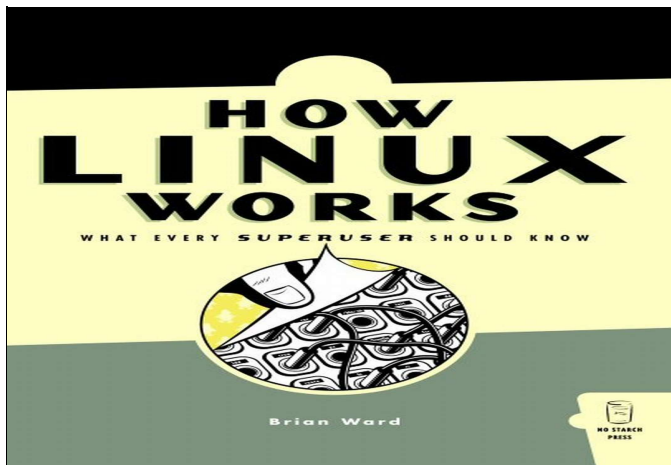
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Book review: How Linux Works by *Brian Ward*

What every SUPERUSER should know

By Alan Berg

Ok, so you are a Linux user or a power user. The question then is what does it take to become a valid, omnipotent, root-enabled superuser? One potential answer is read the book *How Linux Works*, by Brian Ward and published by No Starch Press, by the last word of the last chapter you may or may not have been transformed, a wizard waiting to be born.



The book's cover

A superuser requires a consistent knowledge level across a wide array of topics. When I first started with Linux (I believe my first serious paid efforts were around '94/'95), I learnt much by doing and interacting with the command line prompt. However, this method leaves you open to gaps in your knowledge. You may understand IPtables for firewalling, but do you necessarily have fine control over consistent packaging or accurate placement of binaries under the correct directory structure. Brian Ward's well written commentary definitely covers all the necessary bases.

The contents

How Linux works is 368 pages in extent and covers 17 chapters of helpful supportive and digestible wisdom. Starting from the basics and building your fundamental knowledge up from filesystems such as ext2, ext3, booting, network, shell scripting, maintaining the kernel. There is not a moment during the reading process that you feel the content is anything but relevant to the learning task at hand.

Looking back to my early days, I would say I missed out on little and not so little details such as the potentially painful fiddly constants required to appropriately configure printers, the precise meaning of the directory structure, the extra variables available during shell scripting and the use of `rsync` and `cpio`. (In fact, I still have some trivial bad habits caused by not learning correctly the first time.) This book avoids command-line-only learning and gives a consistent and solid foundation for any new superuser.

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One approach to solidifying previous knowledge is to sit by the computer and fire off commands mentioned in the book as you read; Install that Samba server, backup whole directory structures, manipulate iptables. Make mistakes and start again. Well OK, then learn backing up first—where was that live cd again?

Who's this book for?

This book is for those users that wish to learn evenly the spread of knowledge of the workings of Linux so that the soon to be superuser can perform administrative actions with a consistency and level of quality that is effective.

Relevance to free software

Linux is the flagship combination of free software. This book discusses only Linux and its interactions. Sure, the author mentioned Samba and how the application can help with coexistences with Windows and Apple Macs both of which speak the SMB protocol. However, the book would not have been realistic without such instruction.

Brian Ward's written words also mention a number of free software servers, and small tools such as openssh, rsync, CUPS, diff, cpio. And, just as importantly, he zoomed into the basic requirements of any Super User—how to make packages and where to find libraries and configure within a standard file structure.

Pros

How Linux Works is a consistent and evenly spread book dealing with all the main themes that a system administrator requires.

This proactive book correctly covers many of the little details that aid in the daily life of administration. For example, bandwidth throttling of rsync (page 300), or how to redirect standard error to a file (page 16), or command line disk mounting (page 45). Better still, there is a consistency of knowledge distribution across topics that build to a strong foundation and will definitely help generate some semblance of self-confidence for first time system administrators

Despite having been first published two years ago—a long time in internet time—every word is still relevant to the budding newbie administrator.

Every word is still relevant

Cons

The book's reading marketplace has almost reached saturation with more than a few similar tomes discussion running and maintaining Linux. This makes it difficult to choose which quality effort would be the best to read for a target audience of a beginner system administrator. However, that negative aside, Brian Ward's book is well worthy of its price.

Book review: How Linux Works by Brian Ward

Title How Linux Works—What Every Superuser Should Know
Author Brian Ward
Publisher No Starch Press
ISBN 1593270356
Year 2004
Pages 368
CD included No
FS Oriented 10
Over all score 9

In short

Biography

[Alan Berg](#) (/user/8" title="View user profile.):

Alan Berg Bsc. MSc. PGCE, has been a lead developer at the Central Computer Services at the University of Amsterdam for the last eight years. In his spare time, he writes computer articles. He has a degree, two masters and a teaching qualification. In previous incarnations, he was a technical writer, an Internet/Linux course writer, and a science teacher. He likes to get his hands dirty with the building and gluing of systems. He remains agile by playing computer games with his kids who (sadly) consistently beat him physically, mentally and morally.

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