

# HOW LINUX WORKS

## What Every Superuser Should Know

San Francisco, CA – When you start up Windows, a scrolling bar in the GUI indicates the progress of the boot sequence. When you load up most Linux distributions, what you see is very different. As the information scrolls by, many users wonder what the heck is going on. The newest book from Brian Ward – author of the Linux kernel HOWTO, *The Linux Problem Solver*, and *The Book of VMware* – uncovers the mystery of the boot sequence and other Linux processes. *How Linux Works* (No Starch, May 04, \$37.95 US) takes the reader into the guts of a Linux machine to uncover how everything really functions.

Many books on Linux present a series of common problems and explain how to solve them. *How Linux Works* takes a different approach. “This book helps you tame a Linux system by learning how it works,” author Brian Ward explains. “It is not a 50-ton brick that tries to describe every single system service that you may find on the Internet,” he elaborates. “Instead, after reading this book, I feel that you will understand how Linux systems programs behave, so you can pick up any system program and make sense of the documentation.”

The book takes a methodical approach: it starts with a guided tour of a typical Linux filesystem, explains exactly how the system boots, covers the basics of managing the system after booting, and then proceeds into more basic topics, such as networking and shell scripts. Topics covered include:

- Detailed discussion of each stage of the boot process, invaluable to fixing boot problems and understanding the system as a whole
- The important system files, and how to manipulate them
- How boot loaders and modules work so that readers can install a custom kernel
- Controlling software installation by compiling from source using several common configuration systems
- Connecting machines to a network, building a network from scratch, and configuring a Samba server so that Linux and Windows machines on a network can talk to each other
- Backing up data, including which data needs to be backed up, what backup devices are available, what types of backups can be made, how to use the most common archivers, and which media you can back up to
- The ins and outs of printing systems so that readers can effectively configure networked print servers and solve problems when they arise

Like an advanced course in Linux, *How Linux Works* takes competent users to the next level of understanding, so they can expertly configure, customize, and troubleshoot their system.

### ADDITIONAL RESOURCES

Table of contents: [http://www.nostarch.com/howlinuxworks\\_toc.htm](http://www.nostarch.com/howlinuxworks_toc.htm)

Chapter 3, How Linux Boots (free PDF): [http://www.nostarch.com/download/howlinuxworks\\_ch3.pdf](http://www.nostarch.com/download/howlinuxworks_ch3.pdf);

Chapter 10, Maintaining the Kernel (free PDF): [http://www.nostarch.com/download/howlinuxworks\\_ch10.pdf](http://www.nostarch.com/download/howlinuxworks_ch10.pdf)

### ABOUT THE AUTHOR

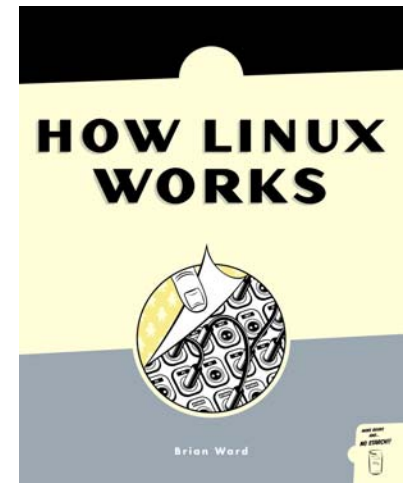
Brian Ward has been working with Linux since 1993, when he scraped together enough pennies for a secondhand 386. He has a Ph.D. in computer science from The University of Chicago, and currently works in San Francisco as a consultant and instructor. He is author of the Linux Kernel-HOWTO, *The Book of VMware*, and *The Linux Problem Solver* (both No Starch Press).



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