

## **UNIX System Administration Handbook**

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Last month I reviewed **MVS Systems Programming**. This month we're going to review the **UNIX System Administration Handbook**. Next month I plan to review a Windows System Administration book (title TBD). That list should pretty much cover the major systems in place today (there does not seem to be a way to compare market share of each system, since there is no common way to establish measures to compare).

"The **UNIX System Administrators Handbook** is an attempt to condense everything that a system administrator should know about UNIX into a single easy-to-use volume" according to Dennis Ritchie, AT&T Bell Labs (one of the creators of UNIX).

The presentation is chronological; topics are introduced in the order that you would probably want to activate them in a new system. Part I (Chapters 1 – 6) is present in a sequence you would find useful if you are bringing up a new system straight from the packing crate. Part II (Chapters 7 - 14) introduce the various kinds of hardware that one typically used with UNIX and discusses how to install, configure, and operate this equipment. Part III (Chapters 15-19) discuss five important UNIX software subsystems: electronic mail, telephone communications, network news, backups and accounting. Part IV (Chapters 20 - 26) represents a grab-bag of UNIX topics to complete the material.

**UNIX Systems Administration Handbook** begins with some advice for systems administrators – sort of a "setting the stage for the job". It lays out 5 fundamentals for systems administrators, and then provides 11 tasks a system administrator typically performs (perhaps providing the framework for a job description?).

Part I covers the bare metal approach to system administration (though installing the UNIX system is not covered specifically). Such topics as startup and shutdown; supervisor privileges; pseudo users (system accounts); users and files; file systems; starting and stopping and setting priority for processes; handling internal system communications (signals); and adding new users is addressed.

Part II gets closer to the metal by addressing drivers and devices; installing hardware; configuring parameter files for hardware and software; configuring the kernel; installing terminals and modems; installing printers and printing services; adding a disk; hardware maintenance tips; and networking.

Part III was covered above.

Part IV completes the basic knowledge base by discussing daemons (continuously running processes performing system tasks); periodic scheduled processes; disk storage allocation to users (quotas); system process limits; monitoring the system activity; security; and local system documentation.

There are 17 appendices that address a variety of topics and present sample parameter files.

The Bibliography includes 20 entries to suggest further study of the topic of UNIX System Administration.

A good supplemental reference book for UNIX commands and utilities is **UNIX System V Bible: Commands and Utilities** by Stephen Prata and Donald Martin. And of course – for your particular system - there is always the system manuals and the on-line help system (the “man” command).

Obviously, each chapter contains a lot more details to get UNIX systems up and running and keep them running. That’s why you should buy this book.