Introducing UNIX System V

Rachel Morgan

Henry McGilton

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McGraw-Hill Book Company

New York St. Louis San Francisco Auckland Bogotá
Hamburg Johannesburg London Madrid Mexico
Milan Montreal New Delhi Panama
Paris São Paulo Singapore
Sydney Tokyo Toronto

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1234567890 DOC/DOC 8932109876

ISBN 0-07-043152-3

Printed and bound by R.R. Donnelley & Sons Company.

Preface

It is probably true that the UNIX† System V operating system has extensive documentation, since most things are written down somewhere. The problem is that an inexperienced user usually does not know where to look for a particular subject, and even when the requisite subject matter has been found, it is sometimes hard to understand.

This book sets out to lead the beginner by the hand, to show how to use System V in a simple fashion, and how to gain more information by reading the available documentation. For the user with some experience, this book shows how to use some of the more sophisticated programs provided on System V.

Caveat

This book is not a substitute for the existing System V documentation — it is a supplement to it.

Before you dip into the body of this book, you are encouraged to read through the table of contents. Although reading the table of contents is not normally the first thing you might think of doing with a book, the table of contents in this book is arranged such that it represents an overview of the topics and materials discussed herein.

Who Should Read This Book

This book is an introductory guid for users who are new to System V. Although the system and its myriad utilities are comprehensively documented, that documentation is mostly in the form of reference materials, 'memory joggers', and 'cheat sheets'.

Additionally the commands for handling files, getting information, and processing text, tend to have short and sometimes cryptic names such as `ls`, `grep`, `rm`, and so on. The system itself, and its many utilities, are often terse in their interactions with users. This book provides a bridge for users who have never used System V before, to help them over the initial hurdles of learning this new and powerful computer tool.

† UNIX is a trademark of AT&T Bell Laboratories.

Readers with some experience of System V can gain a better understanding of the system and its extensive but sometimes cryptic documentation. Experienced users will probably find that the logical arrangement of subject matter in this book is useful.

Educators should find this book suitable for course material, either about System V itself, or when using System V as a vehicle for other topics.

We have tried to show not only the facilities, commands, and utilities of System V, but what they might be used for. We use the examples to illustrate how the various utilities can be applied to transform text files in useful ways. We illustrate using System V by successively introducing more of the system's capabilities on a chapter-by-chapter basis. Each set of new capabilities uses material which has gone before. This ordering of material is part of the philosophy behind System V: to build upon what went before.

We have also tried to show areas where the misspelling of a command or a filename, or the misuse of a command, might give rise to error responses from the system. Therefore, as you read through the examples, you will find many illustrations of the form:

If you do *this*, you will get *that* result, and here is a possible reason

We believe that this is a positive approach to learning a new system. Many beginners get discouraged when the results of a command are not what they expected, and they have no idea why, or what to do next. In this book we have tried to remedy that situation.

Acknowledgements

There are many people we wish to thank for all their help.

- **Dual Systems** of Berkeley, California, sold us the computer system — a System 83/80 running System V — used to develop and check out the examples you will read in these pages.
- **Sun Microsystems** of Mountain View, California, provided the computer systems to format and print the camera-ready copy for this book.
- **Ken Greer** of the **Elan Computer Group**, Los Altos, California, provided use of his A. T. and T. 7300 system running System V, where we were able to cross check some of the examples.
- **Earl Stahl** acted as general purpose system wizard and troubleshooter.
- **J. D. Cloer** provided book-design, graphics advice, and aesthetics, while **Sean Browne** provided some last-minute crisis management.
- Most deserving of our thanks are the many friends and colleagues who encouraged us, proof-read for us, and corrected our blunders.

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Colophon

This book was completely typed and checked out using UNIX-based and System V-based computers.

The text was typed using the `vi` and `ex` editors which we discuss in chapters 7 and 8 — *The Visual Text Editor* **`vi`** and *The* **`ex`** *and* **`ed`** *Line Editors.*

The manuscript was formatted using the System V tools `pic` (for drawing pictures), `tbl` (for laying out tables), `eqn` (for describing mathematical equations), and device-independent `troff` (that did the actual page layout). We discuss these tools in chapters 9, 10, and 11 — *Document Preparation Using System V*, *Document Formatting Packages*, and *Typesetting with* **`troff`** *and* **`nroff`**.

Table of contents and index were generated by home-grown software packages.

The formatting tools were run on a Sun Microsystems Sun-2/120 system running Sun's version of the 4.2 BSD operating system. The camera-ready manuscript was printed on Sun Microsystems' LaserWriters.

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