Documents for the PWB/UNIX Time-Sharing System

Edition 1.0

T. A. Dolotta
R. C. Haight
E. M. Piskorik

Editors

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The enclosed documents were set on a Graphic Systems, Inc. phototypesetter driven by the TROFF formatting program. Their text was prepared using the ED text editor.

CONTENTS

Each item below carries the date of its latest revision; most items also give the number of their last page.

G. General:

G.1 *PWB/UNIX—Overview and Synopsis of Facilities* (6/77)
T. A. Dolotta and R. C. Haight (p. 18)
Summarizes the salient features of Programmer's Workbench/UNIX, a program development and text processing facility.

G.2 *The UNIX Time-Sharing System* (7/74)
D. M. Ritchie and K. Thompson (p. 16)
Reprinted from *Comm. ACM.* Good overview of UNIX, but written long ago.

G.3 *The UNIX Time-sharing System—A Retrospective* (1/77)
D. M. Ritchie (p. 14)
A more recent discussion.

G.4 *PWB Papers from the Second International Conf. on Software Engineering* (10/76)
T. A. Dolotta *et al.* (p. 25)
Reprinted from that conference's proceedings. Four papers that describe various aspects of the PWB.

B. Basic User Information:

B.0 *PWB/UNIX User's Manual—Edition 1.0* (5/77)
T. A. Dolotta, R. C. Haight, and E. M. Piskorik, eds.
Describes all commands, subroutines, and system calls. Furnished as a separate volume. Available on-line.

B.1 *PWB/UNIX Documentation Roadmap* (5/77)
J. R. Mashey (p. 7)
A terse, up-to-date outline of useful documents and information sources. Available on-line.

B.2 *PWB/UNIX Beginner's Course* (11/77)
M. E. Pearlman and S. H. Strauss
An outline with view graphs.

B.3 *A Tutorial Introduction to the UNIX Text Editor* (10/74)
B. W. Kernighan (p. 10)
Expectedly elementary, but very useful for beginners.

B.4 *Advanced Editing on UNIX* (8/76)
B. W. Kernighan (p. 16)
Meant to help secretaries, typists, and programmers make effective use of UNIX facilities for preparing and editing text.

B.5 *PWB/UNIX Shell Tutorial* (9/77)
J. R. Mashey (p. 25)
Describes the PWB/UNIX command interpreter.

B.6 *UNIX for Beginners* (10/74)
B. W. Kernighan (p. 14)
A slightly dated tutorial.

B.7 *UNIX Programming* (10/75)
B. W. Kernighan and D. M. Ritchie (p. 17)
Introduction to programming on UNIX. The emphasis is on how to write programs that interface with the operating system. Does *not* cover material in *A New Input/Output Package* (item B.10 below).

B.8 **C** *Reference Manual* (5/77)
D. M. Ritchie (p. 32)
Terse, but complete.

B.9 *Programming in* **C***—A Tutorial* (5/75)
B. W. Kernighan (p. 27)
Should be read before tackling the **C** *Reference Manual* (item B.8 above).

B.10 *A New Input-Output Package* (7/77)
D. M. Ritchie (p. 6)
Should be used for all new **C** programs.

B.11 *A General-Purpose Subroutine Library for PWB/UNIX* (7/77)
A. L. Glasser (p. 7)
Complements *A New Input/Output Package* (item B.10 above).

B.12 *Guide to IBM Remote Job Entry for PWB/UNIX Users* (9/77)
A. L. Sabsevitz (p. 7)
Describes the RJE facility between a PWB system and an IBM System/370.

B.13 *SCCS/PWB User's Manual* (9/77)
L. E. Bonanni and A. L. Glasser
Describes the Programmer's Workbench Source Code Control System.

T. Text Processing, Formatting, and Typesetting:

T.1 *NROFF/TROFF User's Manual* (5/77)
J. F. Ossanna (p. 34)
NROFF and TROFF are text processors. NROFF formats text for a variety of typewriter-like terminals. TROFF formats text for a Graphic Systems, Inc. phototypesetter.

T.2 *PWB/MM—Programmer's Workbench Memorandum Macros* (9/77)
D. W. Smith and J. R. Mashey
User's guide and reference manual for PWB/MM, a general-purpose package of text formatting macros for use with NROFF and TROFF.

T.3 *Typing Documents with PWB/MM* (9/77)
D. W. Smith and E. M. Piskorik (p. 16)
A fold-out card that fits into a pocket(book).

T.4 *PWB/MM Tutorial* (12/77)
N. W. Smith
In preparation

T.5 *Tbl—A Program to Format Tables* (9/77)
M. E. Lesk (p. 17)
Preprocessor for TROFF or NROFF that makes even very complex tables easy to specify.

T.6 *A TROFF Tutorial* (8/76)
B. W. Kernighan (p. 13)
Introduction to the most basic use of TROFF (and, by implication, NROFF).

T.7 *Typesetting Mathematics—User's Guide (Second Edition)* (6/76)
B. W. Kernighan and L. L. Cherry (p. 11)
Describes the EQN and NEQN preprocessors for TROFF and NROFF, respectively. They allow one to typeset complex formulae, equations, arrays, etc., both in-line and displayed.

T.8 *New Graphic Symbols for EQN and NEQN* (9/76)
C. Scrocca (p. 8)
Defines a set of special characters frequently used in technical documents. Shows how to use them and discusses what is involved in making a special character in NROFF and TROFF.

T.9 *PWB/UNIX View Graph and Slide Macros* (12/77)
T. A. Dolotta and D. W. Smith
Greatly eases the task of making transparencies with TROFF.

A. Additional Facilities:

A.1 *BC—An Arbitrary Precision Desk Calculator Language* (5/75)
L. L. Cherry and R. Morris (p. 14)
A language and a compiler for doing arbitrary-precision arithmetic.

A.2 *DC—An Interactive Desk Calculator* (5/75)
R. Morris and L. L. Cherry (p. 8)
Interactive desk calculator program that does arbitrary-precision integer arithmetic.

A.3 *YACC—Yet Another Compiler Compiler* (5/75)
S. C. Johnson (p. 30)
Generates parsers from context-free language specifications.

A.4 *LEX—Lexical Analyzer Generator* (4/77)
M. E. Lesk and E. Schmidt (p. 13)
LEX helps write programs whose control flow is directed by instances of regular expressions in the input stream.

A.5 *RATFOR—A Preprocessor for a Rational Fortran* (1/77)
B. W. Kernighan (p. 12)
IF-ELSE, WHILE, and other useful control structures.

A.6 *The M4 Macro Processor* (4/77)
B. W. Kernighan and D. M. Ritchie (p. 6)
A general-purpose macro language; can be used as a preprocessor for RATFOR, **C**, etc.

A.7 *Make—A Program for Maintaining Computer Programs* (4/77)
S. I. Feldman (p. 9)
Make provides a simple mechanism for maintaining up-to-date versions of programs that result from many operations on a number of files.

I. Internals, Operations, and Administration:

I.1 *Setting up PWB/UNIX* (9/77)
R. C. Haight, W. D. Roome, and L. A. Wehr
Procedures used to install PWB/UNIX on the PDP-11/45 or /70 and the steps necessary to regenerate all of the PWB/UNIX programs.

I.2 *Administrative Advice for PWB/UNIX* (10/77)
R. C. Haight
Hints for approaching operational serenity.

I.3 *PWB/UNIX Operations Manual* (9/77)
M. E. Pearlman (p. 36)
Describes the daily routine at the console. Text (but not pictures) available on-line.

I.4 *Repairing Damaged PWB/UNIX File Systems* (10/77)
P. D. Wandzilak (p. 24)
Comes in handy after a power failure, etc.

I.5 *PWB/UNIX RJE Administrator's Guide* (12/77)
A. L. Sabsevitz
What to do when it breaks or when it swamps your file system.

I.6 *The UNIX I/O System* (6/74)
D. M. Ritchie (p. 9)
Describes how to write device drivers for UNIX.

I.7 *On the Security of UNIX* (6/74)
D. M. Ritchie (p. 4)
A short, but enlightening, discussion.

I.8 *UNIX Assembler Reference Manual* (6/73)
D. M. Ritchie (p. 12)
As a last resort...

I.9 *PWB/UNIX Manual Page Macros* (8/77)
E. M. Piskorik (p. 7)
Tells how to make PWB/UNIX User's Manual pages.

R. Recommended Reading—not Included:

R.1 *Software Tools*
B. W. Kernighan and P. J. Plauger (p. 338)
Addison-Wesley, Reading, MA; 1976.

R.2 The UNIX Command Language
K. Thompson
In *Structured Programming—Infotech State of the Art Report.* Infotech International Limited, Nicholson House, Maidenhead, Berkshire, England; 1976; pp. 375-84.