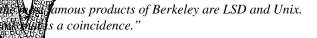
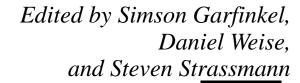
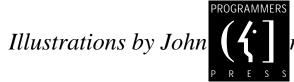
The UNIX-









IDG Books Worldwide, Inc. An International Data Group Company

San Mateo, California • Indianapolis, Indiana • Boston, Massachusetts

The UNIX-HATERS Handbook

Published by IDG Books Worldwide, Inc.
An International Data Group Company 155 Bovet Road, Suite 310 San Mateo, CA 94402 Copyright © 1994 by IDG Books Worldwide. All rights reserved.

No part of this book (including interior design, cover design, and illustrations) may be reproduced or transmitted in any form, by any means, (electronic, photocopying, recording, or otherwise) without the prior written permission of the publisher.

ISBN 1-56884-203-1

Printed in the United States of America First Printing, May, 1994 10 9 8 7 6 5 4 3 2 1

Distributed in the United States by IDG Books Worldwide, Inc.

Distributed in Canada by Macmillan of Canada, a Division of Canada Publishing Corporation; by Computer and Technical Books in Miami, Florida, for South America and the Caribbean; by Longman Singapore in Singapore, Malaysia, Thailand, and Korea; by Toppan Co. Ltd. in Japan; by Asia Computerworld in Hong Kong; by Woodslane Pty. Ltd. in Australia and New Zealand; and by Transword Publishers Ltd. in the U.K. and Europe.

For information on where to purchase IDG's books outside the U.S., contact Christina Turner at 415-312-0633.

For information on translations, contact Marc Jeffrey Mikulich, Foreign Rights Manager, at IDG Books Worldwide; FAX number: 415-358-1260.

For sales inquires and special prices for bulk quantities, contact Tony Real at 415-312-0644.

Trademarks: Unix is a trademark of Novell. All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders. IDG Books Worldwide is not associated with any product or vendor mentioned in this book.

Limit of Liability/Disclaimer of Warranty: The authors and publisher of this book have used their best efforts in preparing this book. IDG Books Worldwide, Inc., International Data Group, Inc., and the authors make no representation or warranties with respect to the accuracy or completeness of the contents of this book, and specifically disclaim any implied warranties or merchantability or fitness for any particular purpose, and shall in no event be liable for any

loss of profit or any other commercial damage, including but not limited to special, incidental, consequential or other damages.

To Ken and Dennis, without whom this book would not have been possible.

Credits

Vice President and Publisher Chris Williams

Senior Editor Trudy Neuhaus

Imprint Manager Amorette Pedersen

Production Manager Beth Jenkins

Cover Design Kavish & Kavish

Book Design and Production Simson Garfinkel & Steven Strassmann

About IDG Books Worldwide

Welcome to the world of IDG Books Worldwide.

IDG Books Worldwide, Inc., is a subsidiary of International Data Group, the worlds largest publisher of business and computer-related information and the leading global provider of information services on information technology. IDG was founded over 25 years ago and now employs more than 5,700 people worldwide. IDG publishes over 195 publications in 62 countries. Forty million people read one or more IDG publications each month.

Launched in 1990, IDG Books is today the fastest growing publisher of computer and business books in the United States. We are proud to have received 3 awards from the Computer Press Association in recognition of editorial excellence, and our best-selling "... For Dummies" series has over 7 million copies in print with translations in more than 20 languages. IDG Books, through a recent joint venture with IDG's Hi-Tech Beijing, became the first U.S. publisher to publish a computer book in The People's Republic of China. In record time, IDG Books has become the first choice for millions of readers around the world who want to learn how to better manage their businesses.

Our mission is simple: Every IDG book is designed to bring extra value and skill-building instruction to the reader. Our books are written by experts who understand and care about our readers. The knowledge base of our editorial staff comes from years of experience in publishing, education, and journalism—experience which we use to produce books for the 90s. In short, we care about books, so we attract the best people. We devote special attention to details such as audience, interior design, use of icons, and illustrations. And because we write, edit, and produce our books electronically, we can spend more time ensuring superior content and spend less time on the technicalities of making books.

You can count on our commitment to deliver high quality books at competitive prices on topics you want to read about. At IDG, we value quality, and we have been delivering quality for over 25 years. You'll find no better book on a subject than an IDG book.

John Kilcullen President and CEO IDG Books Worldwide, Inc.