The WOZPAK Special Edition

Steve Wozniak's Apple-1 & Apple II Computers

Featuring Apple Legends:

Steve Wozniak
Randy Wigginton
Andy Hertzfeld
Keith Walls
Robert Clardy
Don Williams
Wendell Sander

Produced by:

Brian Wiser & Bill Martens



The WOZPAK Special Edition: Steve Wozniak's Apple-1 & Apple II Computers

Copyright © 1978, 1979, 2013 by Apple Pugetsound Program Library Exchange (A.P.P.L.E.) All Rights Reserved.

Published by Apple Pugetsound Program Library Exchange (A.P.P.L.E.) www.callapple.org

Paperback ISBN: 978-1-304-23132-1

ACKNOWLEDGEMENTS

First and foremost, we would like to thank the original contributors: Steve Wozniak, Allen Baum, Robert Clardy, Val Golding, Andy Hertzfeld, Bob Huelsdonk, Wendell Sander, Dick Sedgewick, Richard Suitor, Keith Walls, Randy Wigginton, and Don Williams.

The WOZPAK would also not exist without the efforts of Mike Scott and Steve Jobs. All uncredited documents are by Steve Wozniak.

The Cover and Book were designed by Brian Wiser.

PRODUCTION

The WOZPAK Special Edition (2013): Brian Wiser → Design, Layout, Editing, Proofreading Bill Martens → Proofreading, Scanning, Production

The WOZPAK (1978): Val Golding, Dick Hubert

The WOZPAK II (1979): Ken Smith, Robert Clardy, Ralph Thiers,

Stu Brummett, Dick Sedgewick, Dave McIntosh

DISCLAIMER

No part of this book may be reproduced, distributed or transmitted in any form or by any means, including photocopying, scanning, or other electronic or mechanical methods, without prior written permission of the publisher, except in the case of brief quotations contained in articles and reviews, and program listings that may be entered, stored and executed in a computer system, but not reproduced for publication.

The WOZPAK programs are available on a disk image from: www.callapple.org. No warranty of disk images is made or implied and should be used at your own risk.

The WOZPAK Special Edition: Steve Wozniak's Apple-1 & Apple II Computers is an independent publication and has not been authorized, sponsored, or otherwise approved by any institution, public or private. All images are under copyright and the property of Apple Pugetsound Program Library Exchange or as otherwise indicated. Use is prohibited without prior permission.

Apple and all Apple hardware and software brand names are trademarks of Apple Inc., registered in the United States and other countries. All other brand names and trademarks are the property of their respective owners. All items containing Apple Computer, Inc. copyright were provided by Apple Computer, Inc. to A.P.P.L.E. for inclusion in *The WOZPAK*.

While all possible steps have been taken to ensure that the information included within is accurate, the publisher, producers, and authors shall have no liability or responsibility for any errors or omissions, or for loss or damages resulting from the use of the information and programs contained herein.

We apologize for the poor visual quality of some articles and have gone to great lengths to enhance everything as much as possible, while staying true to the spirit of *The WOZPAK* and its historically important handwritten and photocopied pages.

CONTENTS

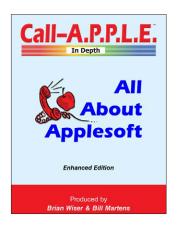
FOREWORDS

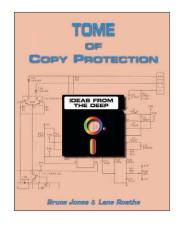
Steve Wozniak	\$00
Randy Wigginton	\$03
Andy Hertzfeld	\$04
Robert Clardy	\$05
Keith Walls	\$07
Don Williams	\$08
Wendell Sander	\$09
The WOZPAK	
Hi-Res Color Graphics	1
Adding Colors to Hi-Res	29
Color Killer Mod	34
Hi-Res Graphics Subroutines	35
Apple II 2716 EROM Adaptation	55
Renumbering and Appending BASIC Programs	57
Symbol Table Usage	81
Integer BASIC Interpretation of Memory	96
Integer BASIC Line Number Cross Reference	97
Symbol Cross Reference	101
Direct Calls to Integer BASIC Functions	115
Hi-Res Character Set	117
Mini-Assembler Usage	127
Cassette System	141
Floating Point Package	157
Sweet 16 Introduction	180
Sweet 16 – The 6502 Dream Machine	184
Lower Case for the Annie II	911

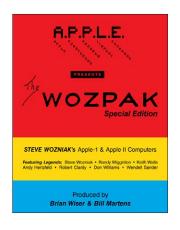
Lower Case Apple	215
Machine Code Relocation Program	. 221
Auto Repeat for Monitor Commands	. 247
Tape Verify	248
Apple DOS – Using RWTS Routine	249
Apple DOS Corrections	254
Apple DOS RWTS Routine	255
Disk II: 13 Sector Formatter	263
Apple II Trek	269
Applesoft Zero Page Usage	283
Applesoft II Disk Interpreter Instruction Set	. 287
System Monitor Cross Reference	. 288
Machine Code Relocation Program 2	294
Pack and Load Integer BASIC Subroutine	296
Tape Verify Routine	303
Producing and Using Shape Tables	306
Mini-Assembler	310
Apple II Memory Test	314
Lazarus	. 315
Apple-1 Computer 6502 Hex Monitor	. 321

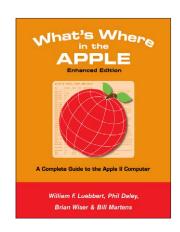
Available in Paperback and Hardback: callapple.org/books

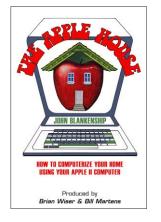
Join Our User Group & Get Our New Magazine: callapple.org/members















v--- Magazines, Fun, History ---v

