Produced by:
Brian Wiser & Bill Martens
ACKNOWLEDGEMENTS


The Cover and Book were designed by Brian Wiser.

PRODUCTION

Brian Wiser → Design, Layout, Editing, Scan Enhancements
Bill Martens → Scanning, Production, Disk Updates

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 which may be entered, stored and executed in a computer system, but not reproduced for publication.

Peeking at Call-A.P.P.L.E. 1979 programs are available on a disk image from the A.P.P.L.E. website: www.callapple.org. No warranty of disk images is made or implied and should be used at your own risk.

Peeking at Call-A.P.P.L.E. 1979 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 Call-A.P.P.L.E. magazine.

We have gone to great lengths to enhance the visual quality as much as possible, while staying true to the spirit of the original photocopied pages. 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 damages resulting from the use of the information and programs contained herein.
CONTENTS

Introduction – Val J. Golding ................................................................................................................2
And Now, a Word From the Editor – Patricia A. Boner ..........................................................................2
Life on a Magazine (Poem) – Patricia A. Boner .....................................................................................2

GENERAL

This is a come what may, grey area where we literally “threw” things that couldn’t find a home elsewhere.

Apple Gaming (Article and Program) – Jim Hilger ................................................................................4
The Talking Apple (Article and Program) – Mark A. Cross .................................................................11
Modify a Val Golding Program (Program) – Darrell Aldrich ..............................................................11
Call-Apple (Program) – Dick Sedgewick ..............................................................................................13
The Talking Apple Talks Back – Mark A. Cross ....................................................................................14
Keyboard Modifications – Dan Paymar ................................................................................................14
The Assembly Line (Article and Program) – Randall Hyde .................................................................15
Life With an Apple (Article and Program) – Ross E. Cox .................................................................20
News Release – Dick Sedgewick ........................................................................................................24
Exceeding the Speed Limit – Roger Wagner .......................................................................................25
Programmer’s Aid Notes – Dave Garson ............................................................................................26
Demo Programs – Alan B. Winston .....................................................................................................26

DISK ‘N’ DOS

Apple Disk Operating System – Richard F. Suitor ..............................................................................28
Multiple Disk Catalog (Article & Program) – Gary A. Foote ...............................................................29
Instructions for Multiple Disk Catalog – Fred Merchant ....................................................................31
Change Catalog to CC (Program) – Bob Nuelen & Val J. Golding ......................................................31
Chaining Programs in Applesoft (Article & Program) – Randy Wigginton ........................................31
Simulating an Applesoft Chain – Craig W. Vaughan .........................................................................35
Ron’s Page (Article & Program) – Ron Aldrich ................................................................................36
Disk Access Utility (Article & Program) – Don Paymar ....................................................................38
SO WHO NEEDS APPLSOFT

Special material for us Integer BASIC diehards or, how to do Applesoft tricks in Integer

From The Very Core of Apple ................................................................. 44
   Internal Structure of Integer BASIC – Sandy Greenfarb ...................... 44
   Integer Basic Entry Points – Val J. Golding ........................................ 48
   Program – Val J. Golding & Darrell Aldrich ....................................... 48
   Commented Integer Basic Token Chart – Bruce Tognazzini .................. 49
   Why Variables – Val J. Golding .......................................................... 50
   Simulating A Two-Dimensional Matrix – James Hockenhull ................ 51
   Basic Memory Move (Article & Program) – Val J. Golding .................. 53
   Sedgewick Plays It Straight – Dick Sedgewick .................................... 54
So Who Needs Applesoft (Article & Program) – Darrell Dunmire & Val J. Golding .................................................. 55
   Decimal Div/Integer BASIC (Program) – Richard Verlaque .................. 58
   Applelock (Article & Program) – Dick Sedgewick ............................... 58
   Peeking at Numbers (Article & Program) – Val J. Golding .................. 59
   Faster Integer Basic – Mark Cross ...................................................... 59
   Debugging as a Learning Aid – Val J. Golding ..................................... 60
   High Crimes (and how to commit them) – Val J. Golding ..................... 61

GETTING DOWN TO BASICS

Not a word about machine language, except hex converters

From The Very Core Of Apple
   Hiding Out In BASIC (Article & Program) – Val J. Golding .................. 64
   Monitor Routine (Program) – S. H. Lam ............................................. 65
   BASIC-6502 Linker – Andy Hertzfeld ................................................. 67
   Logical Variables In Apple II Basic – Lee Reynolds ............................ 69
<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format (Program)</td>
<td>Bob Huelsdonk</td>
<td>71</td>
</tr>
<tr>
<td>Right Justify (Program)</td>
<td>S. Sawyer</td>
<td>71</td>
</tr>
<tr>
<td>Exploring the World of Apple</td>
<td></td>
<td>72</td>
</tr>
<tr>
<td>Constructing a Menu</td>
<td>Val J. Golding</td>
<td>72</td>
</tr>
<tr>
<td>Poor Man’s Print-Using (Program)</td>
<td>David B. Garson</td>
<td>73</td>
</tr>
<tr>
<td>Prime Factors (Program)</td>
<td>Dan Paymar</td>
<td>74</td>
</tr>
<tr>
<td>Hex / Dec Conversion Chart (Program)</td>
<td>Ken Smith</td>
<td>74</td>
</tr>
<tr>
<td>Applesoft From Bottom To Top</td>
<td>Val J. Golding</td>
<td>75</td>
</tr>
<tr>
<td>Applesoft Program Tokens</td>
<td>Val J. Golding &amp; Bob Huelsdonk</td>
<td>80</td>
</tr>
<tr>
<td>Flash Cards (Article &amp; Program)</td>
<td>Rick Williams</td>
<td>81</td>
</tr>
<tr>
<td>Flash Card Modifications (Article &amp; Program)</td>
<td>Val J. Golding</td>
<td>81</td>
</tr>
<tr>
<td>Self Writer (Article &amp; Program)</td>
<td>Vince Corsetti</td>
<td>83</td>
</tr>
<tr>
<td>So Who Needs Integer!</td>
<td>Val J. Golding</td>
<td>84</td>
</tr>
<tr>
<td>Auto Number (Article &amp; Program)</td>
<td>Gerald Cahill</td>
<td>84</td>
</tr>
<tr>
<td>Hex - Dec Converter (Program)</td>
<td></td>
<td>84</td>
</tr>
<tr>
<td>Exploring The World Of Apple: A Hex On Thee (Article &amp; Program)</td>
<td>Val J. Golding</td>
<td>88</td>
</tr>
<tr>
<td>Hex-Dec Converter (Program)</td>
<td>Val J. Golding</td>
<td>90</td>
</tr>
<tr>
<td>XYZZY (Program)</td>
<td>Petter Schug</td>
<td>90</td>
</tr>
<tr>
<td>The Great Hello Program Mystery (Article &amp; Program)</td>
<td>Aloysis T. Burgerking</td>
<td>91</td>
</tr>
<tr>
<td>Line By Line Analysis</td>
<td>Ken Smith</td>
<td>92</td>
</tr>
<tr>
<td>Mystery Program</td>
<td>Rosalie Scharen</td>
<td>94</td>
</tr>
<tr>
<td>Time</td>
<td>Alan B. Winston</td>
<td>94</td>
</tr>
<tr>
<td>Clear GR Screen (Program)</td>
<td>Mark Cross</td>
<td>95</td>
</tr>
<tr>
<td><strong>MONITOR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just press ‘Reset’ and start reading!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor Calls</td>
<td>Darrell Aldrich</td>
<td>98</td>
</tr>
<tr>
<td>System Monitor Cross Reference</td>
<td></td>
<td>99</td>
</tr>
<tr>
<td>DOS 3.2.1</td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>Scrunch</td>
<td>Darrell Aldrich &amp; Neil Konzen</td>
<td>102</td>
</tr>
<tr>
<td>Multiply Demo</td>
<td>David B. Garson</td>
<td>104</td>
</tr>
<tr>
<td>Autostart ROM is Here!</td>
<td>Darrell Aldrich</td>
<td>105</td>
</tr>
<tr>
<td>Zero Page Map</td>
<td>Darrell Aldrich</td>
<td>106</td>
</tr>
</tbody>
</table>
PRINTER DRIVERS AND THE LIKE

Ron’s Page..........................................................................................................................................108
Hi-Res Screen Dump (Article & Program) – Ron & Darrell Aldrich...................................................108
Serial Card Handshake Modification ...................................................................................................112
Integral Data/Parallel Card Fix – Tom K. Lewellen .............................................................................113
Printing Lower Case (Program) – Val J. Golding ...............................................................................114
Printer Driver (Program) – Ron & Darrell Aldrich .............................................................................115

COLOR

Your Apple red hot, and green, and purple, etc. In fact, turn the pages for 21 high-res colors!

Using Page 2 Text and Lores (Article & Program) – Tim Aaronson & Andy Hertzfeld .......................120
Plotting To The Lo-Res Screen – Bruce Freeland ..............................................................................121
Applesoft Firmware Card Routine – Steve Alex .................................................................................122
Color 21 (Article & Program) – Darrell Aldrich .................................................................................123
Bowling (Article & Program) – Jeff Koftinoff ....................................................................................124
Fireworks (Program) – R.E. Ray .......................................................................................................125
Lores Color Picture (Article & Program) – Jeff Koftinoff ...................................................................126
Fast Gr Screen Clear – Roger Wagner................................................................................................126

UTILITIES

Something for everyone!

Monitor String Writer (Programs) – Val J. Golding...............................................................................128
Illegal Control Characters (Program) – Ron Aldrich ..........................................................................129
Disk Free Space – Darrell Aldrich ......................................................................................................129
File Restore (Article & Program) – Vincent Corsetti .........................................................................130
Routine to Center Titles (Program) – Val J. Golding ...........................................................................131
Split Catalog Routine (Program) – Ron Aldrich & Andy Hertzfeld .....................................................132
Hide (Article & Program) – Mark Capella ..........................................................................................134
Soul Searching With The Apple (Article & Program) – David Garson ..............................................135
Hidden Rem Formatter (Programs) – Val J. Golding ..........................................................................136
Speeding In Applesoft – Roger Wagner ............................................................................................136
Text Aid (Program) – Terry Mitiken ...................................................................................................137
Prohibited Characters (Program) – John Crossley ................................................................. 137
Another Way To Skin A Cat (Program) – Val J. Golding ........................................................ 137
Stop List Routine (Program) – Darrell Dunmire .................................................................... 138
Simulating MOD function In Applesoft (Program) – David Garson ...................................... 138

FEATURES

All your favorite columnists in these pages, plus Write APPLE and editorials.

Write APPLE (Letters) – The Readers ...................................................................................... 140
Apple’s Eye View (Humor) – Jim Hilger ..................................................................................... 148

REVIEWS

Software Review – Dick Hubert ................................................................................................. 150
Integral Data IP 225 Printer - A Review – Val J. Golding .......................................................... 151
Software Review: Adventuremaze – Michael D. Weinstock ................................................... 152
A Review: Applesoft II Reference Manual – Dick Hubert ...................................................... 152
Newsletter Review: Abacus – Val J. Golding........................................................................... 153
News Release: I BBS .................................................................................................................. 153
Newsletter Review: Applesauce – Val J. Golding ................................................................. 153
Book Review: Monitor Peeled – Val J. Golding ........................................................................ 154
Review: Micro – Val J. Golding ................................................................................................. 154
The World’s Shortest Inventory Program – Bob Huelsdonk .................................................. 154
The World’s Shortest Inventory Read Out – Bob Huelsdonk .................................................. 156
Apple II Forth – John T. Draper .............................................................................................. 156
An Apple For The Teacher – Ted Perry ..................................................................................... 157
Amazing Mystery Program (Program) – Jerry Rivers ............................................................ 157
Change Catalog to CC (Program) – Bob Neulen & Val J. Golding .......................................... 157
The Computer Faire and the Apple – Darrell Aldrich ............................................................. 158
The Winner (Program) – Dick Sedgewick ................................................................................ 158
Faire Enough – Val J. Golding .................................................................................................. 159
Hires Dump ................................................................................................................................ 159
Z = 33 (Article & Program) – Dick Sedgewick ..................................................................... 160
Z = .2222 – Dick Sedgewick ................................................................................................... 160
Microversity – Dick Sedgewick .............................................................................................. 160
A Review of: 6502 Assembler – Carl Moser ........................................................................... 162
INTRODUCTION
by
Val J. Golding

Well here it is: a second volume of Peeking at Call — A.P.P.L.E., all of the relevant material from the 1979 issues under one set of covers! In 1979, Call — A.P.P.L.E. came a long way, from 32 pages to start the year to 52 pages to finish out the year.

A number of new features and columns were introduced during the year, including Alan Winston's The Multi-Lingual Apple and the Apple Doctor by Darrell Aldrich. Jim Hilger also joined us as Staff Cartoonist and is responsible for the delightful cartoon headings that dress up our pages.

Two other features, entitled “Exploring The World Of Apple” and “From the Very Core of Apple”, authored by a number of individuals, were added to provide in depth instructional material, aimed at novice and intermediate programmers, respectively, and “So Who Needs Applesoft” has become an ongoing feature that explains how to simulate various Applesoft routines in Integer Basic. A special section in this volume has been set aside for that category, which also includes other Integer Basic material.

All material has been broken down into NINE categories and each section has its own table of contents to help the reader locate the item of current interest. Omitted material consists only of items like meeting minutes and programs written for 3.1 or earlier DOS which are not easily converted.

To the extent possible, corrections have been made to known errors in program listings. In some cases, complete new updated programs have been substituted. Typesetting errors if not significant have not been changed, and in a few instances handwritten changes have been resorted to as an expedient.

Like so many A.P.P.L.E. projects, Peeking at Call — A.P.P.L.E., Volume II fell way behind the production schedule, much of it due to circumstances beyond our control.

For those of you who have waited so long, here it is. We hope you will find the wait has been worthwhile.

LIFE ON A MAGAZINE
by
Patricia

Working on a magazine,
Is really quite a chore.
But with such variety,
Never becomes a bore.

There's editing, proof-reading,
To printers thru the snow.
Digging thru stacks of programs.
"It's here somewhere I know!"

Office work which must be done
Letters to be sent.
Tracing down advertisements
"Just how was this one sent?"

Then there're changes to be made
To get it done just right.
Calls to people with columns,
"It's just not here in sight!"

Then it's done — you stand aside,
See what you've helped create.
The feeling of achievement
Is nothing less than GREAT!!

AND NOW, A WORD FROM THE EDITOR

Working on Apple Orchard, and Call — A.P.P.L.E. was my first experience with the inside story of how a magazine is put together. Until then, whenever I bought a magazine, I just took it for granted, without a thought for all the people who made it possible for me to buy that one book. Working on these magazines, and now on this, Peeking Volume II, have really changed things for me.

Our articles start out with a contributor, who has either a program or an article which he wants to share with his fellow club members. Once it is submitted to the magazine, it is checked to see if it would fit into a certain issue. Then it goes to the printers to be typeset. There are a number of trips back and forth, with just one program, to make sure that it is correct before the magazine is printed. Once the articles and programs are set, or rather while all these are being taken care of, there are the advertisements. Although there is an Advertising Representative, there are always the last minute ads to track down, as space has already been reserved for them. And you have a deadline.

Finally — everything is pasted up, proofread, and final copy at the printers. Ads are in, covers chosen, and everything set. It snows, you're stuck. The power is off, or the bindery's machines break down. More delays! But despite all the set-backs, you finally hold a copy of the finished product in your hands, and the feeling, because you've helped in some way, is indescribable.

To list all the people who have contributed in any way, great or small, to the publication of this volume, would leave little room for the articles, which are the reason for the magazine in the first place.

So instead I'll just say thanks all of you. Printers, contributors, binders, readers, etc. And a special thanks to the Directors of A.P.P.L.E., for giving me the privilege of helping put this magazine together. I hope my efforts add to your enjoyment, as the experience in learning has added to mine.

Patricia A. Boner

---

PEEKING AT CALL-A.P.P.L.E. 1979