Apple II SOFTWARE

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**AMPERMANAGER VERSION 2.0**
by Rick Sutcliffe
Apple II+, IIe, IIC

This popular ampersand utility package works under ProDos and Dos 3.3 with both versions residing on the same disk! Read or write disk blocks at will in ProDos, and any Track/Sector pair in Dos 3.3. Over 70 useful utilities including shorthand Applesoft commands, improved input supporting lower case and allowing commas and colons, formatted printing (print using), and many, many more. See "THE NORTHERN SPY" in the July 1984 issue of Call -A.P.P.L.E. for further details.

**PRODUCT CODE** SAMP
A.P.P.L.E. PRICE $22.50
SUG. RETAIL $34.95
SHIP. WT. 8 OZ.

**APMAIL.PRO**
By Ken Kashmarek, adapted from a program by D.D. Redhed and F.W. Merchant
Apple II+, IIe, IIC

A new enhanced version of A.P.P.L.E.'s excellent mail data base program, AP MAIL II(VERSION 3.0), to run on the expanded capabilities of Apple Computer's ProDos, AP MAIL.PRO utilizes a new machine language sort that runs nearly 400% faster and programs are also renumbered to facilitate user modification. Utilities have also been provided for easy DOS 3.3 AP Mail conversion with additional fields for the search and sort subroutines. Thorough knowledge of ProDos commands required for use of this program.

**PRODUCT CODE** SAPMPR
A.P.P.L.E. PRICE $35.00
SUG. RETAIL N/A
SHIP. WT. 3 OZ.

**THE APPLESOFT CARPENTER //**
by Wayne Eastwood
Apple II+, IIe, IIC (Dos 3.3)

A collection of seven utilities which enhance programming productivity. 
The List: provides formatted listings of Applesoft programs.
The Compressor: compacts AppleSoft programs.
The Cruncher: compacts AppleSoft programs.
The Converter: converts Integer Basic files to Applesoft.
The Constructor: allows Integer Basic to be converted to Applesoft format to provide back-up documentation of original program.
The Finder: finds all occurrences of a string.

**APPLESOFT PROGRAM EDITOR (A.P.E.) DOS 3.3**
by Richard Hackl
Apple II+, IIC, IIC

We think that A.P.E. is the most valuable tool a person can have for programming in Applesoft. It has all the key features of the old standby's (PLE and GPLE), and much more. This program is a must! The FULL-FUNCTION EDITOR lets you change a line or an entire range of lines with a few keystrokes. Simply move to where you want to insert or delete and A.P.E. makes space for you. No awkward cursor-tracing needed. Search/replace a letter or phrase. True screen editing within an Applesoft line. Always there when you need it: Monitor, Immediate mode, even in a running program! ENHANCED ESCape EDITING: There are times when the quickest way to copy a phrase is to "ESCape-UKM" the cursor, trace what you want and hit return. Ever been lost? A.P.E. shows you a copy of the line as you build it! You can use this even in the middle of editing an Applesoft line. ADVANCED RENUMBER: Frustrated by your memory hog renumber program that isn't there when you need it? Did you try renumbering your "Super Big-Boy" program to find that you suddenly rendered your twenty page listing worthless? Now renumber can always be there with the editor, but in no more space than most editors. Best of all, A.P.E.'s Auto-Renumber capability lets you fix forever the starting line number for each major program section with a single renumber command. APPEND, another feature of renumber, makes it easy to bring in subroutines from a library or merge two program segments together. A.P.E. takes care of the mechanics, now you can concentrate on producing good program structure. QUICK TYPE: Save keystrokes. For example, you may define "ESC 1" to mean "CATALOG,D1". Whenever you type "ESC 1", Quick-Type takes over and catalogs the disk. If you prefer, just use the predefined Quick-Type functions, CHOOSE THE CONFIGURATION: Select where you want A.P.E. and DOS, both in the lower 48K or choose to put A.P.E. or both into the language card area to give your programs more working space.

COMPATIBILITY: We're honest. Here are the restrictions. A.P.E. must be in the language card to use Renumber/Append. Integer BASIC is not supported. Works with Videotex Videoterm and Ultravision, Vision 80, Viewmaster 80, IIC and IIE 80 column cards. HACK EVEN SHOWED US HOW HE DID IT and we know it works great... but all of this in 4K (5.5K counting Renumber)?

**PRODUCT CODE** SAPE
A.P.P.L.E. PRICE $30.00
SUG. RETAIL $49.95
SHIP. WT. 1 LB.
**A.P.E. PRO**
Apple II, II+, IIe, IIc (64k required)

Now our popular DOS 3.3 editor runs under ProDOS. The package comes with both versions on disk as well as a full manual with tutorial and a ProDOS addendum. We think you'll agree that it is the best Applesoft editor around. The REM Renumber feature encourages good program structure. A single command allows you to clean up the numbering while keeping the starting line number of each subroutine fixed.

**FEATURES INCLUDE:**
- Full-function line editing
- Advanced Renumber - Append
- REM Renumber keeps your subroutines line numbers intact
- Global editing - Search, replace
- Keystroke-saving QuickType functions - line!
- Enhanced ESCape editing

**PRODUCT CODE** SAEP
**A.P.P.L.E. PRICE** $37.50
**SUG. RETAIL** $59.95
**SHIP. WT.** 1 LB.

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**COPY II PLUS 5.5**
from Central Point Software
Apple II, II+, IIe, IIc (64k required)

**COPY II PLUS 5.5** is one of the most powerful backup copy programs available, and is also our choice as the most versatile and comprehensive disk/file manipulation utility program available for the Apple II series computers. The powerful bit copy program in COPY II PLUS allows you to automatically backup over 400 copy protected programs! No more worry about blowing expensive master disks and no more down time while waiting for replacements to arrive. COPY II PLUS 5.5 also allows you to:

- COPY files, entire disk, or Dos from one disk to another.
- CATALOG normally or show file lengths and addresses, deleted files, or hidden characters in file names.
- DELETE files or Dos.
- LOCK/UNLOCK, RENAME, UNDELETE files.
- ALPHABETIZE your catalog listing.
- VERIFY disk, files, identical files, and also drive speed.
- VIEW FILES see the contents of a file as values or text
- TRACK SECTOR MAP shows occupied parts of the disk
- SECTOR EDITOR allows you to directly modify disk sectors
- CHANGE BOOT PROGRAM does exactly that.

**PRODUCT CODE** SCPY
**A.P.P.L.E. PRICE** $25.00
**SUG. RETAIL** $39.95
**SHIP. WT.** 14 OZ.

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**ApTEST**
BY Mike Butler
Apple II, II+, IIe, IIc

Low-cost diagnostics program designed to thoroughly test your Apple. A pTest features tests of both RAM & ROM memory, modem, keyboard, disk drive speed, drive head alignment, drive controller card and the game I/O. Will test Apple II, II+, IIe and IIc.

**PRODUCT CODE** SAPT
**A.P.P.L.E. PRICE** $20.00
**SUG. RETAIL** $34.95
**SHIP. WT.** 2 OZ.

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**DISK ANALYZER 1.3**
By Ronald A. Thisted, Ph.D.
Apple II, II+

This is a utility for viewing and printing the raw contents of a disk. Features a specially formatted printout of the VTOC, catalog, and track/sector list. Once this information is viewed, you can proceed to read sectors of any particular file. This is especially useful in investigating bad word processor files. The program is well documented to provide a learning experience in programming and in using HWTS. The program is mostly in Applesoft and Big Mac source files are included for the binary portion of the program. This program can be used by a beginner. Requires any Apple with Applesoft and one disk drive. A printer is useful.

**PRODUCT CODE** SDOSAN
**A.P.P.L.E. PRICE** $12.50
**SUG. RETAIL** N/A
**SHIP.WT.** 2 OZ.

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**BIG MAC.C**
by Glen Bredon
Apple II, II+, IIe, IIc

DON'T LET THE NAME FOOL YOU! This program works great on the entire Apple II family! It is a powerful, co-resident editor/asmblers for which Ted II+ and BIG MAC.LC files are upward-compatible. Easy-to-use program features MACRO capability, fast (2000-3000 lines/minute) conditional assembly, full feature editor, support of all 6502 and the new 65C02 opcodes, Sweet 16 pseudo-opcodes, and all logical and math operations. In addition, you may generate up to three different symbol tables (alpha by label, numerical by address, cross-referenced by line). For development of very large programs, the source code may be assembled directly from disk and the object code itself assembled directly to disk. An extensive well written manual is included (193 pages). The stand alone disassembler provided handles 65C02 opcodes and generates compatible source code. Bonuses include a variety of useful assembly language routines, and a clever system that will print you a fully labeled and commented disassembly of the Applesoft language.

**PRODUCT CODE** SMACC
**A.P.P.L.E. PRICE** $40.00
**SUG. RETAIL** N/A
**SHIP. WT.** 1 LB.
CALL - A.P.P.L.E. FASTFIND
by Jim Hammond
Apple II+, Ile, IIC, IIGP

You've been asking for it for years, and now we've got it! A complete computerized subject index of the first seven years of our A.P.P.L.E. publications. All CALL - A.P.P.L.E. magazine articles, letters to the editor, are carefully summarized with keywords to help you find the facts you need when you need them!

- Single or multiple search keys
- Search supports wildcards and logical operators
- Program listings with "fixes" in later articles cross referenced-no more wondering why the program won't work.
- Print hardcopy reports of your searches.
- Easily add or change entries with your text editor.
- Search multiple disks with one keystroke.
- Watch for summaries of other publications.

PRODUCT CODE SFAST
A.P.P.L.E. PRICE $15.00
SUG. RETAIL $30.00
SHIP. WT. 8 OZ.

FASTFIND - BONUS UPDATE

The disk contains the Call-A.P.P.L.E. FastFind index for the first six months of 1985. As a special bonus, this disk also includes the Author and Title index for the magazine from 1978 through 1984. For those who have not already used FastFind, you will be amazed at how many solutions to your computer problems have been offered in the pages of Call-A.P.P.L.E. over the last few years. Call-A.P.P.L.E. FastFind gives you a practical way of locating that information when you need it. (The Bonus Update requires that you have the original CALL-A.P.P.L.E. FastFind disk.

PRODUCT CODE SFAST1
A.P.P.L.E. PRICE $7.50
SUG. RETAIL $15.00
SHIP. WT. 2 OZ

GRAFMAGIC
by Stuart Cowen
Apple II+, Ile, IIGP

GRAFMAGIC is an ampersand extension to Applesoft BASIC offering 64 new commands as well as a powerful Hi-Res character generator. Commands are included to scale, rotate, invert, erase, copy, scroll (in four directions), fill in, and flip selected portions of the screen. Other features include an implementation of Turtle Graphics which allows up to five "turtles" to be moved independently, a sound generator with true-to-pitch notes, a number of interactive tutorials. The character generator can print text of any size ranging from normal up to full screen and will support underlined, boldface, inverted, superscripted and subscripted and upper or lowercase characters.

PRODUCT CODE SGRAFM
A.P.P.L.E. PRICE $12.50
SUG. RETAIL N/A
SHIP. WT. 2 OZ.

GRAPHICS BUILDER
By Alton Loe
Apple II+, Ile

This is a graphics utility which allows one to draw a HIRES picture and save the picture as a standard binary file or as a more compact text file of x-y coordinates and commands. This program may be used to modify an existing picture, to put labels on a graph or a moustache on Hopalong Cassidy. Additional commands allow expansion or contraction of the picture (and corresponding coordinate table), pen color selection, goto XY, and reference grid. When used in conjunction with APGRAPHICS: The Filler, Graphics Builder makes possible sketch-and-fill techniques very popular for creating HIRES adventure games. Fill commands are recognized by the Graphics Builder’s editor if APGRAPHICS: The Filler is in memory.

PRODUCT CODE SGRABU
A.P.P.L.E. PRICE $12.50
SUG.RETAIL N/A
SHIP. WT. 2 OZ.

HIGHER TEXT PLUS-HIGHER FONTS 1
by Darrell & Ron Aldrich
Apple II+, Ile, IIC

HIGHER TEXT PLUS
Generate upper and lower case text in variants of typefaces, sizes, and colors from your programs for display on the Apple HIRES screen. Features an easy to use editor for generation of your own unique character sets (fonts), several utilities to enhance your creation of HIRES displays, wide range of sample fonts, and full documentation. (Note: this program requires and assumes a full working knowledge of either Integer or Applesoft BASIC.)

HIGHER FONTS 1
Need extra character sets for Higher Text Plus, but don't wish to create them? Higher Fonts is a collection of over 25 different fonts or character sets for use with Higher Text Plus. Fonts vary from foreign and ancient languages; alphabets to special math and scientific symbols and game building characters. Use of fonts is demonstrated by several display programs.

PRODUCT CODE SHTPP
A.P.P.L.E. PRICE $28.50
SUG.RETAIL $55.00
SHIP. WT. 6 OZ.
Maxwell's DEMON™
by Duane Maxwell from Enhanceware™
Apple II,II+,Ile,Iic

This unique machine code debugger has learning aids for the novice programmer, yet it includes all the tools needed by the expert. Beginners find that the display of every memory cycle's effective address and data makes it easy to understand every instruction. Even the stack oriented commands and the complex addressing modes become easy to follow. The well organized screen displays all registers, cycle counts, and a listing (including symbols) of the five instructions surrounding the current Program Counter. Expert and novice alike appreciate the easy to use commands which allow you to:
- Single step or free run.
- Follow the effect of each instruction as it executes.
- Set breakpoints - EVEN IN ROM!
- View Text or Graphics screens.
- Modify any register or flag.
- Examine and modify memory.
- Simulate a Reset, NMI, or IRQ.
- Manipulate the Stack.
- Edit the symbol table.
- Execute any part of the program.
- Execute user code.
- Remap memory, freeing the program to run anywhere and to use any display screens.

IF IT DOESN'T WORK - UNDO IT!
Usually when you detect a bug in a program, it's too late; the damage has been done. But with Maxwell's DEMON™ you can simply UNEXECUTE the last instruction executed. In fact, you can step backwards up to 16 instructions! Unexecute just doesn't just back up the Program Counter. Everything that had been changed by the execution of the Instruction(s) is restored to its original state! Code can be executed, unexecuted and re-executed as many times as needed until the bug has been found and fixed.

Maxwell's DEMON™ also includes:
- A fully symbolic calculator, mini- assembler and linter.
- A mode for fast execution of previously debugged code.
- Symbolic operation with any object code - even in ROM.
- The ability to breakpoint on any desired combination of conditions; catch your program before it clobbers itself or the operating system - or before it jumps to the wrong address.
- A "help" command gives a description of each command.

A utility program is included which "grabs" the symbol table after an assembly with Big Mac.C or Merlin™ (ram card version). For use with other assemblers, or when only object code is available, the symbol table may be entered directly, or you can create your own symbol table grabber. Any symbol table may be saved to disk for later use.

The 110-page manual gives a very detailed description of each command, step-by-step procedures, many examples, tips on isolating certain bugs and entering patches, as well as other time saving techniques.

Maxwell's DEMON™ runs under standard Dos 3.3 on any Apple [[, [[+], /e, or /e with at least 48k and one disk drive. It supports all 6502 and 65c02 instructions. Source code is even available for hackers who want to make their own modifications.

PRODUCT CODE SDEMON
A.P.P.L.E. PRICE $35.00
SUG. RETAIL $49.00
SHIP. WT. 1 LB.

MICROBE
from Synergistic Software
Apple II+,Ile

Take a journey through the blood stream of a human body and battle life threatening organisms and diseases while being careful not to injure the human host. A great science and learning arcade like adventure game from Synergistic Software.

PRODUCT CODE SMIC
A.P.P.L.E. PRICE $19.00
SUG. RETAIL $44.95
SHIP. WT. 1 LB.

MICROWRITER Ile
By Bill Starbuck
Apple Ile,Iic

A semi-professional screen oriented word processor. Features 40 or 80 column edit modes, an 80 column preview line you edit in 40 columns, full ile keyboard support, text insert, delete, move and replace, insert segments from disk, and save segments to disk. Generates standard text files. Printer drivers are included for Imagewriter, C.ltoh 8510A, Dynax DX-15, Epson FX-80, MX-80 w/Graftrax, Tally MT160, Tally Spirit-80, Nec 8023A, and Panasonic. Full instructions are included to generate additional printer drivers. This word processor is easy to use and will satisfy the requirements of 99% of the users. Requires an Apple Ile and one disk drive. Supports additional drives and most likely any printer or 80 column card. Ile compatible.

PRODUCT CODE SMICWT
A.P.P.L.E. PRICE $12.50
SUG. RETAIL N/A
SHIP. WT. 2 OZ.

MICROWRITER II+
by Bill Starbuck
Apple II+

Same easy to use word processor for the Apple II+. Requires II+ with shift-key modification and a lower case chip. Compatible with Videx Videoterm and most other 80-column cards.

PRODUCT CODE SWUWR
A.P.P.L.E. PRICE $12.50
SUG. RETAIL N/A
SHIP. WT. 2 OZ.
MODEM MAGICIAN
by Gary B. Little
Apple II, II+, IIE, IIC

The first full featured, intelligent terminal program to be published under the A.P.P.L.E. CO-OP label. Modem Magician is a comprehensive inter-computer data communications software system for the Apple II, II+, IIE, IIC and compatibles. It allows you to easily send and receive text by phone with remote computers, including services such as The Source and Compuserve, computer bulletin boards, or other personal computers equipped with modems. Utilities are included to convert ApplePIIT, Machine Language, and Pascal files for transmission. Modem Magician works with most popular stand-alone modems and modem interface cards including the Apple Modem, Prometheus Promodem, Multitech Multimodem IIE, Hayes Micromodem, Hayes Smartmodem, Novation Apple-Cat II (300 baud), U.S. Robotics Password Modem, SIGNALMAN Mark X, SSM Apple Modem Card, Apple Super Serial Card, Videk PSI0 Card, CCS Model 7710A Card, and SSM ASIO Card. Features include:

- No word splitting when receiving text on the 40-column screen.
- Ability to enter all 128 ASCII characters from Apple II, II+, keyboards.
- Full support of all lower case adaptors for II and II+. Support of 80-column video displays: Videk Videoterm with softswitch, Apple IIE 80-column Text Card, Apple IEC.
- Built-in text editor, phone number editor and macro editor.
- Built in filing system allows you to easily save, load, delete and rename system text files.
- Supports two drive systems under ProDOS.
- Automatically saves incoming data to disk when memory buffer becomes full.
- AUTO-ANSWER mode allows you to leave computer unattended.
- Simultaneous on-line printing when using most printer interface cards.
- XMODEM error-checking protocol for accurate transfer of ProDOS files.

PRODUCT CODE SMDMA
A.P.P.L.E. PRICE $ 38.00
SUG. RETAIL $ 59.95
SHIP. WT. 1 LB.
SOFTWARE

- DATA IMPORT/EXPORT DIF and ASCII file format.
- DETAILED MANUAL 400+ pages with basic and advanced tutorials.

OMNIS 3 KEY FEATURES INCLUDE:

- RELATIONAL CAPABILITIES LINK INFORMATION FROM SEVERAL DIFFERENT FILES.
- DATABASE CAPACITIES OMNIS 3 has the capability to handles up to 24 different files in one database, 12 of which can be open at one time, thus allowing the user to create records with up to 1440 fields per record. Data set size limited only by your disk capacity. See OMNIS 2 for other specifications.
- DEFINE ENTIRE APPLICATIONS using the screen oriented control of flow system. No programming languages to learn.
- OMNIS 2 FILES ARE UPWARD COMPATIBLE WITH OMNIS 3 (Those that so choose can trade in their OMNIS 2 with all disks and manuals and receive a $50.00 credit towards OMNIS 3).
- HARD DISK COMPATIBLE Corvus, Ice, Space Coast Systems, CMC systems. (Sider support pending)
- SYSTEM REQUIREMENTS OMNIS 2 - 64k Apple II+, Ile, Iic with 2 drives or 128k Apple Ile with one drive and a hard disk. OMNIS 3 - 64k Apple II+, Ile, Iic with three drives or 128k Apple Ile with one drive and hard disk.

PRODUCT CODE SO264 (OMNIS 2 64k)
A.P.P.L.E. PRICE $100.00
SUG. RETAIL $195.00
SHIP. WT. 3 LBS.

PRODUCT CODE SO2128 (OMNIS 2 128k)
A.P.P.L.E. PRICE $100.00
SUG. RETAIL $195.00
SHIP. WT. 3 LBS.

PRODUCT CODE SO364 (OMNIS 3 64k)
A.P.P.L.E. PRICE $150.00
SUG. RETAIL $295.00
SHIP. WT. 3 LBS.

PRODUCT CODE SO3128 (OMNIS 3 128k)
A.P.P.L.E. PRICE $150.00
SUG. RETAIL $295.00
SHIP. WT. 3 LBS.

PLUS-WORKS-XMTM

by Norwich Data Services

Apple II+, Ile

Applesoft owners - the power of AppleWorks™ is at your command!

We are extremely excited to announce PLUS-WORKS-XMTM. PLUS-WORKS is a "patch" program which when run, modifies the Apple-Works™ Startup disk and allows the "rest of us" to enjoy AppleWorks on our Apple II's, II+, and Apple II look alike!! PLUS-WORKS XM incorporates an extended memory feature which will recognize the A.P.P.L.E. BIG BOARD and most peripheral slot ram cards using 100% of memory to expand the AppleWorks Desktop up to one MEGA-BYTE! depending on the size of the ram board in use. With boards of 256k or larger you can utilize the ram disk feature which allows AppleWorks to reside entirely in memory!

Features Include:

- Easy to use one-time patch program modifies STARTUP program.
- All OPEN-APPLE commands handled on the II+ keyboard!
- DESKTOP space of up to 1 megabyte.
- Supports VIDEX compatible 80-column displays with inverse capability, also Smarterm 2, Wizard 80, and Vision 80.

We've tried it and we like it! (The original ad copy was written on an Apple II+, with AppleWorks and a 1 megabyte A.P.P.L.E. BIG BOARD - available Desktop space = 1016k).

PRODUCT CODE SPLUSW
A.P.P.L.E. PRICE $39.00
SUG. RETAIL $49.95
SHIP. WT. 12 OZ.

PLUS-WORKS-XMP™

By Norwich Data Services

Apple II+, Ace 1000, Ace 1200

Same as the PLUS-WORKS-XM but recognizes the 64K of the PC-1 (Stardac) ALS enhanced CP/M boards, Franklin 64K CP/M boards. Requires one of these cards. Does not use memory on other types of memory cards.

PRODUCT CODE SPLUSP
A.P.P.L.E. PRICE $39.00
SUG. RETAIL $49.95
SHIP. WT. 12 OZ.

ProCOMMAND - The Commander

by Glen Bredon

Apple II, II+, Ile, Iic (64k required)

From the author who gave us BIG.MAC.C, now comes ProCOMMAND. This package is a set of ProDOS utilities and NEW ProDOS commands that greatly increase the power and flexibility of the ProDOS operating system. Those who have used the ProDOS "FILER" know the agony of having to enter (one by one!) the pathnames of the files chosen to copy. Nomore! Included on the ProCOMMAND disk is the file utility "FITE" which allows for BATCH PROCESSING (copy, lock, unlock, and delete) of selected ProDOS files. ProCOMMAND adds 25 new POWERFUL Applesoft and Dos commands to the ProDOS Basic System. The list of new commands includes:

APPLESOFT

- POINTERS - Lists the current values of seven important Applesoft pointers.
- VARLST - Lists all currently active variables.
- VARTRC - Trace the current value of a selected variable.
- XREF# - Shows what variables are being used and where in your program.
- DUMP - Hex/Ascii memory dump or ANY ProDOS file including directories.
- SORT - Sorts single or multi-dimensioned arrays on multiple fields.
Apple II SOFTWARE

- EDIT - Provides a full featured, global Applesoft BASIC program editor.
- AUTO - Provides automatic line numbering for Applesoft programs.
- RENUMBER - Renumbers your Applesoft programs.
- HOLD/MERGE - Adds one Applesoft program to another.
- LYST - Produces a formatted listing of the program in memory.
- USING - Will output data in the format of your choice.
- MACRO - Invokes a set of keyboard macros used with EDIT.

ProDOS

- ONLINE - Looks at all online drives and prints names of all volumes found.
- TYPE - Dumps ProDOS TXT files.
- FIND/FIND$ - Searches disk files of any type for specified character or HEX string.
- COPY - Copies file PATHNAME1 to file PATHNAME2.

Also included are commands to conveniently handle plotting, animation, color fills, character generation, and mouse/cursor movement on the ilc/llc double hi-res screen.

PRODUCT CODE SPROCO
A.P.P.L.E. PRICE $35.00
SUG. RETAIL $59.95
SHIP WT. 1 LB.

PROZAP
by Gary Charpentier
Apple II+,IIIc

A new utility uses intrinsic ProDOS routines to read, edit and write any ProDOS block or DOS 3.3 sector all from the Prodos environment. The disk also contains a utility for dump to disk, printer or monitor, a hex or hex/ASCII listing or disassembly with a search routine for hex or ASCII bytes. Complete with documentation for ProZap only, not ProDos.

PRODUCT CODE SPZAP
A.P.P.L.E. PRICE $25.00
SUG. RETAIL N/A
SHIP WT. 3 OZ.

SCRAMBLER
By Jerry Jongerius
Apple II+,IIIc

A disk utility to scan a disk for errors and to copy protect your personal software. Each sector of a disk is checked, bad sectors are marked on the screen. Copy protection can be applied to your disk and for added protection you can add a password. Data disks can also be created. This program is of use in the classroom, at school, or might be used in the home to separate family software. Requires an Apple II+ or IIIc with one disk drive. A second drive and a printer are optional.

PRODUCT CODE SSCRAM
A.P.P.L.E. PRICE $12.50
SUG. RETAIL N/A
SHIP WT. 2 OZ.

SPELLWORKS™
from Advanced Logic Systems

Finally, a spelling checker and mail merge program for AppleWorks. Written exclusively for AppleWorks™, Spellworks makes typing and spelling errors a thing of the past! Merges AppleWorks Data Base files with Apple Works WordProcessor files to generate form letters quickly and easily. Spell checks documents at 10 words per second. Allows you to create Custom Dictionaries containing your own words. Plus Word Count, all on one disk!

PRODUCT CODE SSW
A.P.P.L.E. PRICE $39.00
SUG. RETAIL $49.95
SHIP WT. 2 OZ.

SSD PASCAL 1.2 DRIVER
by Bruce Van Norman

Solid State Disk (Flashcard) Pascal 1.2 Driver. This software lets Pascal 1.2 users take advantage of the speed inherent in the SSD memory-based disk drive emulator.

PRODUCT CODE SPAS
A.P.P.L.E. PRICE $20.00
SUG. RETAIL $79.00
SHIP WT. 2 OZ.

THE FONT ALBUM
by Andrew Wicker
Apple II+,IIIc

Here is a brand new set of over forty fonts for use with Higher Text. Find just the one for the program you are writing. You'll find a wide variety of thin, thick, slanted, shadowed, and stylized typefaces. There is even one patterned after that voracious little arcade game character who has consumed so many quarters! Some fonts include special shapes, creatures, tanks, and other objects that can be used for programming character graphics in creating games.

PRODUCT CODE SFTALB
A.P.P.L.E. PRICE $12.50
SUG. RETAIL $20.00
SHIP WT. 2 OZ.
THE SCHOOLHOUSE GRADER
By Jim Campbell
Apple II+, IIe, IIc

A teachers record book, a class roster and a record of grades, assignments and attendance, as well as statistics are provided. This uncomplicated program should be of great value to teachers who wish to try using a computer for record keeping. Requires any Apple with 48K and one disk drive. A second drive and a printer are recommended.

PRODUCT CODE: SGRADE
A.P.P.L.E. PRICE: $12.50
SUG. RETAIL: N/A
SHIP. WT.: 2 OZ.

THE Spreadsheet Version 2.0 (unprotected)
Apple II+, IIe, IIc

THE Spreadsheet Version 2.0 is a "new generation" spreadsheet calculator program with all the basic features necessary for creation of complicated models, and many advanced features too.

THE Spreadsheet Version 2.0 supports:

- Most popular 80 column boards.
- Optional seventy column software display.
- All "language card" compatible RAM cards and /e extended memory cards (up to 512K).
- Supports full upper and lower case from any Apple computer. (Needs lower case chip/shift key mod. on II, II+)
- Variable column widths.
- Protected cells, hidden cells, and other advanced features.
- Field to field tabbing, for easy data entry.
- Hard disk compatibility.

PRODUCT CODE: STSS
A.P.P.L.E. PRICE: $65.00
SUG. RETAIL: $149.95
SHIP. WT.: 2 LBS.

U-BOAT COMMAND
from Synergistic-Software
Apple II+, IIe, IIc

You are the commander of a submarine in search of a heavily defended enemy aircraft carrier and it's making a break for neutral waters. Watch the sonar scope, air supply, fuel... DEPTH CHARGES! ...steady ...steady. ...FIRE ONE! Arcade style strategic war game.

PRODUCT CODE: SUBCOM
A.P.P.L.E. PRICE: $12.50
SUG. RETAIL: $29.95
SHIP. WT.: 4 OZ.

VOLKSFILER
by Glen Hauser
Apple II+, IIe, IIc

VOLKSFILER is a freeform electronic card file program where each "card" is represented by your Apple screen. You may enter information wherever you want it on the screen. When you recall the information later, it will appear exactly as you entered it. Information can be sent to your printer if you choose. The first word on each screen is used as a sort key. The fast search command automatically scans the entire contents of every screen for the word you want. Automatic data compression assures efficient use of disk storage. VOLKSFILER is easily mastered and is best suited for informal "index-card" type applications and other jobs where a conventional database structure would be too restrictive.

PRODUCT CODE: SVOLKS
A.P.P.L.E. PRICE: $12.50
SUG. RETAIL: $39.95
SHIP. WT.: 2 OZ.

TURTLESOFT
By Robert W. Gallup
Apple II+, IIe

A new graphics program requiring little knowledge of Apple graphics. Program has great educational potential. All commands are accessed through the Ampersand vector. Now you can use commands like: "DRAW", & "LEFT"5, & "FORWARD"10, etc. to create procedures that will draw geometric figures on your screen based on LOGO and the famed Turtlegraphics. Comes with a sound routine, collision detection, split screen graphics and macrodefinitions. Enjoy some of the features of LOGO from the comfort of your own BASIC.

PRODUCT CODE: STUR
A.P.P.L.E. PRICE: $22.50
SUG. RETAIL: $149.95
SHIP. WT.: 4 oz.

ZAPT
By Andy Tuxen
Apple II+, IIe, IIc

A disk utility for altering data on a DOS 3.2, 3.3 or PASCAL disk. With this utility you can change catalog entries, recover deleted files, delete DOS, make modifications to binary programs, and correct corrupted files. In short, you can read or write any byte on a disk. This program is for those who want to learn and for those who have always wanted a (another) ZAP program. As is our policy, this is another well documented and easy-to-use program. Requires any Apple and one disk drive.

PRODUCT CODE: SZAPT
A.P.P.L.E. PRICE: $12.50
SUG. RETAIL: N/A
SHIP. WT.: 2 OZ.
ZARDAX 6.0
from Computer Solutions
Apple II, II+, Ile, Ilc

NEW FEATURES! NEW LOW PRICE! Zardax, our best word processor program, is now copy-able. Making backups and installing Zardax on hard disks is a breeze. We like supporting Zardax so well, we can guarantee that it will configure to your system. Simple menu selection for your printer (over 57 varieties supported), interface card, and kind of video display. Zardax Keyboard connector (HZARKY) required for use with Apple II, II+.

PRODUCT CODE  SZARI1  (II,II+,Ile,Ilc)
A.P.P.L.E. PRICE  $99.00
SUG. RETAIL  $210.00
SHIP. WT.  2 lbs.

ZARDAX KEYBOARD CONNECTOR

PRODUCT CODE  HZARKY
A.P.P.L.E. PRICE  $7.00
SUG. RETAIL  N/A
SHIP. WT.  5 OZ.

Call - A.P.P.L.E. IN DEPTH
DISKETTES

Diskettes containing all programs published in Call - A.P.P.L.E. IN DEPTHS:

ALL ABOUT APPLESOFT DISKETTES

PRODUCT CODE  SIN1
A.P.P.L.E. PRICE  $16.00
SUG. RETAIL  N/A
SHIP. WT.  1 OZ.

ALL ABOUT PASCAL DISKETTES

PRODUCT CODE  SIN2
A.P.P.L.E. PRICE  $20.00
SUG. RETAIL  N/A
SHIP. WT.  3 OZ.

ALL ABOUT DOS DISKETTES

PRODUCT CODE  SIN3
A.P.P.L.E. PRICE  $15.00
SUG. RETAIL  N/A
SHIP. WT.  2 OZ.

ANTHOLOGY VOLUMES

Each disk contains the all the programs found between the pages of Call - A.P.P.L.E. magazine for a six month period, unless otherwise indicated (see below). Great way to obtain terrific programs and utilities without the bother and worry of typing them in correctly. Consult the individual issues or Peeking Compendiums for program documentation as these disks are not stand-alones.

VOLUME  PRODUCT CODE
VOL 1  (Jan - Jun '79)  (SA1)
VOL 2  (Jul - Dec '79)  (SA2)
VOL 3  (Jan - Jun '80)  (SA3)
VOL 4  (Jul - Dec '80)  (SA4)
VOL 5  (Jan - Jun '81)  (SA5)
VOL 6  (Jul - Dec '81)  (SA6)
VOL 7  (Jan - Jun '82)  (SA7)
VOL 8  (Jul - Dec '82)  (SA8)
VOL 9a  (Jan - Mar '83)  (SA9A)
VOL 9b  (Apr - Jun '83)  (SA9B)
VOL 10a  (Jul - Sep '83)  (SA10A)
VOL 10b  (Oct - Dec '83)  (SA10B)
VOL 11a  (Jan - Mar '84)  (SA11A)
VOL 11b  (Apr - Jun '84)  (SA11B)
PASCAL 81  (Jan - Dec '81)  (SPA1)

A.P.P.L.E. PRICE  12.50
SUG. RETAIL  N/A
SHIP.WT.  1 OZ.
ADVENTURE CONSTRUCTION SET
Apple II, Ill+, Illc, Ile
The most powerful graphic adventure generator.
- Maximum adventure size: 240 rooms, 500 creatures, 7500 props.
- 500 existing creatures and props.
- 30 sound effects, 13 magic spells.
- Pixel editor for drawing new graphics.
- "Finish" option compiles design automatically.
- Supports AppleMouse, Mockingboard, and Cricket.

PRODUCT CODE: SCACON
A.P.P.L.E. PRICE: $34.00
SHIP WT.: 8 OZ.

ARCHON II: ADEPT
Apple II, Ill+, Illc, Ile
The unique Archon game system with new pieces and more strategy than the original Archon.
- Dungeon type pieces like sorcerers, gorgons, and warriors.
- Handcapping system.
- For one or two players.
- "Best Strategy Arcade game" - Family Computing.

PRODUCT CODE: SARCON
A.P.P.L.E. PRICE: $27.00
SHIP WT.: 8 OZ.

AUTO DUEL
Apple II, Ill+, Illc, Ile
The first fast-action strategy role-playing game with cars. Instead of building up warriors and magic users, you build hot cars. Set in the future, where the right-of-way goes to the driver with the biggest gun.
- Based on Car Wars by Steve Jackson
- From Origin Systems
- Such a classic it even has its own magazine.

PRODUCT CODE: S2AUTO
A.P.P.L.E. PRICE: $34.00
SHIP WT.: 8 OZ.

CARRIERS AT WAR
Apple II, Ill+, Illc, Ile
The most accurate WW II strategy game of the Pacific.
- 7 built-in scenarios from Pearl Harbor to Coral Sea
- Accuracy of military forces, geography, battle conditions and weather.
- Maps and aid cards included.
- "Best War Game of 1984" - Computer Gaming World
- From Strategic Studies

PRODUCT CODE: SCRAWA
A.P.P.L.E. PRICE: $35.00
SHIP WT.: 1 LB.

Dr J & Larry Bird go ONE ON ONE
Apple II, Ill+, Illc, Ile
The number one sports simulation of all time. This program gives you the intoxicating feeling of actually getting to play one of these basketball superstars. You get to take all the skills and characteristics of either Bird or the Doctor - all the special moves, their shooting abilities, their rebound skills, their stamina and speed. What happens when you get two all-stars like these together, and get them to help you design a software game? You get "Game of the Year" and 5 other awards, and a smash best-seller.

PRODUCT CODE: ZONE
A.P.P.L.E. PRICE: $27.00
SHIP WT.: 8 OZ.

EUROPE ABLAZE
Apple II, Ill+, Illc, Ile
The air war over England and Germany 1939-45. You can take the role of Commander of the Air Force, or any of five subordinate positions on either side.
- From 1 to 12 players
- You can plan the missions. Bombing, Fighter, Patrol, or Raiding
- Fight the Battle of Britain and two other scenarios or design your own battles.
- Includes 24 aircraft types, 256 squadrons, 127 airbases, 63 radar stations, and much more.
- From Strategic Studies Group

PRODUCT CODE: S2BLAZ
A.P.P.L.E. PRICE: $35.00
SHIP WT.: 8 OZ.

FINANCIAL COOKBOOK
Apple II, Ill+, Illc, Ile
Sophisticated but easy-to-use home financial calculator. Offers 32 recipes covering the most frequently asked questions on:
- Taxes and tax shelters.
- Lease vs. buy.
- Amortization schedules.
- Auto and home financing.
- Inflation.
- Investments, savings, and IRA accounts.
- Stock documentation.

PRODUCT CODE: SFHC8
A.P.P.L.E. PRICE: $34.00
SHIP WT.: 8 OZ.

MOEBIUS - The Orb of Celestial Harmony
Apple II, Ill+, Illc, Ile
From the creators of Ultima comes a new dimension in fantasy role-playing games. Moebius is a danger filled adventure through a complex and colorful oriental world of magic, mysticism, and intrigue.
- Action-arcade duels in 3-D hires graphics.
- Interaction between magic and character moves.
- From Origin Systems

PRODUCT CODE: S2MOEB
A.P.P.L.E. PRICE: $38.00
SHIP WT.: 8 OZ.

MOVIE MAKER
Apple II, Ill+, Illc, Ile
Create your own animated movies that look like they were done by professional animators. Ten built-in movies act as tutorials to help you quickly master the art of animation. You can animate your own drawings or use the hundreds of built-in pictures.
- Includes 3 hilarious Gahan Wilson cartoon movies.
- Record your creations on disk or onto your VCR.
- Built in sound library for special effects to your movies.
- New kind of Creativity Software for your Apple.

PRODUCT CODE: S2MOV1
A.P.P.L.E. PRICE: $27.00
SHIP WT.: 8 OZ.

MURDER ON THE ZINDERNEUF
Apple II, Ill+, Illc, Ile
A graphic mystery adventure. There's been a murder on the luxury dirigible, Zinderneuf. If you don't find the killer before you land in New York, you'll lose your reputation as a world famous detective. Search their rooms, question them, watch them. Then make the killer confess.
- Over 2000 scenarios, chosen at random.
- Choice of eight detective characters.
- Easy to play, no text input. Menu driven with joystick.
- Average playing time 35 minutes.
- The lowest price of the Electronic Arts Products.

PRODUCT CODE: S2MURD
A.P.P.L.E. PRICE: $15.00
SHIP WT.: 6 OZ.
Music Construction Set
Apple II, II+, IIe, IIc
The best selling home music software product of all time. An easy powerful music composer. Pick a note, whole note through sixteenth, place it on the staff, and hear it play. Imagine a record album you could actually enter, rewrite, and then play back—all in seconds. Imagine that in addition to the music on it, you could use it to write songs of your own.

Music on the disk ranges from rock and roll to ragtime, nursery rhymes to baroque. It’s fun to play, and even more fun to change. Throw in a few flats, change the key, change the whole ending. Reach across the centuries and tweak the nose of Mozart. From professional composers to children, this is a great way to learn about music. And a great way to have fun with what you already know.

PRODUCT CODE  S2MCS
A.P.P.L.E. PRICE  $27.00
SHIP WT.  6 OZ.

Pinball Construction Set
by Bill Budge
Apple II, II+, IIe, IIc
Create your own video pinball games, in a class by itself. The most award winning home software product in history. It’s been called the best program ever written for an 8-bit machine. Pure sheer unadulterated power to create the pinball games of your dreams, save them and show them off.
The all time classic.

PRODUCT CODE  SPBCS
A.P.P.L.E. PRICE  $25.00
SHIP WT.  6 OZ.

Reach for the Stars
Apple II, II+, IIe, IIc
The most stratospherically challenging Sci-Fi game ever.
Conquer the galaxies; 54 star systems, 100 planets.
Manage population, environment, economy, space fleet design and production, and war operations.
Galactic maps and data cards included.
From Strategic Studies Group
"Best science fiction game for the thinking person."

Science Digest.

PRODUCT CODE  SRFSTR
A.P.P.L.E. PRICE  $31.00
SHIP WT.  6 OZ.

The Seven Cities of Gold
Apple II, II+, IIe, IIc
An exploration and resource management game about the Spanish Conquistadors.
- Historically and Geography accurate.
- Captures Conquistadors’s problems of supplies, navigation, communication, and native interaction.
- Automatic computer mapping.
- Random contient generator creates infinite new world scenarios.
- 3 program of the year awards.

PRODUCT CODE  S7COG
A.P.P.L.E. PRICE  $72.00
SHIP WT.  6 OZ.

Skyfox
Apple II, II+, IIe, IIc
A action strategy game of flying and fighting to protect your homestead.
- Breathtaking graphics and high speed animation.
- 15 scenarios and 5 levels of difficulty.
- Air to ground tank combat and air to air jet dog fights.
- Working gages and on-board computer.
- Supports on-line and Slotait.
- "Best Arcade/Shoot-em-up" - Family Computing

PRODUCT CODE  SSKFX
A.P.P.L.E. PRICE  $72.00
SHIP WT.  6 OZ.

The Bard’s Tale
Apple II, II+, IIe, IIc
Fans of Wizardry and Ultima, get ready. The Bard’s Tale is the best fantasy role-playing adventure game of all time. Bigger faster, deeper, and smarter than any game of its kind. Set in a city of Scara Brea, it includes 16 maze levels in 3-D color. So vast are the characters, spells, and monsters it takes up two disks. With its unprecedented detail and greater emphasis on strategy, The Bard’s Tale is the new standard against which all other fantasy games must be measured.

PRODUCT CODE  S2BARD
A.P.P.L.E. PRICE  $27.00
SHIP WT.  8 OZ.

Ultima III - Exodus
Apple II, II+, IIe, IIc
The epic fantasy role-playing masterpiece by Lord British. Over 90 weeks on the best seller charts.
- Select from a 20 character roster, with individual player movement.
- Many weapons, armor, and magic spells.
- Full color with advanced dungeon graphics.
- Adventure-style verb entry.
- From Origin Systems

PRODUCT CODE  S2UL3
A.P.P.L.E. PRICE  $41.00
SHIP WT.  1 LB.

ULTIMA IV - The Quest of the Avatar
Apple II, II+, IIe, IIc

PRODUCT CODE  S2UL4
A.P.P.L.E. PRICE  $41.00
SHIP WT.  1 LB.

Wilderness
Apple II, II+, IIc, IIc
A survival training simulation in the Sierra Nevada mountains.
- 3-D color graphics with 360 degree first person scanning.
- Scientifically accurate simulation of native plants and animals, human physiological response, weather and topographical mapping.
- Two survival scenarios and "research mode."
- Editor for custom weather conditions, time of year and topography.
- A unique kind of computer application.

PRODUCT CODE  SWILDE
A.P.P.L.E. PRICE  $35.00
SHIP WT.  12 OZ.
## PUBLIC DOMAIN SOFTWARE
APPLE II (Each disk Vol)

A variety of programs at a low cost of 15 to 25 cents per program! Disks contain everything from demos/games disk and printer utilities, tutorials, business and inventory programs to Pascal and CP/M. Below is a complete list of our PDS library or, send a .56 cent, stamped self-addressed envelope for a listing of all programs on each volume.

You may order a catalog of titles on each volume for $1.00.

**Please specify volume number when ordering.**

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<td>PDS-229</td>
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</table>

(continued next page)
**EAMON ADVENTURE VOLUMES**

An adventure game that takes you back to the days of sorcerers and magic. Encounter various obstacles requiring different responses depending on your character. Great fun for the wise. (You will need the Beginner's Cave in order to run any of the other Eamon Adventures.)

<table>
<thead>
<tr>
<th>Eamon</th>
<th>Description</th>
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<tbody>
<tr>
<td>Eamon 0</td>
<td>Dungeon Designer Eamon</td>
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<td>Eamon 2</td>
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<td>Death Star</td>
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<td>Eamon 7</td>
<td>Devil's Tomb</td>
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<td>Eamon 8</td>
<td>Abductor's Quarters</td>
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<td>Eamon 9</td>
<td>Assault on the Clone Masters</td>
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<td>Molinar's Tomb</td>
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<td>The Underground City</td>
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<td>Eamon 15</td>
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<td>Furioso</td>
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<td>Eamon 17</td>
<td>Merlin's Castle</td>
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<td>Hogarth Castle</td>
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<td>Eamon 20</td>
<td>The Black Death</td>
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<td>Eamon 21</td>
<td>Improved Dungeon Designer</td>
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<td>Eamon 22</td>
<td>The Senator's Chambers</td>
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<td>Eamon 23</td>
<td>The Temple of Nguurt</td>
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**PRODUCT CODE**  SPDS

**A.P.P.L.E. PRICE**  $5.00

**SUG. RETAIL**  N/A

**SHIP. WT.**  1 OZ. ea. disk.
Macintosh Software

**AIRBORNE**
from Silicon Beach Software

Armed only with an anti-aircraft gun and mortar, you alone defend your feeble position on the beach from relentless waves of enemy paratroopers, tanks, and shrieking fighter jets armed with deadly accurate air to ground guided missiles. ACTION PACKED from the word go with realistic sound effects featuring actual recorded sounds, the only question is: How long can you hold them off? Mac animation at its best.

**PRODUCT CODE**  
A.P.P.L.E. PRICE $26.25  
SUG. RETAIL $34.95  
SHIP. WT. 8 OZ.

**MACBOOSTER**
from Mainstay

Put an end to the watch icon blues! MacBooster aids the Macintosh File Manager by continuously monitoring disk access. Those files that are accessed most frequently are stored in a cache or memory buffer. Each time the Mac needs to go to disk, it first checks the cache to see if the needed information has been requested before. If it has, the data will already be in memory and the information can be utilized immediately. If not, the data will be added to the cache where it will be readily available the next time it is needed. Easy to use. Requires 512k Mac.

**PRODUCT CODE**  
A.P.P.L.E. PRICE $45.00  
SUG. RETAIL $50.00  
SHIP. WT. 1 LB.

**CLICKART: EFFECTS**
from T/Maker Graphics Company

ClickArt: Effects is a MacPaint desk accessory that allows you to rotate, slant, distort, or add perspective to a selected image. Rotate an image 360 degrees in one degree increments, slant it right, left up, or down; distort an image by pulling one or more edges away from the center. All functions are available from the Accessories menu while you are using MacPaint.

**PRODUCT CODE** SMCEFC  
A.P.P.L.E. PRICE $37.50  
SUG. RETAIL $49.95  
SHIP. WT. 6 OZ.

**COPY II MAC**
from Central Point Software

Every bit as good as the Apple II version, COPY II MAC offers a very strong bit copy program for backing up protected software and a useful set of disk utilities.

- Sector Copy
- Copy protect/unprotect
- Make files visible/invisible
- Undelete files
- Sector/file editor
- Copy files/disk
- Format/verify disks

**PRODUCT CODE** SMCCPY  
A.P.P.L.E. PRICE $25.00  
SUG. RETAIL $39.95  
SHIP. WT. 14 OZ.

**SEAMON**

| Eamon 24 | - Black Mountain |
| Eamon 25 | - Nuclear Nightmare |
| Eamon 26 | - Assault on the Mole Man |
| Eamon 27 | - Revenge of the Mole Man |
| Eamon 28 | - The Gauntlet |
| Eamon 29 | - The Caves of Mondamen |
| Eamon 30 | - Heros Castle |
| Eamon 31 | - The Tower of London |
| Eamon 32 | - The Feast of Carroll |
| Eamon 33 | - The Master's Dungeon |
| Eamon 34 | - Crystal Mountain |
| Eamon 35 | - The Lost Adventure |
| Eamon 36 | - The Manxome Foe |
| Eamon 37 | - Behind the Sealed Door |
| Eamon 38 | - The Land of Death |
| Eamon 39 | - The Jungles of Vietnam |
| Eamon 40 | - The Black Castle of Nagog |
| Eamon 41 | - The Sewers of Chicago |
| Eamon 42 | - Caverns of Doom |
| Eamon 43 | - Valkenburg Castle |
| Eamon 44 | - Modern Problems |

**PRODUCT CODE** SEAMON  
A.P.P.L.E. PRICE $5.00 / DISK or $25.00 / 10 DISKS  
SUG. RETAIL N/A  
SHIP. WT. 1 OZ. PER DISK
**MacLION**
from LION Systems International, Inc.

Serious data base power for serious Macintosh users. Now you can develop your own powerful relational data base systems easily with MacLION. Features Include:

- Built-in applications generator allows you to design custom screens and reports.
- Join relations from different files by selecting "common fields"
- Change an item of information and ALL references to that information are changed automatically.
- Built-in procedural language for those who choose to use it.

PRODUCT CODE SMCLEO
A.P.P.L.E. PRICE $225.00
SUG. RETAIL $379.00
SHIP. WT. 5 LBS.

**MAC.TRANSFER**
from Southeastern Software

Mac.Transfer is an incredibly easy way to transfer information between the Macintosh and an Apple II, Ile or IIc. Transfers can be made via modem or by directly connecting the two computers together using the Imagewriter printer cable and an Apple Super Serial card or equivalent at 300 or 9600 baud. Mac.Transfer comes with two program disks. (One for the Mac and one for the Apple II) and an instruction manual.

PRODUCT CODE SMCTRWN
A.P.P.L.E. PRICE $33.75
SUG. RETAIL $49.00
SHIP. WT. 8 OZ.

**MODULA - 2 PROGRAMMING LANGUAGE**
from Modula Corporation

The newest structured language defined by the father of Pascal. A full implementation including a system utilities, and library of modules. The M-code interpreter is small amd the M code is very compact (as much as 25% of the equivalent assembly code).

PRODUCT CODE SMDMAC
A.P.P.L.E. PRICE $135.00
SUG. RETAIL $150.00
SHIP. WT. 4 LBS.

**OMNIS 3 FOR THE MACINTOSH**
from Blyth Computer Ltd.

OMNIS on the Macintosh simply stated is a dream come true. Imagine the powerful features described in the Apple II section, combined with the power and ease of use of the Macintosh. A significant improvement over earlier versions, OMNIS now fully utilizes the Macintosh interface making the design of your database and reports a real pleasure. Multi-user capability.

PRODUCT CODE SOMMAC
A.P.P.L.E. PRICE $275.00
SUG. RETAIL $495.00
SHIP. WT. 3 LBS.

**OverVUE 2.0**
from ProVUE Development Corporation

OverView is the easy to use memory based data base that has been given high marks by all reviewers. Excellent search and sort capability as well as easy to use graphics. For users of "full" data fields that requires speed and ease of use. See the reviews in 32 little apples.

PRODUCT CODE SOVER
A.P.P.L.E. PRICE $185.00
SUG. RETAIL $295.00
SHIP. WT. 3 LBS.

**Windoware**
from Macadam Software, Inc.

Desk accessories for the Mac. Yours for this special low price of $39.00. (Reg. $59.00) Includes both phone book and calendar. Follows Apple standards to be compatible with all present and future systems.

PRODUCT CODE SMWW
A.P.P.L.E. PRICE $39.00
SUG. RETAIL $79.95
SHIP. WT. 12 OZ.
DELUXE MUSIC CONSTRUCTION SET

The first complete music composition tool for Mac. Simple enough for a beginner yet powerful enough for a professional. DMCS is the ultimate music tool. It gives you everything you need to compose professional quality music, hear it play, and print professional quality sheet music. It's MID™ compatible, so you can compose your music on DMCS and play it through your synthesizer.

• 50 more features than Music Works.
• Triplets, Quantuplets, Slurs, Ties, Beams.
• Dynamic markings, crescendos, diminuendos.
• Compose from on-screen keyboard.
• Four voice sound, 16 instruments.
• Prints professional sheet music with lyrics, fret rotation. Supports the LazerWriter™, too.

PRODUCT CODE: SMCDCMC
A.P.P.L.E. PRICE: $35.00

EXODUS: Ultima III


• Select from a 20 character roster, with individual player movement.
• Many weapons, armor, and magic spells.
• Full patterns with advanced dungeon graphics.
• Adventure-style verb entry.
• From Origin Systems

PRODUCT CODE: SMCUL3
A.P.P.L.E. PRICE: $40.00

FINANCIAL COOKBOOK

Sophisticated but easy-to-use home financial calculator. Offers 32 recipes covering the most frequently asked questions on:

• Taxes and tax shelters.
• Lease vs. buy.
• Amortization schedules.
• Auto and home insurance.
• Inflation.
• Investments, savings, and IRA accounts.
• Superb documentation.

PRODUCT CODE: SFCBMC
A.P.P.L.E. PRICE: $37.75

Dr. J. & Larry Bird go ONE ON ONE

The number one sports simulation of all time. This program gives you the exhilarating feeling of actually getting to play one of these basketball superstars. You get to take all the skills and characteristics of either Bird or the Doctor- all that special moves, their shooting abilities, their rebound skills, their strength stamina and speed.

PRODUCT CODE: SMCONC
A.P.P.L.E. PRICE: $29.00

PINBALL CONSTRUCTION SET

by Bill Budge

Create your own video pinball games. In a class by itself. The most award winning home software product in history. It's been called the best program ever written for an 8-bit machine. Now for the Mac. Use Macpaint™ to paint new mats and create the pinball games of your dreams, save them and show them off. Comes with 5 ready-to-play games. The all time classic.

PRODUCT CODE: SMPCPS
A.P.P.L.E. PRICE: $25.00

MACINTOSH PUBLIC DOMAIN SOFTWARE

MAC-001 MISCELLANEOUS
MAC-002 MISCELLANEOUS
MAC-003 REQUIRES FILEVISION
MAC-004 MISCELLANEOUS
MAC-005 MISCELLANEOUS
MAC-006 PICTURES
MAC-007 REQUIRES MICROSOFT BASIC
MAC-008 UTILITIES
MAC-009 SYSTEM UPDATES
MAC-010 SWITCHER 4.4
MAC-011 INSIDER DISK
MAC-012 DESK ACCESSORIES
MAC-013 FORTH / X - LISP

MAC-014 MACPAINT PICTURE
MAC-015 REQUIRES MICROSOFT BASIC
MAC-016 REQUIRES MICROSOFT BASIC
MAC-017 PDS FONTS 1
MAC-018 PDS FONTS 2
MAC-019 PDS FONTS 2
MAC-020 MISCELLANEOUS 1
MAC-021 MISCELLANEOUS 2
MAC-022 MAC MODULA 2
MAC-023 MAC MODULA 2

PRODUCT CODE: SMCPDS
A.P.P.L.E. PRICE: $7.00 / DISK or $40.00 / 10 DISKS
SUG. RETAIL: N/A
SHIP. WT.: 1 OZ. ea. disk.
**A.P.P.L.E. BIG BOARD**

Compatible with Apple II, II+, Ile

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<th>PRODUCT CODE</th>
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<td>HB256K</td>
<td>$219</td>
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<td>HBS12K</td>
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<td>HB768K</td>
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<td>$499</td>
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<tr>
<td>HB1MEG</td>
<td>$450</td>
<td>$599</td>
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**SHIPPING WEIGHT:** 2 LBS.

Introducing a third generation memory card that gives you both great expandability and great versatility at an extraordinary price. Thanks to a low power design, even the 1 megabyte configuration draws less than 470 milliamps of power.

Versatility to users means that BIG BOARD is compatible with software written for the Syntex SSD (Flashcard) as well as for the Prometheus 128K card. Our Spreadsheet Version 2.0 already adds 256K to the space available for its worksheets. Compatible with PLUSWORKS XM for spreading Applewoks on the Apple II. Versatility also means that BIG BOARD comes complete with RAMDISK software for DOS 3.3, ProDOS, Pascal 1.2, and CP/M.

Versatility to programmers means that you can choose the active addressing mode both via a jumper on BIG BOARD or through software commands. Choose the mode that is most convenient for you in developing your application. The byte addressing mode has no conflicts with your use of the standard language card or /e auxiliary slot memory card. The bank switched addressing mode shares the language card area and serves you well as a location for running code.

In either case, whether you are a developer, Sunday programmer or an applications user, expect to see the Apple II doing some impressive things with Big Boards during the next year.

**AP L CASE 1**

by Dan Paymar
from Enhanceware™

Lower case adapter for Apple Motherboard revision #6 and earlier (the REV 0 through REV 6 have memory select blocks located on the left hand edge of the Motherboard-position 1, rows D,E,F). Chip is compatible with both Apple BASICS, Pascal, CP/M, and most word processing software allowing lowercase display. Document shows how to install the ApLCase 1 quickly and easily so that you will be up and using lowercase in very little time.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
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<tr>
<td>HLC1</td>
<td>$35.00</td>
<td>$39.95</td>
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**DICE**

by Dan Paymar
from Enhanceware™

Special routines designed specifically for use with lower case adapters such as ApLCase, Dan Paymar and all others. DICE makes it easy to type in and display UPPPER and lower case characters and special symbols directly from the keyboard. Utility also features a scrolling speed control, stop/start list, handy control character functions, non-flashing cursor and detailed instructions for making the "shift key" modification to your Apple.

<table>
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<th>PRODUCT CODE</th>
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**AP L CASE 1 WITH DICE**

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<td>HLC1A</td>
<td>$42.50</td>
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<td>HLC2B</td>
<td>$32.50</td>
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**APPLE /e 80 COLUMN, EXTENDED RAM BOARD**

Quality board for the Apple Ile ONLY. RAM board contains 64K of memory and uses standard Apple Protocol.

<table>
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<td>H80C</td>
<td>$79.00</td>
<td>$169.95</td>
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**AP RAM 16K**

Plug in another 16K of memory to your 48K Apple with our economical 16K RAM card. Quality-made card plugs into slot 0 of your Apple and provides extra memory for loading the alternate BASIC language, Pascal, CP/M, moving DOS, and running A.P.E. and BIG MAC.C as well as other software and hardware packages requiring the extra room.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
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<td>HP16</td>
<td>$60.00</td>
<td>$99.00</td>
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</table>
E.C. (Economical Controller)

A new low-priced disk controller card that is 100% Apple compatible. Two drive connections, boots DOS 3.3, ProcDOS, Pascal and CP/M.

- PRODUCT CODE: HDCC
- A.P.P.L.E. PRICE: $40.00
- SUG. RETAIL: $79.00
- SHIP. WT: 1 LBS.

E.D. (Economical Drive)

Tired of paying high prices for name brand products and expensive packaging? We now have an alternative for you in this 35-40 track, slim-line drive for the Apple II, II+ and Ile. 100% Apple compatible, our new drive uses a Newtonsics drive mechanism and unlike other half-height, can be used as drive 1 and will boot copy protected software.

- PRODUCT CODE: HADR89
- A.P.P.L.E. PRICE: $109.00
- SUG. RETAIL: $149.00
- SHIP. WT: 5 LBS

Drive Adaptor /c

With this part, you can adapt any Apple compatible disk drive to operate with your Apple IIc.

- PRODUCT CODE: H2CCBL
- A.P.P.L.E. PRICE: $20.00
- SUG. RETAIL: $29.95
- SHIP. WT: 3 OZ.

/c Drive Cable

For use with the Economical Drive to convert it to use with a /c.

- PRODUCT CODE: H2CCBR
- A.P.P.L.E. PRICE: $30.00
- SUG. RETAIL: $25.00
- SHIP. WT: 6 OZ.

Mach 3.5 Card

Go supersonic first class at supersaver rates! This board is an elegant solution for the person who doesn't like to wait. The Mach 3.5 card can perform operations at up to 3 1/2 times the normal Apple speed. Simply plug in, turn your Apple on, and hold onto your seat! There is no preboot to fuss with, no program patching to do, no worries. Copy protected software? No problem. Hard disk? No problem. This board may be the closest thing to magic that you will ever see working on an Apple!

It even works with the large extended memory cards popular for the /c. A complete description of the card, programming details, and benchmarks are available in the Oct and Nov 1985 issues of Call - A.P.P.L.E. Call the Hotline for questions on your application.

- PRODUCT CODE: HMACH
- A.P.P.L.E. PRICE: $209.00
- SUG. RETAIL: $259.00
- SHIP. WT: 1 IBS

Mach 3.5 (MV)

This is a special version of the Mach 3.5 card that works with the Saturn, Legend, and Prometheus memory expansion cards for the Apple II and II+ computers.

- PRODUCT CODE: HMACHM
- A.P.P.L.E. PRICE: $209.00
- SUG. RETAIL: $259.00
- SHIP. WT: 1 IBS

Mach 3.5 Upgrade

This is an upgrade for the (MV) version, purchased separately. It is a PAL set for the upgrade.

- PRODUCT CODE: HPALM
- A.P.P.L.E. PRICE: $25.00
- SUG. RETAIL: $
- SHIP. WT: 6 OZ

Mach II Joystick

From C H Products

The ultimate joystick with totally coordinated X/Y control (not just a four-way switch like many other joysticks). Stick movement is precisely translated to cursor positioning on the screen. Fine trim adjustments on both axes will enable operator to finely tune the joystick to electrical center for each software requirement. Joystick features a self-centering function which can be easily disengaged. Works with Apple II, II+ and /e comes with a full 90-day warranty.

- PRODUCT CODE: HJOYST
- A.P.P.L.E. PRICE: $34.00
- SUG. RETAIL: $44.95
- SHIP. WT: 1 LB.

Mach III Joystick

From C H Products

Same description as above. In addition, joystick features a push button switch on the stick handle and a stainless steel ball as the main pivot to provide even greater accuracy, reliability and movement.

- PRODUCT CODE: HJMACH
- A.P.P.L.E. PRICE: $44.00
- SUG. RETAIL: $59.95
- SHIP. WT: 1 LB.

Mach III Joystick (For the Ile)

From C H Products

This is the same joystick as the Mach III except that it is specially designed to fit the Ile & IIC socket.

- PRODUCT CODE: HJOMA3
- A.P.P.L.E. PRICE: $49.00
- SUG. RETAIL: $59.95
- SHIP. WT: 1 LB.
MultiModem IIe TELECOMPUTING SYSTEM from MultiTech systems

A 300 baud intelligent plug-in modem card and MultiCom II communications software, Serial interface card not required. Includes automatic dialing, automatic answering, busy number redialing, and phone number storage. Dial from your Apple keyboard. A speaker allows you to monitor progress of your call. Plug in your telephone and use the same line for talking. Compatible with Apple II, II+, Ile. Use with Modem Magician for more advanced communication needs.

<table>
<thead>
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<th>PRODUCT CODE</th>
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<tr>
<td>A.P.P.L.E. PRICE</td>
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<td>SUG. RETAIL</td>
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<tr>
<td>SHIP. WT.</td>
<td>3 LBS.</td>
</tr>
</tbody>
</table>

MultiModem AH2 from MultiTech systems

Here is the 1200 baud intelligent modem you have been looking for! This modem is 100% Hayes SMARTMODEM compatible with autodialing, auto-answering, and much more. The AH2 stores 10 31-digit phone numbers. Backed by MultiTech Systems full two-year warranty. Requires serial interface card for II, II+, Ile and cable for Mac or lic. Includes over $350.00 worth of free database time. Supports Modem Magician and AE Pro among others for II family. Mac Terminal, Red Ryder and others for Mac.

<table>
<thead>
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<th>PRODUCT CODE</th>
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<td>A.P.P.L.E. PRICE</td>
<td>$379.00</td>
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<td>SHIP. WT.</td>
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</tbody>
</table>

MultiModem 224AH from MultiTech systems

Here is the intelligent modem that runs three different speeds: 300, 1200, and 2400 bits per second. It features autodial automatic answer, Hayes-compatibility, and a memory for frequently called numbers. The MultiModem 224 is compatible with all the important modem standards used in personal computer and terminal data communications, including the Bell/AT&T 212a and the CCITT V.22bis. Databases and networks nationwide are now upgrading to 2400 bps. This is the modem for today's and tomorrow's telecommunications.

<table>
<thead>
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<th>PRODUCT CODE</th>
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<tr>
<td>A.P.P.L.E. PRICE</td>
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</table>

MULTIRAM //e from Checkmate Technology

MultiRam //e is a new expandable (up to 768k) extended 80-column card for the Apple //e. An optional piggyback board can increase total on-board memory to 1.5 megabytes along with RGB video! Use it with our THE Spreadsheet Version 2.0 expanding space available to 210K. Combine a 768K MultiRam with APPLEWORKS for an expanded desktop space of 551K, with a database capacity increased to 5100 records. The driver software even splits very large data files to multiple floppy diskettes for you automatically. Comes with 320K RAM onboard, drivers in DOS 3.3 and ProDOS to turn the MultiRam //e into a super fast RAM-disk. A CP/M driver is available at additional cost from Checkmate.

Standard features include:

- Compatibility with both enhanced and nonenhanced Apple //e.
- Easy to expand at any time.
- Full 5 year warranty on card and components.

Software included to:

- Configure AppleWorks to use all MultiRam //e memory.
- Use MultiRam //e as ProDOS or DOS 3.3 RAM disk emulator.
- Test MultiRam //e memory for defective RAM.

Optional features include:

- 64K or 256K RAM kits to expand MultiRam //e.
- The MultiRam RGB card adds 768K expansion capacity - produces RGB video signal.
- CP/M RAM disk emulator.
- 16 bit 65816 processor card to give the Apple //e super-micro capabilities (available soon)

<table>
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<th>PRODUCT CODE</th>
<th>HMM44K</th>
<th>HMM88K</th>
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MULTIVIEW 80/160 from Checkmate Technology

Here is a high-performance video display card with a good selection of modes for use with a standard monitor such as the Gorilla, NEC, BMC, and others with a minimum 12 MHz bandwidth: 80 X 24, 96 X 24, 132 X 24, 160 X 24. Additional modes (80 X 32, 80 X 48, 132 X 30) use interlace. While interlacing can be displayed on a standard monitor, a high persistence monitor such as the Amdek 300 or the Apple III would be a necessity for long-term use. Other features include a useful "eyesaver" command for adjusting the display to fill the monitor screen. Screen attributes may be set easily; choose twelve combinations of underlining, bold, normal, and inverse. Uses standard protocols to work with CP/M and Pascal. A special pre-boot program is available for compatibility with THE Spreadsheet version 2.0 and others. A handy reverse scrolling command is implemented which makes use of the 4k video buffer. In 80 X 24 mode, you can back up and view again more than 25 lines that had disappeared off the top of the screen. (Modes that display more characters on the screen can reverse scroll fewer lines). Draws about 25% less 5 volt power than the Ultratext.

<table>
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<td>A.P.P.L.E. PRICE</td>
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PADDLE-ADAPPLE from Southern California Research Group

Expand your game Paddle/Joystick/Koa1aPad world with this game I/O extender. The Paddle-AdApple offers two 16-pin connector sockets on one 18 inch cable enabling you to plug in two external devices (i.e., Koa1aPad and Joysticks) at the same time. In addition, a configuration block goes in if
you want to run two joysticks at the same time. The 18 inch
cable lends more mobility to you.

PRODUCT CODE  HPADDL
A.P.P.L.E. PRICE  $25.00
SUG. RETAIL  $29.95
SHIP. WT.  5 OZ.

PANASONIC KX-P1091 PRINTER

This printer features a 10 inch wide carriage, 120 character
per second speed, Pica, Elite and condensed fonts, and
high density bit graphics (1920 dots/line). The outstanding
print is near letter quality, with proportional spacing, sub-
cripting and superscripting as needed. The friction/tractor
feed can handle up to 3-part paper. It is Epson RX-50, and
IBM-PC dot matrix/graphics compatible. The print head has a
150 million character life and the ribbon a 4 million character
life. The 8 bit parallel interface and 1K buffer are standard. A
super printer at a reasonable price.

PRODUCT CODE  HPANPT
A.P.P.L.E. PRICE  CALL
SUG. RETAIL  $399.00
SHIP. WT.  20 LBS.

PANASONIC PRINTER RIBBONS -
for KX-P1090, KX-P1091, KX-P1092)

PRODUCT CODE  HPRANRI
A.P.P.L.E. PRICE  $10.00
SUG. RETAIL  $19.95
SHIP. WT.  5 OZ.

RIGHT NOTCH

A handy tool that will double your disk storage capabilities. One
bite from the "Right Notch", and a clean square notch is positioned
in just the right place allowing you to use the reverse side of the
disk for storage needs.

PRODUCT CODE  HRIGNO
A.P.P.L.E. PRICE  $15.00
SUG. RETAIL  $19.95
SHIP. WT.  2 OZ.

REPEATERRRR

Install this handy circuit board between the keyboard and the
encoder board to obtain "repeat on any key held down". If repeat
key is depressed, repeat speed increases. Includes a very nice
shift key modification kit. Requires the two piece keyboard.

PRODUCT CODE  HRPTRT
A.P.P.L.E. PRICE  $35.00
SUG. RETAIL  $29.95
SHIP. WT.  5 OZ.

SUPER FAN II

Zener-Ray transient voltage suppressor and power filter squelches
spikes up to 6000 Amps (even those caused by lighting) while
responding up to 100 times faster than the Apple built-in filter.
Removes air at 17 cubic feet per minute. Unit has lighted switch in
front, two accessory plugs in rear and clips to Apple II, Ile or
monitor stand. The convenience and the efficient temperature
stabilization will make your Apple last longer.

PRODUCT CODE  HFAN
A.P.P.L.E. PRICE  $59.00
SUG. RETAIL  $89.00
SHIP. WT.  3 LBS.

VERSACARD

Four of the most popular Apple peripheral functions on one card!
Provides (1) 6850 ACIA Serial Interface, (2) Eight-bit Parallel port,
(3) Real-time Calendar/Clock, and (4) BSR Control Interface. On-
Board EPROM includes a terminal program. The VersaCard is fully
compatible with Apple Pascal, CP/M, and BASIC, and no special
disks or modifications are needed! Includes documentation and
warranty card. (Note: connecting cables and ultrasonic Home
Controller, and Graffiti Graphics Chips control are not included,
but available separately.)

PRODUCT CODE  HVRC
A.P.P.L.E. PRICE  $150.00
SUG. RETAIL  $199.00
SHIP. WT.  2 LBS.

VERSACARD WITH PARALLEL
PRINTER CABLE (6' long)

PRODUCT CODE  HVRC1
A.P.P.L.E. PRICE  $160.00
SUG. RETAIL  N/A
SHIP. WT.  2 LBS.

VERSACARD WITH SERIAL CABLE
(Male -- 6' long)

PRODUCT CODE  HVRC2M
A.P.P.L.E. PRICE  $160.00
SUG. RETAIL  N/A
SHIP. WT.  2 LBS.

VERSACARD WITH SERIAL CABLE
(Female -- 6" long)

PRODUCT CODE  HVRC2F
A.P.P.L.E. PRICE  $160.00
SUG. RETAIL  N/A
SHIP. WT.  2 LBS.
VERSACARD ROM

Add Graphitii power to your Versacard. This firmware chip makes it
a snap to transfer Apple graphic and text screens to printer without
needing to load special software routines. In addition, you may
send printer EScape codes as control characters, set margins,
line and page length, toggle high-bit, set video echo and linefeeds.
Includes a special manual. Requires Applesoft in ROM for full
graphics capability.

*Please specify printer type by selecting appropriate
Product Code.

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Type</th>
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<td>Epson, Panasonic</td>
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<td>HVPRCI</td>
<td>C.toh</td>
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<td>HVPRID</td>
<td>IDS</td>
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<td>HVPROK</td>
<td>Okidata, Prowriter, NEC</td>
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<td>HVPRAP</td>
<td>Apple Dot Matrix</td>
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<th>SHIP. WT.</th>
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</thead>
<tbody>
<tr>
<td>$25.00</td>
<td>$/NA</td>
<td>6 OZ.</td>
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</tbody>
</table>

easily printed (even in color on the IDS Prism printer). Parallel
cable and extensive documentation included.

PRODUCT CODE HYVIDIN
A.P.P.L.E. PRICE $74.00
SUG. RETAIL $99.95
SHIP. WT. 1 LB. 6 OZ.

ZARDAX KEYBOARD CONNECTOR

The Zardax keyboard connector is required for use of Apple
II+ computers with Zardax. The connector comes with
straightforward installation instructions, no soldering
required. Does not interfere with game paddle controls.

<table>
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<td>SHIP. WT.</td>
<td>5 OZ.</td>
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Macintosh Hardware

A.P.P.L.E. 512K MAC UPGRADE KIT

A complete Mac upgrade Kit. Includes detailed instructions,
memory logic circuit, sockets, and 256K 150 nSec chips.

<table>
<thead>
<tr>
<th>Product Code</th>
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<tr>
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Mac's-a-Million™
from Sophisticated Circuits

the 1.5 Meg Memory upgrade

At last the price breaker for large Mac memory upgrade,
distributed exclusively by A.P.P.L.E. Co-op. Enjoy the
power of multiple applications (up to eight) running under
Switcher, or use part or all as a RAM disk. Less cost per bite
than an external drive, and there is no comparison for speed.
This is a easy to install kit that includes a quiet cooling fan for
longer life for the Mac. Does not require the removal of the
68000 chip. Works with both the 128K and 512K units. A
512K Mac has a full 2048K of adressable memory.

Introductory price of $499.00 (Installation
is available for $100)

<table>
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<tr>
<th>Product Code</th>
<th>HMAM</th>
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<td>4 LBS.</td>
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MacTablet™
from Summagraphics Corporation

For the user serious about graphics on the Mac. This tablet has a 6 x 9 inch work space with a resolution of 500 lines per inch and an accuracy of ±0.025 in.1 Comes with cursor, power pack, and installation diskette. Plugs into modem port and installs as a desk accessory. Compatible with MacPaint, MacDraw, MacCad and most other graphics packages. MacTablet's stylus gives you finger-tip control, so whether you're an artist, designer, engineer, architect or you simply want to add some punch to your presentations, MacTablet will make your art work better, easier and faster.

PRODUCT CODE   HMTAB
A.P.P.L.E. PRICE $329.00
SUG. RETAIL    $395.00
SHIP. WT.      5 LBS.

MAC-TURBO-TOUCH
from Assimilation, Inc.

While it may not be possible to improve on the mouse trap, we have found a definite improvement over the standard old Mouse! If you're tired of reaching for your mouse and not finding it, or if your cramped for desk space and your mouse hasn't enough room to run or, if you're simply looking for a faster way to communicate with your Mac, then Mac-Turbo-Touch™ may be for you. The Turbo Touch is a "track ball" input device that plugs directly into the mouse port on the Mac. It has two mouse buttons on either side of the ball so it can be set on the right or left hand side of the keyboard, and once positioned, that's where it stays! From then on you need only move your hand to the same place and roll the ball with a finger or two. The slightest touch of the ball positions the cursor quickly and accurately on the screen. Mac-Turbo-Touch just might be a good reason for placing the Mouse on the endangered species list. And Assimilation gets our "atta boy!" award for developing a genuinely useful accessory for the Macintosh.

PRODUCT CODE   HTT
A.P.P.L.E. PRICE $89.00
SUG. RETAIL    $109.00
SHIP. WT.      2 LBS.

NUMERIC-TURBO™
from Assimilation, Inc.

Mac-Turbo-Touch™ with a full-scale numeric key pad. The Numeric-Turbo includes cursor keys and direct function keys so you no longer have to use the Control or Shift key on the Mac keyboard for function entry.

PRODUCT CODE   HMNTT
A.P.P.L.E. PRICE $119.00
SUG. RETAIL    $149.00
SHIP. WT.      3 LBS.

Mac Modem Package
MultiModem AH2 with Red Ryder & cable

Here is the 1200 baud intelligent modem you have been looking for! This modem is 100% Hayes SMARTMODEM compatible with autodialing, auto-answering, and much more. The AH2 stores 10 31 digit phone numbers. Backed by Multitech Systems full two-year warranty. Comes with Mac cable and Red Ryder 6.0 This outstanding telecommunications program is distributed as "freeware". That is, you get it for free...then if you like it and use it, simply send the author his hard earned reward of $40.00. Remember, you're on your honor!

PRODUCT CODE   HMODRD
A.P.P.L.E. PRICE $399.00
SUG. RETAIL    $589.00
SHIP. WT.      5 LBS .5 OZ.

Ram-Stak™
from AST RESEARCH INC.
for the Lisa™ (Macintosh XL™)

This is the add on memory board for the Lisa™ computer. This is a full 1.5 MByte configuration that allows a full 2Mbyte of memory on the Lisa, and a full 2Mbyte under MacWorks as either main memory or RAM disk. Like all AST products RamStak has been thoroughly tested to guarantee 100% compatibility with all versions of the Lisa. It has a one year limited warranty on parts and labor. Just plug this board and expand your memory.

PRODUCT CODE   HMRS
A.P.P.L.E. PRICE $899.00
SUG. RETAIL    $1589.00
SHIP. WT.      5 LBS.

THUNDERSCAN
by THUNDERWARE software by Andy Hertzfeld

A complete scanning system to transfer pictures to MacPaint. Works with the Imagewriter printer (both narrow and wide carriage). Replaces the ribbon cartridge with a scanning laser. Includes software for control and enhancement of the graphic images.

PRODUCT CODE   HTHUN
A.P.P.L.E. PRICE $199.00
SUG. RETAIL    $229.00
SHIP. WT.      4 LBS
APPLE PRODOS: ADVANCED FEATURES FOR PROGRAMMERS
by Gary B. Little

This great manual includes an overview of ProDOS, file management, the Machine Language Interface, the Basic System, interrupts, clock drivers, disk drivers, and more. This is a must for anyone interfacing on an advanced level with ProDOS.

PRODUCT CODE PPDS
A.P.P.L.E. PRICE $15.00
SUG. RETAIL $19.95
SHIP. WT. 1 LB. 6OZ.

BENEATH APPLE DOS
from Quality Software

Perfect companion to DiskPak 6B-16 and the Apple DOS manual. Comprehensive book continues where the DOS manual left off and details all versions of the Apple Disk Operating System and how it may be modified or enhanced to suit your applications. A must for the programmer!

PRODUCT CODE PBAD
A.P.P.L.E. PRICE $17.00
SUG. RETAIL $19.95
SHIP. WT. 1 LB.

BENEATH APPLE ProDOS
from Quality Software

From the publishers who brought us Beneath Apple DOS and Bag of Tricks comes yet another great programmer's aid. Beneath Apple ProDOS presents a critical non-Apple perspective on this operating system. A must for the person who wants to know what makes ProDOS tick.

PRODUCT CODE PBAPRD
A.P.P.L.E. PRICE $18.00
SUG. RETAIL $19.95
SHIP. WT. 1 LB.

BOUND SET OF Call-A.P.P.L.E. ISSUES

Complete set of the individual issues of our magazine for the indicated calendar year. Each is fully indexed for easy reference and punched for easy handling.

1982 CALENDAR YEAR
PRODUCT CODE PPK5
A.P.P.L.E. PRICE $18.50
SUG. RETAIL $36.00
SHIP. WT. 6 LBS.

1983 CALENDAR YEAR
PRODUCT CODE PPK6
A.P.P.L.E. PRICE $18.50
SUG. RETAIL $36.00
SHIP. WT. 6 LBS.

1984 CALENDAR YEAR
PRODUCT CODE PPK7
A.P.P.L.E. PRICE $18.50
SUG. RETAIL $36.00
SHIP. WT. 6 LB.

1985 CALENDAR YEAR
PRODUCT CODE PPK8
A.P.P.L.E. PRICE $18.50
SUG. RETAIL $36.00
SHIP. WT. 6 LBS.

Call-A.P.P.L.E. BACK ISSUES

CODE ISSUE PRICE
MM-A 80 March/April 80 $3.00
MMAY 80 May 80 $3.00
MJUN 80 June 80 $3.00
MN-D 80 Nov/Dec 80 $3.00
MJAN 81 January 81 $3.00
MM-A 81 March/April 81 $3.00
MJUN 81 June 81 $3.00
MJ-A 81 July/Aug 81 $3.00
MSEP 81 September 81 $3.00
MOCT 81 October 81 $3.00
MN-D 81 Nov/Dec 81 $3.00

Shipping weight for each issue is 8 oz.

Back issues for 1982, 1983, 1984, and 1985 may be ordered for $3.00 each.

The product code may be figured by adding the first three letters of the month's name and the year to the letter "M". For example, the April, 1983 issue's Product Code would be: MAPR83.

Call-A.P.P.L.E. IN DEPTH

Diskettes containing all programs published in Call-A.P.P.L.E. In Depth are also available.

VOL 1 "ALL ABOUT APPLESOFT"

Comprehensive and detailed tour through the Applesoft language - from the construction of BASIC variables, high resolution graphics subroutines to extending the language with Ampersand functions. Publication includes many useful application and utility programs designed to promote your understanding of Applesoft and how it can work for you. Recommended for all Apple users, although may be a bit heavy going for beginners. Now in its 2nd Printing!

PRODUCT CODE PID1
A.P.P.L.E. PRICE $7.00
SUG. RETAIL $7.50
SHIP. WT. 1 LB.

"ALL ABOUT APPLESOFT" DISKETTE

PRODUCT CODE SIN1
A.P.P.L.E. PRICE $16.50
SUG. RETAIL N/A
SHIP. WT. 1 OZ.
VOL 2 "ALL ABOUT PASCAL"

Wide range of new and useful programs and "in-depth" articles specializing in the Apple Pascal language. Switch to BASIC and the Pascal environment, decode compiled programs, edit your own graphics, format text and programs, research the subject with the expanded and up-to-date bibliography, and more! Almost everything you wanted to know about Apple Pascal but didn’t know where to look. Also contains supplemental information for beginners.

PRODUCT CODE  PID2
A.P.P.L.E. PRICE $11.00
SUG. RETAIL $12.50
SHIP. WT. 2 LBS.

"ALL ABOUT PASCAL" DISKETTE

PRODUCT CODE  SIN2
A.P.P.L.E. PRICE $20.00
SUG. RETAIL N/A
SHIP. WT. 3 OZ.

VOL 3 "ALL ABOUT DOS"

"All About DOS" contains 288 pages of DOS tutorials and utility programs. "All About DOS" is a fine addition to your A.P.P.L.E. library.

PRODUCT CODE  PID3
A.P.P.L.E. PRICE $13.50
SUG. RETAIL $15.00
SHIP. WT. 2 LBS.

"ALL ABOUT DOS" DISKETTE

PRODUCT CODE  SIN3
A.P.P.L.E. PRICE $15.00
SUG. RETAIL N/A
SHIP. WT. 2 OZ.

VOL 4 "ALL ABOUT APPLEWRITER"

Make Applewriter work for you. A technical treatise on Applewriter //e. 19 chapters include full descriptions of each facet, annotating each of four work areas, memory management, zero page, entry points, WPL, modifications, etc. Full descriptions of each subroutine, indexed by address. Not for Beginners.

PRODUCT CODE  PID4
A.P.P.L.E. PRICE $12.50
SUG. RETAIL $15.00
SHIP. WT. 1 LB.

MACINTOSH - PAST, PRESENT, AND FUTURE
Andy Hertzfeld January 21, 1985

For those who made it to the meeting but couldn’t get in...For those who would have liked to but simply couldn’t.

Here on video tape is ANDY HERTZFELD computer programmer extraordinaire and major contributor to the Macintosh operating system as he discusses the Mac, its past and development, how it sizes up for the present, where it's headed. Also included are demonstrations of THUNDERSCAN and THE SWITCHER, both written by Andy.

PRODUCT CODE  HANDYH (VHS)
A.P.P.L.E. PRICE $25.00
SUG. RETAIL N/A
SHIP. WT. 1 LB.

PRODUCT CODE  HANDYB (BETA)
A.P.P.L.E. PRICE $25.00
SUG. RETAIL N/A
SHIP. WT. 1 LB.

INSIDE THE APPLE IIC
by Gary B. Little

Finally we have a good inexpensive reference manual for the /cl. If you have ever wondered how the serial port works or what the pinouts of the game ports are, you can find the answers here. More than 350 pages of excellent material.

PRODUCT CODE  PIN2C
A.P.P.L.E. PRICE $15.75
SUG. RETAIL $  
SHIP. WT. 1 LB. 12 OZ.

INSIDE THE APPLE IIE
by Gary B. Little

This is the book IIE enthusiasts have been waiting for! Inside The Apple IIE offers a comprehensive look at the advanced features and capabilities of the APPLE IIE, explores the fundamentals behind the 6502 microprocessor, the operating systems (DOS 3.3 AND ProDOS), the inner workings of disks and also, complete discussions on:

How to use auxiliary memory on the IIE
How to design and implement keyboard input routines
How to use double-width graphics
How to speed up the cursor auto repeat rate
How to digitize and play back your own voice!

Inside The Apple IIE is a superior technical reference and is written in a clear and easily understood style.

PRODUCT CODE  PINS2E
A.P.P.L.E. PRICE $18.00
SUG. RETAIL $19.95
SHIP. WT. 2 LBS.

PEEKING AT Call-A.P.P.L.E.

This annual publication collects all the articles of Call-A.P.P.L.E. magazine for the given year into one volume. Especially recommended for anyone about to become an Apple owner, future or present member of A.P.P.L.E. Even better when combined with the Anthology Volumes for the corresponding year!
WHAT'S WHERE IN THE APPLE

Atlas and gazeteer of the Apple II memory for the BASIC programmer. Each entry describes a single memory location, given in decimal and hex, and (if applicable) the name of the symbolic label, followed by a brief explanation of the routine which resides there. A definite must for those wanting a PEEK's and POKE's dictionary and with an insatiable appetite for more Apple information.

ACCESSORIES

APPLE. T-SHIRT

Proclaim your pride in the world’s largest Apple user group. Silkscreened in four-color, A.P.P.L.E. T-shirts make great gifts for friends. Sizes S, M, L, XL.

Please specify size by choosing the appropriate product code.

S HTSHS
M HTSHM
L HTSHL
XL HTSHX

Bulk Blank Diskettes

(Brand Name Boxed)

Quality blank diskettes are 5 1/4" single-sided double-density with mylar hub ring for more durability and longer life. Box of 10.

BULK BLANK DISKETTES

(Brand Name Boxed)

ACCESSORIES

DISK BANKS

Store and protect your valuable diskettes in this unique and versatile disk filing system. Each “bank” holds up to 10 diskettes and features a slide-out drawer, convenient interlocking grooves on sides & top for stacking and expansion, and sturdy, safe storage of your magnetic media.

PRODUCT CODE  HDBA
A.P.P.L.E. PRICE $6.00
SUG. RETAIL $9.95
SHIP. WT. 1 LB.

FLIPSORT DISK ORGANIZER

Attractive functional disk storage system with capacity for 75 5 1/4" diskettes. Contains molded index with dividers. Cover protects disk from dust contamination. Comes in smoke color with front carrying handle.

PRODUCT CODE  HFLS
A.P.P.L.E. PRICE $17.00
SUG. RETAIL $29.95
SHIP. WT. 3 LBS.

MEDIA MATE 3

Protect, organize and store your 3 1/2" diskettes in this sturdy, high-impact plastic storage system. Attractive, smoked see through cover, adjustable tab dividers. Holds up to 50 3 1/2" diskettes.

PRODUCT CODE  HDSMT3
A.P.P.L.E. PRICE $12.99
SUG. RETAIL $16.95
SHIP. WT. 2 LBS.

MOUSE MATE II

The Mouse MATE II is a special high density, foam-rubber tracking pad for the APPLE mouse. The smooth sealed top coating allows drag free operation and precision tracking for the mouse. The bottom side is open celled foam to prevent the pad from slipping on a smooth desk surface. (11 3/4" X 9 5/8")

PRODUCT CODE  SMSMAT
A.P.P.L.E. PRICE $7.50
SUG. RETAIL $9.95
SHIP. WT. 1 LBS.

PRINTER RIBBONS

PANASONIC PRINTER RIBBON
(KX-P1090, KX-P1091, KX-P1092)

PRODUCT CODE  HPANRI
A.P.P.L.E. PRICE $10.00
SUG. RETAIL $19.95
SHIP. WT. 5 OZ.

PROWRITER PRINTER RIBBON
(FITS IMAGEWRITER, APPLE DMP, NEC 8023A)

PRODUCT CODE  HPRC
A.P.P.L.E. PRICE $5.50
SUG. RETAIL $9.95
SHIP. WT. 3 OZ.

TALLY 160L PRINTER RIBBON

PRODUCT CODE  HTLC
A.P.P.L.E. PRICE $12.50
SUG. RETAIL N/A
SHIP. WT. 7 OZ.

TALLY 180L PRINTER RIBBON

PRODUCT CODE  HTI
A.P.P.L.E. PRICE $17.00
SUG. RETAIL N/A
SHIP. WT. 1 LB.
CLOSEOUTS

ALL PRODUCTS IN THE CLOSEOUT LIST ARE SUBJECT TO STOCK ON HAND. WHEN THEY ARE GONE THEY ARE GONE.

EZ-LEDGER™
from Highlands Computer Services

This is the ideal record keeping system for a small home business or self-employed professional. It uses a single entry bookkeeping system which requires posting transactions either under INCOME or EXPENSE.

EZ-LEDGER will keep track of expense items under one of 99 user selected tax codes. Expense items will be entered under DEDUCTIBLE or NON-DEDUCTIBLE type codes. Automatic incrementing INVOICES can be produced and they will be posted to ACCOUNTS RECEIVABLE "holding file" or directly into INCOME. Keeps running year to date totals of all ledger files.

Uses ProDos and one or two disk drives.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
<th>SUG. RETAIL</th>
<th>SHIP. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEZL</td>
<td>$25.00</td>
<td>$60.00</td>
<td>1 LB.</td>
</tr>
</tbody>
</table>

ELF ABC
by Mike Culver

Elf ABC is delightful entertainment for children age 2-6. Each keypress brings another whimsical color picture accompanied by some well-chosen classical music in two harpsichord voices. Does it teach reading? No...but no harm in some light-hearted exposure!

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
<th>SUG. RETAIL</th>
<th>SHIP. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF</td>
<td>$12.00</td>
<td>$29.95</td>
<td>2 OZ.</td>
</tr>
</tbody>
</table>

DRIVE ANALYZER DISKETTE
from Verbatim
Apple II, II+Ile, IIC

This precision alignment diskette is a sure way to determine if your disk drive is operating properly. Menu-driven tests determine state of radial alignment, disk centering, speed and read-write.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
<th>SUG. RETAIL</th>
<th>SHIP. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDAN</td>
<td>$10.00</td>
<td>$39.95</td>
<td>9 OZ.</td>
</tr>
</tbody>
</table>

THINK TANK
for the Apple II or Mac
from Living Videotext, Inc.

This program is especially designed to help you organize ideas, turning brainstorming into detailed plans. Display or print your outline in complete detail, or select only major headings and subheadings. Lets you "see the forest" after working out details. Apple II version requires 64K of memory.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
<th>SUG. RETAIL</th>
<th>SHIP. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STHITK</td>
<td>$69.00</td>
<td>$150.00</td>
<td>1 LB.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
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<th>SHIP. WT.</th>
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</thead>
<tbody>
<tr>
<td>THKAP</td>
<td>$69.00</td>
<td>$150.00</td>
<td>1 LB.</td>
</tr>
</tbody>
</table>

T/MAKER
from Advanced Logic Systems

Integration strikes CP/M! T/Maker Version 3.0 is a CP/M 2.2 or 3.0 based multipurpose program with word processing, list processing, spreadsheet, file management and bar-charting capabilities. Word processing is at the heart of the package. FOR A MORE COMPLETE DESCRIPTION SEE SPRING SUMMER 1985 CATALOG.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
<th>SUG. RETAIL</th>
<th>SHIP. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAKER</td>
<td>$129.00</td>
<td>$279.00</td>
<td>4 LBS.</td>
</tr>
</tbody>
</table>

T/MAKER CP/M PACKAGE
from Advanced Logic Systems

The package comes with T/ Maker and a fast 6 Megahertz CP/M card with 64K of onboard memory, along with the most recent revision of CP/M, version 3.0 (CP/M Plus). Also included are CBASIC, graphics extensions, and a full set of user manuals.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
<th>SUG. RETAIL</th>
<th>SHIP. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPTMK</td>
<td>$249.00</td>
<td>$499.00</td>
<td>9 LBS.</td>
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</tbody>
</table>

Z - ENGINE
from Advanced Logic Systems

The Z-Engine is an economical and reliable CP/M interface card with complete hardware and software that adds the CP/M-80 operating system to your Apple computer. This type of interface is required to operate the hundreds of CP/M application software programs like WordStar, Supercalc, and Convar. ALS has provided special utilities designed to make using your CP/M operating system more convenient. It is the most economical Z-80 application for the Apple with full performance, fully licensed CP/M 2.2 from Digital Research, Inc.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
<th>SUG. RETAIL</th>
<th>SHIP. WT.</th>
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<tbody>
<tr>
<td>HZENG</td>
<td>$99.00</td>
<td>$195.00</td>
<td>2 LBS.</td>
</tr>
</tbody>
</table>

TYPING AID

Plastic stand which is a must for any programmer who spends a lot of time entering program listings or information from various sources. The "Typing Aid" has an adjustable stand for holding publications or listings of any size and is engraved with the CALL - A.P.P.L.E. logo.

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>A.P.P.L.E. PRICE</th>
<th>SUG. RETAIL</th>
<th>SHIP. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPAI</td>
<td>$13.00</td>
<td>$19.95</td>
<td>2 LBS.</td>
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</table>
MEMBERSHIP INFORMATION

Membership Categories and Privileges

All annual memberships include 12 issues of our magazine.

REGULAR and INSTITUTIONAL members may purchase any product offered by the Co-op, subject to some shipping restrictions. All members also have access to other services, including a technical assistance hotline, telecommunications, and public domain software.

INSTITUTIONAL members may: (1) use purchase orders to buy products, (2) receive special discounts on quantity orders, and (3) request additional magazine subscriptions at a reduced rate.

SUBSCRIBERS receive the magazine only, and are not considered members.

NON-MEMBERS may order products at 10% above member prices. They are not eligible for hotline support, Co-op dividends, or member voting rights.

Membership Fees

REGULAR membership dues - $26 per year

New Regular members also pay a one-time, non-refundable application fee of $23.

INSTITUTIONAL membership dues - $100 per year

SUBSCRIPTION ONLY - $21 per year

POSTAGE: Dues and subscription fees include second-class magazine postage within the United States. An additional charge is made for foreign or first-class magazine delivery.

Please contact our Member Services department for details on eligibility for each membership category, application procedures, and additional postage rates.

Membership Numbers and Cards

A membership number and card are issued when you join the Co-op. Please indicate your member number and expiration date whenever you order products or write to us. The card is your proof of membership at fairs and other events away from our online records. A lost card may be replaced for $5.00. (Product Code FMCM)

PRODUCT PURCHASE INFORMATION

Our Pledge of Quality

We will make available to Co-op members quality products at the lowest possible prices. We will always operate the Co-op in a businesslike manner and follow policies that are in the best interests of our members and consistent with industry practices.

Ordering Products

Orders may be placed by mail, telephone (206-251-5222), our "850" line (800-426-3667, outside Washington state only), or in person at our retail store. For your convenience, a mail-in order form is printed in this catalog and in each issue of the magazine. We no longer accept orders through The Source.

Our policy is to inventory items offered in our catalog. Normal shipping time is within three working days. Orders for products temporarily out of stock will be placed in the order queue and filled as soon as possible. In-stock items listed on the same order will be shipped without delay.

Payments

Only U.S. funds can be accepted for payments to the Co-op. Except for Institutional members, full payment must accompany each order.

MasterCard and Visa are acceptable for any dues, fees, or purchases. Personal checks may be used for mailed-in payments and, with proper identification, for retail store purchases. A fee of $12 will be charged to your member account for each check returned due to insufficient funds.

Price Changes and Price Protection

Upon publication, each new catalog entirely supersedes all previous catalogs and published product announcements. The prices listed in this catalog are subject to change. Any increases or decreases will be announced each month in our magazine, and will take effect on the first day of the issue month.

Increase

If a price goes up, we will honor all orders at the lower price that are received or postmarked before the effective change date. After that date, if the increase does not exceed 10% of the former price, we will process any orders that have payment enclosed for the lower amount, and bill you for the difference. Otherwise, you will be contacted for further instructions.

Decrease

If a price goes down—either through a special sale or a permanent reduction—and you had purchased the identical product from us at a higher price within 30 calendar days prior to the effective change date, then upon written request, you may receive a credit to your member account for the difference.

Discount Coupons

From time to time we offer special discount coupons. To qualify for a discount, the coupon must accompany your order—either by mail or in person.
Shipping

Products on hand will normally be shipped within three working days after receipt of your order. In general, products are shipped by United Parcel Service to the street address listed under your membership number, unless other instructions are included with the order. Shipments to APO or FPO addresses and to post office boxes must go by U.S. Mail.

Due to custom requirements, licensing, and warranty fulfillments, we are currently unable to ship hardware products outside the United States.

Special Handling

Expedited shipping service is available for "rush" orders on products in stock. Your order will be shipped within one business day, and you may also request either Federal Express or UPS Next Day service, if desired. The additional fee for expedited handling is $25 plus shipping costs.

Product Returns and Credits

Effective November 1, 1985, all orders will have printed on the invoice a "return by" date that is 30 calendar days after the date of shipment. If you return a product in resalable condition post-marked by this date, with all original packaging and documents intact and unmarked, we will credit your member account for the original purchase price, less shipping charges and a 10% handling fee. Please include a copy of your receipt and the order number.

All sales are considered final 60 calendar days after the shipping date shown on your receipt. If it is necessary to return a product after the "return by" date but before the "sale final" date, then you must first obtain a written return authorization from our Operations Division. When requesting this authorization, please supply the following information:

Your name
Member number and expiration date
Order number
Order date
Product code
Product name
Reason for the request
Do you have the original packaging?
Do you have all documents and warranty cards?
Are they unmarked?

All returns will be inspected to determine the condition of the merchandise. Any additional expenses we must incur for repackaging, repairing, or restoring an item to stock will be deducted from the credit. Products inspected and found to be beyond repair or not in resalable condition will not be accepted for credit. However, merchandise containing manufacturing defects will be handled according to the manufacturer's warranty policy.

Written requests for cash or charge-card refunds are subject to Co-op approval, and will not be honored for software products.

Communication and Correspondence

To inquire about the status of an order, write to our Member Services Department, or call (206) 251-5222 between 8:30 A.M. and 4:00 P.M. Pacific time.

To request information about the operation of products we sell, write to our Product Development Department or call our Hotline at (206) 251-0071 weekdays between 9:00 A.M. and 3:00 P.M. Pacific time (members only). Please allow at least six weeks for a written response to your letter.

ORDERING CHECKLIST

To speed all orders, please include:
1. Your Name as it appears in our records (same as on your mailing label).
2. Member number and expiration date.
3. Complete STREET ADDRESS (not Box number — see explanation below).
4. Phone number to reach you by day if we have questions.
5. Payment Including:
   Handling charge if applicable
   Domestic or Foreign Shipping Charges
   Magazine Postage if applicable
(Sorry we do not accept COD or Purchase Orders on individual memberships.)
Each item you order needs:
6. Complete product name (and version if there is more than one product of that type).
7. Product Code

SHIPPING ADDRESS: We normally ship products by United Parcel Service (UPS). Therefore, the shipping address on your order cannot be a post office box. You may specify a P.O. Box for orders weighing less than 8 ounces. You also may make special arrangements for shipping some items via US Mail, Air Parcel Post, or UPS Second Day Air.

FOREIGN SHIPPPING CHART

<table>
<thead>
<tr>
<th>Zone I</th>
<th>Zone II</th>
<th>Zone III</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSTAL</td>
<td>TABLE</td>
<td>POSTAL</td>
</tr>
<tr>
<td>West</td>
<td>All South America, Central America,except in Table I.</td>
<td>Asia,</td>
</tr>
<tr>
<td>Indonesia</td>
<td>America,</td>
<td>Australia,</td>
</tr>
<tr>
<td>0-4 oz.</td>
<td>$1.51</td>
<td>$1.96</td>
</tr>
<tr>
<td>4-8 oz.</td>
<td>2.13</td>
<td>3.95</td>
</tr>
<tr>
<td>8-12 oz.</td>
<td>2.75</td>
<td>4.12</td>
</tr>
<tr>
<td>12-16 oz.</td>
<td>3.37</td>
<td>5.20</td>
</tr>
<tr>
<td>16-20 oz.</td>
<td>3.99</td>
<td>6.28</td>
</tr>
<tr>
<td>20-24 oz.</td>
<td>4.61</td>
<td>7.36</td>
</tr>
<tr>
<td>24-32 oz.</td>
<td>5.85</td>
<td>9.52</td>
</tr>
<tr>
<td>3-4 lbs.</td>
<td>8.29</td>
<td>13.84</td>
</tr>
<tr>
<td>Each additional 1/2 lb. over 4 pounds add:</td>
<td>1.22</td>
<td>2.16</td>
</tr>
</tbody>
</table>

For weights over 4 lbs:
$6.08 + $1.08 additional per lb. pound.
APPLICATION

YES! Join now and receive all 1985 issues of Call-A.P.P.L.E. Sign me up as a full profit-sharing member of A.P.P.L.E. Co-op

Date ____________________________

Name ____________________________

Address ____________________________

City ____________________________ State/Country ______

Zip ____________________________ Phone ( ) ______

Social Security No. (For dividend payments) ____________________________

Circle your Apple: II, II+, Ile, IIc, Macintosh, Lisa, III, Other ____________________________

What is the most important service we can provide you? ____________________________

______________________________

Membership Fees:

☐ Individual ____________________________ $49.00
   (Annual dues $26.00, initiation fee $23.00, includes $21.00 subscription to Call-A.P.P.L.E.)

☐ Institutional ____________________________ $100.00
   (Allows use of purchase orders, 30 day term, special discounts.)

☐ Corporate ____________________________ $250.00
   (Includes 5 member cards, use of purchase orders, 30 day terms, and special discounts.)

☐ Call-A.P.P.L.E. ____________________________ $21.00
   (No membership, 12 monthly issues.)

☐ Check ☐ VISA ☐ M/C ____________________________
   Exp. Date ____________________________

☐ Check here if you do NOT wish to receive mailings from other computer companies.

OFFER EXPIRES 4-1-86