

# CATALOG

**TechAlliance**  
**Products**  
*Spring 1989*

## **Contents**

### **Hardware**

Accessories	130
Accelerators	130
Cables	130
Disk Drives	130
Displays	131
Modems	131
Memory	131
Printers	131
Printer Ribbons	131
Tape Back Ups	132

### **Software & Books**

#### **Applications**

Communications	132
Graphics	132
Productivity	132
Applications Books	133

#### **General Utilities**

#### **Public Domain Software**

#### **HyperCard**

HyperCard Tools	136
HyperCard Books	137

#### **Programming**

Languages	138
Programming Tools	141
Programming Utilities	142
Programming Books	144
Technical References	146
Software & Code Libraries	148

### **Developer Components**

How to Order	151
Order Form(s)	152,154
International Members Form	153

# HARDWARE

## Accessories

**Datadesk Mac 101 Keyboard** From Datadesk. Want a 101 key keyboard with a great feel at a great price? This is your chance with the Datadesk 101 keyboard. Includes template for Microsoft Word 3.0.

ADB-SE, II, IIGS.

**HMD02 \$154.00** \$5.00

for Mac 128, 512 or Plus (beige)

**HMD10 \$154.00** \$5.00

for Mac Plus (platinum)

**HMD09 \$154.00** \$5.00

### MacLuggage Carrying cases

MacPlus

**HMACPK \$54.95** \$4.00

Mac SE

**HMP01 \$62.95** \$4.00

### Microfile

Holds 40 3.5" Disks

**HXXMF \$5.25** \$5.00

**Mousepad™** From Mousetrak, Inc.

**HMSMAT \$5.00** \$1.00

### Mouse Covers

Max

**HXA502 \$6.50** \$1.00

Millie

**HXA503 \$6.50** \$1.00

**PhoneNET** From Farallon. PhoneNet is an inexpensive and space efficient Apple-Talk system. It is attached directly to your phone system.

Nine Pin: PN209

**HMBAPN \$49.95** \$2.00

Eight Pin: PN208

**HMBAPE \$49.95** \$2.00

## Accelerators

**Irwin Excellerator™ XL** From Irwin Magnetics. An entry-level accelerator card for the Mac SE. The XL functionally replaces the native 8MHz 68000 with a 16MHz 68000 and adds 32K of 30ns cache RAM. Also supports an optional 68881 floating point math coprocessor. The XL increases performance of the SE by 2 to 2.5 times; with a 68881 math-intensive applications can see increases in excess of 30 times. Connects to Irwin's Powerview™ 19" monochrome monitor.

**HMIW01 \$365.50** \$2.50

**Irwin Excellerator™ XL 20** From Irwin Magnetics. The Excellerator XL20 for the Mac SE contains a 20MHz 68020, giving the SE a performance twice that of the Mac II! Also supports optional 68881 or 68882 math co-processors able to perform math operations in excess of 100 times faster than a stock SE. Doubles the SE's possible RAM space, to a total of eight Mb. Multispeed operation available from the Control Panel lest you control both processor and memory speeds, down to 16MHz or 8MHz for software compatibility (i.e., makes your games playable!). Connects to Irwin's Powerview™ 19" monochrome monitor.

**HMIW02 \$732.50** \$2.50

## Cables

**Mac128, 512 to Hayes Compatible** (DB25) Modem

**HMXXMG \$9.25** \$1.00

**Plus/SE/II Hayes Compatible** (DB25) Modem

**HM/PMC \$9.25** \$1.00

### Mac 128/512

ImageWriter I  
**HMCPR1 \$2.50** \$1.00

**Mac 128/512**

ImageWriter II  
**HMX3C \$22.99** \$1.00

**Mac Plus/SE/II**

ImageWriter I  
**HMXIM \$8.50** \$1.00

**Mac Plus/SE/II**

ImageWriter II  
**HGE612 \$7.99** \$1.00

## Disk Drives

**Cutting Edge 800K External Drive**

For Macintosh 128/512/Plus/SE.

**HMC701 \$196.50** \$2.13

**SCSI Hard Drive™** From CMS Enhancements, Inc. CMS drives are fast, quiet and reliable. The design of the housing and rugged mounting of the drive adds maximum protection against head crash. Included with each SCSI system utilities: SC Series

20 Meg Drive  
**HMSV20 \$576.50** \$11.56

43 Meg Drive  
**HMSV40 \$795.00** \$11.56

60 Meg Drive  
**HMSV60 \$980.00** \$11.56

80 Meg Drive  
**HMSV80 \$1,350.00** \$11.56

## Displays

**Irwin 19" Powerview™ Monitor** From Irwin Magnetics. Monochrome monitor and video controller interface that connects to Irwin Excellerator cards. Has 1024 x 768 resolution, 72DPI; 90MHz clock speed. CDEV software lets you choose monitor screen and/or Mac screen, image magnification, etc. Bright, crisp, flicker-free and very stable screen display. Because the monitor plugs into the Excellerator, refresh and redraw times are many times faster than on ordinary big screens. (Requires Irwin Excellerator XL or XL20.)

**HMIW03 \$1,551.95** \$54.00

**Macintosh Video Adapter™** From TechAlliance. Connect your Mac Plus or SE to a big screen or projection monitor by just snapping it in with the Mac Video Adapter. It can be removed or transferred to another Mac without leaving installation scars. Note: SE adapter is designed differently than for other Mac's. Mac Plus

**HMPR04 \$99.00** \$1.00

SE Video Adapter™

**HMPR06 \$99.00** \$1.00

### **Powerscreen 12" High Scan Monitor™**

From TechAlliance. Bring your Mac up to current standards by adding 70% more viewing area with the Powerscreen 12" High Scan Monitor.

**HMPR12 \$229.00** \$20.00

### **Display Savings Package**

**Macintosh Video Adapter/Powerscreen Monitor**

**HMPR02 \$295.00** \$21.00

**SE Video Adapter/Powerscreen Monitor**

**HMPR08 \$295.00** \$21.00

## **Modems**

**Avatex 1200hc Modem** Advanced features

such as high data reliability and Bell 212A compatibility. A great value.

**HXA4MD \$120.95** \$3.00

**Discovery 2400 Baud Modem™** From Data-Tronics Technology, Inc. A flexible and powerful stand alone modem featuring a Hayes compatible command set and providing both auto-answering and auto-dialing capabilities.

**HXD3DS \$199.95** \$3.75

**Epic 2400 Mini External Modem** From Epic Technologies. Get up to speed with this external 300-1200-2400 baud modem at a great price. Hayes compatible plus: auto-baud, DTMS/pulse or mixed dialing, non-volatile memory, programmable DTR. Convenient front-panel on/off switch. Includes 9V adaptor and phone cable. Compact 6 1/8 x 3 5/8 x 1 1/2" size. US-made; 5-year conditional warranty. Cables sold separately below; DB25 connector.

**HXEX01 \$144.00** \$2.13

**MultiModem AH2™** From MultiTech Systems. Stores ten 31-digit phone numbers, and is compatible with auto-dialing and auto-answering, 300/1200 baud.

**HMODHC \$290.00** \$5.00

## **Memory**

**Mac's-a-Million™** From Sophisticated Circuits. Allows the addition of up to 1536K (1.5 megabytes) of memory to that already in a 128/512 Macintosh.

**Mac's-a-Million Memory Board™**

**HMAM \$163.00** \$4.00

**Mac's-a-Million "ROM Patcher"**

**HMAMRP \$22.95** \$.50

**Mac's-a-Million Piezoelectric Fan**

**HMAMFN \$39.00** \$.50

## **Printers**

**Fortis DM1310 Printer** From Fortis. Good value and great features: has both

RS232 serial interface with ImageWriter™ emulation (ImageWriter™ I cable) and Centronics parallel interface. Bi-directional, logic-seeking, nine wire printhead. Built-in tractor feed (uses three-up labels). Uses easy-to-find Epson LX80 ribbons. Speed: 30 CPS in near-letter-quality mode, 130 CPS in draft mode. (Cables sold separately.)

**HMFR01 \$265.00** \$18.30

### **Grappler**

C/Mac/GS Interface

**HMMD06 \$99.00** \$1.38

### **Grappler LQ**

24-pin Mac Interface

**H2MD01 \$114.00** \$2.00

### **General Computer Personal Laser Printer**

Add a laser printer to your Macintosh with the Personal Laser Printer. Features 6 page per minute output, quick draw graphics, bitstream fonts, and an adjustable paper feed. Requires a Mac Plus and above with a Hard drive with at least 800K free. Requires a SCSI cable.

**HMMD04 \$1,699.00** \$20.00

## **Printer Ribbons**

Note: Printer ribbons are purchased from several sources. Brand name may vary. We guarantee satisfactory quality.

### **Color Printer Ribbons**

ImageWriter II

**HXXXIC \$9.90 each** \$.50

**HXXXIC \$54.00 for six** \$3.00

**Epson LX-80, Fortis DM 1310 Ribbon**

**HXE2R2 \$3.50** \$.50

### **ProWriter Printer Ribbon**

Fits ImageWriter, AppleDMP, NEC 8023A.

**HPRC Black \$3.95** \$.50

**HPRCR Red \$4.50** \$.50

**HPRCB Blue \$4.50** \$.50

## **Tape Back Ups**

**Irwin Tape Drives** From Irwin Magnetics. Model 5040, 40.6Mb; or model 5080,

81.7Mb formatted capacity. Patented tracking technology and new EzTape software give reliable back-ups and read/write compatibility from one drive to another (not like some other drives!). Compact self-powered external unit plugs into SCSI interface (twin connectors for daisy-chaining). Network compatible with TOPS®, 3Com, Novel, TCP/IP and LocalShare.™ Backs up servers in the background from work station without taking down the server. EzTape Iconographic™ software supports streaming file-by-file backup; two Mb/minute; rewind 70 sec. or less. 256K buffer memory. Units can read and write tapes for several models of Irwin's IBM PC drives; making it easy to share data and text files between the Mac and IBM environments. The drives use DC2000 minicartridge tapes; Irwin's pre-formatted tapes are highly recommended (one is included). 24" cables work with Mac II. If you have no external SCSI device now order the drive, MCAB25 cable and MT50 terminator. If you have a terminated SCSI drive with a standard SCSI cable, order the drive and MCAB50 cable and connect your drive to the tape unit, the tape unit to the Mac with present cable.

5040, 40.6Mb or 5080, 81.7 Mb.

**HMIW04 \$1,033.50** \$8.19

#### **Irwin 5080 80Mb Tape Drive**

**HMIW05 \$1,253.50** \$8.19

#### **Irwin MCAB25 Data Cable**

(Mac to tape drive).

**HMIW06 \$28.85** \$.75

#### **Irwin MCAB50 Data Cable** Tape drive to another peripheral, but not to the Mac.

**HMIW07 \$28.85** \$.75

**Irwin MT50 SCSI Terminator** needed for the last (or only) device connected to the computer.

**HMIW08 \$18.35** \$.50

#### **Irwin AccuTrak™ 40Mb Tape Cartridge**

**HMIW09 \$26.20** \$.47

#### **Irwin AccuTrak™ 80Mb Tape Cartridge**

**HMIW10 \$26.20** \$.47

## SOFTWARE

**MicroPhone 1.1™** From Software Ventures Corporation. One of the most powerful communications packages available for the Mac SE and Mac II with greatly improved VT100 terminal emulation.

**SMVEM1 \$117.00** \$1.00

#### **Red Ryder 10.3** From Freesoft, Inc.

Telecommunications on the Mac can be traced by the development of Red Ryder. MultiFinder compatibility allows you to work on other applications while dialing or downloading.

512K minimum.

**SMFS01 \$62.88** \$1.00

## Graphics

**PixelPaint** From SuperMac Technology Inc. II. A full color paint program easy enough for the beginner, yet sophisticated for the professional. In addition to draw features, it also includes an array of special effects menus, and advanced.

**SMMD55 \$305.25** \$2.00

#### **PosterMaker Plus** From Strider Software.

Helps your customers create outstanding posters. It can also help create professional quality illustrations, ads, logos, headlines and screen positives, too.

**SMMD34 \$40.75** \$.75

#### **SuperPaint™** From Silicon Beach

Software. Goes beyond the limitations of purely bit-mapped graphics and gives you all the convenience of object oriented graphical tools. Supports color printing.

**SMS1S \$92.95** \$1.00

## Productivity

**Filemaker Plus** From Claris. FileMaker Plus is a very easy to use flexible flat-file

database. It automatically indexes every word, number and date you enter. You can arrange drawings, photos, text, numbers, logos, and dates anywhere on the page for maximum impact, then preview what you've done.

**SMMD39 \$203.75** \$1.50

**MacCalc™** From Bravo Technologies. A full-featured spreadsheet program with flexible page and font setup and user interface with on-line help.

**SMB8MC \$96.95** \$1.00

#### **MacMoney V.3.02** From Survivor

Software Ltd. A small personal and small-business financial record keeper and management program. The Category, Name, and ID Code Lists, each with up to 250 items, make entries of checks, deposits, cash and credit card transactions. Multiple reports and graphs provide data analysis.

**SMSEMM \$78.95** \$1.00

**MacSQZ!** From Symantec Corp. A combination desk accessory and application used with Microsoft Excel to reduce your spreadsheet files on disk by up to 95%. MacSQZ! compresses files when they are saved and expands them back to original size when they are opened. Also includes features for password protection, annotation, history, and a batch utility for squeezing a file, folder, or a disk of Excel documents.

**SMMD77 \$54.50** \$1.00

#### **Managing Your Money 2.0** From MECA

Ventures Inc. Version 2.0 still offers everything from basic budgeting and checkbook management to life insurance and tax planning, but adds such capabilities as turbo-search for accounts/budgets when recording a transaction, updated tax laws, and the ability to sort transactions by date within accounts.

**SMMD74 \$153.00** \$1.00

**McMax** From Nantucket. Enables you to develop dBASE applications on your Macintosh for use in both the Macintosh and PC environments with full compatibility. Includes programmable pull-down and pop-up menus along

with other standard Macintosh interface features. Allows for large screen displays, full color, and all fonts in all sizes. Contains an unlimited royalty-free runtime version called McMax Run which also encrypts your application source code to maintain data integrity. Update will be free to all who have purchased since August 1988.

**TMS100 \$227.95 \$4.05**

**Microsoft Excel V. 1.5** From Microsoft Corporation. A fast spreadsheet with powerful database tools, allowing you to build macros by just a point, click and record. High-quality graphics and 42 different styles of charts. Intelligent recalculations, MultiFinder compatible, File compatibility with Microsoft Excel for the IBM PC, Lotus 1-2-3, Symphony, and Microsoft Multiplan.

**SMCXL \$259.00 \$2.00**

**Microsoft Word 3.01** From Microsoft Corporation. The first powerful, fast, and full-featured Macintosh word processor to support a full range of professional features. Built-in spell checker, hyphenation, footnotes, automatic search and replace function, 16 documents on screen at the same time and a wide range of type sizes and styles. Version 4.0 should be available at time of ordering.

**SMM3W3 \$273.75 \$2.00**

**Microsoft Works 2.0** From Microsoft Corporation. Five programs combined into one: Word processing, spreadsheets, a data base, charting and telecommunications to allow users to accomplish day-to-day business chores quickly and easily. Comes with an extensive users manual.

**SMM3WK \$220.00 \$3.38**

**Sonar** From Virginia Systems Software. Sonar is a text retrieval system that allows high speed key and word searching of document files. Much more powerful than a simple search/find, Sonar lets you search for terms that are

related, perhaps through some intermediate term (proximity search), as well as boolean and wildcard searches. Print or save selected paragraphs; append items to the clipboard. Search speed can exceed 15,000 pages per minute.

**TMS035 \$205.95 \$.75**

**Word Finder** From Microlytics, Inc.

**SMBSWF \$41.95 \$1.00**

## Application Books

**Adobe™ Illustrator: The Official Handbook for Designers** From Bantam Electronic Publishing. Illustrator — an advanced

graphics program that unlocks the full potential of desktop publishing by allowing you to scan images directly into your Mac. The Official Handbook for Designers is an invaluable source of information on everything from newsletter design to CAD/CAM applications. Authors Fred Davis, Tony Bove, and Cheryl Rhodes present step-by-step instructions for creating high-quality line art, halftones and blueprints on this state-of-the-art system.

**PMB403 \$21.95 \$2.00**

**dBASE Mac Advanced Techniques and Applications** By Richard Loggins, 1988.

Published by Bantam. This tome assists you in mastering those advanced features you are having trouble with or wish you could learn. Includes sample programs that guide you to quick efficiency in creating databases, linking multiple databases together, designing applications and creation of custom applications using procedural commands.

**TMB059 \$17.95 \$1.50**

**The Complete Guide to dBASE Mac**

By Dan Shafer and Don Huntington, 1988. Published by Scott Foresman and Co. Written in a relaxed, friendly style, this book strives to be the source for everything you need to know on the creation and use of data bases with

dBASE Mac.

Beginning with an overview of basic dBASE Mac concepts, it leads you through the steps necessary using real world examples. "Hands on" is the operative word here. Included is a complete documentation of DBASE Mac's built-in programming language. 428 pages.

**TMB061 \$14.95 \$2.65**

**Excel in Business** By The Cobb Group, 1985. Published by Microsoft Press. A user's guide and tutorial for Excel. You'll discover how to maximize Excel's potent spreadsheets, create illustrative charts, turn your spreadsheet into a database manager, and switch on the power of Excel's macros. Also provides scores of authoritative advice and advanced techniques. The easily referenced information on Excel's library of functions, its versatile formatting and printing possibilities, and its practical windowing capabilities will help you analyze all your business data with ease.

**PMHW01 \$19.95 \$2.00**

**The Excel Advanced Users Guide: Techniques for Spreadsheet Integration** By

Richard Loggins, 1987. Published by Hayden/Sams. For anyone who understands the basic Excel environment and desires to become proficient in the more powerful techniques available. Provides example macros. 187 pages.

**PMH610 \$13.00 \$1.30**

**Mathematica™** By Stephen Wolfram 1988. Published by Addison-Wesley.

Mathematica is a major new tool for anyone who uses mathematics. With it you can do not only numerical computations, but also symbolic and algebraic operations and graphics. Its novel programming language allows you to define new mathematical objects and create specialized application packages. This is the definitive book, written by the system's main designer; 749 pages.

**TXB032 \$23.50 \$3.00**

**Real World Postscript: Techniques** From PostScript Professionals, edited by Stephen F Roth, 1988. Published by Addison-Wesley. This volume focuses on the application of PostScript concepts and techniques to the real world of graphic design, and is a collection of articles by experienced PostScript programmers

covering topics from color to type fonts. 400 pages.

**TXB033 \$17.95 \$2.00**

**Using Excel** By Mary Campbell, 1987. Published by Que Corporation. Offers a thorough examination of this powerful spreadsheet program and presents Excel's features in a logical manner with clear, concise examples. Progress from simple program installation to advanced design of applications.

**PMQ201 \$15.75 \$2.00**

## General Utilities

**AutoSave DA** From Magic Software, Inc. Automatically saves data from any application to the current drive. Adjustable save frequency. Works with most programs, including those from Microsoft

and Aldus.

**TMS021 \$35.95 \$.69**

**Capture** From Mainstay. Here is a screen capture that works: in color, on any Mac, with any screen display. Capture is an INIT file that lets you select an area of the screen with a mouse drag, then save the picture either on the Clipboard or in a PICT file.

**TMS033 \$47.50 \$.38**

**Copy II Mac** From Central Point Software. Copy II Mac offers a very strong bit copy program for backing up protected software, and a useful set of disk utilities including: sector copy, copy protect/unprotect, make files visible or invisible, undelete files, sector/file editor, copy files/disk, format/verify disks. Note: Central Point Software is constantly updating and improving Copy II Mac.

**TMSCYM \$24.95 \$.69**

**Disk Express™** From ALSoft Inc. Disk Express' primary purpose is to clean up fragmented files and put maximum performance back into your disk.

**SMAADE \$44.75 \$.50**

**DiskFit™** From SUPERMAC Software. DiskFit scans your hard disk for files that need to be backed up and deletes obsolete files.

**SMMD41 \$59.95 \$1.00**

**DiskTop 3.0** From CE Software. A desk accessory that has been described as a portable Finder.

**SMCET3 \$31.50 \$1.00**

**Fedit Plus** From MacMaster Systems. Fedit Plus is a file and disk edit utility program for the Macintosh. It is patterned after the ZAP type programs available on many other systems. It is a powerful and easy-to-use utility for the average to highly-technical users. It allows low-level, direct access to disk volumes for reading and updating, either 3.5" or hard disks.

**TMSFEP \$28.95 \$.63**

**File Edit** From SoftPlus. A time-saving file editor and manager for all Macs in the form of a standard DA. Select and open files either via a standard dialog or powerful find-file function; find partial file names. View and edit data and resource forks. Has hex and ASCII string search functions. View and change file

finder information. Alter logical end-of-files for both forks. Rename, delete, copy, and compare files. Works on HFS or MFS volumes.

**TMS006 \$26.50 \$.88**

**The 1st Aid Kit** From 1st Aid Software. Many vital and useful disk file management features and utilities, together with a tutorial manual that is really a definitive text on the Mac disk system.

**TMS062 \$91.95 \$2.56**

**Font/DA Juggler Plus** From Alsoft Inc.

The utility program that allows you to switch between "sets" of fonts and desk accessories not installed in the system file — greatly extending the power of the Mac by giving you access to hundreds of DA's, fonts, FKeys, and sounds simultaneously.

**SMAA04 \$35.50 \$1.00**

**Glossary DA** From ADS. The Glossary desk accessory provides instant access to any term and its definition. Virtually any information that is needed on hand at all times can be stored and accessed with the DA: phone numbers, addresses, program subroutines, technical terms, ROM calls, etc. Definitions, which may include PICT pictures, can be stored on a local or shared disk. A glossary building program turns standard text files into glossaries. Terms may be up to 45 characters each. Each glossary contains both definitions (up to 12K each) and an offset map (four bytes per term) which lets the DA pull up any term instantly, no matter where it lies in the alphabet. A quick "type and find" searching algorithm is implemented. Standard copy/paste functions pull the definitions into your application program. Buttons, window titles, etc. may be edited with ResEdit. Licenses for re-distribution are available from the publisher, as is a version that can use a Panasonic Laser disk player to show pictures that match the definitions.

**TMSGSL \$34.95 \$.50**

**Heapshow** From BT Computing. Heapshow provides vision to those who want to see the logic inside the Mac. It provides a dynamic, graphic representation of the contents of both heaps, using distinctive patterns to indicate various types of memory blocks used by the Mac, with supplemental text

information. Often a single glance will make obvious what hours of debugging would fail to uncover — problems such as heap fragmentation, dangling handles, cross-calling, and leftover code and resource blocks are easy to spot by their striking graphic appearance.

**TMSHSW \$56.95 \$ .56**

**MacTREE™** From SRT, Inc. Announcing MacTREE. A program that provides a unique "tree" display of your hard disk files and lets you instantly locate every folder or file. Sort your files any way you like — by name, size, kind, and date. The ultimate hard disk management system.

**SMMD60 \$45.25 \$1.00**

**Memory Map 3.0** From SoftPlus. A handy and powerful utility that allows easy access to your Mac's memory. This is a DA that will work within any development system, program or shell which permits DAs. It displays system global variables (sorted by name or address), application and system heaps, resource maps, data structures and data values. The display can be updated automatically and dynamically at user-selected intervals. Expands heap blocks and resource maps. Defines and installs user structures.

**TMS007 \$59.95 \$ .88**

**PICT Detective V. 2.0** From Palomar Software. Describes the contents of any valid QuickDraw picture. Given a PICT document, resource file, or the Scrapbook, PICT Detective gives programmers a complete description of each element of a picture: shape, location, font, color, and other properties. The symbolic description can be modified and recompiled. The utility understands classic QuickDraw pictures, Color QuickDraw pictures, and all standard picture comments.

**TMS078 \$98.50 \$1.19**

**PostHaste** From Micro Dynamics, Ltd. PostHaste is an integrated environment that lets you program PostScript interactively over AppleTalk. It includes an integrated multi-window editor, and lets you examine PostScript dictionaries. With it you can select a file or portion of code and upload it to the LaserWrit-

er (and display any error messages) without leaving the editor. Not copy protected.

**TMSPHS \$46.95 \$ .50**

### **Programmer's On-Line Companion V. 2.0**

From Addison-Wesley. Designed to be an on-line "crib sheet" for the Mac developer, this product is a database reference utility based on Inside Macintosh volumes I-IV and the Apple Numerics Manual. It provides access to the most frequently accessed instructions and system calls from within your development system, and allows for customizations of its database and insertion of system calls directly into your editor.

**TMS038 \$24.95 \$ .38**

**QUED/M** From Paragon Concepts. The name says it all: the Quality Editor with Macros. QUED/M is an editor for text files with features particularly useful to programmers. Smart cut/paste supports pattern matching; multi-level Undo; parenthesis balancing and counting. Macros may be recorded, or built from commands typed in a file.

**TMS034 \$99.95 \$ .75**

**Smart Scrap & The Clipper™** From Solutions International. SmartScrap is an improved scrapbook that adds many bitmap and QuickDraw art management capabilities to those of Apple's original desk accessory. Smartscrap can create and access more than one scrapbook file. Its selection marquee and Bitmap Lasso allows you to select a portion of a scrapbook page. The Clipper is a graphic scaling and cropping tool which can proportionally reduce, enlarge or trim graphics before pasting them into a document. The Clipper can manipulate any graphic that can be put on the Clipboard. Both support full color.

**TMS003 \$51.50 \$ .50**

**SnapJot** From Trillium Software. SnapJot is a multi-window screen capture desk accessory for creating instant notes from information displayed on your screen. It is designed to help you work more efficiently by giving you an easy way to gather the important information which passes by as you work. SnapJot runs on all Macintosh's including Macintosh

II's with color and multiple screens. However, it is not recommended for copying color images at 24 bits per pixel or greater.

**TMS114 \$29.95 \$0.65**

### **StarNine Utilities** From Star Nine.

Utilities to add functionality to A/UX, and provide an interchange medium between A/UX and Macintosh files and applications. The A/UX <=> Mac utility transfers files between Macintosh hard/floppy disk partitions and the A/UX file system, it also launches Macintosh applications residing in the A/UX file system. An Audit system verifies that your A/UX corresponds with Apple's release description. An Admin utility gives a visual presentation of hard disk(s) partitioning. Also included are a RAM disk driver, Screensaver, and Snapshot utilities.

**TMS048 \$83.95 \$ .94**

### **Super Glue™** From Solutions, Int'l.

SuperGlue's ImageSaver changes a spreadsheet, chart, etc. into an image, a static picture (QuickDraw commands) of what would have printed. Images may be pasted into any other program (even directly into PageMaker 2.0's PLACE command), or transferred electronically. Images may also be saved in MacPaint form. SuperViewer DA/application provides font substitution. Works on any 512K or larger Mac; MultiFinder compatible.

**TMS002 \$76.95 \$ .69**

**Symantec Utilities** A collection of utility programs to keep your Macintosh operating at peak performance. Includes utilities for partitioning hard drives, file protection, tune up your hard drive, and much more.

**SMMD83 \$68.00 \$1.00**

### **Tempo 2** From Affinity. Addictive.

Record any series of Mac commands, mouse actions or keystrokes and Tempo will play them back on demand at a cost of two keystrokes each. Macros can stop for user input or even branch to another program, macro repeat if, for and until functions. Record, save, edit and manage macros with standard Mac click and

window functions. Requires 512K or larger Mac, or XL.

**TMS087    \$109.00    \$.81**

## Public Domain

**Public Domain Update!** From TechAlliance.

**SMP???**    **\$3.00 Disk**    \$.50

A new product code and system has been implemented to handle the new

library. Now there are separate product codes for each Mac PDS disk. The format for a product is as follows: SMP [category letter] [disk number]. Here is the current and complete library.

Letter	Number	Category
U	01-09	Utilities
A	01	Desk Accessories
G	01-07	Games
F	01	Fonts
D	01-03	Demos
X	01	Text
P	01-04	Graphics
S	01-02	Sound
T	01	Telecommunication

For example: the product for Graphics disk #04 is SMPP04. A disk containing the catalog for the entire library is available. Its product is SMPC00. The price is \$3.00. Look forward to periodic updates to the new library right here!

## HyperCard

### HyperCard Tools

**HyBase** From Answer. A database management system integrated into HyperCard. You may create, modify, and sort groups of data as well as relate

information between collections and use HyperCard to display that data. Using its own data manipulation language invoked through the XFCN facility, HyBase can read or modify any HyperCard global variable, card field or background field, as well as setting properties or changing other parameters by issuing HyperCard commands from within HyBase routines. Supports standard data types such as bool, char, int, real, stream, string, record, array and list in addition to many more.

**TMS094    \$148.95    \$2.00**

**HyperAnimator** From Bright Star Technology. Animation technology brought to HyperCard. Using Bright Star's RAVE (Real Time Animation and Vivification Engine) featured in Dr. Dobb's Journal (July 1988), this package allows you to create and control lip-synched talking actors to work with your HyperCard scripts. Nine synthetic actors are provided for your use or modification with handy paint tools or create your own. Comes with HyperCard 1.2.1.

**TMB101    \$94.95    \$.90**

**HyperEngine** From Symmetry Corp. Add HyperCard stack access to their applications, e.g., for on-line help, demonstration and training.

**TMS053    \$98.50    \$1.79**

**HyperExternals** From Boojum Computer Systems. A dozen external commands and functions for use with HyperCard which include a container sort capable of sorting text, numbers or dates, a powerful find command for locating strings within a container, several commands for checking user input (numeric and date) and a set of disk and file related commands.

**TMS054    \$19.95    \$.31**

**HyperSearch** From Discovery Systems. A flexible searching system with a HyperTalk interface. Consists of a set of XCMDs that are installed directly in the Home stack and provide quick indexing and searching through one or more stacks.

**SMD301    \$89.95    \$2.00**

**HyperTools #1** From Softworks, Inc. A set of 16 tools that lets you perform various actions on buttons and fields at the same time on a card or background. Many of the tools can be added to an existing card in the form of small windows which can be repositioned and hidden as necessary.



**TMS070 \$65.95 \$56**

**HyperTools #2** From Softworks, Inc. 16 more utilities which extend the display and data entry capabilities of HyperCard, including choice list, automatic field, number and date formatting, field data validation, visual effect sampling and assignment, etc.

**TMS071 \$65.95 \$56**

**HyperTutor™** From Teligraphics. Uses a frame-by-frame method to teach HyperTalk programming including intelligent buttons, pop-up windows, time calculations, PostScript printing, automated graphics, etc.

**TMS020 \$38.95 \$50**

**HyperWindows V 1.1** From Tulip Software. Adds color graphic windows to your stacks. Four new XCMDs enable scripts to create and control new windows in front of HyperCard, or give the illusion of color on a card. HyperCard remains active behind the windows. Content of each window is determined by a PICT resource in the stack, or by a separate PICT file. Full color, multiple displays, and overlapping windows are supported on the Macintosh II. Optional palette control is provided. Site and distribution licenses are available from Tulip. Extensive support services, including source code and custom features, available from Tulip. Plus, SE, and II compatible.

**TMS093 \$47.95 \$50**

**Hyper-XCall** From Zone1. Implements the FORTRAN "Call" statement as a HyperCard external command. Enables FORTRAN subroutines (.sub files) compiled with Absoft's MacFortran or MacFortran/020 to be dynamically called directly by name from HyperTalk scripts. Data may be passed to FORTRAN by subroutine arguments

referencing HyperCard fields, variables or globals. Independent subroutines can store and exchange data across script calls via "saved commons."

Hyper-XCall provides 47 "Call Back" subroutines which pass data and commands back to HyperCard. Included is a 150+ card "manual" stack explaining and interactively demonstrating the Calls and Call Backs. FORTRAN source for test, demo and Call Back routines is included. Requires a licensed FORTRAN compiler, either MacFortran (v 2.3 or above) or Microsoft© FORTRAN (v 2.2).

**TMS095 \$79.95 \$50**

**Icon Factory** From HyperPress. Developed by Dan Shafer, this product is a HyperCard toolkit for the creation, editing and movement of icons between stacks. It is also a library of almost 2000 existing icons for your use. With the editor you can create custom icons using clip art or the "fatbits" capability as well as shifting, mirroring, flipping, rotating and inverting the chosen icon.

**TMS091 \$35.95 \$85**

**ScriptExpert** From HyperPress. ScriptExpert is a button oriented script editor and code generator for HyperTalk. It has context sensitive on-line help in a visual programming environment that prompts you for the appropriate input. Useful to both the beginner and the professional HyperTalk programmer. Created by Dan Shafer.

**TMS092 \$57.95 \$70**

**Stack Cleaner** From Softworks. A utility kit for optimizing & extending features of HyperCard. It has a complete menu editing and creation feature as well as utilities that eliminate manual operations associated with Splitting, Merging, and Cloning stacks. Also included is ResCopy which allows resources to be copied between stacks. Latest version of HyperCard included.

**TMS096 \$32.95 \$45**

**XTRA** From Fidcor USA. XFCN / XCMD toolkit to add Lightspeed C functions to your HyperCard stacks. Royalty-free library source code includes: standard callback and Lightspeed C glue, debug functions, QuickDraw globals, rectangle and point parsing, and QuickDraw graphics. The XTRAs shell stack automates compile / resource copy / test cycle. Use HyperCard paint tools to design

icons. Copies all resource types from within HyperCard.

**TMS061 \$65.50 \$81**

## HyperCard Books

**The Complete HyperCard Handbook** By Danny Goodman. Published by Bantam Computer Books. In the first part of this comprehensive resource hints, shortcuts and undocumented features of HyperCard are revealed. The second half explores the hidden power of HyperCard, the HyperCard language.

**TMB030 \$21.95 \$300**

**HyperCard Scripting V. 1.2** By Jeff Stoddard, 1988. Published by TechAlliance. Includes all the material in the original book, plus new material on HyperCard 1.2, and a redesigned cover and interior format. Complete details about how to write scripts, its coverage ranges from the basic concepts of messages, handlers, objects and variables, through handler-writing, functions, etc.

**TMB036 \$19.95 \$156**

**HyperCard Developer's Guide** By Danny Goodman. Published by Bantam. Goodman's sequel on advanced topics in stack development, from fundamental issues to advanced design.

**TMB048 \$18.50 \$200**

**HyperTalk™ Pocket Reference** By David Allen Gewirtz. Published by Softpress Publishing. Designed as a companion to the several HyperCard texts, this Reference covers HyperTalk and the external commands in 70 pages of tightly organized information.

**TMB044 \$11.95 \$63**

**HyperCard™ Power** By Carol Kaehler. Published by Addison-Wesley. The first section of this book focuses on using HyperCard, including how to browse and customize stacks. The second part teaches how to build and design new stacks, including script writing in the HyperTalk language.

**TMB043 \$12.95 \$200**

**HyperCard QuickStart** By Richard Maran, 1988. Published by Que Corporation. Organized around the concept of two page graphic spreads, this volume is a graphics approach to HyperCard that covers versions 1.0, 1.01, 1.1 and 1.2. Graphics convey overviews, relationships and connections while text elements provide comments on what you see and describe abstract ideas. Pointers at the top and side of each spread serve as signposts.

Written assuming that you have a Macintosh, are familiar with the basics of its operation and you don't want to use scripting techniques at this time. 369 pages.

**TMB060 \$17.25 \$2.00**

**HyperCard Script Language Guide** Apple Computer, Inc., 1988. Published by Addison-Wesley. Pertinent to those interested in writing HyperTalk™ scripts or to those interested in developing Stackware™ for HyperCard. It does not contain HyperCard or the HyperCard User's Guide.

**TMB051 \$16.95 \$2.10**

**HyperTalk Bible** By Mitchell Waite, Stephen Prata and Ted Jones, 1988. Published by Sams. An entry-level introduction via tutorial to HyperTalk with end-of-chapter quizzes and exercises. Includes alphabetical listing of all commands, functions, operators, properties, messages and reserved names. 600 pages.

**TMB062 \$16.50 \$2.75**

**HyperTalk Programming, Revised Edition**

By Dan Shafer, 1988. Published by Sams. Based on version 1.2 of HyperCard.

Includes wall poster quick reference guide to commands, expressions and functions. 704 pages.

**TMS063 \$16.95 \$2.50**

**Running HyperCard with HyperTalk** By Barry Shell, 1988. Published by MIS Press. Explains the basics of HyperCard and HyperTalk using the development of a complete invoicing system as an example. This example can then be expanded to build other business applications. 563 pages.

**TMB055 \$16.95 \$2.20**

**Understanding HyperTalk** By Dan Shafer, 1988. Published by Sams. A guide to the language of HyperCard that has margin notes and end of chapter exercises to facilitate your understanding through self paced study. Good for both experienced programmers new to HyperTalk and beginners. 265 pages.

**TMB052 \$13.95 \$1.10**

**XCMD's for HyperCard** By Gary Bond. Published by MIS Press. A complete step-by-step approach to creating and using HyperCard's XCMD's and XFCN's. Contains Pascal and C programs for each routine.

**TMB050 \$18.25 \$2.38**

## Programming Languages

**Aztec C + Source Level Debugger** From Manx. A powerful optimized C compiler and macro assembler, plus the new Source Level Debugger. Includes Aztec shell, compiler assembler, overlay linker, librarian, run time libraries, profiler, full Toolbox interface, and portable C library

interface.

Interactive SDB displays active function names, values of passed parameters; examine variables from any active function; sets breakpoints by lines, functions or variables; function or line-by-line tracing. Customize the environment with macros and procedures. Separate windows for code, output and commands.

**TMS065 \$99.50 \$4.25**

**Aztec MPW C** From Manx. Adds an MPW-compatible shell to the Aztec C compiler described above. (SDB not included.)

**TMS066 \$99.50 \$4.25**

## Consulair 68000 Development System

From Consulair Corp. Formerly Apple's Macintosh 68000 Development System Version 2.0, this powerful collection of software tools for developing assembly language programs on the Macintosh includes a multiple-window editor with undo, to edit several files simultaneously with standard Macintosh text-editing features. The Motorola 68000 assembler has a macro facility, which reduces coding time significantly. A flexible linker/librarian supports modular programming and libraries. A Motorola 68000 manual is included with the package. Site licenses and university discounts available.

**TMSCDS \$62.95 \$3.00**

**Consulair 68020/68881 C Compiler** From Consulair Corp. A version of the Consulair MacC development system tailored to take full advantage of the Macintosh II or other Macintosh with 68020/68881 processors. The compiler includes a complete built-in 68020/68881 assembler, and emits code which takes advantage of the expanded 68020/68881 instruction set. Floating point operations are compiled directly to 68881 instructions, and intermediate values are kept in the internal 68881 registers, resulting in extremely fast floating point execution times. The package includes the Consulair MacC/MacC Toolkit development system.

**TMSC20 \$469.00 \$3.00**

**Language Systems FORTRAN V. 1.0** From Language Systems Corp. This is a powerful, full-featured FORTRAN 77 compiler integrated with MPW. Full ANSI FORTRAN 77 plus extensions from VMS and '8X FORTRAN including IMPLICIT NONE, DO WHILE, structures, EN (engineering) number formatting, etc. SANE numerical calculations and data types including INTEGER\*1, COMPLEX\*16 and Pascal strings. Gen-

erates 68000, '020 and '881 object code. Supports data arrays greater than 32K. Links with MPW Pascal, C, MacApp and Assembler. Direct calls to ROM routines by name as documented in Inside Macintosh. Requires Mac+, SE, or Mac II with hard disk. Runs only in the MPW Development Environment, which may be purchased with the product.

**TMS055 \$231.50 \$11.00**

**Language Systems FORTRAN** without MPW

**TMS075 \$157.25 \$5.25**

**Lightspeed C 3.0™** From Think Technologies, Inc. Version 3.0 includes the new source level debugger and pre-compile of header files. Contains compiler, system and interface files, library disk and utilities disk with MDS assembly converter, file compare, and Apple's RMaker, ResEdit, Maxbug and MacXL-bug utilities, plus demo programs.

**TMS077 \$115.95 \$3.25**

**LightSpeed Pascal V. 2.0** From Symantic. New version provides options for 68020 and 68881 code generation, full access to the Macintosh Toolbox, Object Pascal support for object oriented programming, an enhanced source-level debugger and extensions for improved compatibility with Macintosh Programmer's Workshop (MPW) from Apple Computer. The LightSpeed programming environment is seamlessly integrated providing a high performance compiler, ultra-fast linker and automatic project management technology. Requires Plus, SE, or Macintosh II with 1 MB and System 5.0 or later.

**TMS109 \$84.95 \$2.70**

**TMSLSP \$84.95 \$3.25**

**Mac C Jr.** From Consulair Corp. An introductory C language development system. It is a complete K-R implementation of C, including SANE 80 bit floating point, 32 bit integers, seven register variables, an extensive standard C and Macintosh support library, Pascal function calls for easy ROM interface, and enhanced symbolic debugging. It is based on Consulair Mac C, and creates stand-alone applications in a single step, compiling at over 6,000 lines/minute. Comes with 150 pages of documentation and 10 sample programs.

**TMSCJR \$62.95 \$1.44**

**Mac C and Mac C Toolkit** From Consulair Corp. Integrated C compiler, editor, assembler, debugger and linker produces stand-alone full Mac applications in a single step. Full K-R implementation including bitfields, enums, structure assignment and IEEE/Apple SANE 80 bit extended floating point; 16, 32 and 64-bit integers. In-line assembler and external assembly modules supported; symbolic debugger included.

**TMSCNC \$330.00 \$3.00**

**MacForth Plus** From Creative Solutions. A powerful, interactive, multi-tasking programming environment. Extensive toolbox support, royalty-free turnkey compiler, assembler, text editor, trace & debug, MacinTalk interface, floating point, and MFS/HFS support. Chosen as one of the top 33 products in the Anniversary Issue of the Macintosh Buyers Guide. (See review in Byte, Feb., 1987). Over 500 pages of documentation, hotline, and CompuServe (GO FORTH) bulletin board support, with hundreds of public domain applications. Easy upgrade options for registered users.

**TMSMFP \$169.95 \$3.50**

**MacFORTRAN** From Absoft. A fully-validated ANSI FORTRAN 77 compiler compatible with the 512K, Mac+, and SE. The /020 version is compatible with the Mac II and most aftermarket 68020/68881 upgrades and is the fastest high-level language available for this machine, competing favorably with a Sun or Apollo work station. Both versions include complex and IEEE math, generate stand-alone applications, are 100% source compatible with MS FORTRAN, and include a screen-oriented symbolic debugger and toolbox interface to QuickDraw and window

manager. They permit large applications through overlay, virtual arrays may be stored on disk; can interface to C and produce assembler output. The /020 release includes VAX and proposed ANSI FORTRAN 8X extensions, plus direct access to the 68881 for maximum speed.

**MacFORTRAN** for Macintosh Plus, SE  
**TMS004 \$229.00 \$3.00**

**MacFORTRAN/020 V. 2.3** for Mac II  
**TMS005 \$395.00 \$3.00**

**MacFORTRAN/AUX** From Absoft. This is a new approach to FORTRAN, dubbed "RAT" (RISC Architecture Technology); this new compiler takes better advantage of the 68020 register set, and executes programs an average of 30% faster when compared to other Unix compilers. It meets full ANSI FORTRAN 77, IEEE P754 and MilSpec 1753 specifications, supporting most VAX/VMS and many 8X extensions, COMPLEX\*16 and NAMELIST. It provides full access to Unix, the Mac Toolbox, and supports inter-language calling with C. A standard Unix-style command line interface and a Mac-style interface are provided; the latter is written completely in FORTRAN, and the source (with over 150 Toolbox calls) is also provided. No fee for redistribution of applications created with MacFortran/AUX.

**TMS049 \$395.00 \$3.56**

**Mac-PROLOG Wizard Ed.2.0** From Programming Logic Systems. Mac-PROLOG is a new implementation of PROLOG from the developers of micro-PROLOG. The system is a fully integrated PROLOG environment with incremental compiler and interpreter, fully compatible with Macintosh windows and menu philosophy. It supports three different programming environments: LPA's standard LISP-style syntax, prefix syntax similar to Clark and McCabe's SIMPLE and the Edinburgh syntax. C & Pascal interface. Interactive debugger. Mac-PROLOG Wizard Ed. 2.0 **non-color version...** (any Mac) **TMS036 \$231.95 \$2.00** **color version...** (SE and II only) **TMS037 \$324.95 \$2.00**

**MacScheme + Toolsmith** From Semantic Microsystems. A modern implementation of LISP. It uses byte code compiler technology for speed, compactness, reliability, error detection and ease of debugging. Multi-window user interface highlights matching parentheses, suggests proper indentation, and selects expressions on double-click. Programs are compiled and executed from any window with a single keystroke. Performs extensive run-time error checking, and includes a symbolic debugger and tracer. It conforms to the standards for Scheme, an influential LISP dialect, and supports: lexically scoped variables, first class procedures, macros, and generic arithmetic (both floating point and infinite precision integer); also supports "continuations" concept.

Toolsmith™ adds access to the entire Macintosh ROM, providing: windows, intelligent menus, text editing, an event dispatcher (a task interrupter conceptually beyond the traditional main event loop). A new application builder creates stand-alone applications. No royalties. Includes over 300 pages of documentation plus the book *The Little LISPer*.

**TMS001 \$308.00 \$4.00**

**Metcom Modula-2** From Metropolis

Computer Networks, Inc. Billed as an "ultrafast one-pass compiler with source level debugger," this implementation of Modula-2 conforms to the defacto standard described in N. Wirth's "Programming in Modula-2," 4th edition.

Differences in conditional compilation are that directives may appear anywhere a Modula-2 token is allowed (not only at the start of a line) and they may be followed by a standard Modula-2 token. Macro capability is not supported. Instructions necessary for Modula-2 implementation not available on the 68000 are provided through a run time support module the compiler calls when necessary. Manual contains complete documentation of Modula-2 as well as use of the Macintosh interface in this implementation. 1 MB required. 600 pages & 2 disks.

**TMS110 \$208.95 \$4.25**

**SemperSoft™ Modula-2** From Semper Software. A one-pass compiler written for MPW based on Wirth's Programming in Modula-2, third edition with extensions especially for the Mac in addition to the corresponding standard Modula-2 types. Libraries include all constants, types, variables, and procedures from Inside Macintosh volumes I-III, IV and V in addition to standard Modula-2 libraries. Code and data are compatible with and may be linked on the same basis as MPW Pascal. Supports Mac II 68881 via SANE floating point traps.

**TMSM2 \$99.95 \$2.19**

**Smalltalk/V Mac** From Digitalk. The long awaited object oriented programming system (OOPS) from Digitalk inc that is compatible with their IBM version. Integrated with the Macintosh environment, it provides MultiFinder compatibility with complete access to the Macintosh Toolbox. Contains more than 100 classes and 2000 methods as well as a push-button source level debugger that will set breakpoints, single step through code and inspect and change objects. Thirty two bit architecture allows as many objects as available memory will support. Run Time Licenses are available to registered users. All Smalltalk/V source code is included along with on-disk exercises keyed to the manual. Extended support is available from Digitalk. Requires Macintosh Plus, SE, or II and 1.5 MB.

**TMS089 \$143.95 \$1.80**

**TML Modula-2, V.1.1** From TML Systems. A Modula-2 compiler designed to work with-in the MPW environment which may be used to create stand-alone applications, desk accessories and MPW tools. It generates native 68000 code which conforms to MPW Pascal so that the resulting code may be integrated with MPW Pascal and Assembler. Interfaces to all Macintosh Toolbox routines are provided with a collection of predefined modules. Compatible with Mac SE and II Toolbox.

**TMSTL2 \$79.95 \$1.50**

**TML Pascal II (V. 3.0) for the Mac.** From TML Systems. TML Pascal II V. 3.0 is a native-code Pascal compiler designed for creating any type of Macintosh program including Desktop and Textbook programs, MPW tool applications, Definition Procedures, HyperCard XCMD's and XFNC's, Desk Accessories, and more. Implemented within Apple's Macintosh Programmer's Workshop (MPW) environment, TML Pascal II offers the Mac programmer both greater flexibility as well as unlimited alternatives for creating truly powerful applications on the Mac. Features include TML Pascal II's ability to: support data types greater than 32Kb in size, integrate code with all other MPW languages, create both assembly source code as well as object code output, support conditional compilation, support Object Pascal, compile MacApp V.1.x and V.2.x, create both 68881/68882 and 68020/68030 code, full support for Apple's new Symbolic Application Debugging Environment (SADE), use constant expression evaluation, and be compatible with MultiFinder.

Components of the TML Pascal II V. 3.0 product are: the TML Pascal II V. 3.0 optimizing compiler, complete MPW V. 3.0 software and documentation, both a User's Guide and Language Reference manual, TML Project Manager V. 3.0, a Pascal Source Formatting tool, a Pascal Cross-Reference tool, MacsBugs, ResEdit, and many on-disk examples.

System requirements include a Mac Plus or greater, 1 megabyte of RAM, and a hard disk.

**SMTM08 \$140.50 \$5.89**

**Turbo Pascal** From Borland International. An easy to use compiler that is compatible with MPW Pascal and offers mul-

multiple editing windows; define default volume and folder names, search and change features. A complete access to Mac toolbox routines; compiles at more than 12K lines/minute.

**TMSTPL \$64.95 \$2.50**

**UniSoft Optimizing Compilers** UniSoft's optimizing compilers provide the fastest 680X0 code generation available under A/UX. They are up to four times faster than standard AT&T compilers, and offer highly efficient cross-development capabilities. Because they support the extensions in compilers on high-end machines, programs written with the UniSoft compilers can be ported easily to other Unix environments: calling sequences are compatible with all Green Hills compilers and AT&T, F77 and pcc; Sun, ASM and Motorola System V assembly language output formats for even more flexibility.

Optimizations include: register allocation by coloring; peephole optimizations that are safe to use and suppressable for compilation speed increases; loop-invariant variable detection; full lifetime analysis and local common sub-expression elimination; sorted memory allocation.

All three compilers require a Macintosh II with A/UX, 2Mb or more of memory, PMMU, and 40Mb or more hard disk.

**UniSoft Optimizing C Compiler** Complete implementation of Kernighan & Ritchie C (book included), plus all Western Electric and Berkeley UNIX extensions. Fast: 6600 in Dhrystone benchmark.

**TMS023 \$379.95 \$1.75**

**UniSoft Optimizing FORTRAN Compiler** Fully compatible with A/UX f77. Implements the full ANSI standard FORTRAN 77 language, passing the U.S. Government FORTRAN Compiler Validation System. Sieve benchmark in 3 seconds, Whetstone of 700.

**TMS024 \$379.95 \$1.68**

**UniSoft Optimizing Pascal Compiler** Implements full ANSI standard Pascal, passing ISO Level 0 test suite. Full IEEE floating point support.

**TMS025 \$379.95 \$2.00**

**ZBasic V. 5.0** From Zedcor Incorporated. The new version of ZBASIC — the transportable BASIC. Fast compiled

code, yet with much of the convenience of an interpreter. New program generator draws program windows for you, creating code you can then edit. ZBASIC includes special INDEX\$ array functions that assist sorting. Hypertext on-line help Voice synthesis and four voice sound. B-tree, sequential and random-access files. Complete menu and toolbox support. Hundreds of example programs included. Serial, SCSI and Nubus access. Source level debugger. Works on any Mac and supports color on the Mac II.

**TMS088 \$117.95 \$2.31**

## Programming Tools

**Applications and Procedures for 4th Dimension** From DucSoft. Contains several sample 4D applications including some of the most frequently-used fundamentals. These can be used as bases for your own development, or can be dissected as a learning tool. Applications include: loan payment calculator, statistics calculations, checkbook minder, picture database, dumb terminal, generic and multi-user invoice. One disk and 160 pages of documentation.

**TMS026 \$76.95 \$2.69**

**db\_File (was db\_Vista)** From Raima Corp. db\_File is a database management system designed for use by MPW C language applications programmers. It consists of a database definition language processor and a library of C functions. Based on the "network database model" (see D. Kruglinski's article, Byte, June, '87), db\_VISTA provides the programmer with a powerful and efficient method for organizing and accessing complex information structures while minimizing data redundancy. The main features include: multiple key records, fast B-tree indexing of key fields, complete user control over database file names and content, efficient storage/re-use of fixed-length records, virtual memory disk accessing, automatic file expansion and portability (multi-user Mac, PC and MS-DOS, and Unix versions are available from the supplier). Requires MPW C v2.0. Now includes unlimited tech support and free updates from Raima.

**TMS051 \$310.50 \$1.19**

**db\_QUERY v.1.1** From Raima Corp.

db\_QUERY is a query language system for use with db\_VISTA (below), in the form of MPW C routines. It is based on the Structured Query Language, originally developed for use with relational databases, and now regarded as an industry-standard query language. It is unique in that it provides a relational view of a "network model" database, and allows the developer to create a customized query utility which becomes part of the db\_VISTA application. The relational view becomes the user environment, and consists of: user-oriented field name aliases and formats, procedure files, report forms, query initialization command file, macros, and relations. SQL statements perform the queries, and include: conditional and boolean expressions, sorting of up to 10 fields, special field types (e.g., currency, date, time), ASCII and DIF file output, and a help facility. Requires MPW C v2.0.

**TMS050 \$160.95 \$1.38**

**MacExpress** From ALSoft. An instant application (Application Manager) that provides your programs with all of the common and many unique user interface features needed on the Mac. It is a kernel that directs and controls your application's interface through a sophisticated message-sending architecture, telling it what actions are required, and letting you override any of the defaults. Included are: main event loop, menu handling, windows, panels, views, dialog views, icons and more. Written in assembly for speed and compatibility with many development environments. Over 160 pages of documentation. Used in many commercial products. No license fees or royalties required.

**TMSEXT for TML Pascal**

**TMSEXL for LightSpeed C & Pascal**

**TMSEXM for MPW C & Pascal**  
**\$134.95 \$2.75**

**MPW Enhancer V.1.0** From Sand Hill Engineering. Extensions to the MPW tool library (about 20 new tools), plus numerous editor enhancements, shell scripts, aliases and menu examples. The new tools include: append, convert (ASCII, hex, octal, binary, signed decimal),

crypt, file join, sort file display, write file or arg to modem, pause, cut file stream by field or column, word, line or character count, etc. Over 100 useful macros and editor enhancements such as copy / move / trash file groups, automated global file substitution, comment / de-comment block, do selection, set file attributes, pop-up menu, power-user key combos, alarm clock, phone list manager and dialer, plus many UNIX-like aliases. The optional source code lists the tools in the Enhancer library.

**TMS009 \$31.00 \$ .50**

**MPW Enhancer v.1.0** with source listing  
**TMS010 \$42.95 \$ .50**

## Programming Utilities

**Aztec C UniTools** From Manx. Includes the utilities z (vi editor), make, diff, and grep. All are compatible with the Aztec and MPW shells for Aztec C.

**TMS069 \$65.95 \$2.00**

**Express Form** From Evolutionary Commercial Sys. ExpressForm is a forms and screen manager with fill-in-the-blanks forms capability. Provides for data conversion to and from text, input validation, automatic management of controls, grouping of radio buttons, automatic scrolling while tabbing or backtabbing, support for printing, as well as cut, copy, paste, clear and undo menu commands.

ExpressForm supports resources, controls, icon controls, pop-up menus, dates, SANE numerics, integers, long integers, Pascal and C strings, user defined items, and text.. Fields can be formatted individually. ExpressGen forms generator designs forms graphically. Requires MacExpress.

**TMSX05 for TML Pascal**

**TMSX09 for LightSpeed C & Pascal**

**TMSX10 for MPW C & Pascal**  
**\$57.95 \$ .63**

**FormsProgrammer** From Ohm Software. An intelligent "printer layout chart" for the Macintosh, FormsProgrammer is a utility that lets you produce custom-designed screen or printer output quickly. It consists of two parts: a graphics design program and a source code generator. The first lets the user draw desired

output onto the screen using familiar drawing tools; both the form elements and variable names (from your application) can be specified. Source code may be output in MPW or Lightspeed Pascal, Lightspeed, MPW or Aztec C. A real time-saver.

**TMS052 \$77.95 \$ .81**

**Freditor** From TechAlliance. Developed at Battelle-Pacific Northwest Laboratories, Freditor is a text editor optimized for creating and modifying FORTRAN source code. Editing options include drawing vertical dotted lines in columns 6, 72, and 132, long lines automatically or manually split with the extra portion wrapped and indented with a continuation mark in column 6, and on-screen display of line numbers. Print formatting options include printing two columns on a page and page breaks after each FORTRAN END statement. Contains a form of GREP. Freditor has the standard Macintosh editor features in addition to a Transfer function that allows launching to any other application without quitting to the Finder. MultiFinder compatible.

**TMS102 \$79.95 \$ .80**

**Heapshow** From BT Computing. Heapshow provides vision to those who want to see the logic inside the Mac. It provides a dynamic, graphic representation of the contents of both heaps, using distinctive patterns to indicate various types of memory blocks used by the Mac, with supplemental text information. Often a single glance will make obvious what hours of debugging would fail to uncover—problems such as heap fragmentation, dangling handles, cross-calling, and leftover code and resource blocks are easy to spot by their striking graphic appearance.

**TMSHSW \$56.95 \$ .56**

**Inside Out V. 1.1** From Shana Corp. The first relational database engine for Macs, which brings the power of a 4th generation database language to conventional Pascal or C development systems. Maintains every bit of information in a database in one Mac file. This file can grow as large as 256 gigabytes. Each database consists of up to 127 logical files. Three different types of logical files provide support for virtually any type of data, including variable length data. Database views allow applications to efficiently process related data, while

guaranteeing data independence. The multi-user version of Inside Out adds further to its impressive list of features, with improved record lockout to extended network efficiency.

Inside Out is supplied to the developer as a unit in the form of linkable object code. Stand alone applications are compiled using your development system so runtime is not required.

Two sample applications aid the programmer in quickly learning how to implement applications using the package. No royalties are required; there is an annual license/support fee of \$200. Inside Out works on the Macintosh 512K and up (including SE and II).

**TMS015 for Lightspeed C**

**TMS016 for Lightspeed Pascal**

**TMS039 for MPW C**

**TMS017 for MPW Pascal**

**TMS019 for Turbo Pascal**  
**\$310.00 \$3.50**

**Lasertalk** From Emerald City Software. Lasertalk provides all the tools needed to design, code and debug PostScript® language programs, interactively. A preview page gives you an on-screen view of exactly how the PostScript page will look. Use the powerful program editor and debugger to write and change your command files, or those of Adobe Illustrator™, CricketDraw, Pagemaker™, etc. Includes dictionary browser and lookup for access to PostScript procedures and font information. Multifinder compatible.

**TMS028 \$180.95 \$1.65**

**MacFlow** From Mainstay. Draw and change flowcharts quickly. Use standard symbols or create your own. Automatic symbol/line connectivity; resizes graphics symbols. Multiple page and hierarchical flowchart organization with zooming to different levels of detail. Mac II and large-screen compatible.

**TMS030 \$191.95 \$ .88**

**Macintosh Introductory Programming** From Mainstay, Inc. Based on Mainstay's V.I.P. language, this product focuses on learning how to program, not just learning a programming language. Topics addressed include program design, structure, development and debugging. Covers pull-down menus, windows, dialogs and graphics. Includes a demo version of V.I.P. software and examples.

**TMS031    \$39.95    \$1.46**

**MacNosy V. 2, and "The Debugger"** From Jasik Designs. A high level symbolic Debugger for the Mac, "The Debugger" runs in a full multi-window Mac environment. High-level symbolic debugging of arbitrary programs, resources and the ROM, source level debugging for MPW V.3 compiled programs, disassembly, the editing of text files, viewing or registers, memory, the heap, the stack, etc.

MacNosy is a global, interactive decompiler that lets users recover the source code of any Mac application. Its features include the global subdivision of the program into a set of procedures and data block, disassembly of all 68020/68881/68851 instructions and "Hypertext" like reference information for the procedures, variables, system symbols, and Mac Trap names that lets users move easily between references and definitions. Requires Macintosh Plus or SE.

**TMSNY2    \$144.50    \$50**

**MacNosy V. 2, and "The Debugger" – Macintosh II (universal) version** From Jasik Designs. This version of MacNosy and the Debugger runs on the Macintosh II, as well as on the Macintosh Plus and SE.

**TMSNYU    \$294.95    \$50**

**MacSRMS** From Quilt Computing. A Mac version of Quilt's Software Revision Management System. A full-featured Version Control system that stores all versions of source text files in a single library file. The user can retrieve any particular version from the library. MacSRMS supports all programming environments, compilers and editors which store source in ASCII. The library Check In and Check Out facilities can be used in the form of a DA or an MPW Tool, or as a standalone application. Historical reporting, library status and calculation of file differences, author naming, password protection, and AppleShare or TOPS™ library storage are supported. Reduces disk space needs because only the changes to different versions are stored in the library. Multi-user version contains three sets of documentation, software, and three-unit license.

**MacSRMS...** single-user version

**TMS056    \$153.25    \$1.44**

**MacSRMS...** three-user version

**TMS074    \$389.00    \$4.32**

**MACYACC** From Abraxas. A program generator for creating ANSI C source code for building assemblers, compilers, browsers, page description languages, language translators and query languages. It operates as an MPW Tool generating source as output which can be compiled with Aztec, Lightspeed or MPW to build final product. Includes option for quick syntax analysis and abstract syntax tree. Input compatible with Unix YACC when used with C grammar descriptions. Demos include a desktop calculator, Infix to Postfix translator, and PIC language implementation. Professional version adds lexical analyzers, example applications and sources, and support from Abraxis. Supports C, C++, DBase III/IV, HyperTalk, Pascal, PROLOG, Smalltalk & SQL.

**Professional Version**

**TMS090    \$349.95    \$1.10**

**Personal Version**

**TMS099    \$119.95    \$1.10**

**McCPrint™** From MMC AD Systems.

Reformats C source code into a userselected format. Controls brace placement (K&R, UNIX, Pascal/Algol styles), comment formats (e.g., left-right justification), continuation line breaks (e.g., before/after operators) and more. It cleans up indentation and space/tab usage. It comes with a powerful editing and C source code highlighting system. A stand-alone application, it works with all C compilers.

**TMS057    \$46.95    \$25**

**Prototyper** From SmethersBarnes.

Prototyper is a complete professional prototyping tool for anyone involved in the software development cycle. Designed for both non-programmers and programmers, users are able to create a complete Macintosh user interface, including windows and pull-down menus, without writing any code. It also lets you load user interface resources from other applications.

For those who intend to develop their

prototypes into applications, Prototyper generates Pascal source code and resource files. It generates Pascal code for most leading Macintosh compilers: Lightspeed™ Pascal, Turbo™ Pascal, TML™ Pascal, and MPW™ Pascal.

**TMS032    \$73.95    \$1.00**

**PVCS (Polytron Version Control System)**

**V. 2.1B (MPW)** From Plytron. Designed to be compatible with other versions of PVCS developed for other operating systems and computers, this MPW version of the Polytron version Control System has built-in transportability. PVCS is a collection of programs that enables project managers to control and maintain a history of revisions to source documents. These source documents may be any type of text file. Functions provided include extensive configurability, complete change history, allowance for separate lines of development, merging simultaneous changes, release and configuration control & optional activity journal for audit trails. Only handles data fork of files currently; resource fork handling in future version. Requires MPW.

**Corporate Version**

**TMS112    \$395.00    \$2.25**

**Personal Version**

**TMS115    \$149.00    \$2.25**

**SCSI Tool™ v 1.1** From Arborworks, Inc.

A program to assist in the development of SCSI hardware and software for the Macintosh. It allows the creation, editing and execution of SCSI commands using any Macintosh with a SCSI port.

Through the use of a simple but powerful programming language, SCSI Tool allows you to edit & execute procedures. These block structured procedures may call other procedures allowing recursive structures. Your

access to this programming language is through menus and standard point & click techniques.

All result codes, status bytes and sense keys are displayed with text descriptions. Runs on Macintosh 512 w/ SCSI port, Plus, SE and Mac II. Compatible with MultiFinder.

**TMS113 \$137.95 \$0.80**

**TMON™** From ICOM Simulations.

This is the new version of the popular multi-window monitor / debugger — now for the Macintosh II, SE, Plus, 512, 512E.

A unique and powerful tool for examining in detail the inner workings of a Macintosh program. It can execute in single steps, display labels, do memory operations, scramble or purge the heap, work with registers, unfreeze the mouse, discipline programs, etc. Custom features may be added.

**TMSMON \$119.95 \$2.00**

**II in a Mac 2.5™** From Micro-W Distributors. Complete 65C02 assembly language debugging environment with a DOS/ProDOS to HFS data file transfer system. It's easy! 512K or more needed.

**SMMW2M \$117.00 \$2.00**

## Programming Books

**A Taste of Smalltalk** By T. Kahler and D. Patterson, 1986. Published by W.W. Norton & Co. A friendly introduction to the vast subject of Smalltalk, including a detailed treatment of an actual programming problem. This book points out the differences between Apple's Smalltalk on the Macintosh and Xerox's implementation of the language. Ted

Kahler of Apple was formerly at Xerox PARC, so he is quite familiar with both implementations.

**TXB018 \$15.95 \$1.00**

**Advanced C** By Herbert Schildt 1986.

Published by McGraw-Hill. Resource and teaching guide for the experienced C programmer.

**TXB001 \$15.50 \$1.63**

**Advanced Macintosh Pascal** By Paul

Goodman, 1987. Published by Hayden. Aimed at intermediate-level programmers, this book begins where most leave off. Topics include: memory management, records, sets, pointers, Toolbox and Quickdraw, file types, ISAM, event programming, the Managers, and an overview of SANE; 286 pgs.

**TMB002 \$14.95 \$2.00**

**Algorithms** By Robert Sedgewick 1983.

Published by Addison-Wesley. A survey of the most important algorithms and data structures, including: arithmetic, numerical methods, sorting, searching, string processing, graphing, geometry, graphics, etc.; 657 pgs.

**TXB002 \$33.95 \$2.31**

**Artificial Intelligence Programming on the Macintosh** By Dan Shafer, 1986, published by Sams. Basic A-I programming

methods explained for beginners by ten sample programs in Logo. Contains Logo, Lisp and Prolog tutorials.

**TMB003 \$23.50 \$1.56**

**C Programming Techniques for Macintosh** By T.M. Schilke & Z.R. Mednieks,

1986. Published by Sams. For intermediate-level programmers. Strong on Toolbox and system calls; gives access to over 500 Toolbox routines.

**TMB004 \$14.50 \$1.63**

**The Complete Book of Macintosh Assembly Language Programming,**

**Vol. 1** By Dan Weston, 1986. Published by Scott Foresman Co. A detailed handbook to the craft of 68000 assembly for the Mac. Includes many complete example programs, including a text editor and DAs. Detailed coverage of ROM calls and the user interface.

**TMB005 \$20.50 \$2.00**

**The Complete Book of Macintosh Assembly**

**Language Programming,**

**Vol. 2** By Dan Weston, 1987. Published by Scott Foresman Co. Detailed explanations and programs covering: memory management, debugging, the new and old ROMs, the Clipboard, Switcher, print manager, HFS, MFS, the file package, MacinTalk, Dialog User items, RAM disk, and List Manager.

**TMB024 \$17.75 \$1.88**

**Encyclopedia MAC ROM** By Keith

Mathews & Jay Friedland. Published by Brady. The one-stop source for Mac programming in any language. Covering all ROM versions (including the Mac II), the book covers more than 700 routines.

**TMB047 \$26.50 \$3.63**

**How to Write Macintosh Software, Second**

**Edition** By Scott Knaster, 1988. Published by Hayden. A must-have reference of the latest technical information for the serious programmer. Detailed coverage of debugging methods. Includes many topics new to the second edition such as the SE & II as well as MultiFinder, MPW, and the 68020 and 68030 microprocessor. 600 pages.

**TMB064 \$19.95 \$2.50**

**MacTutor Volumes** By MacTutor. A compilation of articles from this magazine popular with programmers. Includes detailed sections organized by language: BASIC, assembler, C, Pascal, FORTH, FORTRAN, Lisp, Modula-2, and APL; descriptive and programming articles.

**MacTutor Vol. 1** (1986, 504 pgs.)

**TMB026 \$16.95 \$3.00**

**MacTutor Vol. 2** (1987, 666 pgs.)

**TMB028 \$16.95 \$3.00**

**MacTutor Vol. 3** (1988, 770 pgs.)

**TMB049 \$19.50 \$3.50**

**MacTutor Vol. 4** (1988)

**PMMU04 \$19.95 \$3.50**

**The Magic of Macintosh:**

**Programming Graphics & Sound** By William Twitty. Published by Scott, Foresman & Co. Designed for intermediate programmers with little or no graphics experience, this comprehensive tutorial helps you use the QuickDraw ROM routines to generate and manipulate images.

**TMB035 \$16.25 \$1.75**

**Modula-2 Programming** By Ian Kaplan



and Mike Miller 1986. Published by Hayden. A solid explanation of the language with advanced topics also. Module declaration, enumeration types, data types and structures, set types and records are all discussed.

**TXB008 \$12.50 \$1.19**

**MPW & Assembly Language Programming for the Macintosh** By Scott Kronick, 1987.

Published by Hayden. This clear introduction for beginning and intermediate programmers helps you understand how to develop assembly, Pascal and C programs in the MPW environment. Covers the MPW disk set, assembly, Pascal and C example applications; 336 pgs.

**TMB031 \$18.50 \$2.00**

**Object-Oriented Programming for the Macintosh** By Kurt Schmucker. Published

by Hayden. This introduction to the object-oriented languages such as Smalltalk-80, ExperLisp and Neon provides an entrée to this fast-growing approach to programming in which code and data are bound together.

**TMB017 \$26.50 \$2.69**

**Pascal User Manual and Report** By Kathleen Jensen and Niklaus Wirth. Published by Springer Verlag. The definition of Pascal, updated to include ISO standard, an expanded user manual and better examples. While supplies last.

**TXB010 \$15.50 \$1.25**

**Programming the Macintosh in C** By B. Cummings and L. Pollack. Published by Sybex. An introduction to C programming, using Consulair C examples. Teaches structured programming, and contains an easy-reference guide to the language.

**TMB019 \$18.25 \$1.44**

**Programming the Macintosh II** By David Wilson, 1987. Published by Personal Concepts. This 275-page seminar notebook was developed by Wilson, who taught Apple's original Macintosh Pro-

gramming Seminars, as an eight-hour seminar for professional programmers (sponsored by APDA at the 1987 Boston MacWorld Expo). It includes four programs on disk, with full source code.

The disk includes "CPaint," a full-color paint program for the Mac II. Written in MPW Pascal. It is an example of how to use Color QuickDraw. The notes include over 100 pages of detailed information about this program. The other programs are a color demo in MacApp; a text editor using color in MPW Pascal; and a number-crunching test program that uses the 68881, also in MPW Pascal.

**TMB045 \$64.95 \$1.88**

**Programming the Macintosh User Interface**

Emphasizes possibilities, ergonomic considerations and tools to implement user interface designs. Covers BASIC, Pascal, C, FORTH, Lisp and assembler. Analyzes interfaces of several commercial products.

**TMB021 \$15.95 \$2.00**

**Programming the 68000: Macintosh Assembly Language** By Ed Rosenzweig. Pub-

lished by Hayden. Covers both 68000 assembler and samples of routines needed in serious software development. Many examples, including a complete spreadsheet program in assembler.

**TMB020 \$19.95 \$1.88**

**Programming with Macintosh Programmer's Workshop** By Joel West, 1987. Published

by Bantam. A complete guide to MPW, combined with a general orientation to Macintosh programming. It describes using and programming the MPW shell, using Pascal, C and Rez compilers, and provides an introduction to MacApp.

**TMB032 \$22.95 \$3.00**

**Scientific Programming with Macintosh**

**Pascal** By Richard Crandall. Published by Wiley. Problem solving techniques for natural sciences and mathematics; a self-teaching format that covers everything from integral calculus, linear

equations, complex numbers, and vectors and matrices, to probability and statistics. The graphics and animation powers of the Mac are stressed.

**TMB022 \$14.95 \$2.00**

**Smalltalk-80: The Interactive Programming Environment** By Adele Goldberg 1984.

Published by Addison-Wesley. Describes the user interface of Smalltalk in a detailed and authoritative way. Sometimes referred to as the "orange book." This book and the "blue book" by Goldberg and Robson, below, together comprise a comprehensive description of Smalltalk-80.

**TXB020 \$30.25 \$2.69**

**Smalltalk-80: The Language and Its Implementation** By Adele Goldberg & D. Rob-

son 1983. Published by Addison-Wesley. (While supplies last: This book is going out of print.) Detailed coverage of the language: syntax, system specification, application example, and virtual-machine implementation; 714 pgs.

**TXB015 \$36.95 \$3.50**

## Technical Reference Books

**Apple Numerics Manual, 2nd Edition** Apple Computer, Inc., 1988. Published by Addison-Wesley. Complete definition and coverage of the SANE numerics environment. Essential for anyone creating Apple II or Macintosh software that requires any type of numeric calculation. Includes separate sections for the 6502 and 68000. Describes use of the assembly language SANE engine.

**TXB003 \$21.95 \$1.00**

**Designing Cards & Drivers** Apple Computer, Inc. 1988. Published by Addison-Wesley. Contains the hardware and software requirements for developing cards and drivers for the Macintosh II and the

Macintosh SE. Covers Apple's implementation of the NuBus™ interface in the Macintosh II and the Apple's SE-Bus interface in the Macintosh SE.

**TMB033 \$17.95 \$1.50**

**4-D Notes, 1989** From ACIUS. A monthly mailing of ACIUS technical notes and samples for 4th Dimension. These mailings contain tips for using 4th Dimension, programming techniques, and examples and sample files. 4D Notes are recommended for the serious custom db and application developer. (Shipping listed is U.S 1st Class.)

**TMS105 \$99.50 \$20.00**

**4D Notes, 1988** From ACIUS. The second year's tech notes.

**TMS014 \$99.50 \$18.00**

**4D Notes, 1987** From ACIUS. The first year's tech notes.

**TMS022 \$20.00 \$.75**

**How to Write a Computer Manual** By Jonathan Price, and staff, Apple Computer User Education Group 1984. Published by Addison-Wesley. The masters of the art use many examples from real manuals to discuss scheduling, writing, editing, pitfalls to avoid, and ways to evaluate your work. It has full coverage of the process of documentation, with checklists to evaluate your own documentation. It also covers scheduling and interactive training.

**TXB005 \$24.95 \$1.50**

**Human Interface Guidelines** Apple Computer, Inc., 1987. Published by Addison-Wesley. This documentation describes the Apple desktop human interface principles and guidelines. Create useful, consistent, and easy-to-learn application programs for Apple's machines. Human Interface Guidelines describes the rationale behind the Apple desktop interface. For detailed implementation specifications, see the technical documentation for each Apple computer.

**TXB023 \$11.50 \$2.00**

**IBM PC & Macintosh Networking** By Stephen L. Michel, 1988. Published by Hayden. A discussion of two different approaches to networking for increased

efficiency. Both AppleShare with AppleShare PC and TOPS are covered to assist you in deciding which best suits your situation. Topics include why network, how the two machines differ, two way file transfer and how to manage the network. 296 pages.

**TMB053 \$15.95 \$1.35**

**ImageWriter LQ Reference** Apple Computer, Inc., 1988. Published by Addison-Wesley. This manual is designed for experienced users, system administrators and programmers. It covers basics of the machine, internal and external bit mapped fonts, configurations to send commands to the printer, DIP and software switches, page formatting and paper handling, character sets, graphics and color printing, and miscellaneous commands and options. 264 pgs.

**TXB025 \$16.50 \$2.00**

**Inside Macintosh, Vol. 1** From Apple Computer, Inc. Covers the Mac interface guidelines, general assembly language programming information, memory management, ToolBox user interface, and the mouse.

**TMB007 \$17.95 \$1.00**

**Inside Macintosh, Vol. 2** From Apple Computer, Inc. Continues on from Vol. 1 to describe disk I/O, communications, and sound generation, 429 pgs.

**TMB008 \$17.95 \$3.00**

**Inside Macintosh, Vol.3** From Apple Computer, Inc. Covers the Finder, describes the Mac hardware, and gives a detailed summary of software. Valuable appendices and glossary of Mac terms, 280 pgs.

**TMB009 \$13.95 \$3.00**

**Inside Macintosh, Vol. 4** From Apple Computer, Inc. It includes user interface design guidelines, descriptions of ROM- and RAM-based routines, HFS, SCSI, 800K and HardDisk 20 drives, and a description of the Macintosh Plus hardware. Also updates information contained in the first three volumes, 326 pgs.

**TMB010 \$17.95 \$2.00**

**Inside Macintosh, Vol. 5** From Apple Computer, Inc. Contains information on Macintosh ROM and system routines added or changed to support the Macintosh SE and II (some of which can also be used on the Plus). Includes detailed information on color, slots, and compatibility guidelines, 623 pgs.

**TMB034 \$17.95 \$2.00**

**Inside Macintosh X-REF** By Apple Computer, Inc. Published by Addison-Wesley. A comprehensive index of volumes one through five of Inside Macintosh, plus 1984-87 Technical Notes, Programmer's Introduction to the Macintosh Family, Technical Introduction to the Macintosh Family, and Designing Cards and Drivers.

**TMB041 \$8.95 \$1.00**

**LaserWriter Reference** Apple Computer, Inc., 1988. Published by Addison-Wesley. Technical documentation for the LaserWriter and LaserWriter Plus, IINT and IINTX printers. It documents the software interface between the Macintosh and the printer, and discusses Diablo 630 emulation using AppleTalk, and directly accessing the LaserWriter; 168 pgs.

**TXB029 \$14.50 \$1.50**

**Legal Care for Your Software** By D. Remer and S. Elias, 3rd ed., 1987. Published by Nolo Press. This newly revised edition remains the definitive book on software protection law. It shows how to take advantage of it, and offers practical advice for software writers and publishers. Coverage includes trade secrets, copyright, patents and trademarks, contracts and royalty agreements, limiting your liability, how to avoid legal hassles, and international copyrights.

**TXB022 \$24.25 \$2.00**

**Lon Poole's Mac Insights: Secrets, Shortcuts, & Solutions for the Apple Macintosh** By Lon Poole. Published by Microsoft Press. Tips and shortcuts arranged by subject for fast reference. Includes command key shortcuts, icon and dialog

personalizing, printer formatting, disk space reclamation, troubleshooting, animation, file transfer and file rescue procedures.

**TMB011 \$16.25 \$1.63**

### **Macintosh Family Hardware Reference**

Apple Computer, Inc., 1988. Published by Addison-Wesley. A reference to the hardware of all of the members of the Macintosh family, including the Plus, SE and II.

**TMB042 \$18.50 \$1.69**

### **Macintosh Hard Disk Management**

By Charles Rubin & B. Calica, 1988. Published by Hayden. Comprehensive overview of hard disk whys and wherefores. Written to assist you in understanding hard disks and specific techniques for putting them to the most efficient use. A summary of common problems is included with basic troubleshooting steps and solutions. 304 pages.

**TMB054 \$14.95 \$1.35**

**Macintosh Programming Secrets** By Scott Knaster, 1987. Published by Addison-Wesley. This contains dozens of hints, tips and tactics for using and incorporating the many elements of the Macintosh system software. It enumerates the differences among the members of the Macintosh family, and shows how to maintain compatibility among them. Topics covered include getting the most out of QuickDraw, when and how to use HFS, localizing features, etc. Appendices summarize features of the SE and II, and the 68020.

**TMB038 \$17.50 \$1.75**

**The Macintosh Revealed: Vol. 1** Unlocking the Toolbox by Stephen Chernicoff. Published Toolbox foundations, how to call routines from applications, memory management, character text display, QuickDraw and the Finder. Pascal program examples.

**TMB015 \$18.95 \$2.63**

**The Macintosh Revealed: Vol. 2** Programming with the Toolbox by Stephen Chernicoff, published by Hayden. Covers high-level Toolbox functions to implement the user interface: overlapping windows, pulldown menus, scroll bars and dialog boxes.

**TMB016 \$18.95 \$2.81**

**Motorola Reference Manual Package** By Motorola. A package of four Motorola programmer's reference manuals cover-

ing: 68000 and 68020 processors, 68881 floating point math, and 68851 page memory management unit. Not for the novice or the faint of heart.

**TMB029 \$19.95 \$1.75**

### **Object-Oriented Programming: An Evolutionary Approach**

By Brad Cox 1986. Published by Addison-Wesley. Working from the "software IC" concept, Cox discusses methods to encapsulate tested code for future application; 274 pgs.

**TXB009 \$20.50 \$1.63**

**PostScript Language Program Design** From Adobe Systems, Inc. 1988. Published by Addison-Wesley. The new, third book in the PostScript series. It contains a guide to the theory and techniques of PostScript programming. Beginning with an overview of the language, it takes the reader step by step through a very basic program. Next it explains PostScript concepts that pertain to writing code to create graphics. The remainder covers programming topics: designing drivers, programming procedures, setting text, creating digitized images, translatable PostScript, merging PostScript from different sources, writing a spooler, memory management, error handling, and debugging. Contains many complete, usable programs.

**TXB026 \$16.50 \$1.81**

### **PostScript Language Reference Manual**

From Adobe Systems, Inc. 1985. Published by Addison-Wesley. (Not available until Feb. 1, 1989.) Covers the basics of the language and details on graphic and font capabilities, plus semantics of each PostScript operator in dictionary format. Appendices include programming details for the LaserWriter; 319 pgs. Not available until Feb. 1, 1989.

**TXB011 \$15.95 \$1.25**

### **PostScript Language Tutorial and Cookbook**

From Adobe Systems, Inc. 1985. Published by Addison-Wesley. This companion to the Reference Manual introduces the language, outlines features and capabilities, and gives many example programs; 243 pgs.

**TXB012 \$11.95 \$1.81**

### **Programmer's Introduction to the Mac-**

**intosh Family** Apple Computer, Inc., 1986. Published by Addison-Wesley. Designed for those who have some basic programming knowledge, but who are new to the Macintosh. It illustrates programming concepts with code examples and insights from experienced Mac programmers, and focuses on how event-driven programming differs from more traditional approaches. Also covers memory management, file I/O, resources, development tools, graphics, Color QuickDraw.

**TMB039 \$16.95 \$1.69**

### **Technical Introduction to the Macintosh**

**Family** Apple Computer, 1987. Published by Addison-Wesley. Overview of the technical side of the Macintosh family of computers. Written for experienced users as well as beginning programmers, and provides an entry point for designers who want to develop hardware and/or software on the Macintosh. Covers general hardware design, system architecture, and ROM design for anyone with general knowledge of computer concepts. Includes one chapter on the A/UX operating system.

**TMB040 \$13.95 \$1.69**

## Software & Code Libraries

**The Viewport Technician** By Michael Bentley 1988. Published by Scott, Foresman & Co. Subtitled "A guide to portable software design," this unique guide and reference helps you design, develop and code software that may be ported from one system (and its windowing environment) to another. Discover how to get the same executable files to run just as fast, without changes on Amiga, Atari, PCs with GEM or Windows, Macintosh, and IIGS.

**TXB024 \$18.95 \$2.56**

**Tricks of the UNIX Masters** By Russell G. Sage 1987. Published by Sams. UNIX for professionals, including system programmers and administrators. Goes beyond introductory and intermediate concepts to the master level, sharing tools, tricks, and tips normally gained through years of experience and mistakes. Looks at each area of functionality and presents those things UNIX professionals need to know to accomplish daily tasks. Extensive attention is given to administration and security, communications, devices, files and file systems, and management issues; 400 pgs.

**TXB027 \$16.95 \$1.94**

**UNIX Communications** By Anderson, Costales, & Henderson 1987. Published by Sams. Clarifies UNIX communications by showing, step by step, how to control, program, and use UNIX electronic mail, USENET, and UNIX file transfer (UUCP). Covers how USENET is organized and the resources it provides, UNIX e-mail (System V mailx, Berkeley Mail, and /bin/mail), steps involved in low-level mail transfers, using the UUCP suite of communications programs to send text and binary files, and error free file transfers with Kermit and Xmodem; 542 pgs.

**TXB028 \$18.95 \$2.50**

**Aztec C Library Source** From Manx.

Includes the original assembly and C source to all routines found in the Aztec Run Time Libraries.

**TMS068 \$135.00 \$1.00**

**c-tree™ File Handler, V.4.3 B 2** From FairCom.

These fast and highly portable B-Tree functions provide multi-key ISAM file management for C programs. There are low level functions for directly accessing data and index files and high level functions for creating and manipulating ISAM files. The C source code can be compiled with almost any C compiler for single-user, multi-user or network applications. The c-tree File Handler has already been ported to over 90 CPU/OS environments. It supports: record locking for multi-users; fixed and variable length records; fixed and variable length keys with key compressions; re-use of deleted record space; duplicate and unique key fields; and more. The new c-tree Server mode permits even faster file access in multi-user/network applications. The Server runs on AppleTalk, UNIX, NetBios, XENIX, PC-Net, Novell, and VAX's. The package includes a complete family of setup and maintenance utilities, unlimited technical support, no royalties, and free hard copy listings of release updates. Package comes complete with C source code. Requires C compiler. Make files for MPW C and project files for LightSpeed C are included.

**TMS106 \$257.95 \$3.15**

**c-tree/r-tree Package** From FairCom.

Combination package of c-tree File handler and r-tree Report Generator

**TMS108 \$424.50 \$4.10**

**r-tree™ Report Generator V 1.1** From FairCom.

This sophisticated report generation utility for c-tree™ File Handler permits complex, multiplex, multi-line reports to be produced from single or multiple c-tree data files. r-tree automatically: reads records from multiple c-tree data files; computes arbitrary complex virtual fields; joins records from different files into comprehensive logical records which satisfy an arbitrarily complex SELECT expression; sorts records with any number of nested sort fields; monitors any number of nested control break fields; computes any number of report field accumulators and handles page layout with page headers and footers, control break headers and footers, and pagination. You can distrib-

ute report scripts either in their original modifiable text or in compiled form. The package comes complete with C source code.

Requires C compiler. Make files for MPW C and project files for LightSpeed C are included.

**TMS107 \$192.50 \$3.00**

**How to Write Macintosh Software: Program Disk** From Casa de Software.

On-disk version of the example program listings, most in Pascal, from Scott Knaster's book. Armed with these examples and a good debugger you can follow the debugging exercises in the second part of the book without having to type the program code first.

**TMSWMS \$20.95 \$2.25**

**MacApp Object Library #1** From MADA.

The first of a series of disks, sponsored by the MacApp Developer's Association, containing useful MacApp object modules contributed by the association's members.

**TMS011 \$15.00 \$2.25**

**MacApp Object Library #2** From MADA.

This disk contains a skeleton spreadsheet program, LISA style stationery pads, a very experimental UNIT for those interested in Partially Ordered Sets, (are there other theoretical math folk out there using MacApp?) and a UDialog object that does document sizing a la MacDraw.

**TMS012 \$25.00 \$2.25**

**MacApp Object Library #3** From MADA.

Several useful MacApp UNITS and MPW tools and shell scripts: from Oliver Juwig comes his latest Object Prolog and the UTable building block to help build tables of columns and rows with varying widths and heights. From Joseph Bergin, a set of MPW text manipulation tools inspired by Kernighan and Plauger's Software Tools in Pascal. Reid Spencer provides MPW shell scripts and makefiles for building and maintaining large applications.

**TMS011 \$25.00 \$2.25**

**MacTech Quarterly Spring 1989**

Program listings from articles in this issue.

**SMIH12 \$10.00 \$2.25**

**MacApp Object Library #4: Entity-Relation**

Disk From MADA. Joe Bergin provides a

useful teaching application which may be used in the logical design of databases, an Entity-Relation diagram editor and SQL generator. The disk contains version 1.0 of the application, the .9BN sources, a bibliography of source material on ER modeling, a brief abstract on using ER modeling in software design, and several sample documents.

**TMS012 \$45.00 \$25**

**MacApp Object Library #5: MacApp Browser v.1.0** From MADA. The Source Browser DA makes MacApp development easier. The Browser DA runs up and down through the class hierarchy, viewing the inheritance tree and the source for methods and instance variables.

**TMS013 \$40.00 \$25**

**MacApp Object Library #6: Carnegie-Mellon/Drexell Disk** From CMU. Help handlers described in the January 1988 MADA newsletter, plus: a Messages Unit to put out messages using dialogs, a Preferences Unit to add a preferences menu item and support, auto save; font, size, and window menus.

**TMS072 \$40.00 \$25**

**MacApp Object Library #7:** From MADA. MPW Tools Disk for the MPW environment from the Book Software Tools by Kernighan and Plauger we gave you the tools: field, format, include, kwic, macro, match, sort, translit, unique, unrotate. Now comes the disk that contains the source and MPW Commando resources as well as the manual pages on how to use them.

**TMS073 \$50.00 \$25**

**MacApp Object Library #8:** From MADA. UTable and UControls. These contributions from Oliver Juwig of West Germany include a substantially revised UTable unit which reduces the memory requirements for tabular applications like spreadsheets and UControls unit which provides support for complex modal and non-modal dialogs. The UControls unit supports DLOG and DITL resources, frames inside dialogs, and a dialog validation mechanism.

**TMS076 \$35.00 \$25**

**NuTools: Numerical Methods in C V. 1.0** From Metaphor. For LightSpeed C users, this package provides an extensive numerical methods library (over 350 routines) for developers, engineers, researchers and students. Users can cre-

ate numerical applications quickly that use the Macintosh interface.

The diverse selection of over 50 high level input/output routines includes edit dialogs/windows, display dialogs/windows, expression parsers, graphing capabilities, and file management. Both low and medium level numerical operations are provided for real, complex, polynomial, rational polynomial, real vector, complex vector, and integer fraction types. High level numerical capabilities include curve fitting, differentiation, differential equations, Eigenvalues/vectors, integration, interpolation matrix operations, root solving, and signal processing. Includes C source and project files for the LightSpeed environment and extensive documentation.

**TMS111 \$90.00 \$3.00**

**Professional Programmer's Extender** From Invention Software. Here it is all together: the routines from Volumes 1 and 2 of the Programmer's Extender, plus complete source code listings (a large 3-ring binder of documentation and listings, plus disks). Not copy-protected; no licensing fees.

**TMS058 for Lightspeed C**

**TMS059 for Lightspeed Pascal**

**TMS043 for MPW Pascal**

**TMS060 for TML Pascal**

**\$310.00 \$7.25**

**Programmer's Extender Vol.1** From Invention Software. Elegant and powerful libraries that allow quick and easy creation of applications with the complete Macintosh interface—menus, windows, scroll bars, controls, dialogs, and alerts, text editing, user hooks and exception handling, window resizing and more. The routines are flexible and modifiable; 90% also contain source code. You can easily mix low-level calls with the Extender's high-level routines. Not copy-protected; no licensing fees.

**TMS079 for Lightspeed C**

**TMS080 for Lightspeed Pascal**

**TMS081 for MPW Pascal**

**TMS082 for TML Pascal**

**\$94.50 \$1.50**

**Programmer's Extender Vol.2** From Invention Software. Sixty new functions: graphics manipulation, printing, desk accessories, list manager support, bit mapping, zoom windows with animation and more. The routines are flexible and modifiable, and 25% contain source

code. Not copy-protected; no licensing fees.

**TMS083 for Lightspeed C**

**TMS084 for Lightspeed Pascal**

**TMS085 for MPW Pascal**

**TMS086 for TML Pascal \$94.50 \$1.50**

**3d Graphic Tools v.1.0** From Micro System Options. An original set of functions that provide fast three-dimensional point, line and solid object drawing capabilities. Included are functions and macros for vector and matrix arithmetic, rotation, scaling, translation, geometric and coordinate transformations, clipping, hidden surface and object removal. Full control over image size, viewing angle and viewer location are provided. The functions (not based on the Graf3d routines) are supplied in commented source code form. One 800K disk, with over 45 pages of documentation and a demo program. Not copy protected; no licensing fees.

**TMS044 for Lightspeed C**

**TMS045 for Lightspeed Pascal**

**TMS046 for MPW C**

**TMS047 for Turbo Pascal \$59.95 \$7.75**

**TML Source Code Library II for the Mac (V. 1.10).** From TML System. TML Source Code Library II is a large collection of advanced programming examples written in TML Pascal II. Virtually every type of Macintosh code is demonstrated with on-disk example programs. Examples demonstrate techniques for programming palette windows, tear-off menus, sound, serial drivers, custom menus, window, control, and list defProcs. Also included are HyperCard XCMD's and XFNC's, Color Quick-Draw, MultiFinder, and much more. Additionally, each example program is completely documented to define exact source code intentions. In all, over 1 Megabyte of example source code is included to demonstrate TML Pascal II and the Mac's real powers. System requirements include TML Pascal II, a Mac Plus or greater, and a hard disk.

**SMTM09 \$50.50 \$6.69**

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