

The Software Toolworks™

Forging Tools for Your Computing Frontiers

Spring 1982 Catalog

Software for Heath/Zenith, 8" CP/M® systems, and Osborne 1®

PROGRAMMING LANGUAGES

C/80 2.0 Compiler generates fast assembly language code — now supports most C features

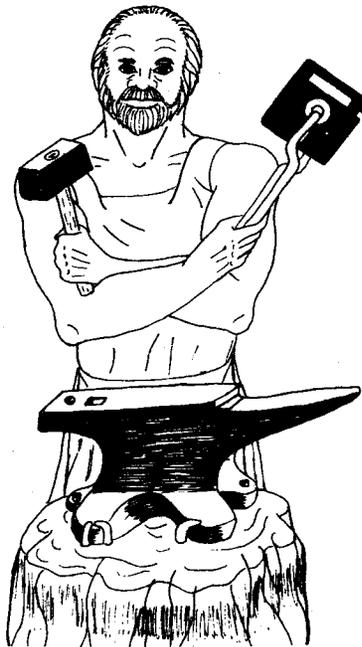
The new 2.0 release of this powerful programming tool is stronger than ever. Now includes full C structures, pointers and arrays, all storage classes, and data initialization. Compiles all C arithmetic and logical operators, and all control statements, including while, if-then-else, switch-case, and goto. Lacks long and floating data types. Includes source for sample utility programs, and standard C library providing random and sequential file I/O, dynamic storage allocation and selectable profile or trace of program execution. Compiling in one pass, C/80 generates highly efficient 8080 assembly language code for either Macro-80 or the AS absolute assembler. (AS is included with C/80, except HDOS versions which use ASM.) Documentation for compiler and library includes language summary, and complements the language reference manual, Kernighan and Ritchie's *The C Programming Language* (not included). Requires 48K. Order # 202; format C8, C5, H5 or O5.
C/80\$49.95

New features

RATFOR adds structured programming features to Microsoft FORTRAN

RATFOR adds the programming ease and readability of structured programming and string macro capability, while retaining the efficiency, power and portability of FORTRAN. The RATFOR translator produces programs which can be compiled and run by Microsoft FORTRAN. Keyed to the book *Software Tools*, RATFOR accepts free format source statements, multiple-statement IFs, IF-THEN-ELSE, and structured WHILE and FOR loops. Compact I/O library avoids huge object modules produced by other RATFOR implementations. Includes documentation, sample programs, and full source code for the RATFOR translator itself, written in RATFOR. Requires Microsoft FORTRAN. Order # 213; format C8, C5, H5 or O5.
RATFOR\$39.95

More programming languages on following pages:



ENTERTAINMENT

Dare the dangers of Colossal Cave with the original Adventure game

NEW Brave the dangers and meet the challenges as you explore the magic realm of Colossal Cave. You are the adventurer seeking fabulous treasures, mythical adversaries to overcome, and initiation into the secret spells which operate within the cave. The fantasy world is brought to surprising reality by your personal computer as it vividly and amusingly serves as your guide and advisor, describing the sights and sounds about you. Enjoy the satisfaction of discovering the rules within the cave, and solving the puzzles which allow you to explore new regions of this underground realm. Solving all the puzzles of the cave entitles you to receive a free serial-numbered Certificate of Wizardness, suitable for framing. The original Adventure program has inspired hundreds of computer game creations. Now you can experience for yourself all the wonders of the original, plus new rooms and treasures, and an improved, expanded ending. Requires 48K. Order # 222; format C8, C5, H5 or O5.
ADVENTURE\$19.95

More games on following pages:

WORD PROCESSING

Eliminate embarrassing spelling mistakes with compact 50,000 word proofreader

Check your documents for accurate spelling, with a program carefully crafted to fit your machine and your budget. Detects misspelled words in documents created by most text editors and word processors, including PIE, WordStar, Spell Binder, and Magic Wand. SPELL's flexibility lets you simply list unknown words, mark them in your document for easy editing, or add them to your dictionary. Sophisticated algorithms and a prefix/suffix table compress an effective dictionary of over 50,000 words into fewer than 31K bytes of disk space, far smaller than other spelling programs. Fast in-memory lookup processes over 4,000 words per minute (2,000 on Heath/Zenith and other 2MHz systems). Detects 99.8% or misspellings while minimizing false reports of correctly spelled words. You can add new words and prefix/suffixes, even customize for British spellings. Requires 48K. By Robert Wesson. Order # 221; format C8, C5, H5 or O5.
SPELL\$49.95

Produce neatly formatted documents with TEXT

NEW features TEXT provides the features of an expensive word processing program, and then some, at a fraction of the cost. Prepare files with PIE or any other text editor, then pass them through TEXT for formatting. Performs fill and justification (straight right margins), pagination, page headers, footers and numbering, indents, hanging indents, centering, underlining, bold print and more. New 4.0 release includes multiple text accumulation buffers for automatic preparation of index and table of contents. Escape sequences may be passed through for printer control without affecting formatting. Inclusion feature allows incorporation of form letters or standard paragraphs from multiple files. Outputs to screen, printer or disk file for complete flexibility. By Dr. Jim Gillogly. Requires 40K. Order # 207; format C8, C5 or H5.
TEXT\$39.95

More programming languages on following pages:

Software for Heath/Zenith, 8' CP/M® systems, and Osborne 1®

COMPUTERIZED COOKBOOK

Save time and money with automated recipe file

Now your personal computer becomes a kitchen assistant with COMPUTER CHEF, a versatile home data base that makes page flipping and portion figuring a thing of the past. Tell it the ingredients on hand, and COMPUTER CHEF will quickly suggest recipes using them. Saves you money by finding recipes for this week's supermarket bargains. When you need more servings, or have less of an ingredient than called for, COMPUTER CHEF automatically scales the recipe to fit your individual needs. Prints recipes on your printer, so you never again worry about dripping on the cookbook! Contains over 70 kitchen-tested recipes from salad to dessert, plus make even more use of all these capabilities by entering your own recipes too. Available by May 1 (in time for Mother's Day). Requires 48K. By Marrietta & Jim Gillogly, Pamela Chavez, Michelle Shumow. Order # 224; format C8, C5, H5 or O5. **COMPUTER CHEF**\$29.95

ABOUT THE SOFTWARE TOOLWORKS™

It started two years ago when several computer scientists became interested in personal computers. We built H89 computer kits, then developed software tools for ourselves, programs of the quality and responsiveness we had become used to on larger machines.

The Software Toolworks is our way of sharing both those tools, and the improvements and new products we have come up with in response to user requests. As our professional associates have heard of our success in distributing our software, a number of them have also acquired personal computers and contributed their creativity and expertise to our product line.

Although we are in business, we remain first and foremost computer hobbyists. Therefore, we continue to make these programs available at the kind of prices we would like to pay ourselves.

But despite the low prices, this software is solid. We use it ourselves, and sell only programs that meet our personal standards of excellence. We are proud of these software products, and hope you will enjoy using them.

PROGRAMMING LANGUAGES

Now there's an economical way to experiment with LISP

Experiment with the artificial intelligence language to which *Byte* magazine devoted its August 1979 issue. Based on the INTERLISP dialect, LISP/80 offers over 75 built-in functions, including large machine features like trace, file I/O, and string operations. Comes with a simple editor, file librarian, and formatted expression print routine, all written in LISP, and a 36 page manual. Also included are two artificial intelligence demonstration programs: a guessing game which learns as it plays, and a simple version of the famous ELIZA psychiatrist program. By Walt Bilofsky. Requires 48K. Order # 209; format C8, C5, H5 or O5. **LISP/80**\$39.95

Macro assemblers for Z80 or 8080 opcodes

UVMAC is an absolute macro assembler. 8080 version accepts same source files as Heath ASM, plus includes macro capabilities. Z80 version accepts full Z80 instruction set (Zilog mnemonics). Both support file inclusion, conditional assembly, listing control, etc., and produce absolute files. Selectable octal or hex listing. Comparable to Heath ASM in speed. Includes non-macro version, AS, more than twice as fast on long assemblies. CP/M versions require 40K. Order # 203 (Z80) or # 204 (8080); format C8, C5, H5 or O5. **UVMAC and AS**\$29.95

New Product Announcements

To keep informed of our latest new products, we recommend that Heath/Zenith computer owners consider subscribing to **Buss** (325 Pennsylvania Ave. SE, Washington, DC 20003), a newsletter published about every three weeks. It is an excellent source of product and technical information.

We also announce new products on Micronet's HUG Bulletin Board. Our Micronet account is [70305,170].

CP/M is a registered trademark of Digital Research. Osborne 1 is a registered trademark of Osborne Computer Corp. PIE is a trademark of Thomas Crosley. MUNCHKIN is a trademark of The Software Toolworks, Ltd. The Software Toolworks is a trademark of The Software Toolworks, Ltd.

ENTERTAINMENT

Your computer can be good "therapy"

You won't believe it's a computer! ELIZA carries on a conversation with you, in plain English. Great for playing alone or at parties, ELIZA is the perfect way to show off your machine to friends. Not just a game, but a faithful recreation of the original artificial intelligence program developed at MIT. You can play it or program it, using any text editor to modify the script or create completely new ones. Comes with the complete original DOCTOR script which converses like a psychiatrist, and an improved version of DOCTOR. Documentation includes full instructions for script writing, plus the original ELIZA research paper. Requires 40K. Order # 220; format C8, C5, H5 or O5.

ELIZA\$24.95

UTILITIES

Save room on your disks; protect sensitive files

Two program package saves disk space and provides security for sensitive data. PACK uses Huffman coding to compress files, saving 25 - 50% on text and program source. CRYPT takes a user-provided password and employs a sophisticated Tausworth-Lewis-Payne based cipher algorithm to protect files against unauthorized readers. By Dr. Jim Gillogly. Order # 206; format C8, C5, H5 or O5.

PACK and CRYPT\$24.95

AVAILABLE WORLDWIDE

You may purchase The Software Toolworks' products at many locations worldwide, including:

U.S. and Canada: All Heathkit Electronic Centers, and many Zenith Data Systems computer dealers.

Scandinavia: Elektrokonsult, Konnerudgt. 3, P.O. Box 846, N-3000 Drammen, Norway.

Italy: Advanced Equipment International Corp., Via Emilia Ovest 129, 43016 S Pancraz 10, Parma, Italy.

Australia: ComputerLand (Sydney and other locations), and Warburton Franki (Adelaide and other locations).

Software for Heath/Zenith, Osborne 1®, and 8" CP/M systems with H19/Z19 terminal

EDITORS FOR TEXT AND GRAPHICS

Full screen editor makes it easy to create and change text and program files

PIE 1.5 text editor is easy and natural to learn and use. The H89 or H19 screen is a window into a file. Cursor motion keys allow changes to be typed anywhere on the screen. Function keys perform character and line insert and delete, string search, move and copy single and multiple lines, and scrolling of text in the window. Powerful macro capability provides search and replace, more. Limited word wrap capability for rapid text entry. Requires H89/Z89 or H19 terminal. Requires 32K; 48K recommended. Not for Osborne 1. Order #201; format C8, C5 or H5.

PIE™ 1.5 Editor..... \$29.95

Create, save, display with full screen graphics editor

ED-A-SKETCH is a tool for the creation and editing of pictures and graphics displays using the H19 or H89/Z89 graphics character set. Cursor motion keys position the cursor at any point on the screen, allowing typing of regular or graphics characters in normal or inverse video. Powerful area operations such as erase, fill with any character, invert video, and pick up and move, may be performed on any rectangular area of the screen. Eight disk formats make displaying saved pictures easy from programs written in BASIC, MBASIC, assembler, C, or any other language. Special "relative mode" saves picture segments for display at any screen position. By Gail Halverson. Requires H89/Z89 or H19 terminal. Requires 40K. Order # 211; format C8, C5 or H5

ED-A-SKETCH\$29.95

FORMAT CODES

- C8: Standard 8" single density CP/M disk
- H5: 5" hard sector HDOS disk
- C5: 5" hard sector Heath/Zenith format CP/M disk
- D5: 5" hard sector dual format for both HDOS and CP/M
- O5: Osborne 1* 5" single density disk

Products also available in corresponding Heath/Zenith soft sector disk formats: specify format H5-S, C5-S or D5-S.

This catalog was typeset by Techni-Process directly from an HDOS disk. Copy for typesetting may be submitted on HDOS or CP/M disks, or over MicroNet. For further information contact Techni-Process at 126 Post Street, San Francisco, CA 94108 or phone (415) 982-0130.

ENTERTAINMENT

Action maze game with arcade excitement

The author of INVADERS does it again with a new arcade-style action game. You run through a maze, evading creatures which try to gobble you up. But turn the tables by reaching a force point, and you're energized to catch and destroy the baddies. Vary the skill level with user alterable parameters; even create your own mazes (which requires ED-A-SKETCH program, not included). By Robert Wesson. Requires H89 or H19. Order #217; format C8, D5 or O5.

MUNCHKIN™ \$19.95

Play championship chess with full graphics

Now H89/Z89 and H19/Z19 owners have the opportunity to own a true world class micro chess program with full graphics. MYCHESS, best micro in the 1979 ACM North American Computer Chess Championship, and winner of the 1980 West Coast Computer Faire over such opponents as Sargon 2.5 and Atari, is now available for the H89. Nine skill levels tailor MYCHESS to any opponent. Plays varying openings from a "book" of over 850 moves. By Dave Kittinger. Requires H89/Z89 or H19 and Z80 CPU, 48K. Order #210; format C8, C5, H5 or O5.

MYCHESS \$34.95

SOFTWARE TOOLWORKS

T-SHIRTS

Now available direct from the manufacturer, this fine shirt features a picture of Leonard, our H89, dreaming of a floppy disk, and our motto, "Without Software, It's Just a Paperweight." We originally designed it for our staff and software authors, but we like it so much we convinced the manufacturer to sell direct to you. You may order Software Toolworks T-shirts from Tri-Arts, 7854 Lankershim Blvd., North Hollywood, CA 91605. Price is \$6.50 per shirt including shipping in the continental United States. CA residents add tax. Specify size: men's S, M, L or XL. (These gold color 100% cotton shirts are top quality so they run a tad larger than most.) Allow 3-4 weeks for delivery. **Order from Tri-Arts only; these shirts can not be ordered through The Software Toolworks.**

SPREADSHEET CALCULATOR

Full-featured ZenCalc comes all set to do your taxes and more

This simple, easy to use calculating tool can be used to compute your budget, record and project your investment returns, even do your taxes. ZenCalc provides the most important capabilities of a two-dimensional "What if?" calculator program, including formulas, labels, variable column width, and print to line printer or disk file. Yet ZenCalc is uniquely easy to use, with the cursor and function keys of the H89/Z89 or H19/Z19 providing a true full-screen editor "feel" in the worksheet manipulations. Simple keystroke commands allow operations on entire rows or columns to conveniently rearrange your data to suit your needs. ZenCalc avoids complex restrictions on internal cross-referencing found in other spreadsheet programs; compact internal data format stores more values. Manual includes a step-by-step "hands on" tutorial, making it easy to get started. Comes with "templates" which automatically compute your full IRS Form 1040 and itemized deduction Schedule A. Requires H89/Z89 or H19 terminal, and 48K of RAM (more recommended). Not for Osborne 1. Order #223; format C5, H5 or C8 only.

ZENCALC \$99.95

UTILITIES

Interactive disk patcher lets you make system patches, repair damaged data

Here is a disk dump and patch program that really lets you get your hands on the bits. SUPER ZAP provides many powerful features, yet combines menu control with two dimensional screen interaction for exceptional ease of use. Full screen display of disk records by absolute sector number, or by file and sector. Displays data in hex, octal or ASCII. Position cursor with function keys and change any byte using any data format. Features include searching for data string in file or entire disk, dump sector contents to line printer or data file, display and patch program file by memory address, clear write protect flags. By Darvey Lavender. Requires H89/Z89 or H19; not for Osborne 1. Order #216; format C8, C5 or H5.

SUPER ZAP \$24.95

(Note: HDOS version of SUPER ZAP does not yet support dump to file, or track/sector access on other than 5" hard sector disks.)

NEW

NOW FOR OSBORNE

AVAILABLE SOON FOR OSBORNE

Software for Heath/Zenith systems only

ENTERTAINMENT

Fight exciting space battles in full graphics

You've drawn the duty at the Delta Pegasi IV space station, where grain barges await transport to the starving hordes of Earth. Raiders swarm in to steal the barges, and it's up to you to fight them off with your remotely piloted laser equipped robot ships. The two-dimensional action is fast and furious — especially when the pirate juggernaut sails in to challenge you! Comes with three space station assignments providing different levels of difficulty, or use ED-A-SKETCH (not included) to create new ones. By Dr. Jim Gillogly. Requires H89 or H19, 48K. Order # 218; format D5.
SPACE PIRATES\$19.95

Play the INVADERS video action game

Thought your H89 or H19 couldn't do this? Think again. Your screen becomes a fast-action video game. Alien creatures try to land; you hold them off with your space cannon as you dodge their bombs. Play it as it comes, or customize with 23 user-variable parameters to increase the challenge; even design your own graphics. By Robert Wesson. Requires H89 or H19. Order # 214; format D5.
INVADERS\$19.95

FORMAT CODES

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- H5: 5" hard sector HDOS disk
- C5: 5" hard sector Heath/Zenith format CP/M disk
- D5: 5" hard sector dual format for both HDOS and CP/M
- O5: Osborne 1* 5" single density disk

Products also available in corresponding Heath/Zenith soft sector disk formats: specify format H5-S, C5-S or D5-S.

ORDERING INFORMATION

Please give program number and format (example: # 201-H5). Check listing to be sure program is available in desired format. All programs include documentation and will run on 32K 8080 or Z80 unless otherwise specified. CP/M versions require CP/M 1.4 or later. HDOS versions run under HDOS 1.5, 1.6, 2.0 and future compatible versions. Price includes single machine license. Programs are available at many Heath/Zenith

Discover for yourself why Air Traffic Controllers wanted psychiatric benefits

This challenging action game tests your skill as an Air Traffic Controller. Your H89 or H19 becomes a radar screen filled with aircraft under YOUR guidance. Flight plans — landing, takeoff or transit — are radioed to you. Guide all 26 aircraft safely through and you win. Violate FAA rules with a "near miss" and you're FIRED. Made it? Try it FASTER! Every game is different. "Belongs in the ADVENTURE class...Not for children — of any age!" — H8SCOOP. By Dr. Jim Gillogly. Requires H89 or H19. Order # 208; format D5.
AIRPORT\$19.95

UTILITIES

Access MICRONET, SOURCE, timesharing; transfer files between computers

REACH turns the H89 into a remote timesharing station. H89 acts as a dialup terminal, transfers files between H89 and remote computer, and spools from remote computer to H89 printer. Operates at speeds up to 9600 baud, full or half duplex. Supports communication between two H89s, XOFF-XON protocol for IBM equipment. Requires serial I/O port; for H89 only. Order # 205; format C5 or H5.
REACH\$19.95

Software for HDOS only

EDUCATIONAL SOFTWARE

Learn to program in BASIC

Your H89/Z89 or H19 screen becomes a computerized classroom for this course in BASIC programming for beginners. Proceed at your own pace as the computer teaches, reviews material, tests you, even provides additional explanation whenever you go wrong. You learn by actually programming, as five integrated laboratory exercises lead you step by step through both sample programs loaded from disk and your own hands-on programming exercises. Full graphics displays provide an effective and entertaining presentation of course material. Uses Benton Harbor BASIC; material covered applies to Microsoft BASIC as well. Requires H89 or H19, 48K. For 5" HDOS systems. (CP/M version in preparation.) Order # 219; format H5 only.

INTRODUCTION TO BASIC PROGRAMMING\$29.95

UTILITY PROGRAMS

Keep track of all your files with master catalog system; plus handy utilities

As your disk library grows, the Master Catalog System keeps track of your files. It forms a catalog by reading the directory from each disk owned. Print options produce a listing, on printer, console or a file, of all files, those satisfying "wild card" conditions, or with specified flags or creation date limits. Five utility programs are included. FIND selects lines in specified text files which contain a specified string or patterns. CHANGE replaces one string or pattern in a file with another. CMP does a byte by byte compare of two files. CHECK prints the CRC checksum of specified files, for checking validity of copied or transmitted files. And FDUMP is a byte by byte file dump with up to five selectable formats. Order # 212; format H5 only.

Catalog System; Utility Programs\$24.95

Printer spooler lets you continue working while printing

Don't let your printer kick you off your computer. SPOOL-N-GO allows printing of files and program output while you keep working, just as on large timesharing systems. Simply copy or direct program output to device SP:. HDOS returns with its prompt; you then run any program while listing continues with virtually no degradation in computer response. Employs user-allocatable spool area on any disk drive; occupies less than 3K of RAM. For most serial interface printers including Diablo, H14, Epson. H8 requires H8-4. From Barnard Software Services. Order # 215; format H5 only.

SPOOL-N-GO\$29.95



The Software Toolworks™

Walt Bilofsky, Prop.
14478 Glorietta Drive
Sherman Oaks, CA 91423
(213) 986-4885

