

# The Software Toolworks

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SOFTWARE TOOLS FOR MOST CP/M SYSTEMS, HEATH HDOS - JANUARY 1981

New Products: Invaders Game; CP/M Software; Graphics for MYCHESS

## EDITING AND WORD PROCESSING

FULL SCREEN EDITOR. 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. For H89 or H8+H19; H8 CP/M version requires H8-4. Order #201; Format C5 or H5 only. PIE 1.5 Editor: \$29.95.

TEXT FORMATTER. By Dr. Jim Gillogly. Performs fill and justification (straight right margins) of text. Page numbering, headers and footers, indents, hanging indents, centering, underlining. Inclusion feature for insertion of other files into document; reset allows multiple disk documents. With the PIE 1.5 editor, provides word processing capability found in packages selling for several times as much. Order #207; Format C8, C5 or H5. TEXT: \$34.95.

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 may be performed on any rectangular area of the screen: operations such as erase, fill with any character, invert video, and pick up and move. 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. Order #211; Format C5 or H5 only. ED-A-SKETCH: \$29.95

## PROGRAMMING LANGUAGES

C COMPILER. C/80 compiler for a large subset of the C programming language. Supports character and 16-bit integer data, pointers, arrays and strings, macros, data initialization, a full complement of arithmetic and logical operators, and all C control statements including while, if-then-else, for, switch-case, and goto. Lacks structures, pointers to pointers, and long and floating point data types. Includes source for sample utility programs, and standard C library providing file I/O, dynamic storage allocation, and execution time profile. Documentation for compiler and library includes language summary, and complements the language reference manual, Kernighan and Ritchie's The C Programming Language (not included). CP/M versions include fast AS assembler (see UVMAC). Requires 40K. Order #202; Format C8, C5 or H5. C/80: \$39.95

STRUCTURED FORTRAN LANGUAGE EXTENSION. 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. Includes documentation, sample programs, I/O library, and full source code for the RATFOR translator itself, written in RATFOR. Requires Microsoft FORTRAN. Order #213; Format H5 (C5 and C8 available March 1981). RATFOR: \$39.95

LISP INTERPRETER. 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 32 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 40K; 48K recommended. Order #209; Format C8, C5 or H5. LISP/80: \$39.95.

MACRO ASSEMBLERS FOR Z80 AND 8080. 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 XTEXT, IF, listing control, etc., and produce .ABS files. Selectable octal or hex listing. New 2.2 release comparable to Heath ASM in speed. Bonus: includes non-macro version, AS, more than twice as fast on long assemblies. Order #203 (Z80) or #204 (8080); Format C8, C5 or H5. UVMAC and AS: \$29.95.

#### UTILITY PROGRAMS

MODEM & FILE TRANSFER PROGRAM. 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 H5 only. REACH: \$19.95.

CATALOG SYSTEM; UTILITIES. As your disk library grows, the improved Master Catalog System (Version 8.0) 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 file(s) 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.

FILE COMPRESSION AND ENCRYPTION. 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. Written by Dr. Jim Gillogly. Order #206; Format C8, C5 or H5. PACK and CRYPT both for: \$24.95.

#### ENTERTAINMENT

INVADERS. By Robert Wesson. 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. Requires H89 or H19. Order #214; Format C5 or H5 only. INVADERS: \$19.95.

FLIGHT CONTROLLER GAME. By Dr. Jim Gillogly. AIRPORT tests your skill as an Air Traffic Controller. Your radar screen maps the moving planes as you direct them along air lanes and into and out of airports. Adjust length of game to increase challenge. Requires H89 or H19. Order #208; Format C5 or H5 only. AIRPORT: \$19.95.

CHAMPIONSHIP CHESS PLAYER. New 2.0 release with full graphics! H89/Z89 owners have the opportunity to own a true world class micro chess program. 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 Z80 CPU, 48K. Order #210; Format C5 or H5 only. MYCHESS: \$34.95

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ORDERING INFORMATION: Please give program number and format (example: #201-H5). Format codes: C8: standard 8" single density CP/M disk; H5: 5" HDOS data disk; C5: 5" Heath format CP/M disk (ORG 0). Check above to be sure program is available in desired format. All programs include documentation and will run on 32K 8080 or Z80 unless otherwise specified. Price includes single machine license. Programs are available at many Heath/Zenith retailers, or by mail from The Software Toolworks, 14478 Glorietta Drive, Sherman Oaks, CA 91423. Please add \$2.00 per order (\$3 for 8" disks) for First Class postage and handling; California residents add 6% sales tax. Overseas orders mailed Air Parcel A0; for letter class Air Mail add \$1.50 per program.