Spring 1984 Catalog

Software 84

- Programming Languages
- Productivity Software
- Computer Cookbooks
- Entertainment
- Utilities

for

- IBM PC and PCjr
- Heath/Zenith
- Kaypro
- Osborne
- DEC
- Epson
- and other popular CP/M and MSDOS systems

The Software Toolworks®

A soft buy in a hard world.

The Software Toolworks®

Software 84

ABOUT THE SOFTWARE TOOLWORKS

It started in 1979 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.

This is solid software. 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.

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NEW PRODUCT

Full-featured spreadsheet does your taxes and more.

MYCALC™

This easy to use calculating tool can compute your budget, record and project your investment returns, even do your taxes. MyCalc provides all the important capabilities of a two-dimensional "What if?" calculator program, including formulas, labels, variable column width, logical operations, references across multiple spreadsheets, sort, and print to line printer or disk file. Yet MyCalc is uniquely easy to use, configurable to your terminal's function keys to provide a true full-screen editor "feel" for work-sheet manipulations. Simple keystroke commands allow operations on entire rows or columns to conveniently rearrange your data, quickly build or revise templates and models. Display formats include scientific, financial and bar graph; PC/PCjr version can be used in either 40 or 80 column mode. Manual includes step-by-step "hands on" tutorial making it easy to get started; command line menu presents your options, and 23 on-line help screens keep you going. Comes with many useful templates, including a set to automatically compute your full IRS Form 1040 and itemized deduction Schedule A.

Eliminate embarrassing spelling mistakes with compact 50,000 word proofreader.

SPELL

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 (4 MHz Z80). Detects 99.8% of misspellings while minimizing false reports of correctly spelled words. You can add new words and prefix/suffixes, even customize for British spellings.

Reviewed (as ZenCalc, earlier version) in:
Infoworld, Oct. 4, 1982
    (E-G-E-E)
Sextant, Winter 1983

Order: #223
Price: $59.95
Requires: MSDOS (PC DOS) version requires IBM PC or PCjr, 128K. CP/M version requires cursor addressable terminal, 64K.

Reviewed in:
Infoworld, July 5, 1982
    (G-G-E-G)
Interface Age, August 1982
Microcomputing, July 1982
Portable Companion, June 1983
Order: #221.
Price: $49.95

Produce neatly formatted documents with TEXT.

TEXT 4.0

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 or word processor, then pass them through TEXT for formatting. Performs fill and justification (straight right marg.•.s), pagination, page headers, footers and numbering, indents, centering, underlining, bold print and more. Multiple text accumulation buffers allow 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.

Note: Although TEXT performs formatting functions similar to the word processors provided with some computers, many of our customers have found it easier to learn, use, and come back to. In response to many requests, we have made TEXT available in all our disk formats.

Reviewed in:
Sextant, Spring 1982 and Fall 1982
Order: #207
Price: $39.95

NOW FOR ZDOS

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

PIE® 1.5d

PIE 1.5 text editor is easy and natural to learn and use. The terminal screen is a window into a file. Cursor motion keys allow changes to be typed anywhere on the screen. Function key commands tailored to the Z89, Z19 and Z100 perform character and line insert and delete, string search, move and copy single multiple lines, and scrolling of text in the window. Menu configurable for optional backup file and use of tabs to conserve disk space. Powerful macro capability provides search and replace, more. Limited word wrap capability for rapid text entry. PIE provides extraordinary convenience for program preparation, or use with TEXT for powerful word processing at an affordable price.

Reviewed in:
Infoworld, Nov. 8, 1982 (G-G-G-G)
Sextant, Spring 1982
Computers and Programming,
    May-June 1981
Order: #201
Price: $29.95
Requires: Z89 or Z100 computer, or Z19 terminal.

Create, save, display pictures with full screen graphics editor.

ED-A-SKETCH™

Draw pictures and graphics displays directly on your screen with ED-A-SKETCH, using your terminal's graphics characters and other special features. Then save them on disk for use with BASIC and other programming languages. Cursor motion keys position the cursor at any point on the screen, so you can type regular or graphics characters, using features of your terminal such as dim, inverse video, or underline. Automatically draw straight line between two points* or draw with cursor in trace mode.* Use powerful area operations such as erase, fill with any character, dim or invert, and pick up and move any rectangular area of the screen. Many file formats make displaying saved pictures easy from programs written in all BASIC dialects, assembler, C, or any other language. Special "relative mode" saves picture segments for display at any screen position. Easy, menu-driven configuration program* By Gail Halverson. (* - feature available in Osborne version only.)

Reviewed in:
Infoworld, Dec. 7, 1981
    (E-G-E-E)
Order: #211
Price: $29.95
Requires: Osborne 1, Z89 or Z100 computer, or Z19 terminal.

Formats: **All Software Toolworks formats.**

Formats: **All Software Toolworks formats.**

Formats: **All Software Toolworks formats.**

Formats: **C, H, 8, I only.**

Formats: **C, H, 8, O only.**

Locate changes, revisions in document and program source files.

AUTODIFF™

Keep track of revisions with computer precision using the AUTODIFF file difference detector. More than just a simple byte by byte comparison, AUTODIFF locates insertions, deletions and changes in all types of data files. Lists differences between two versions of text or document files — perfect for locating changes in program source code. Or lists a file with marks in the margin at each change, so you can check revisions without rereading the whole document. Can compare binary data, with ASCII and hex listing. Change reports can be sent to terminal, printer, or a disk file. Built-in filters allow optionally ignoring non-printing characters, display of control characters on output. Works with ASCII (non-document) files, and document files produced by WordStar and many other word processing programs.

Reviewed in:
Infoworld, June 28, 1983 (as UFOs)
　(E-G-E-E)
Microsystems, May 1983
Order: #225
Price: $29.95

Full screen interactive disk patcher to view, change all data on your disks.

SUPER ZAP™

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 sequence of data bytes in file or entire disk, dump sector contents to line printer or data file. CP/M and HDOS versions support display and patch program file by memory address. Save file lets you store selected sectors for input by other programs. CP/M version is menu configurable for your system and terminal. Save file, absolute sector access not available on HDOS.

Order: #216
Price: $24.95
Requires: Cursor addressable screen. Not for CP/M 3.0. MSDOS version for IBM PC, PCjr only.

Access MICRONET, SOURCE, timesharing; transfer files between computers.

REACH™ 2.0

REACH turns the Z89 into a remote timesharing station. Z89 acts as a dial up terminal, letting you access a remote computer, type all control codes without special commands. Function keys let you transmit or receive disk files, or record remote computer's output to Z89's serial printer. New 2.0 release is menu configurable, features a command language for automatic interaction with a remote computer. This miniature programming language allows writing protocols for automatic login, mail retrieval, and with an intelligent modem (such as the Hayes SmartModem), automatic dialup, even redial after busy signal, all without operator intervention. Supports communication between two Z89's, XOFF-XON protocol for IBM equipment.

Reviewed in:
Microcomputing, April 1981
　(Dial-Up Directory)
Order: #205
Price: $19.95
Requires: Z89, serial I/O.

Printer spooler lets you continue working while printing.

SPOOL-N-GO™

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. For most serial interface printer including Diablo, H14, Epson. H8 requires H8-4.

Reviewed in:
Infoworld, Nov. 29, 1982
　(G-G-E-G)
Sextant, Spring 1982
Order: #215
Price: $29.95
Requires: HDOS, serial interface.

Formats: **H only.**

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

CATALOG SYSTEM AND UTILITIES

As your disk library grows, the Master Catalog System keeps track of your files. Forms, prints catalog of all files or those satisfying "wild card" conditions. Includes file utility programs to search, change, compare, dump and checksum.

Order: #212
Price: $24.95

Save room on your disks; protect sensitive files.

PACK and CRYPT

Two program package saves disk space and provides security for sensitive data. PACK uses Huffman coding to compress files for storage, 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
Price: $24.95

NEW PRODUCT

Run most CP/M software from your ZDOS disk.

ZP/SIM™

This ingenious emulator lets you run most of your CP/M software directly under ZDOS. Runs most CP/M editors, programming languages, data base and applications software without rebooting or changing disks. Running under ZDOS, you can use CP/M and ZDOS programs interchangeably, operating on ZDOS files. Preserves ZDOS advantages like directory date and time stamps. Choose simulated CP/M command mode, or convert CP/M COM files to run under ZDOS without further modification or support, even on other Z100s without ZP/SIM. Supports most CP/M programs, except those which perform non-file (track/sector) disk access or require Z80 CPU. Does not require CP/M.

Order: #239
Price: $29.95
Requires: Z100 computer, ZDOS.

Formats: **All Software Toolworks except H and I**　　Formats: **All Software Toolworks formats**　　Formats: **C and H only.**　　Formats: **H only.**　　Formats: **All Software Toolworks formats**　　Formats: **I only.**

Write fast, compact programs with Toolworks C/80 compiler.

TOOLWORKS™ C/80 3.1

An outstanding value, the Toolworks C/80 compiler is both a professional programming tool and a great way to get started with this popular language. Supports full C structures, pointers and arrays, all storage classes, static data initialization, and in-line assembler. Compiles all C arithmetic and logical operators, and all control statements, including **while, if-then-else, switch-case,** and **goto.** Only language features not supported are **typedef,** arguments to macros, nested blocks, **#line,** bit fields and double data type. Float and long data types available with optional MATHPAK.

Includes source for sample utility programs, and expanded C library of over 45 functions providing random, sequential and formatted input and output, dynamic storage allocation, UNIX-style I/O redirection and command line wildcard expansion, and selectable program trace or execution time profile by subroutine.

Toolworks C/80 generates 8080 assembler code for the AS absolute assembler (included), or ROMable code for Macro-80 or RMAC. Library is supplied in assembler source and .REL for-

mats, plus commented C source for system dependent routines. C/80 version 2.0 was ranked highest in execution speed and efficiency among eight 8080 C compilers in January, 1983 Byte benchmark; C/80 3.1 is even better.

48-page manual includes language summary and bibliography of C references, and complements the language reference manual, Kernighan and Ritchie's The C Programming Language (not included). In published reviews (see below), Toolworks C/80 consistently scores at or near the top in code efficiency, completeness of implementation, and compilation and execution time, even when compared with compilers costing many times as much. Many software products, including LISP/80, MYCALC, and C/80 itself, are written in C/80. We feel it is the best value available in a CP/M C compiler, and are proud to make an excellent, affordable C implementation available to both beginners and serious software developers.

Reviewed in:
Byte, January 1983 (benchmark); August 1983
Microsystems, Nov.-Dec. 1982
Micro Cornucopia, August 1982
Australian Personal Computer, April 1983
Dr. Dobbs' Journal, May 1983
Lifelines, May 1983
Order: #202
Price: $49.95
Requires: 56K RAM.

Add float and long data types to C/80 Version 3.

C/80 MATHPAK

The MATHPAK adds true float and long data types (not subroutines) to the C/80 version 3 compiler. Includes run time library, and program to modify compiler for 32 bit data types. Efficient implementation: floating add and subtract in about 200 usec. at 4 MHz, floating divide in 2.2 msec., long add in 37 usec. Includes formatted floating point I/O and C source for transcendental function library.

Order: #231
Price: $29.95
Requires: C/80 3.0 or later.

Formats: **All Software Toolworks formats except I.**

Learn to program in BASIC

INTRODUCTION TO BASIC PROGRAMMING

Your Z89 or Z19 screen becomes a computerized classroom for this course in BASIC programming for beginners. Proceeds at your own pace as the computer teaches, reviews material, tests you even provides additional explanation whenever you go wrong. Uses Benton Harbor BASIC; material covered applies to Microsoft BASIC as well.

Reviewed in:
Microcomputing, October 1982
Order: #219
Price: $29.95
Requires: Z89; HDOS only.

Now there's an economical way to experiment with LISP.

TOOLWORKS™ LISP/80

Experiment with the artificial intelligence language to which Byte magazine devoted its August 1979 issue. Based on the INTERLISP dialect, Toolworks 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.

Reviewed in:
Microsystems, Dec. 1983
Order: #209
Price: $39.95

RATFOR adds structured programming features to Microsoft Fortran.

RATFOR™

Structured 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.

Order: #213.
Price: $39.95
Requires: Microsoft Fortran

Macro assemblers for Z80 and 8080 opcodes.

UVMAC

UVMAC gives the assembly language programmer extra conveniences at an affordable price. Choose the Z80 version and use Zilog mnemonics, or the 8080 version which accepts source files similar to ASM. Each provides macro capabilities, plus source file inclusion so you can build libraries of subroutines, macros, or symbol definitions. Produces absolute (COM or ABS) files directly with no need for intermediate file or load. Supports conditional assembly, selectable octal or hex listing, and listing control. Includes non-macro version, AS, more than twice as fast on long assemblies. By Walt Bilofsky.

Order: #203 (Z80 version) or #204 (8080 version)
Price: $29.95

Formats: **All Software Toolworks formats except I.**

Formats: **H only.**

Formats: **All Software Toolworks formats**

Formats: **All Software Toolworks formats except I**

Formats: **All Software Toolworks formats except I**

Computer Chef Series #1: Save time and money with automated recipe file.

COMPUTER CHEF™

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. By Marietta & Jim Gillogly, Pamela Chavez, Michele Shumow.

Reviewed in:
Infoworld, October 11, 1982
(G-G-G-G)
Portable Companion, Sept. 1983
Pro-Files, Vol. 1, Issue 1
Order: #224
Price: $29.95
Requires: 80 column display.
CP/M versions require
CP/M 2.0 or higher.

8

NEW PRODUCT

Computer Chef Series #2: Exotic oriental cuisine made convenient, even for beginners.

BEST OF WOK TALK

Exotic Chinese cooking is made easier than ever with this unique combination of technology and culinary expertise. The editors of Wok Talk, popular Chinese culinary newsletter, have assembled over 100 recipes from all regions of China, organized for your personal computer on two 5'' or one 8'' disk by the COMPUTER CHEF database (included). Easy to use software tells you how to proceed, step by step. Select recipes by ingredients, type of cuisine, or key words. Automatically scale ingredient quantities to fit amounts on hand or portions needed. List recipes on printer as needed; eliminates dripping on cookbook. Expand your on-line recipe file by adding recipes using any word processor. Includes 22 page chinese cooking primer to help the novice get started, many challenging recipes for the advanced chef. A new adventure in computer application and eating enjoyment.

Order: #240
Price: $29.95
Requires: 80 column display.

NEW PRODUCT

Computer Chef Series #3: Add over 200 recipes to your Computer Chef collection.

WHAT'S FOR DINNER

Here's a data base the whole family will appreciate. This two disk package contains over 200 delicious recipes already formatted for use with COMPUTER CHEF (not included). **Lets Eat In Tonight** is a collection of over 100 main and side dish recipes for everything from quick and easy dinners for two to entertaining in style for a crowd. Includes meat, seafood, chicken, pasta and vegetarian entrees, soups from gourmet consommes to hearty meal-in-itself family fare, change of pace salads, and ethnic dishes from all corners of the globe. For the crowning touch, **The Secret's Out** gives you over 100 dessert, baked goods and special occasion recipes to provide a wealth of delicious experiences for you, your family and friends. Includes recipes for homemade ice cream, plus all the elements of an English high tea, and more.

Order: #241
Price: $19.95
Requires: COMPUTER CHEF program.

NOW FOR IBM PC, PCjr, Z100

Play championship chess with full graphics; now for PC, PCjr too

MYCHESS™

Now you 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 at the 1980 West Coast Computer Faire over such opponents as Sargon 2.5 and Atari, is now available for your computer. Nine skill levels tailor MYCHESS to any opponent. Plays varying openings from a "book" of over 850 moves. Saves game in progress for later resumption; prints game listing during or after game. Features color and monochrome graphics displays on IBM PC, PCjr and Z100, full graphics for Zenith Z89 and Osborne 1, non-graphics display for other machines. By Dave Kittinger.

Recommended for PCjr with TV Adaptor

Reviewed in:
Microcomputing, May 1982.
Order: #210
Price: $34.95
Requires: CP/M and HDOS
versions require Z80 CPU.
IBM/MSDOS version
requires 96K RAM. Not for
Osborne Executive, VT-180.

Dare the dangers of Colossal Cave; play the only official Original Adventure.

ADVENTURE

Now experience for yourself all the wonders of the program that has inspired hundreds of computer game creations. Plus discover new rooms and treasures and an improved, expanded ending, in the only version of Adventure officially endorsed for authenticity by Adventure's creators, Will Crowther and Don Woods. You will brave the dangers and meet the challenges as you explore the magic realm of Colossal Cave, 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 sound 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. Achieving the maximum score entitles you to receive a free serial-numbered Certificate of Wizardness, signed by Crowther and Woods and suitable for framing. Not for CP/M 1.4.

Recommended for PCjr with TV Adaptor

Order: #222.
Price: $19.95

Exercise vocabulary skills as you challenge the computer.

WORD WIGGLE™

Pit yourself against the clock and the computer in this scrambled letter game that builds word skills for young and old alike. Your screen displays a four-by-four square containing sixteen selected letters. Score points by following adjacent letters to form words — the longer the better. Begin by competing against the lowest of the computer's eleven skill levels, then develop your vocabulary and agility until you can challenge its full 30,000 word dictionary. Experts will enjoy the possibilities of a five-by-five square, or change the time limit for more variety. Play against friends by repeating the same square, or enter your own letter pattern. Develop children's vocabulary by entering easy three-by-three squares. By Dr. Jim Gillogly.

Order: #230
Price: $29.95
Requires: Cursor addressable 80 column screen.

9

Games for Heath/Zenith Computers from EUROWARE

Discover for yourself why Air Traffic Controllers wanted psychiatric benefits.

AIRPORT™

This challenging action game tests your skill as an Air Traffic Controller. Your terminal screen 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!" — H-SCOOP. By Dr. Jim Gillogly.

Order: #208
Price: $19.95
Requires: 80 column cursor addressable display.

Your computer can be good "therapy."

ELIZA

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.

Recommended for PCjr with TV Adaptor

Order: #220
Price: $24.95

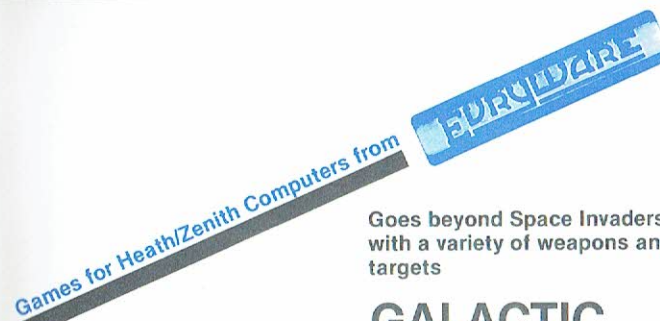**Action video game for the entire family.**

SNAKE™

Easy to learn, with many variations and levels of difficulty, SNAKE is the perfect game for all members of the family. The SNAKE moves about the screen, avoiding obstacles and eating food which appears at random for a short time. As it grows, quick reflexes and mental anticipation are needed to avoid a fatal collision. Increase the challenge by speeding up the SNAKE, adding obstacles, or moving to the Advanced Game with bridges and a tunnel. The Progressive Game dares the real expert to pile up huge scores by keeping the SNAKE moving in the face of ever-increasing obstacles. Sophisticated scoreboard lets everyone compare their best scores. By Gerald K. Lunn.

Recommended for PCjr with TV Adaptor

Order: #226
Price: $19.95
Requires: On DEC Rainbow requires 128K; MSDOS version for IBM PC, PCjr only.

Tunnel through the earth to save the princess.

ZEETLE DEET

The despicable Dante has turned the villagers of Zeetle-Deet into ghosts and imprisoned them deep in the earth. Become the good wizard Algernon and tunnel through the earth to save entrapped villagers. Dodge demons, cast spells, turn invisible, and walk through solid rock with your companion, Prince Jason. Strategy and skill will defeat Dante and his demon horde. For 1 or 2 players.

Order: #238
Price: $19.50

Goes beyond Space Invaders with a variety of weapons and targets

GALACTIC WARRIOR

The battle has just begun! Blast through assorted waves of attackers, then hit the central reactor of their Space Station. Your ship is armed with deep space missiles, a short range laser, and a powerful force shield. For 1 or 2 players.

Order: #233
Price: $19.50

Formats: **D only.**

Guard cities from missile attack.

MISSILE CONTROL

Many long range guided missiles and bombers are aimed at your cities. You can explode your own missiles anywhere on the screen but it takes nerves of steel when the action gets fierce. If you want to know what it feels like to be responsible for millions of (electronic) lives, now is your chance!

Order: #232
Price: $17.50

Complex game pits you against the ecology of Yargon.

EXTERMINATOR

As hostile spacecraft drop Anthropod eggs, fire your remote-controlled bug blaster and pulverize them into space dust. Use the hidden passage in the twin towers of Yargon to fly an armed starcopter for badly needed supplies. Free fall from great heights or parachute to your awaiting hover-craft. Watch the Anthropods evolve, first into cocoons and finally into carnivorous creatures. Watch yourself be eaten alive if you aren't quick or clever enough!

Order: #236
Price: $19.50

Formats: **All Software Toolworks formats except I.**

Formats: **All Software Toolworks formats (D).**

Formats: **All Software Toolworks formats.**

Formats: **D only.**

Formats: **D only.**

Formats: **D only.**

Games for Heath/Zenith Computers from **EUROWARE**
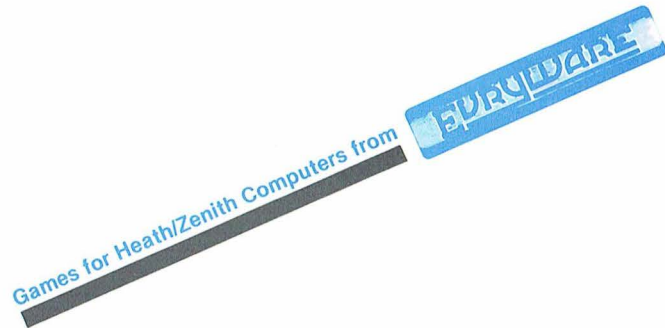
Space navigation game features 3-D movement.

SPACE ODYSSEY I

How far can you travel into the mysterious Orion cluster? Looking out the front window of your spaceship, you see asteroids, Xylon attack ships and other objects coming at you in 3-D space. Maneuver around the objects, vaporize them with your gamma ray, or retrieve them with your tractor beam. Stay on course while watching your fuel level, reading navigational messages, and studying the Deep Space Scanner to see what's ahead. You have five warp levels for forward speed and a hyperwarp button. Now the excitement of space travel is yours.

Order: #235
Price: $21.50

Formats: **D only.**

Battle a variety of dangers just above the surface of a hostile planet.

Y-WING FIGHTER

Flying just above the ground you meet hostile denizens of a strange planet, doing their best to prevent you from reaching the enemy's home base. Control the speed and altitude of your Y-WING FIGHTER to outmaneuver them, and use powerful front and rear phasers when they become too aggressive. But watch out: the volcano is just ahead!

Order: #234
Price: $19.50

Formats: **D only.**

Exciting undersea sequel to Y-WING.

Y-WING II

If you thought Y-WING FIGHTER was the best thing this side of an arcade, wait until you see this sequel. Each quest takes you to a different region in the undersea world of Tazgard. Armed with more powerful lasers, bombs, and a matter zapper, you will encounter nearly a dozen different types of dangerous creatures on your 3000 mile journey to confront the cruel sea-giant, Stormslayer.

Order: #237
Price: $21.50

Formats: **D only.**

Three exciting arcade style games for your Osborne.

ARCTURUS™ TRILOGY

The Arcturus Trilogy is a series of three full graphics video games, set against the background of the invasion of the peaceful Arcturus system by the fleet of Ludwig the Loathsome. Only your bravery stands between the peaceful inhabitants and certain destruction. Uses Osborne graphics for great arcade style action. Manual for each game includes an episode of the Arcturus Trilogy saga.

ARCTURUS™ RANGER
Order: #227
Price: $24.95

Formats: **O only.**

ARCTURUS™ CONTROL
Order: #228
Price: $19.95

Formats: **O only.**

ARCTURUS™ EXTERMINATOR
Order: #229
Price: $24.95
Requires: Osborne 1.

Formats: **O only.**

Play the INVADERS video action game.

INVADERS™

Here's a video action classic for your personal computer. Alien creatures try to land; you hold them off with your space cannon as you dodge their bombs. Eliminate one wave, and another, faster one appears. Mystery ships may lure you into taking chances to score bonus points. Play it as it comes, or customize with 23 user-variable parameters to increase the challenge; even design your own graphics. By Robert Wesson.

Order: #214
Price: $19.95
Requires: Osborne 1, Z89 computer, or Z19 terminal.

Formats: **D, 8, 0 only.**

Action maze game with arcade excitement.

MUNCHKIN™

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. Complete the maze, and you get another, faster one. Vary the skill level with user alterable parameters; even create your own mazes (which requires ED-A-SKETCH program, not included). By Robert Wesson.

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Requires: Osborne 1, Z89 or Z100 computer, or Z19 terminal.

Formats: **D, 8, O only.**

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Our software is available in disk formats for MSDOS (IBM PC DOS), HDOS, and most popular CP/M computers. Not all programs are available in all formats; for specific program availability see individual listings or the chart on opposite page. In placing an order, please be sure to include the disk format letter code. Failure to supply format code is the most frequent cause of delay in shipping orders.

C: Heath/Zenith CP/M 5''*
D: Heath/Zenith Dual HDOS & CP/M 5''*
E: Epson QX-10 5''
H: Heath/Zenith HDOS 5''*
I: MSDOS, including IBM PC, PCjr, (PC DOS), Zenith Z100 (ZDOS).
K: Kaypro II, 4, 10
O: Osborne 1 and Executive
R: DEC Rainbow and VT-180
X: Xerox 820
8: Standard 8'' CP/M Single Density

*: All Heath/Zenith formats are available in hard or soft sector; for soft sector specify C-S, D-S or H-S format. Where D format is indicated, dual format disk is supplied instead of H and C. Programs specifying Z89 computer are also for H89, Z90.

Z100 computers: For CP/M-85, order C-S or D-S format; for ZDOS, order I format (except where individual program description indicates not for Z100).

Machine Requirements:

Unless otherwise specified, programs run on all computers using MSDOS (including IBM PC and PCjr with PC DOS) with at least 64K of memory (128K on PCjr) and one disk drive, and on computers using CP/M or Heath/Zenith HDOS with a minimum of 48K of memory. On PC and PCjr, programs are for both 40 and 80 column displays unless otherwise specified. Check program description to insure program is available in your disk format.

Programs supplied in a particular computer's disk format may be configured for that computer, but will run on any computer with the same operating system unless otherwise specified in the program description.

Product Reviews

If a Software Toolworks product has been reviewed in major magazines, the publication and issue is given in the individual product listing. For products reviewed in Infoworld, the report card rating is also shown. For example, a rating of (E-G-F-P) means Performance: Excellent; Documentation: Good; Ease of Use: Fair; Error Handling: Poor.

Available Worldwide

You may purchase Software Toolworks products at many locations worldwide, including most Heathkit Electronic Centers and ComputerLand stores, and other Heath/Zenith and Kaypro dealers. Write or call us for a list showing the dealers nearest you.

#		Heath Zenith 5" HDOS	Heath Zenith 5" CP/M	Z100 CP/M	IBM PC, PCjr, MSDOS, Z100, ZDOS	8" CP/M	Osborne 1 & Executive	Xerox 820	Kaypro II 4 & 10	DEC Rainbow 100	Epson QX-10
201	PIE 1.5 Full Scr'n Editor				*	*					
202	C/80 Compiler										
203	UVMAC Macro Assmblr. Z80										
204	UVMAC Macro Assmblr. 8080										
205	REACH Modem/File Transfer										
206	PACK & CRYPT										
207	TEXT 4.0 Formatter										
208	AIRPORT Action Game	1					+	**			
209	LISP/80 Interpreter										
210	MYCHESS Champ. Chess						+	++			
211	ED-A-SKETCH Graphics Ed'r						*	++			
212	Catalog System/Utilities										
213	RATFOR Structr'd FORTRAN										
214	INVADERS Video Game	1					*	++			
215	SPOOL-N-GO Print Spooler										
216	SUPER ZAP Disk Dump/Patch				2		+	++			
217	MUNCHKIN Video Game	1					*	++			
218	SPACE PIRATES Video Game	1									
219	Intro. to BASIC Progrm'g										
220	ELIZA Conversational Game	1									
221	SPELL Spelling Proofr'dr										
222	Original ADVENTURE Game										
223	MyCalc Spreadsheet				2						
224	COMPUTER CHEF Recipe File				**						
225	AUTODIFF File Differencer										
226	SNAKE Video Game				2		+				
227	ARCTURUS RANGER Vid. Gm.										
228	ARCTURUS CONTROL Vid.Gm.										
229	ARCTURUS EXTERMINATOR							++			
230	WORD WIGGLE Letter Game				**		+				
231	MATHPAK Floats and Longs										
232	MISSILE CONTROL	1									
233	GALACTIC WARRIOR	1									
234	Y-WING FIGHTER	1									
235	SPACE ODYSSEY	1									
236	EXTERMINATOR	1									
237	Y-WING II	1									
238	ZEETLE-DEET	1									
239	ZP/SIM™					*					
240	THE BEST OF WOK TALK				**						
241	WHAT'S FOR DINNER				**						

Symbol	Meaning
*	Requires Zenith computer or terminal
**	80 column only
(blank)	Available
+	Graphics version configurable for most 24 by 80 terminals
++	Osborne 1 only
(shaded)	Not available
1	Dual Format for both Heath HDOS and CP/M.
2	Requires IBM PC or PCjr.

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