Micronova's

HOME COMPUTER
DIRECTORY

For the TI 99/4(A)

Micronova's

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For the 99/4A
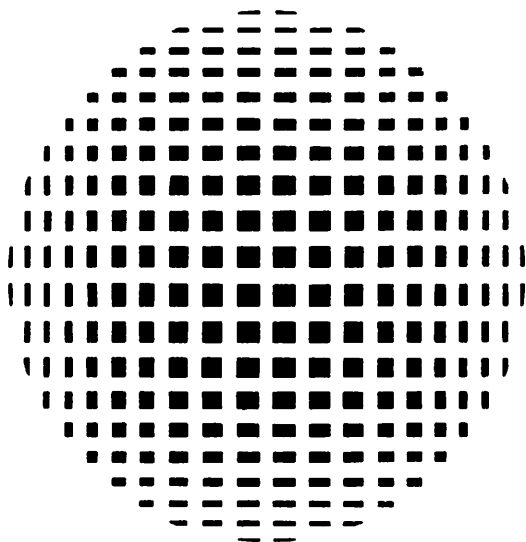
MICRONOVA
P.O. Box 1058
Northampton, MA 01061

Table of Contents

Dear 99'ers...

The book you now hold in your hands represents an attempt to fit between one set of covers all the information needed by a Home Computer owner to locate the services, products and organizations he or she may need to accomplish a wide spectrum of applications and activity. This objective has been complicated by the incredible speed with which the microcomputer scene is changing all around us. New developments often occur in a matter of days and weeks rather than months or years. To deal with the problems posed by this situation MICRONOVA plans to publish a second edition of this directory this coming fall which will be expanded and updated. In anticipation of this event a Software and Hardware Evaluation Form has been included in this directory at the back. You can help make the next edition of the directory more complete by cutting this page out and mailing it to MICRONOVA with your comments. We would also welcome any comments and criticism about the Directory itself so that we may be better able to improve it to serve the home computing community. If something is missing here you would like to see tell us about it & we will try to include it the next time!

I would like to take this occasion to thank Gary Kaplan and the staff of the 99'er Home Computer Magazine for providing a source of information without which many of us would still be in the dark. In addition, I would like to thank Charles LaFara of the International 99/4 Users Group as well as John Coleman and Ed Wiest of Texas Instruments and Mr. Moon of Moonbeam Software. Thanks are also due to the illustrator, Rob Chalfen, and Larry Neilson for his cover photo and, last but not least, to my brother David for his shrewd assistance in the final paste-up process.

Richard Guenette

Richard Guenette
President
MICRONOVA
March 1983

NEW OFFERINGS

● TI-99/2 Computer ●

The TI-99/2 is a new low cost computer from TI. The 99/2 uses a new type of software module and has 4.2K of RAM and 24K of ROM. RAM expands to 36.2K. The 99/2 has an "elastomeric" typewriter style keyboard & connects with the new HEXBUS (TM) peripherals. 99/2's software can be used on the 99/4A but it does not have lower case letters, sprites, color and speech and 99/4A programs with these commands won't run on the 99/2. Machine language, however, can be accessed with PEEK and POKE commands. The 99/2 comes with a built in RF modulator and audio cassette interface as well as an AC adapter, user's manual and demo cassette tape. The suggested retail price is $99.95
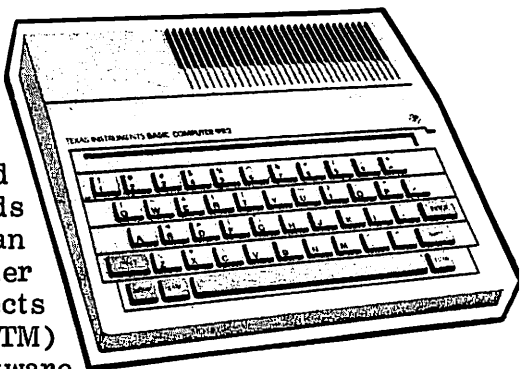
● HEX-BUS^{TM} Peripherals ●

In another coup, TI is releasing a new line of HEX-BUS(TM) peripherals which will lower the cost of various computer functions. These small white boxes can be chained together and will work on both the 99/2 and the 99/4A as well as the new Compact Computer 40. The 99/4A must be equipped with an interface for these peripherals. The new units are:
PRINTER/PLOTTER
This four color printer/plotter (model #HX 1000) works on plain paper 2.5 inches wide. Suggested retail price is $200.
WAFERTAPE(TM) DIGITAL TAPE DRIVE
This is a high speed "stringy floppy" type data storage tape drive which can operate at 8000 baud and hold 48K. Suggested retail price is $140.(HX 2000)
RS-232 INTERFACE
This low cost RS232 interface comes in two models, the HX 3000 & HX 3000/P. The latter has a parallel port for $125, the former costs $100 suggested retail.

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• TI Writer •

The TI Writer is a word processing package which offers a 40 column screen, auto screen wrap, left and right margin justification, variable tabs, text recovery mode; headers and footers, mailing list option and much, much more. It comes with a 172 page manual, software module, diskette and reference card. Text formatting commands include; find string, insert blank line, replace string, move text, delete character or line, word splitting and many more. The TI Writer contains many of the features of more expensive word processors for a suggested retail price of $99.95. TI Writer requires memory expansion, RS232, printer, disk drive and controller.

• Microsoft™ Multiplan™ •

Multiplan(TM) is an electronic spreadsheet program which requires little computer knowledge to use. It contains a convenient on-line reference guide, linked interactive worksheets, formatting options, numerical & alphabetical sorting and a workspace of 63 columns by 255 rows! Memory expansion, controller and disk drive are required for Multiplan(TM) and RS232 and printer are recommended. Suggested retail is $99.95.

• TI PLATO(r) COURSEWARE •

More than twenty years of educational experience went into the development of PLATO Courseware by Control Data Corporation. Part of the PLATO project has been released for use on the 99/4A of which 108 courseware packages in basic and high school skills are available. Courseware covers writing, science, mathematics, reading and social studies. A software interpreter module (suggested retail: $49.95) is used to read courseware on diskettes. See the retail list to find the courseware titles. Memory expansion, disk drive and controller are required.

• TI-Forth •

TI's Forth language disk has a bit-mapped editor with 64 columns, hi-res graphics & interrupt service routines. TI-Forth requires the editor/assembler module & memory expansion. Suggested retail: $49.95.

● Logo II ●

TI's famous version of this educational language has now been improved! Unlike it's predecessor Logo II includes music with three voices and one noise generator; five sprite shapes predefined and optional student defined sprite shapes; twice the user memory space & an RS232 printer port. These enhancements make Logo II more useful than ever to educators and their young students. Logo II has a suggested retail price of $129.95 and requires memory expansion.

● TI-Advanced Assembly Debugger ●

This disk based product is an interactive Assembly Language Debugger which features a memory dump utility, a bit-mapped screen, single step trace and a disassembler. The editor/assembler module & memory expansion are required. Suggested retail: $29.95.

● TI-Count Business Packages ●

TI has adopted a line of professional business software produced by Pike Creek Computer Company, Inc. The TI-Count line includes: General Ledgers; Accounts Payable; Accounts Receivable; Inventory; Payroll; Mail List. Extended Basic, RS232 & printer are required for all packages. Check requirements for each specific package. All packages retail for $99.95.

● Voice Recognition For The 99/4A ●

Imagine being able to speak to your 99/4A! A new peripheral called the "Expander" is now in the works which will be produced by Milton Bradley for Texas Instruments. This unit was previewed at the Winter Consumer Electronics Show in Las Vegas. The unit is shaped like an old style peripheral box for the 99/4A and comes with a 64-position membrane keypad for which Milton Bradley will produce overlays to be used with various software command modules. The unit plugs into the joystick port. It will come with headset microphone and a 3-axis analog joystick and includes an expansion port for future devices as well as a 2nd joystick. The "Expander" can be "trained" to respond to voice commands and does speech synthesis as well. Various games using voice recognition have already been made. Tentative retail price is $75 to $100.

SYSTEM OPTIONS

This section lists unusual products that can help you either expand the capabilities of your computer system or help reduce the costs of setting it up. Not all of these products are unique and in time to come we can look forward to a greater and more diverse set of options to help expand the home computer.

● Winchester Disk and Controller ●

Myarc, Inc., P.O. Box 35, East Hanover, NJ 07936

Myarc Inc. has announced the availability of a 5 and 10 megabyte Winchester hard disk controller and drive for the 99/4(A)! The system features upward compatibility with TI's floppy disk system, a set of disk utilities and customized directory management. Up to four drives can be hooked up to provide a total of 40 megabytes on-line storage!

● 32K Memory Card ● (415-388-3840)

Foundation, 74 Claire Way, Tiburon, CA 94920

Foundation has provided the 99/4(A) community with the first fully compatible third party card for the Peripheral Expansion System Box. The card is tested and assembled, features "transparent" refresh and has no wait states inserted. Comes with a guarantee of 90 days. Special introductory price in January was $150.

● "99/4 Net" ●

Dr. Kathleen M. Swigger
Department of Computer Science, NT Box 13886
North Texas State University, Denton, TX 76203

The second issue of the 99'er Magazine carried an article titled LOCAL NETWORKING WITH SHARED PERIPHERALS by K. M. Swigger. The NTSU network described here is capable of linking up 16 "slave terminals" to a "master computer" by using a master control box, a slave control box and a network bus cable. Schematics and parts list were included in the article. The network is of great potential use in cutting costs in educational environments.

- <u>Olive-1</u> • (415-887-5633)

The Olive Branch Association, Ltd.
26291 Production Ave., Ste. 205, Hayward,CA 94545

The Olive-1 provides an Olivetti Praxis 30 or 35 daisy wheel typewriter with a microprocessor-based serial RS232 interface to allow your computer to use it as a printer. The Praxis 35 is sold as cheaply as $350 in some locations. The Olive-1 costs $249. This system option represents a considerable cost saving in obtaining letter quality printing, especially when it is recalled that a typewriter comes in the bargain!

- <u>40 Column Display Enhancement Package</u> •

Oak Tree Systems
3922 Valentine Road, Whitmore Lake, MI 48189

The Display Enhancement Package allows the Video Display Processor in your computer to be used to its 40 column capacity. Forward and backward scrolling and split screen functions are featured. One disk drive and memory expansion are required as well as either extended basic or the editor assembler module. Use of sprites is precluded. Disk or cassette version costs $25. Mini-memory module version is forthcoming.

- <u>80 Columns</u> •

According to the "Brader's Tips" column in the 5th issue of the 99'er Magazine it is possible to get 80 columns by hooking an 80 column display terminal to the RS232 interface of your computer. A "file" can be used to communicate with the terminal in extended basic using these statements: LINPUT #1:A$ and PRINT #1:B$. It is possible to find bargain used terminals at some surplus houses for under $200.

- <u>External Keyboard for the 99/4</u> •

An article in the first issue of the 99'er Magazine by Mike Kovacich details how an external keyboard can be connected to the 99/4 (and presumably the 99/4A as well). The original keyboard is not disabled by the external keyboard. The article comes complete with schematics. New keyboards are generally $75 to $150 and considerably cheaper used and surplus.

- **32K Memory Expansion Peripheral** •

    Hi-Tech Systems, 2337 Bonanza Court
    South Jordan, Utah 84065

    The Hi-Tech System memory expansion unit docks directly into the 99/4A - without the need for the PES box. Model I costs $159.95. Model V, which also has the pin outs to add the expansion box is $15 more.

- **Tex-Net Special** • (213-873-4750)

    Tex-Comp Users Supply Division
    P.O. Box 33084, Granada Hills, CA 91344

    The initial sign up fee of $100 for Texnet (see the Going On-line section) comes free with the purchase of a Signalman Mark III modem from Tex-Comp!

- **Low Cost RS232 Interface** •

    Model Masters, 22441 Mountain Laurel Way
    Diamond Bar, CA 91765

    Joyprint (TM) is an RS232 interface which connects to the joystick port of the 99/4A. Mini-memory module and mini text editor are required. Cost: $59.95

- **HIPAD (TM) Digitizer** • (800-531-5205) (512-837-2820)

    Houston Instrument, One Houston Square
    Austin, TX 78753

    A digitizer tablet allows you to "draw" digital input into your computer with a pen. A HIPAD Demo and Decoder program as well as cable connections are featured in an article by W.K. Balthrop & G. Michaels in the second issue of the 99'er Magazine. Other digitizers using a RS232 interface could also be used with the proper connections. HIPAD costs over $800.

- **TI-SETTE (TM) Adapter** •

    99'er Home Computer Magazine
    P.O. Box 5537, Eugene, OR 97405

    If you have a tape deck that your computer won't control through the remote jack don't throw it away! The TI-SETTE (TM) adapter will correct the problem for $4.95 plus one dollar postage and handling.

TI HOTLINES & CONTACTS

- Customer Relations Hotline • (800-858-4565)

  *· Provides answers to Rebate Inquiries.
  * Gives out Exchange Center Locations.
  * Solves minor technical problems.
  * Does mailings of marketing literature.
  * Does limited referrals to other TI Contacts.
  * Acts as a limited retail software outlet.
  * Open 8-4:15 Mon to Thurs, till 3:15 on Friday

- Software & Peripheral Hotline • (800-858-4075)

  * Takes Retail orders for software & peripherals.
  * Answers basic questions.
  * Does mailings of marketing literature.
  * Makes referrals to local retail outlets based on a computerized list of national retail outlets & dealers.
  *   Can give updates on new products for which literature has not yet been produced.
  * Open 8-4:15 Mon to Thurs, till 3:15 on Friday

- User's Group Coordinator •

  Texas Instruments, User's Group Coordinator
  Mr. Ed Wiest, P.O. Box 10508
  Mail Station 5890, Lubbock, TX 79408

  The Users Group office will send out Starter Kits to those interested in starting a Users Group. In addition they will do a mailing to owners of Home Computers in the area of a new group when it is ready to hold its first general meeting to help publicize that meeting. In the works is a periodic mailing of programs on diskettes to User Groups. This office can also help insure that group members are receiving their TI Newsletters. Sounds good to us!

- Main Plant • (806-741-2000)

  This number will give you the operators of the switchboard at TI's main plant. They can be helpful in tracking down TI personnel. This number should not be regarded as a customer hotline, however.

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● <u>Technical</u> <u>Assistance</u> <u>Line</u> ● (806-741-2663)

These people can help you with technical problems. Many of the questions they get relate to interfacing problems between the computer and various peripherals. You can also get the TECHNICAL MANUAL for the TI/994A here which includes complete schematics.

● <u>Education</u> <u>&</u> <u>Communication</u> <u>Center</u> ● (214-995-4844)

P.O. Box 225012, Mail Station 84
Dallas, TX   75265

Those of you with serious prototyping ambitions can get DATA BOOKS on various TI chips and products here. This is not a home computer contact per se.

● <u>Third</u> <u>Party</u> <u>Software</u> <u>Royalty</u> <u>Bearing</u> <u>Licenses</u> ●

Questions regarding Third Party Software Royalty Bearing Licenses from TI should be directed to **Bill Barniea** of the Personal Computer Division at **806-796-3466.**

● <u>Service</u> <u>and</u> <u>Repair</u> <u>Contacts</u> ●

Customers whose computers have developed problems should consult the Maintenance and Service Information section in the back of their USER REFERENCE GUIDES. There are several dozen TI Exchange Centers around the country. Call the Customer Relations Hotline to find the one in your area. All of these centers require that you go in person. Mail-in service is done only at the following address.:

Texas Instuments Repair Service
2303 N. University Drive
Lubbock, TX   79415

● <u>Home</u> <u>Computer</u> <u>Newsletter</u> ●

Suggestions and letters to this TI Newsletter are Welcome. Send correspondence to:
Texas Instruments, Inc., P.O. Box 10508
Mail Station 5882, Lubbock TX   79408
ATTN: Editor

COMPUTER ADVANTAGE CLUBS

• Computer Advantage Clubs •

Texas Instruments, TI Computer Advantage Clubs
P.O. Box 10508, M/S 5898, Lubbock, TX 79408
(800-858-4069)   In Texas call (800-692-1318)

The TI Computer Advantage Clubs offer you a good opportunity to start learning to program. The courses offered by this program are held in over 100 sites around the country. Registration is either by mail or by calling one of the toll free phone numbers listed above. Annual membership includes hands-on computer experience, a TI Computer Activity Book, Membership Card & quarterly newsletter. A $10 discount exists for additional family members enrolling in any course. Call between 8 AM to 8:30 PM Mon-Fri or 12 to 4:30 PM Sat & Sun, CST, for information. The five courses offered are listed below:

CHILDREN'S COMPUTER AWARENESS PROGRAM
This ten hour course introduces children to the way computers work and can be used. Detailed hands on experience in programming is featured. TI Basic & Logo taught. Tuition $65.

PROGRAMMING DISCOVERY IN TI LOGO
This 10 hour course for children 8 to 15 costs $65. Children explore geometrical, mathematical, spatial & logical concepts combined with programming skills.

PROGRAMMING DISCOVERY IN TI BASIC
This 10 hour course for children 8 to 15 costs $65. Concepts & logic in TI Basic through use of graphics, color, sound, music and speech are focused on. First course listed here is recommended prior to taking Programming Discovery in TI Logo or Basic.

ADULT COMPUTER AWARENESS PROGRAM
This ten hour course for beginners costs $75. The skills and knowledge for business, educational & home applications are featured. Includes casework and programming in TI Logo and Basic.

BASIC PROGRAMMING FOR ADULTS
This ten hour course for beginners cost $75. Instruction through hands-on program creation is featured with the 99/4A and Basic computer language commands.

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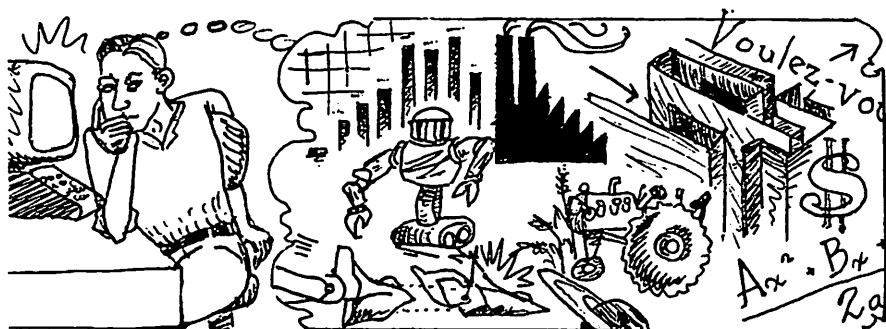
THIRD PARTY SOFTWARE LISTINGS

- A.I. DATA SYSTEMS, 2911 South Santa Fe, Vista, CA 92083: A.I. produces an extended basic version of "Eliza", a non-directive psychotherapy program. $25 for a protected disk & $20 for source program.
- AMERICAN SOFTWARE DESIGN & DISTRIBUTION Co., POB 46, Cottage Grove, MN 55016: Produces about 10 basic and Xbasic games on cassette and disk ranging in price from $14 to $22.
- AMNION STONEWARE, 116 Carl St., San Francisco, CA 94117 (415-753-5581): Produces Wortex(tm), a Word Processing package at $90. Free updates & customizing.
- ANTHISTLE SYSTEMS & PROGRAMMING LTD., 563 Patricia Drive, Oakville, Ontario, Canada L6K 1M4: Accounting package which runs on cassette for $75. Also Word Processing ($15), Early Reading & more.
- ARCADE SOFTWARE INNOVATORS, Route 4, Box 214, Denton, TX 76201 (817-497-4480): Leap Frog, Asteroid Defense & Air Sea Intercept. All XBasic at $12.95.
- BASIC COMPUTER SALES Ltd., 6061 Young Street, Halifax, Nova Scotia, Canada B3K 2A3 (902-454-8344): Series of six basic & Xbasic games with more to come soon. All packages $19.95 as of 3/31/83.
- BEEJAY FUNWARE, 983 S. Ouray St., Aurora, CO 80017 (303-695-6213): Games; Blackjack I & II, Xorkle I & II, Minigolf I & II, Calendar. All programs Xbasic. One program, $12.95, 2-$16.95, 4-$21.95.
- BEST SOFTWARE, POB 22446, Baltimore, MD 21203: XBasic games; Froggery($10), Blade Runner($15), Star Trek 2($5), Robotron($15), Freeways($10). Joystick required. Cassettes.

- COMPLETE SOFTWARE COMPANY, POB 50886, Nashville, TN 37,205: Complete Software is looking for programs to market & will pay royalties.
- COMPUTER ASSISTANCE, 82277 Weiss Rd., Creswell OR 97426 (503-484-9333): Contact - Patricia Swift. Custom assembly language programs for scientific, graphics & business applications.
- COMPUTER-ED, 1 Everett Road, Carmel, NY 10512: Programs for kindergarden to grade 6 in Mathematics, Reading and Language Arts. Follow-up Games and worksheets also available.
- COMPUTER GRAPHICS, 901 Cherrydale St., Lake Charles, LA 70605: Mixed basic & Xbasic games. List includes Scribble, Crossword Challenge, 5-Card Stud Poker, Horserace & more. Educational programs too.
- CONTROL DATA PUBLISHING, POB 261127, San Diego, CA 92126: Information and retail orders on the famous PLATO series of educational software can be had from this address. Check the retail price list in this directory for the Plato courseware listings.
- CORN SOFTWARE, 26 Whitewater, Corona Del Mar, CA 92625: Over 40 programs available of which all but ten are games, many in Xbasic. Prices range from $6.95 to $17.95. Five educational programs.
- CRAWFORD & ASSOCIATES, POB 632, Plymouth, MI 48170: Around 30 programs available including many games and around 10 scientific programs of a mostly mathematical nature. Most programs are $8 to $10.
- CREATIVE COMPUTING, POB 789-M, Morristown, NJ 07960 (201-540-0445): Know Yourself is a program covering Alcohol & Behavior, Psychoanalysis & Sex Roles. Also "Strategy Games".
- CREATIVE DISCOUNT SOFTWARE, 256 So. Robertson Suite 2156, Beverly Hills, CA 90211: Three business programs available - Project Planning ($80), Payroll I ($80) and Business Data Base ($90).
- CUMBERLAND TECHNOLOGY, 10 Wagner Drive, Carlisle, PA 17013: Programs in engineering, games, mathematics and programming aids. Many programs written in assembly language.
- DATA FORCE, Inc., 10 S. 312 Hampshire Lane East, Hinsdale, IL 60521 (312-323-0179): Data Force has a cassette loader for assembly programs which works at up to 3000 Baud! Space Station I & Kippy's Nightmare, assembly language games, memory-X & Xbasic required.

- DATASOFT, Inc., 9421 Winnetka Ave., Chatsworth, CA 91311 (213-701-5161): Datasoft will be producing cartridge software for the 99/4A this year beginning with the release of Zaxxon in April!
- DATA SYSTEMS, 2214 W. Iowa, Chicago, IL 60622: These people have quite a supply of math programs. Also on hand are a few games, educational & business programs. In the past Data Systems has operated a program exhange & invited original contributions.
- DENALI DATA DESIGN, 1413 N. McKinley Avenue, Oklahoma City, OK 73106 (405-524-7764)(800-654-8499): Blackbook(tm) - Data Baser; Timebook(tm) - Schedual manager; Flyer(tm) - Mail mergable single page word processor. Also produces hardware patch products.
- DESTINY COMPUTER SERVICES, 432 Edgehill Lane, Suite 35, Oceanside, CA 92054 (619-439-0170): Destiny produces a full line of business software in Xbasic. Many packages priced at $50, others at $190. Offerings include Billing Lawyer & Billing Doctor MD & DDS.
- DOLLARD, WALTER J., 417 Woodland Hills, Pittsburgh, PA 15235: Graphical Adventure($12), Medieval Graphical Adventure($18), Egyptian Graphical Adventure($18). Xbasic, extended play adventures.
- DOW, JOHN T., 6360 Caton, Pittsburgh, PA 15217: Small aircraft flight simulator with joystick & keyboard controls sells for $30 and runs in basic.
- DYNAMIC DATA & DEVICES, POB 912, Stafford, TX 77477 (713-343-0033): DD&D produces the Direct Writer II, an Xbasic based word processor. Also available, Morse Code program & Quimbee dice game.
- EASTBENCH SOFTWARE PRODUCTS, 1290 Cliffside Drive, Logan Utah 84321 (801-753-1084): Over thirty programs available including many which are math oriented. A number of business programs also present.
- EASYWARE, 27087 Brettonwoods, Madison Hts., MI 48071 (313-541-2031): Easyware makes games in basic. Prices run from $7 to $20. Titles include; Cosmic Coup Deflectors, Vadering, Easypong, etc.
- eduCAItor, Inc., 38 Main St., Hudson, MA 01749 (617-562-6222): eduCAItor produces a course authoring package designed by educators for educators.
- EHNINGER ASSOCIATES, Inc., POB 5581, Fort Worth TX 76108 (817-246-6536): Ehninger produces Futura Software from which about 50 programs are available, including many business and entertainment packages.

- ERMWARE, P. O. Box 1322, Sandy, Utah 84091: Ermware produces a handful of basic & xbasic programs which are mostly games. They also produce an assembly game called Silly Con-Wars.
- EXTENDED SOFTWARE COMPANY, 11987 Cedarcreek Drive, Cincinnati, OH 45240 (513-825-6645): Word processing TI-Pwriter costs $32-35, in Xbasic. Also available, Is a data management package for $32-35 and various games including Xbasic "Froggy".
- FAIN, JOE D., Sr., c/o Linda Blocker, 209 Presbytere Parkway, Lafayette, LA 70503 (318-984-9707) Mr. Fain has an Amortization Schedual program which is decribed in TI's Home Computer Library glossy..
- FANTASIA '99 SOFTWARE, 3 Victor Blvd., Saint Catharines, Ontario, Canada, L2T 2B2: Two games, A.B.M. Control in Xbasic & Castle Nova in basic. $11.95 & $7.95 respectively with $1 postage.
- FANTASY COMPUTING, 1586 South Citrus,Escondido CA 92027: Fantasy Computing produces "Ringwraith's Lair" a fantasy game which requires a disk drive, Xbasic and extended memory.
- FFF SOFTWARE, P.O. Box 4169, Trenton, NJ 06810: FFF produces two Xbasic games - Shuttle Command & TI-Asteroids. Both cost $17.50 although the latter can be had for $10 if purchased with Shuttle Command.
- FUNWARE, Inc., 405 N. Bowser, Building A, Richardson, TX 75081: Funware is one of the firms promising to produce module software for the 99/4A this year. Five titles currently planned.
- FUTURA SOFTWARE (See Ehninger Associates)
- GEMBAR GRAPHICS, 3974 Cozycroft Dr., Dayton, OH 45424: Gembar Graphics makes a slot machine game called "Bells, Bars & Rachets" for $9.95.
- GLO-DATA, P.O. Box 374, Stony Point, NY 10980: Glo-Data makes three games, Bingo Butler, Space Spiders & TV Sketch. All are available for $9 on cassette.
- THE GREAT WHITE NORTH SOFTWARE COMPANY, CJMF Services, POB 2336, Station B, Kitchener,Ontario Canada N2H 6M2: Three games on cassette from $12-15. Speech Expander program in Xbasic also available.
- HALL SOFTWARE, Co., P.O. Box 1736, Anderson, IN 46014 (317-644-7324): Hall produces 12-15 programs most of which are games selling for $15.95 on cassette. A special "6-pack" offer exists at $39.95, however.

- HARVEY, JAMES, 159 Dover Road, Spartanburg, NC 29301: Mr. Harvey produces a text on programming with relative files for $50. A Computer Music System is also available for $200 as well as several programs which organize information.
- HEADWIND SOFTWARE, 6347 Lakeshore, Dallas, TX 75214 (214-824-0223): Voyager is an assembly language game for $30 which requires Xbasic, disk & Xmemory. Other games in Xbasic also available as well as educational aids for teachers and students.
- IMAGE COMPUTER PRODUCTS, Inc., 615 Academy Drive, Northbrook, IL 60062 (312-564-5060): Image produces six basic games for either $14.95 or $19.95. Titles include Wildcatting, Wall Street Challenge, etc.
- INSTANT SOFTWARE Route 101, Peterborough, NH 03458: Instant software produces two packages for the 99/4A for around $15; Santa Paravia, a multiple player strategy game and Airmail Pilot.
- INTERSOFT, 5407 Salem Hill, Austin, TX 78745: Intersoft produces an assembly language game called Defend The Cities which is $19.95 on cassette and runs on either minimemory module or assembler module.
- J&KH SOFTWARE, 2820 Abingdon St., Arlington, VA 22206 (703-820-4131): J&KH offers several programs for generating titles on video cassette recorders. A disk cataloging program is also available.
- KALEIDOSCOPE PROGRAMS, P.O. Box 8453, Universal City, CA 91608, Dept. 99 2-1: This company advertised in the 11/82 issue of the 99'er Home Computer Magazine as having programs in development.
- KEMP SOFTWARE, TI GAMES GROUP, 3292 Mission Blvd., San Diego, CA 92109: Kemp offers three games titled Laser Wars, Racing & Wrap which sold for $10 on cassette each, in the fall of 1981.
- KUHL SOFTWARE, 412 15th Avenue S.W., Rochester MN 55901: Data Rescue is a game in Xbasic for $10.95 on cassette. Also available: Fish ($8.95) and an Active Solar Heating program for $15.95 on cassette.
- LETCHER OFFSHORE DESIGN, P.O. Box 104, Southwest Harbor, Maine 04679: Letcher specializes in programs for Yacht Design. Also available is Draw/99, a line drawing program for architects & engineers.
- LINEAR AESTHETIC SYSTEMS, P.O.Box 23, West Cornwall, CT 06796 (203-672-6360): Linear produces the Cube & Quadcube - two Rubik's cube programs.

- MAPLE LEAF MICRO WARE, P.O. Box 13141, Kanata Ontario, Canada K2K 1X3: Maple Leaf offers several educational programs in basic. Also Available - Hang Glider Pilot and Sky Diver programs.
- MECA, Inc., P.O. Box 5425, Richmond, VA 23220: Meca produces a series of music software programs in basic and Xbasic. Prices range from $25 to $40 except for the school version of Pitch Master at $80.
- MICHIGAN SOFTWARE, P.O. Box 2091, Ann Arbor, MI 48106: Michigan produces a handful of programs which are mostly Xbasic. Titles include Battleship, Gamma & Bessel Functions, Linear Equations, etc.
- MICROCOMPUTER CORPORATION, 34 Maple Ave., Armonk, NY 10504 (914-273-6480): Supplies a large list of educational, scientific, business and entertainment titles. Provides TI Source & TI Logo Source, two free newsletters.
- MICRO-ED, Inc., P.O. Box 24156, Minneapolis, MN 55424 (612-926-2292): Micro-Ed supplies over 100 programs of an educational nature for the 99/4A including a very thorough collection of spelling programs.
- MILLERS GRAPHICS, 1475 W. Cypress Ave., San Dimas, CA 91773 (714-599-1431): Millers produces Xbasic games. Titles include Alphabet Soup, Casino Blackjack, Battle Over Titan, etc. Cassettes are $15.
- MODEL MASTERS, 22441 Mountain Laurel Way, Diamond Bar, CA 91765: Model Masters has promised command module software for this year. Their low cost RS232 interface is described in "System Options".
- MOONBEAM SOFTWARE, 2 Bridge St., Northampton, MA 01060 (413-586-6290): Moonbeam offers a series of basic & Xbasic games at either $14.95 or $19.95. Titles include: Death Drones, Moonvasion, Astromania, Garbage Belly, Moonbeam Express & Strike Force 99.
- MORREALE, CHARLES COMPANY, 105 Meadowbrook, Venetia, PA 15367 (412-941-5419): C. Morreale company offers a series of educational chemistry programs and Micrograde, a grading system for $48.95.
- MURRAYS, P.O. Box 164, Junction City, OR 97448: Murrays produces a number of business builders for multilevel marketing personnel at $6 or $12.
- NAVARONE INDUSTRIES, 1250 Oak Mead Parkway, Suite 732, Sunnyvale, CA 94086: Navarone produces a Disassembler for $95, a Sprite Editor for $29, a Music Editor for $29 & a Disk Sort for $55.

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- NORTHERN LIGHT SOFTWARE, P.O. Box 11982, Edmonton, Alberta, Canada T5J 3L1: King Tut's Tomb, Jellybeans & Tri-Light are the three titles from this company. Games for either $14.95 or $19.95.
- NORTON SOFTWARE, P.O. Box 575, Picton, Ontario, Canada K0K 2T0: Norton produces a Graphics Package, Music Synthesizer Program and a half dozen games in basic and Xbasic. All programs less than $20.
- NOT POLYOPTICS, 13721 Lynn St., Suite 15, Woodbridge, VA 22191 (703-491-5543): Not Polyoptics produces a line of twelve games all of which run in basic and cost between $13 and $18.
- N S Y SOFTWARE, 141-20 70th Road, Flushing, NY 11367: N S Y produces six games, two in basic and four in Xbasic. Games cost $17.50 each with $1.50 for postage and handling.
- OAK TREE SYSTEMS, 3922 Valentine Rd., Whitmore Lake, MI 48189: Oak Tree produces a Display enhancement package described in the "System Options" section. Also available is Smash - a Program optomizer and Crossums, an arithmetic game.
- PATIO PACIFIC, Inc., 24433 Hawthorne Boulevard, Torrance, CA 90505-9990: Patio Pacific makes a word processing package called Textiger which requires Xbasic for $59.95.
- PABLO DIABLO, P.O. Box 4863, Santa Clara, CA 95054: Pablo Diablo makes Psychometric, a mental health inventory program that measures a number of psychological areas. On cassette for $8.95.
- PEGASUS SOFTWARE, 1438 38th Avenue, Greeley, CO 80634: Pegasus makes four games in basic and Xbasic including Quest For The Sword, a text adventure. All packages between $15 and $18.
- PEWTERWARE, P.O. Box 503, Gulf Breeze, FL 32561: Pewterware makes five games. Up Periscope in Xbasic is $15. Bluegrass Sweepstakes, Match Wits, Decathlon & Challenge Poker in basic at $10.
- PIKE CREEK COMPUTER CO., Inc., 2 Galaxy Dr., Newark, DE 19711: Pike Creek produced a complete line of business programs which are now sold and and distributed by Texas Instruments.
- PRACTICAL SOFTWARE, 6904 Able Rd., Chesterfield VA 23832: PracTIcal produces a Tax Preparer program which completes numerous tax forms. Requires Xbasic, Xmemory, disk and printer. Price: $34.95.

- PROGRAM DESIGN, Inc., 11 Idar Court, Greenwich, CT 06830 (203-661-8799): Program Design produces three titles; Code Breaker, Analogies and Preschool IQ Builder.
- PROGRAM INNOVATORS, 2007 N. 71, Wauwatosa, WI 53213: Program Innovators produces close to 40 games which are evenly divided between basic & Xbasic. Any four programs are $20 on tape, $22 on disk.
- PROMETHEUS SOFTWARE, 413 Lowell Ln., Richardson, TX 75080: Prometheus makes strategy & action games and is looking for original programs in basic, pascal or assembly language. Will pay royalties..
- PS SOFTWARE, P.O. Box 541, Belleville, IL 62222: PS makes a handful of games in basic and Xbasic. Titles include Pesteroids ($15), Space Rescue ($15), Star Sentinel ($15).
- REPUBLIC SOFTWARE, Inc., P.O. Box 23042, L'Enfant Plaza, Washington, DC 20024 (202-978-3554): Republic makes Utilities I, which includes four computer utilities for $19.95. A game, Ring Destroyer, is also available for $19.95.
- ROACH SOFTWARE, P.O. Box 23241, Lexington, KY 40523-3241: Roach makes an "asteroids" type assembly language game called Outland which sells for $15.95 and requires the mini memory module.
- SCHWARZ, EITAN, M.D., 735 St. John Avenue, Suite 403, Highland Parks, IL 60035: Schwarz makes three packages for small businesses; Billing/Receivables, Filing & Ledger. Prices from $70 to $100.
- SCOTT, FORESMAN & COMPANY, 1900 East Lake Ave., Glenview, IL 60025: Scott Foreman may well be the largest maker of educational software for the home computer. Some of their programs are handled by TI. Write for free catalog.
- SENSATIONAL SOFTWARE, 39 East Hanover Ave., Morris Plains, NJ 07950: Listed in the TI Home Computer Library glossy. No phone found & may be defunct.
- SIMULSOFT, Box 3494, Scottsdale, AZ 85257: Simulsoft produces Aeronaut, a balloon simulator, I Ching Master, Morse Tutor and Score Board, a tennis related program. On cassettes from $9.95 to $19.95.
- SMALL BUSINESS/PROFESSIONAL COMPUTER SERVICES, 87 Mayfair Rd., Warwick, RI 02888: This business produces a File Management System ($60) and a Statistics Package ($40).

- SOFTCOM ENTERPRISES, 451 Military Trail Unit 97, West Hill, Ontario, Canada M1E 4E8: Softcom makes a number of games in basic and Xbasic for $6.95 to $12.95. Free game with every order.
- SOFT-SELL, P.O. Box 2403, Del Mar, CA 92014: Soft-Sell produces a Learn TI Basic cassette for $16.95 and a 3 in 1 business package with Accounts, Income Statement & Balance Sheet for $29.95.
- SOFTWARE EXCHANGE GROUP, P.O. Box 97, North Chili, NY 14514 (716-538-6067): The Software Exchange makes an assortment of games in basic and Xbasic including several space games and gambling games.
- SOFTWARE SPECIALTIES, Inc., Box 18051, Denver CO 80218: Software Specialties produces T.I. Toad, a frogger type game written in assembly language for $29.95. Requires disk, Xbasic & Xmemory.
- SUNSHINE SOFTWARE, 520 Milton Ln., Hoffman Estates, IL 60194 (312-885-2862): Sunshine Software produces a handful of basic and Xbasic games on cassette for $15 each.
- TEX-SOFT SOFTWARE, P.O.Box 33084, Granada Hills, CA 91344: Tex-Soft produces Beanstalk Adventure for $17.95. Requires disk, Xbasic and Xmemory. Tex-Soft is an affiliate of Tex-Comp.
- TIMORE PRODUCTS, Dept. 99-2, P.O. Box 1431, Winter Park, FL 32790: TImore produces several games packages in basic and Xbasic. A Bio Rhythms program & version of Eliza also available.
- TINNWARE, 30 S. First Avenue, Suite 171, Arcadia, CA 91006: Tinnware produces a version of the famous Eliza program, a computer "psychotherapist".(No phone listing found; may be defunct)
- TOMPUTER SOFTWARE, 1550 Montgomery Drive, Deerfield, IL 60015: Tomputer produces basic and Xbasic games. Titles include Road Race, Bombardment, Chase, Theif, The Chicken & Shoot It.
- TSS SOFTWARE, 3961 Ephrata Court, Dayton, OH 45430: TSS produces Flex-File, a utility program for cassette files ($10). Also available are Lunar Pilot and Alphabet Shoot, both in Xbasic.
- UPPER ROOM COMPUTER CONSULTANTS, 907 6th Ave. East, Menomonie, WI 54751, Attn: Sam Jenkins (715-235-5775): The Consultants provide programs in basic counting and word recognition skills for the mentally handicapped. Disk or tape for $29.95.

• WESTERN-WARE, Inc., P.O. Box 53042, Lubbock, TX 79453: Western Ware produces business software including data base management, mailing list, a text editor & statistical analysis. From $27.50 to $45.
• YCAN SYSTEMS, Inc., 4037 Johnson Drive, Oceanside, CA 92056 (619-758-1633): Ycan produces a complete line of business software including billing programs for dentists, doctors & lawyers.

Mr. Charles LaFara of the International 99/4 Users Group states that the following list of businesses are now defunct. Christian Software, which is run by the Users Group, is not now functioning but will probably resume operations at some point in the future.

<div align="center">

Agricultural Computer Systems, Inc.
Chase-Co.
Color Software
Jeffware
Charles Mann & Associates
RCL Computers
Software Industries
Tutorex
W.R. Wilson Inc.

</div>

The marketplace is moving so quickly these days that an infallible listing of software companies is virtually impossible. Not represented in this list are a number of big companies whose software efforts are now in various stages of development. They entered the TI software market as a result of last year's phenomenal sales of 99/4As. This market has been, until now, in something of a "cottage industry" phase characterized by many small maverick outfits. It is reasonable to expect, as this stage of business activity passes, a significant mortality rate among small producers who either lack business acumen or make inferior products. As competition heats up the bottom line will be better selection and quality for the consumer. Because of space limitations, big companies have not been described as well as small. There may be a few defunct companies in the list proper as well, although most have been weeded out. Also, be advised, - prices change! It is always a good idea to contact the source directly before spending money!!

ON LINE DATABASES

Tapping the vast world of electronically based information that is provided by hundreds of on-line databases is one of the most exciting things you can do with your home computer. Going on-line is about to become cheaper for TI computer owners because of the new HEXBUS (TM) RS232 peripheral which will allow you to get into the game for about $250 total additional cost including modem and TE II, rather than the $500 to $600 now required with the current expansion system. Going on-line can change the way you learn and do business. Here are some initial contacts:

- The Source • (Texnet) (800-336-3330)

  1616 Anderson Rd., McLean, Virginia 22102

The Source Information Utility is a data base that deserves special consideration from 99/4A owners because it contains a service just for TI computer owners called Texnet. Texnet offers 99/4A owners a number of services including spoken screen text, graphics, a software exchange, TI-News, TI-Service and more. The Source itself contains information in hundreds of topics in government, business, the media, travel and much, much more. Space does not permit an adequate description of the depth and variety of services that can be had from this outlet. The initial one-time sign up fee is $100. Call the toll free number above to get an information packet.

- Compuserve • (614-457-8650) (800-848-8990)

  5000 Arlington Centre Blvd., Columbus, OH 43220

Compuserve is a consumer database similar in many respects to The Source. Compuserve's subject index also contains hundreds of different topics in a wide variety of fields of interest. It should be pointed out that these databases offer a number of services beyond mere information retrieval. You can bank and shop at home as well as track the stock market. Electronic mail, bulletin boards and newsletters are also available to help keep you in touch. Write or call for introductory information packet.

- **Free** **Computer** **Information** **Networks** • (213-881-6880)

   Novation, Inc., a modem manufacturer, offers a free dial-up directory which lists dozens of free data bases specializing in a variety of subjects. To logon type the word CAT and press enter.

- **School** **Practices** **Information** **Network** • (312-729-3000)

   Amy Davis, c/o Scott Foresman and Co.
   1900 East Lake Ave., Glenview, IL   60025

   The Schools Practices Information Network,produced by Bibliographic Retrieval Services is being marketed by Scott Foresman and Company to institutions ranging from elementary schools to universities. SPIN includes over 11 million documents in 15 education-related data bases, electronic mail service, newsletter & an online directory of SPIN subscribers. Bilingual education, exceptional child education, vocational education, education of the handicapped & resources in computer education are some of the focuses of the SPIN data bases. In addition, over 60 interdisciplinary data bases are available.

- **Dow** **Jones** **News** **Retrieval** • (800-257-5114)

   P.O. Box 300, Princeton, NJ 08540

   The Dow Jones News Retrieval Service supplies databases accessing current stock prices, Dow Jones Quotes, options, corporate bonds, U.S. Treasury issues, mutual funds and more. Quotes are available within 15 to 30 minutes from the floor of the market. Thousands of companies from a number of exchanges are covered. Highlights from the Wall Street Journal and Barron's are available.Corporate financial data, historical stock quotes, information from Securities and Exchange Commission filings, corporate earnings estimates, weekly economic updates and Money Market Services information are also available. Call for more information. In New Jersey call 609-452-1511.
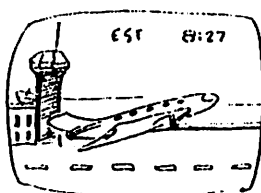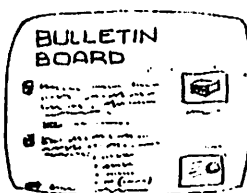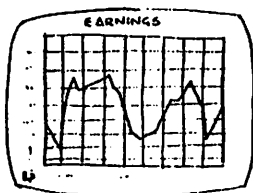
√ • <u>Dialog</u> <u>Information</u> <u>Retrieval</u> <u>Service</u> • (800-227-1927)

Marketing Department, 3460 Hillview Avenue
Palo Alto, California   94304

Dialog is a service provided by Lockheed, Inc. The resources of Dialog are vast indeed, representing a compilation of data from many different database suppliers. Well over 100 databases are included under the general headings of Applied Science & Technology, Multidisciplinary, Business/Economics, Social Sciences & Humanities and Science. One database might have as many as five or six million documents!

√ • <u>Directory</u> <u>of</u> <u>On-line</u> <u>Data</u> <u>Bases</u> • (213-829-9972)

Cuadra Associates, 1523 Sixth St., Suite 12
Santa Monica, CA   90401

This quarterly magazine is considered to be one of the most highly regarded guides to available data bases. It has good and accurate descriptions of what you can get from each service. Unfortunately it's expensive ($60/year or more) but a good library that does searches should have a copy you can use.

These contacts are important but they barely scratch the surface of what is available. Your 99/4A can communicate as a terminal to vast numbers of computer systems of all sizes because it is equipped with the ASCII (American Standard Code for Information Interchange) key values and text formatting commands. Much of the telecommunications going on today uses this standard and your 99/4A will find many doors open to it, even among giant systems. It is important to realize that going on-line doesn't necessarily mean buying into a huge information service like The Source. If you live near a university, for instance, you may be able to use its facilities to do your learning at home. Going on-line is also a powerful means to set up business & personal contacts.
Keep in mind that there are a number of data communications networks which help provide local telephone connections to many databases. Two of these networks are called Telenet and Tymnet. A telephone connection to a data base 3000 miles away could well be in your backyard!

SUPER USERS GROUPS

- International 99/4 Users-Group, Inc. ●(405-787-8521)
  Charles LaFara, International 99/4 Users-Group
  P.O. Box 67, Bethany, OK   73008

  This is the great granddaddy of TI Users Groups. The International Users-Group has twelve employees, 50,000 members worldwide and a library of 1500 programs. They act as a mail order retailer for their members and offer TI peripherals and software at discount rates. They publish a bi-monthly newsletter and offer technical assistance. It is this group that is responsible for providing the 99/4 software base in Texnet! Member dues are $12/year and $50/year to become a member of the "President's Club," which entitles members to a number of special privileges, including five free programs from the library every other month. Well worth looking into!

- 99/4 Users of America ● (313-736-3774)
  5028 Merit Drive, Flint, MI   48506

  99/4 Users of America is a nationwide Users Group which provides its members with access to TI software at 25% below retail price. A programming assistance line is maintained (at the number above) between 2:00-4:30 in the afternoon and a newsletter comes out eight times a year. The group handles software from 12-15 companies and helps members market their own software. A directory of programs is available to members. Dues are $20/year. Hours are Monday to Friday 10:30 AM to 7:30 PM.

- The 99/4(A) Program Exchange ●
  P.O. Box 3242, Torrance, CA   90510

  The 99/4(A) Program Exchange has a library of over 350 programs in entertainment, education and business, etc. There is a one time membership fee of $5. A newsletter is also published. Members may obtain programs for $2 each. In addition, there is an exchange rate of five programs for each original program contributed to the library.

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✓• <u>International</u> <u>Home</u> <u>Computer</u> <u>Users</u> <u>Association</u> •

P.O. Box 371, Rancho Santa Fe, CA 92067

The ICA is an information service in support of TI home computer owners. The ICA Update, a monthly newsletter, costs $10.50 for six issues. Send SASE #10 envelope for membership information.

USER GROUP LISTINGS

<u>AL</u>: TI BUG, 709 Nytor Circle, Birmingham, AL 35210

<u>AL</u>: Central Alabama 99/4 Users' Group
      551 Larkwood Drive, Montgomery, AL 36109

<u>AZ</u>: Arizona 99 Users' Group
      4328 E. LaPuenta Avenue, Phoenix, AZ 85044

<u>AZ</u>: Yuma 99'er Users' Group
      1573 East Kuns Court, Yuma, AZ 85365

<u>CA</u>: L.A./South Bay 99er Users' Group
      5128 Merrill Street, Torrance, CA 90503

<u>CA</u>: Orange County 99/4 Users' Group
      1673 Chateau, Anaheim, CA 92802

<u>CA</u>: S.F./South Bay 99er Users' Group
      1680 E. LaChiquita, Los Gatos, CA 95030

<u>CO</u>: Colorado 99/4 Users' Group
      15177C East Louisiana Dr., Aurora, CO 80012

<u>DE</u>: Delaware Valley Users' Group
      25 Quartz Mill Road, Newark, DE 19711

<u>FL</u>: Daytona 99ers, POB 4596, S. Daytona, FL 32021

<u>FL</u>: Tampa Bay 99er Users' Group
      13097 Lois Ave., Seminole, FL 33542

<u>IL</u>: Chicago 99/4 Users' Group
      353 Park Drive, Palatine, IL 60067

KS: Mid America 99/4 Users' Group
POB 2505, Shawnee Mission, KS 66201

KY: Kentuckiana 99/4 Computer Society
9801 Tiverton Way, Louisville, KY 40222

MA: M.U.N.C.H., 1241 Main St., Worcester, MA 01603

MA: New England 99'ers
99 School Street, Weston, MA 02193

MA: Pioneer Valley 99/4A Users' Group
3 Market Street, Northampton, MA 01060

MN: Greater Minneapolis-St. Paul Home Computer
Users' Group, POB 12351, St. Paul, MN 55112

MO: Kansas City 99/4A Computer Users
4511 N. Troost, Kansas City, MO 64116

MO: 99/4 Users Group of St. Louis
4127 Quincy, St. Louis, MO 63116

NY: New York 99/4 Users' Group
34 Maple Avenue, Box 8, Armonk, NY 12205

NY: Upstate New York 99/4 Users' Group
7 Steve Lane, Albany, NY 12205

OH: Cin-Day Users' Group
11987, Cedarcreek Drive, Cincinnati, OH 45240

OH: Central Ohio TI Users' Group
1456 Grandview Ave., Columbus, OH 43212

OR: Pacific Northwest 99/4 Users' Group
POB 5537, Eugene, OR 97405

OR: Portland Users of Ninety Nines
421 Northwest 69th St., Vancouver, WA 98665

PA: Hazelton Users Group, POB 285, Hazelton, PA 18201

PA: Pittsburg Users' Group
POB 18124, Pittsburgh, PA 15236

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RI: Tri-State Users' Group, POB 457, Lincoln, RI 02864

SC: Carolina Computer Club
225 Wynchwood Drive, Irmo, SC 29063

TN: Athens 99/4 Computer Users' Group, c/o Bob Lamb
2215 Congress Parkway, Athens, TN 37303

TN: Middle Tennessee Users Group
POB 367, Estill Springs, TN 37330

TX: Dallas Home Computer Group
POB 672, Wylie, TX 75098

TX: Ft. Worth 99/4 Users' Group
Route 2, Box 75-U, Mansfield, TX 76063

TX: JSC Users' Group (JUG)
1572 El Camino Real, Houston, TX 77062

TX: Houston Users' Group (HUG)
10107 Westview #112, Houston, TX 77043

TX: Lubbock Computer Club
5730 67th Street, Lubbock, TX 79424

TX: West Texas 99/4 Users' Group
POB 6448, M/S 3030, Midland, TX 79701

VA: Tidewater Microcomputers Users' Group
942 Bolling Ave. #106, Norfolk, VA 23501

WA: Puget Sound 99'ers, POB 6073, Lynnwood, WA 98036

WI: Program Innovators
2007 North 71st St., Wauwatosa, WI 53213

DC: Washington, D.C. 99/4 Users' Group
POB 267, Leesburg, VA 22075

CD: Mr. Paul Langlois, 706-10883 Saskatchewan Drive,
Edmonton, Alberta, Canada   T6E 4S6

CD: Carleton Home Computer Users' Group, John Street
R.R. #2, Stittsville, Ontario, Canada K0A 3G0

CD: Toronto Home Computer Users Group, 3175 Kirwin Ave
Townhouse #159, Mississauga, ONT, Canada L5A 3M4

CD: Victoria 99'er Group, 402-1471 Fort Street
Victoria, B.C., Canada   V8S 1Z4

England: T.I. Home, Paul Michael Dicks
157 Bishopford Road, Morden Surrey   SM46BH

Germany: Frankfort -- American Express
International, Dept. 204, Attn: Mr. C. Quigtar
APONY 09757

ON DISK DRIVES AND DECKS

● Disk Drive Notes ●

   The home computer is compatible with ANSI standard
40 track disk drives. These drives are made by many
manufacturers including: Tandon, BASF, Teac, MPI,
Siemens and Shugart. Single sided drives are showing
up for as little as $200 but the disk controller card
for the expansion box will handle double sided single
density drives which provide more storage for   your
money. The double sided drives require the new disk
manager module. If you have the old one send $9.95
and a receipt of purchase to: Accessories, POB 53,
Lubbock, TX 79408. A new module will otherwise costs
$40. Double density drives will not work.

● Cassette Deck Notes ●

   If you shop you should be able to pick up a deck
that will perform adequately for $40-45. If the remote
jack does not allow the computer to control the deck
see the TI-SETTE adapter in the "System Options"
section. Generally, a high tone and moderate volumn
level works best. Here are some compatible decks:

General Electric 3-5361   Panasonic RQ2309A
J.C. Penney 6568   J.C. Penney 681-3246
Realistic CTR-37 & CTR-55   Sears 2165 & 21686
General Electric 5154A   Superscope C2L00LP
   Craig J-100 & J-103   (require TI-SETTE adapter)

99'ER
HOME

COMPUTER
MAGAZINE

The 99'er HOME COMPUTER MAGAZINE holds a unique position in the world of the TI Home Computer. Every Home Computer owner should give serious consideration to subscribing to this magazine. The 99'er, which is now published monthly, contains several mini-magazines among which are LOGO TIMES, PORTABLE COMPUTING MAGAZINE & COMPUTER GAMING. Virtually all advertisers of any consequence appear in these pages. The 99'er regularly publishes program line lists and offers these programs in cassette tape packages. The 99'er Bookstore offers a number of useful volumns to help expand your knowledge. Other 99'er products include dust covers for your equipment and a cassette deck adaptor. The 99'er DIGEST is a marketing information service for retailers, distributors, and other TI market watchers.

The 99'er contains articles on educational applications, entertainment, operating systems, new software, peripherals, interfacing, programming and much, much more. Subscriptions in the U.S.A. are $25,$45, $63 for one, two & three years respectively. Contact:

> 99'er Home Computer Magazine
> P.O. Box 5537
> Eugene, Oregon   97405

TECHNICAL INFORMATION

- <u>TI-99/4A</u> <u>Technical</u> <u>Data</u> <u>Manual</u> • (PHA 2616)

  This reference work contains schematics, block diagrams, timing charts, pin allocations and more on the TI 99/4A. Price: $14.95 from TI.

- <u>TI</u> <u>Technical</u> <u>Information</u> <u>Numbers</u> •

  Check the TI CONTACTS section of this directory to find the TI technical information numbers.

- <u>How</u> <u>to</u> <u>Build</u> <u>Your</u> <u>Own</u> <u>Working</u> <u>16-Bit</u> <u>Microcomputer</u> •

  By Ken Tracton $4.95   TAB Books # 1099

  This 95 page book is billed as having every detail you'll need to know about working with the 9900 CPU. The information contained here, much of it similar to the 99/4A Technical Manual, explains how to make a working microcomputer based on the same microprocessor that runs the 99/4A.

  Tab Books, Inc., Blue Ridge Summit, PA 17214

- <u>Texas</u> <u>Instruments:</u> <u>Microprocessors/</u> $24.50
  <u>Microcomputers</u> <u>System</u> <u>Design</u> •   500 pp.

  From: McGraw-Hill Book Company
  1221 Avenue of the Americas
  New York, NY 10020

ISBN 07-063758-X Copyright 1980 Order # LC 79-24390

  This is a hands-on reference work for electronics engineers, computer programmers and designers. It contains the basic concepts, applications techniques and design procedures for the TI 9900 microprocessor. This volumn spotlights basic choices in systems design, microprocessor selection, software and hardware design, software commands and microprocessor/microcomputer applications. The work contains hundreds of illustrations of programs, circuits, and layouts as well as many solutions to instructional problems which demonstrate how to choose microprocessors for various applications.

● <u>TI</u> Semiconductor <u>Products</u> <u>Catalog</u> ●

Texas Instruments Inc.
Central Literature Response Center
P.O. Box 202129 (Attn: SCG682), Dallas, TX 75220

This free 128 page catalog, the 1982 Semiconductor Master Selection Guide, provides key specifications in digital memories, logic arrays, discrete devices, voice synthesis, optoelectronics and much more!

COMPUTER CAMPS

One option for learning to program if you are under 20 years old is computer camping. Most camps are set out in the country and feature many of the usual camp activities of hiking, swimming, etc., in addition to a program of computer programming. Computer camping is a very new type of business and new camps are being announced yearly. There will be a tendency for camps which use particular types of computers to contact the relevant users groups to help market their services – so try contacting your local users group to see if there are any new computer summer camps in your area.

● <u>Computer</u> <u>Camps</u> <u>International</u> ● (203-871-9227)

310 Hartford Turnpike, Suite D, Vernon, CT 06066

Computer Camps International uses both 99/4A's and Apples and holds sessions from June to August in Connecticut, Wisconsin, Georgia and two locations in Texas.

● <u>Camp</u> <u>Compuquest</u> ● (606-278-9933)

Box 8161, Lexington, Kentucky 40533

Camp Compuquest is located at Asbury College in Kentucky and will hold two week long sessions this summer beginning June 13, June 27, July 11 & July 25. For ages 9 to 17. Camp Compuquest makes use of 99/4As. Instruction is in basic and logo.

LOGO & CAI CONTACTS

● <u>Logo</u> <u>Times</u> ●

Logo Times Editorial Dept., 99'er Magazine
1500 Valley River Dr., Suite 250, Eugene, OR 97401

Contributing Editors:

Henry Gorman, Jr., Department of Psychology
Austin College, Box 1584, Sherman, TX 75090

Roger B. Kirchner, Department of Mathematics
Carleton College, Northfield, MN 55057

Logo Times is a magazine within a magazine found in the 99'er Home Computer Magazine. Logo Times features many instructive articles filled with detailed discussions on Logo programming & educational uses.

● <u>Young</u> <u>People's</u> <u>Logo</u> <u>Association</u> ●

1208 Hillsdale Dr., Richardson, TX 75081

The Young People's Logo Association is bringing into existance a network of local organizations active in the use of Logo. YPLA produces two publications, TURTLE NEWS and LOGO NEWSLETTER as well as a software exchange. YPLA is also concerned with the use of Logo by the handicapped. Membership is free for those under 18. Yearly subscription to both publications is $25 for adults.

● <u>The</u> <u>National</u> <u>Logo</u> <u>Exchange</u> ●

POB 5341, Charlottesville, VA 22905
Attn: Bill Mattson

This Logo newsletter comes out nine times a year. Subscriptions are $25.

● <u>Byte</u> <u>Magazine</u> – <u>August</u> <u>1982</u> ●

Byte Subscriber Service
P.O. Box 328, Hancock, NH 03449

The August '82 issue of Byte was devoted to Logo. It contains detailed comparisons of various versions of Logo as well as many useful articles and an abundance of contact information. Write for back issues.

- Logo Special Interest Group •

  c/o Dr. William Higginson, Faculty of Education
  Queens University, London, Ontario, Canada K7L 3N6

  The Logo Special Interest Group publishes a Logo newsletter called LOGOPHILE. About 15 schools in Ontario are now using Logo. This group held a conference in May 1982 which drew 1400 participants.

- School Practices Information Network •

  See the On-Line' Databases section of this directory for more details on this huge information source.

- Classroom Computer News •

  341 Mt. Auburn St., Watertown, MA 02172

  Classroom Computer News is a national periodical written by educators for educators which will help keep you in touch with new applications, government programs, grant activity, research and more. These people also publish what seems like a key resource in the field, the CCN DIRECTORY OF EDUCATIONAL COMPUTING RESOURCES. The Directory costs $16.95 with postage and handling and CCN is $16 a year.

- Educational Software for the 99/4(A) •

  The list of companies producing educational software for the 99/4A continues to grow. Check the retail list for an abundant supply which includes the new PLATO listing. Check the section on New Offerings for the write up on Logo II and Plato. Check the 3rd party software listings for contact information on companies listed here which produce educational software.

  * Computer-Ed   * Microcomputer Corporation
  * Micro-Ed   * Scott Foresman and Company

- eduCAItor, Inc. •   (617-562-6222)

  38 Main St., Hudson, MA   01749

  The advoCAIte is a course authoring system which is available for a 99/4A equipped with extended basic and two disk drives. It is claimed that the system can be used after only 30 minutes instruction. The basic system costs around $200.

- <u>Mindstorms: Children, Computers, & Powerful Ideas</u> •

    By Seymour Papert, Basic Books, 1980

    Considered by many to be the definitive work on the development and philosophy of Logo by the man who has played a pivotal role in its creation.

- "<u>99/4 Net</u>" •

    Educators seeking ways to cut equipment costs will want to look for this in the System Options section.

- <u>CAI Software For The Handicapped</u> •(715-235-5775)

    The Upper Room Computer Consultants
    907 6th Ave East, Menomonie, WI 54751
    Attn: Sam Jenkins

    Software teaches basic skills in counting and word recognition for those who have learning problems.

- <u>Special Technology For Special Children</u> •

    By E. Paul Goldenberg
    Baltimore: University Park Press, 1979

    Mr. Goldenberg pioneered the applications of Logo for educating and rehabilitating children with severe communications handicaps while working with the Logo group at MIT. The philosophy, psychology, and technology of this work is presented together with case studies.

- <u>Microcomputer Resource Center</u> •

    Teachers College, Columbia University
    525 West 120th St., New York, NY 10027
    Contact: Karen Billings

    The Microcomputer Resource Center trains teachers in Logo. A month long course provides a two week introduction and a two week practicum. There is also an internship program for teachers & field classes.

LEARNING TO PROGRAM

The single most important ingredient in learning to program is personal initiative and perseverance; one learns, first and foremost, by doing. Many people wait for some magic key which will unlock the secrets of their computer to come along and save them. There aren't any. It is quite possible, however, for someone with ordinary capabilities to learn programming from the books which come with the computer if they are willing to keep at it.

There are a number of resources in this directory which can point the way to help. Check the TI Retail Price List under "Instructional Materials" & "Computer Programming". TI is providing some new learning tools here. Check to see if there is a Users Group near you – they may have programming classes. Look at the section on Computer Advantage Clubs as well. TI has just converted a number of their retail centers into learning centers – call the customer relations line to find the locations involved. If you are a kid, or have kids, take a look at the section on Computer Camps. If you live near a college or university you may find they hold classes – sometimes in continuing education programs for non-students. Elementary and secondary schools increasingly have computers of their own and may be able to help.

As far as written materials go you should consider subscribing to the 99'er Home Computer Magazine. They have many instructive articles and tutorials and the 99'er bookstore sells a 384 page book titled INTRODUCTION TO TI BASIC by D. Inman, R. Zamora & R. Albrecht. Consider buying the book by Herbert D. Peckham which is listed at the back of Beginner's Basic Guidebook, which comes with your 99/4A. A new book, PROGRAMS FOR THE TI HOME COMPUTER, by Steve Davis is available for $15.95 (total) from: Steve Davis Publishing, POB 190831, Dallas,TX 75219. TI basic is essentially an ANSI (American National Standards Institute) standard basic. This means that books which teach ANSI basic will be very similar to TI basic. An example is BASIC: AN INTRODUCTION TO COMPUTER PROGRAMMING by R. Bent and G. Sethares, Brooks/Cole Publishing Co.,1978.

THE UCSD p-SYSTEM(TM)

The UCSD p-System(TM) is not just a language, but a whole new operating system for your 99/4A. The p-system for the 99/4A is broken down into a p-code card in which the core of the system resides & three disks; a Pascal compiler, the assembler linker and the editor/filer/utilities. The p-system is notable for allowing software written in it to run on a variety of different microprocessors and computers with little or no modification because it is "cross compiled". While Pascal is now available on the p-system it is only a matter of time before other languages such as fortran and lisp also become available. At the beginning of 1983 relatively little software had been tailor made for the 99/4A on the p-system but much more should be available soon because of the p-system's portability.

Two packages currently available are TI-Pilot, an easy to use language for CAI and Personal Tax Plan written by Aardvark Software, Inc. The p-system minimally requires the expansion box & memory, the p-code card & a cassette deck, although disk drives will be needed for most applications. P-System Pascal is a powerful structured language which runs much faster than basic and will sustain a software base for many professional applications. TI's implementation of this language has sprites, speech and color graphics. Check the retail list for prices and options available for the various parts of the p-system on the 99/4A.

The 99'er Home Computer Magazine Bookstore has two books which can help teach you how to use UCSD Pascal: BEGINNER'S GUIDE FOR THE UCSD PASCAL SYSTEM by Kenneth Bowles and INTRODUCTION TO PASCAL (INCLUDING UCSD PASCAL) by Rodnay Zaks. The PORTABLE COMPUTING MAGAZINE, which is a part of the 99'ER HOME COMPUTER MAGAZINE, runs articles on the p-system that are worth looking into.

The p-system is one of the major operating systems in the microcomputer marketplace and its importance to the 99/4A community should increase radically this year as applications software becomes more generally available and it becomes apparent that it will present 99'ers with new options in software development, applications and computer languages.

ASSEMBLY LANGUAGE

Assembly language is the fastest and most powerful language available on the 99/4A because it works on the level of the 9900 microprocessor's basic machine code without the interpretation required by Basic and other "high" level languages. The trade off is that what is easier for the microprocessor to understand is more difficult for people to work with. Nevertheless, the best software is written in this "low" level code which is encoded in command modules. TI makes several products that allow you to work in assembly language. First, there is the Editor/Assembler which comes with a 470 page manual, a command module and two disks which include TI-Basic support routines, a Debugger and a "Save" utility. The manual assumes that you already have some knowledge of assembly language, however. A disk drive, controller & memory expansion are required to run this software. Another product capable of working in assembly language is UCSD p-System Assembler/Linker diskette. The Mini Memory module functions as a blank command module into which you can load assembly programs or write them yourself. It has a battery back up which retains program memory when the module stands alone. An increasing number of companies are making software which is designed to be loaded into this module. TI-Advanced Assembly Debugger is a new product that is described in the "New Offerings" section of this directory. TI-Basic does not directly access assembly language but Extended Basic has several commands involving it including a capacity to access machine language subroutines.

Unfortunately, TI does not seem to have made any specific suggestions to texts with which a beginner might learn basic assembly language techniques. The 99'er HOME COMPUTER MAGAZINE has, however, run an excellent series of tutorial articles on the subject and is supposed to be releasing a text to help fill the need for a beginner's textbook on the subject.

NOTE: The Editor/Assembler appears in the current retail list at a price of $49.95. It is possible that this represents a typo as the old price was $99.95.

MARKET NEWS AND TRENDS

Time Magazine called the 99/4A the "sleeper of the year" and with 530,000 units shipped in 1982 it has become abundantly clear that Texas Instruments is now a pivotal player in the microcomputer market. The tidal wave of momentum created by these huge sales is excellent news for 99/4A owners who can now expect many firms to direct their attention to developing software and accessories for the machine. Look for new software to be introduced this year by companies like Thorne-EMI, 20th Century Fox, CBS, Parker Brothers, Milton Bradley, Datasoft, Sofmachine and others. Many of the racy arcade type games formerly only available on machines like the Atari will now become available to 99/4A owners. There are signs that this trend will also apply to peripheral options related to the expansion box also, as shown by the recent introduction of a hard disk controller by Myarc Inc. and the 32K memory card from Foundation.

Texas Instruments is demonstrating an aggressive approach to the marketplace. TI placed fifth among computer manufacturers in the amount of money spent on TV advertising between January & September 1982 at $3,184,000. Announcements about the development of new retail outlets for TI computers appear regularly. For instance, Zayre stores are supposed to start carrying the TI in 260 stores and negotiations with other firms are ongoing.

Meanwhile the Commodore-TI pricewars continue to heat up. Another price reduction has just taken place for the 99/4A and one firm has advertised the machine in the Boston Globe for $159.95 after rebate! Action of this sort can be expected to continue as the giants fight for market share.

Part of TI's new aggressiveness stems from the fact that TI is fast becoming a full line microcomputer producer. The new 99/2 will give the boys at Sinclair something to think about in the under $100 market. The new Compact Computer 40 (22 ounces, less than 6 X 10 inches, 6 to 18K RAM, LCD display, QWERTY keyboard with numeric pad) will give the Radio Shack hand held computer people cause to think twice. In another development, TI has announced a professional

computer (currently code named Pegasus, after the flying horse) which uses an Intel 8088 chip and is designed to compete head-on with the IBM Personal Computer! This is the first time that TI has used another manufacturer's microprocessor to run one of their computers!

Most of TI's new product annoucements for this year were made at the Winter Consumer Electronics Show in Las Vegas in January but there are rumors to the effect that one more surprise may be in store. The speculation is about the release of a new machine to be called the 99/8 & nicknamed the Armadillo. This computer is said to be run on a 9900, compatible with the 99/4A, have 80K RAM built in as well as speech synthesis, extended basic, an RS232 interface and a 60-65 key keyboard....all built in! If half of this is true the 99/8 will be welcome indeed! There is also a rumor to the effect that we will see a version of the 99/4A called the 4B which would have 48K RAM. Time will tell.

One source of potential trouble stems from a choice by TI to modify the circuitry of the 99/4A to make it necessary for 3rd party module software manufacturers to obtain a proprietary graphics ROM chip from TI in order to make software modules. Talk of lawsuits and patent infringement is flying about on this point & we can only hope that 3rd party software development is not slowed down as a result.

Here are two sources of business and market news:

● 99'er Digest ●

Emerald Valley Publishing Co., 1500 River Valley Drive, Suite 250, Eugene, OR 97401

The 99'er Digest is a marketing information service for distributors, retailers, 3rd party vendors, sales representatives & TI watchers. Write for subscription.

● Computer & Software News ●

A Division of Lebhar-Friedman, Inc.
99 Park Avenue, New York, NY 10157

This excellent newsweekly will keep you up to date on the moves of all the major players, the ins & outs of the retailing & distribution scene and much more. Good TI coverage. Costs $18/year or 35¢/week.

MULTILEVEL MARKETING

If you are interested in a business opportunity which requires little or no investment, need to make money in your spare time, or like to work with people and feel you can be an effective salesperson, then Multilevel Marketing is an option you should consider. These businesses are premised on the notion of sustaining growth by bringing new people into the organization as "downline" dealers. Success is dependent not only on your direct ability to make sales but also on your care in grooming your downline dealers. Your success is in large part dependent on their's as it is the case that you receive a small percent of the income experienced by all of your downline people.

There are three major factors to be considered in making the decision to Join a Multilevel Marketing group. First of all is your personality. You should like to work with people and have some organizational and administrative ability - this is no place for mavericks. The second and third factors must, to some extent, be considered together -- they are the specific organization involved and the state of the Microcomputer Market in general. One factor which tends to inhibit this type of marketing is that there is a great deal of "footballing", or cutting, of prices for basic equipment going on among mass merchandisers. This strategy depends on high volumn sales and the add-on sales which comes from peripherals and software. Because profit margins in this market are often very low there is alot of pressure on all marketing organizations. It may not always be possible for organizations which distribute income among many levels to sell things as cheaply as normal retail outlets. On the other hand people often cannot get answers to their questions when they buy from department stores or may find stock supplies erratic. In addition, Multilevel Marketing organizations put together various product lines which would be difficult for a customer to find in one place otherwise. The customer who is looking for more direct care than he is liable to find at a department store may well be a good candidate for Multilevel Marketing sales.

Multilevel marketing organizations tend to have a rather elaborate set of rules and regulations by which their dealers must abide. They also provide a variety of resources and services to their salespeople including access to specialized products and training. Here are some questions to consider if you are contemplating joining the ranks of a multilevel marketing organization:

1) What kind of income is possible? What must I do to realize this income potential?
2) What sort of advantages does the organization provide me with in relation to people selling from normal retail outlets?
3) Can I live with the rules and regulations?

The following is a list of multilevel marketing organizations:

- Tronics Sales Corporation • (817-595-1202)
  2563 East Loop 820 North, Fort Worth, TX 76118

- Scotch Marketing, Inc. •
  POB 1636 SSS Dept. MLM, Springfield, MO 65805

- Personal Home Computer Marketing Program •
  125 Conant Road, Weston, MA 02193
  (617-891-1238)

- Murrays •
  Box 164, Junction City, OR 97448

- Denny Sperry • (503-746-2224)
  2440 E St., Springfield, OR 97477

- Novatronics • (612-729-7421)
  3612 Bloomington Ave. So., MPLS., MN 55407
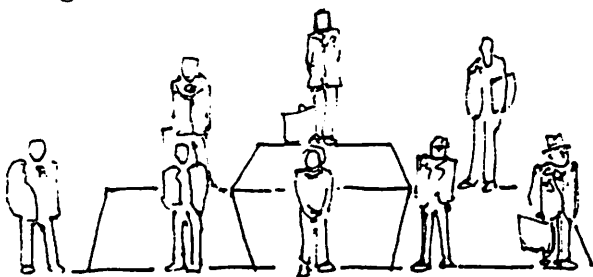
RETAIL PRICE LIST

MODEL	NAME	SUGGESTED RETAIL
CONSOLE		
PHC 002	TI-99/2	99.95
PHC 004A	TI-99/4A	450.00
PERIPHERALS		
PHP 1200	Peripheral Expansion System	249.95
PHP 1220	RS-232 Card	174.95
PHP 1240	Disk Controller Card (with Disk Manager Module)	249.95
PHP 1250	Expansion System Disk Drive (Disk Controller Card required)	399.95
PHP 1260	Memory Expansion Card (32K RAM)	299.95
PHP 1270	P-Code Card (32K Memory Expansion required)	249.95
PHP 1280	Pascal Development System (1) -- Includes PHP 1270, PHD 5063, PHD 5064 & PHD 5065 (32K Memory Expansion & Disk Drive required)	499.95
PHP 1290	Video Controller (1) (Pending FCC Certification) (Requires PHA 2310, PHA 2320 or PHA 2330)	399.95
PHP 1300	HEXBUS (TM) Interface (For TI-99/4A only) (2)	59.95
PHP 1500	Solid State Speech (TM) Synthesizer	149.95
PHP 1600	Telephone Coupler (Modem) (RS-232 is required)	199.95
PHP 1850	Disk Memory Drive (Disk Drive Controller required)	499.95
PHP 2500	TI Impact Printer	750.00
PHP 2700	Program Recorder (1) (Includes PHA 2622)	69.95
PHA 4100	10" Color Monitor	399.95
	HEXBUS (TM) Interface Peripherals (For 99/2 or 99/4A) (99/4A requires PHP 1300)	
HX 1000	Printer/Plotter (2) 4 Color - Rechargeable Batteries	200.00
HX 2000	WAFERTAPE (TM) Digital Tape Drive (2)	140.00
HX 3000	RS-232 Interface (2)	100.00
HX 3000P	RS-232 Interface w/Parallel Interface Option (2)	125.00
OPTIONAL ACCESSORIES		
PHP 1100	Wired Remote Controllers (Joysticks) (Pair)	34.95
PHA 1950	Thermal Paper (2 Pack)	9.95
CABLES		
PHA 2010	Monitor Cable	19.95
PHA 2020	Audio Adapter (Headphone Jack)	19.95
PHA 2100	R.F. Modulator (TV Adapter)	49.95
PHA 2320	Panasonic Video Controller Cables (use with PHP 1290)	99.95
PHA 2320	Sony Video Controller Cables (use with PHP 1290)	99.95
PHA 2330	Pioneer Video Controller Cables (use with PHP 1290)	99.95
PHA 2621	Parallel Cables (use with PHP 2500) (1)	24.95
PHA 2622	TI-99/4A Single Casette Cable (1)	14.95
PHA 2623	External Disk Drive Cable (1)	29.95
PHA 2624	Serial RS-232 Cable (1)	9.95
PHA 2625	Internal Disk Drive Cable (1)	
PHA 2626	TI--99/2 Casette Cable (1)	8.95
DATA STORAGE		
PHA 2640	Casette Tapes (1)	3.95
PHA 2650	Blank Floppy Diskettes (1)	19.95
PHA 2660	Cartridge Storage Cabinet (1)	14.95
TI IMPACT PRINTER		
PHA 2670	Impact Printheads (1)	54.95
PHA 2571	Impact Printer Ribbons (1)	14.95
PHA 2672	Impact Printer Paper (1)	19.95
HEXBUS (TM) ACCESSORIES		
AC 9201	AC Adaptor for WAFERTAPE (TM) Digital Tape Drive (2)	15.00
WT 50	50' Blank WAFERTAPE (TM) Cartridge (2)	8.00
WT 25	25' Blank WAFERTAPE (TM) Cartridge (2)	7.00
WT 10	10' Blank WAFERTAPE (TM) Cartridge (2)	6.00
WT 05	5' Blank WAFERTAPE (TM) Cartridge (2)	5.00
PARA/KIT	Parallel Upgrade Kit for RS-232 Interface (MX-3000) (2)	30.00
HXC 36	36" Input/Output Cable with HEXBUS (TM) Connector (2)	10.00
PP HX1000	5 Pack of Compact Paper Rolls for Printer/Plotter (HX-1000) (2)	3.25
PEN 1000CA	Pack of three Pens for Printer/Plotter (HX-1000), Pack of Red, Blue & Green (2)	4.00
PEN 1000BL	Pack of Three Black Pens for Printer/Plotter (HX-1000) (2)	4.00
INSTRUCTIONAL MATERIAL		
PHA 2602	Beginner's BASIC Manual (TI-99/4A only)	9.95
PHA 2603	User's Reference Guide (TI-99/4A only)	9.95
PHA 2606	Creative Programming Computer Competency Series, Volumn I	9.95
PHA 2607	Creative Programming Computer Competency Series, Volumn II	9.95
PHA 2608	Creative Programming Computer Competency Series, Volumn III	9.95
PHA 2609	Creative Programming Computer Competency Series, Allstar Projects	9.95
PHA 2611	Logo Curriculum Guide	49.95
PHA 2612	Editor/Assembler Manual	14.95
PHA 2613	Computer Awareness -- Adults (1)	6.95
PHA 2614	Computer Awareness -- Children (1)	5.95
PHA 2615	Programming Discovery in LOGO (1)	5.95
PHA 2516	TI-99/4A Technical Data Manual (1)	14.95

APPLICATION PROGRAMS

INFORMATION MANAGEMENT CARTRIDGES

PHM 3006	Home Financial Decisions	29.95
PHM 3007	Household Budget Management (Data storage system is recommended)	39.95
PHM 3012	Securities Analysis	39.95
PHM 3013	Personal Record Keeping (Data storage system is recommended)	49.95
PHM 3016	Tax/Investment Record Keeping (Disk system is required)	69.95
PHM 3022	Personal Real Estate (Data storage system is recommended)	69.95
PHM 3035	Terminal Emulator II	49.95
PHM 3044	Personal Report Generator (Data storage system is recommended and PHM 3013 is required)	39.95
PHM 3111	TI Writer (32K Memory Expansion, RS232, Printer, Disk Drive & Controller required) (for TI-99/4A only)	99.95
PHM 3113	Microsoft (TM) Multiplan (TM) (5) (32K Memory Expansion, Disk Drive & Controller required, RS232 & Printer are recommended.) (for TI-99/4A)	99.95

DISKETTES

PHD 5001	Mailing List	69.95
PHD 5003	Personal Financial Aids	19.95
PHD 5021	Checkbook Manager	19.95
PHD 5022	Business Aids Library -- Finance Management (Extended Basic required)	39.95
PHD 5024	Business Aids Library -- Inventory Management (Personal Record Keeping or Statistics Module & printer are required)	69.95
PHD 5027	Business Aids Library -- Invoice Management (Personal Record Keeping or Statistics Module & printer are required)	69.95
PHD 5029	Business Aids Library -- Cash Management (Extended Basic Module is required)	39.95
PHD 5038	Business Aids Library -- Lease/Purchase Decisions (printer is recommended)	69.95
PHD 5077	Personal Tax Plan (Aardvark Software Inc.) (P-Code & 32K Memory Expansion required, RS232 & printer are recommended)	99.95

TI-Count Business Packages (by Pike Creek Computer Co. Inc.)

PHD 5092	TI-Count General Ledgers (2) (Extended Basic, RS232 & printer required, 32K Memory Expansion & 2nd Disk Drive are recommended)	99.95
PHD 5093	TI-Count Accounts Payable (2) (Extended Basic, General Ledger Disk, RS232 & printer required, 32K Memory Expansion & 2nd Disk Drive are recommended)	99.95
PHD 5095	TI-Count Payroll (2) (Extended Basic, General Ledger Disk, RS232 & printer required, 32K Memory Expansion & 2nd Disk Drive are recommended)	99.95
PHD 5096	TI-Count Inventory (2) (Extended Basic, RS232 & printer required, 32K Memory Expansion & 2nd Disk Drive are recommended)	99.95
PHD 5097	TI-Count Mail List (2) (Extended Basic, RS232 & printer required, 32K Memory Expansion & 2nd Disk Drive are recommended)	99.95

CASSETTES

PHT 6003	Personal Financial Aids	14.95
PHT 6038	Business Aids Library -- Lease/Purchase Decisions (Printer is recommended)	59.95

EDUCATION

CARTRIDGES

Texas Instruments Packages

PHM 3002	Early Learning Fun	29.95
PHM 3003	Beginning Grammar	29.95
PHM 3004	Number Magic	19.95
PHM 3005	Video Graphs	19.95
PHM 3008	Video Chess	69.95
PHM 3010	Physical Fitness	29.95
PHM 3020	Music Maker (Data storage system recommended)	39.95
PHM 3021	Weight Control and Nutrition (Data storage system is recommended)	39.95
PHM 3064	Touch Typing Tutor (For 99/4A only)	39.95
PHM 3109	TI Logo II (1) (32K Memory Expansion required)	129.95

Scott,Foresman Reading and Math Packages (by Scott,Foresman)

PHM 3015	Early Reading (Solid State Speech (TM) Synthesizer is required)	54.95
PHM 3043	Reading Fun (Solid State Speech (TM) Synthesizer is recommended)	54.95
PHM 3046	Reading On (1)	54.95
PHM 3047	Reading Roundup	54.95
PHM 3048	Reading Rally (1)	54.95
PHM 3082	Reading Flight	54.95
PHM 3027	Addition and Subtraction I (Solid State Speech (TM) Synthesizer is recommended)	39.95
PHM 3028	Addition and Subtraction II (Solid State Speech (TM) Synthesizer is recommended)	39.95
PHM 3029	Multiplication I (Solid State Speech (TM) Synthesizer recommended)	39.95
PHM 3049	Division I (Speech synthesizer recommended)	39.95

MODEL	NAME	SUGGESTED RETAIL
PHM 3050	Numeration I (1) (Solid State Speech Synthesizer (TM) is recommended)	39.95
PHM 3051	Numeration II (1)(Solid State Speech Synthesizer (TM) is recommended)	39.95
	Scholastic Packages (Developed by Scholastic, Inc.)	
PHM 3059	Scholastic Spelling -- Level 3 (Solid State Speech (TM) Synthesizer is required)	54.95
PHM 3060	Scholastic Spelling -- Level 4 (Solid State Speech (TM) Synthesizer is required)	54.95
PHM 3061	Scholastic Spelling -- Level 5 (Solid State Speech (TM) Synthesizer is required)	54.95
PHM 3062	Scholastic Spelling -- Level 6 (Solid State Speech (TM) Synthesizer is required)	54.95
	Addison-Wesley Computer Math Games (by Addison-Wesley Pub. Co.)	
PHM 3083	Computer Math Games II (2)	39.95
PHM 3084	Computer Math Games II (2)	39.95
PHM 3085	Computer Math Games III (2)	39.95
PHM 3086	Computer Math Games IV (2)	39.95
	Milliken Home Math Series -- K thru 8th grade (by Milliken Pub. Co.)	
PHM 3090	Addition	39.95
PHM 3091	Subtraction	39.95
PHM 3092	Multiplication	39.95
PHM 3093	Division	39.95
PHM 3094	Integers	39.95
PHM 3095	Fractions	39.95
PHM 3096	Decimals	39.95
PHM 3097	Percents (1)	39.95
PHM 3099	Laws of Arithmetic (1)	39.95
PHM 3100	Equations (1)	39.95
PHM 3101	Measurement Formulas (1)	39.95
	DLM Arcademics (Developed by DLM, Inc.)	
PHM 3114	Alligator Mix (1) (Joysticks recommended)	39.95
PHM 3115	Alien Addition (1) (Joysticks recommended)	39.95
PHM 3116	Demolition Division (1) (Joysticks recommended)	39.95
PHM 3117	Dragon Mix (1) (Joysticks recommended)	39.95
PHM 3118	Minus Mission (1) (Joysticks recommended)	39.95
PHM 3119	Meteor Multiplication (1) (Joysticks recommended)	39.95
TI PLATO	**COURSEWARE (Developed by Control Data Corporation)(2)**	
	(For Use with TI PLATO Diskette Packages)	
PHM 3122	PLATO Interpreter (Includes Survey Diskettes)	49.95

Here is the list of the 108 TI PLATO Courseware packages
(32K Memory Expansion and PLATO Interpreter Cartridge
required for all PLATO Courseware packages)(Estimated
availability starting 2nd quarter 1983)

BASIC SKILLS (Grades 1 through 8)
Mathematics

MODEL	NAME	SUGGESTED RETAIL
PHD 5201	Numbers 0-9	49.95
PHD 5202	Numbers 10-1000	49.95
PHD 5203	Addition 1	49.95
PHD 5204	Addition 2	49.95
PHD 5205	Subtraction -- Basic Concepts	49.95
PHD 5206	Subtraction Skills	49.95
PHD 5207	Multiplication -- Basic Concepts	49.95
PHD 5208	Multiplication Skills 1	49.95
PHD 5209	Multiplication Skills 2	49.95
PHD 5210	Division -- Basic Concepts	49.95
PHD 5211	Division Skills 1	49.95
PHD 5212	Division Skills 2	49.95
PHD 5213	Fractions -- Terminology and Concepts	49.95
PHD 5214	Addition and Subtraction	49.95
PHD 5215	Multiplication and Division	49.95
PHD 5216	Decimals -- Terminology and Concepts	49.95
PHD 5217	Ratio, Proportion and Percents	49.95
PHD 5218	Geometry -- Basic Concepts	49.95
PHD 5219	Measurement	49.95
	Reading	
PHD 5220	Basic Word Building	49.95
PHD 5221	More Basic Word Building	49.95
PHD 5222	Complex Word Building	49.95
PHD 5223	Prefixes, Suffixes, and Compound Words	49.95
PHD 5224	More Prefixes and Suffixes	49.95
PHD 5225	Prefixes and Suffixes in Context	49.95
PHD 5226	Selecting the Proper Words	49.95
PHD 5227	Choosing the Proper Words	49.95
PHD 5228	Dealing With Confusing Words	49.95
PHD 5229	Word Meanings	49.95
PHD 5230	Applying New Words	49.95
PHD 5231	Understanding and Using New Words	49.95
PHD 5232	Locating Basic Facts	49.95
PHD 5233	More Basic Facts From Reading	49.95
PHD 5234	Understanding What You Read	49.95
PHD 5235	Remembering What You Read	49.95
PHD 5236	Remembering More of What You Read	49.95
PHD 5237	Interpreting What You Read	49.95
PHD 5238	Understanding Basic Facts	49.95
PHD 5239	Understanding More of What You Read	49.95
PHD 5240	Describers and Conclusions	49.95
PHD 5241	Different Types of Describers and Conclusions	49.95
PHD 5242	Understanding the Whole Story	49.95
PHD 5243	Fact and Non-Fact	49.95
PHD 5244	Author's Purpose	49.95

....49.95

PHD 5247 Separating Fact From Opinion.....49.95

Grammar
PHD 5248 Nouns and Verbs.....49.95
PHD 5249 More About Nouns and Verbs.....49.95
PHD 5250 Pronouns.....49.95
PHD 5251 Making Nouns and Pronouns Agree.....49.95
PHD 5252 Adjectives and Adverbs.....49.95
PHD 5253 Prepositions, Conjunctives, and Articles.....49.95
PHD 5254 Learning About Sentences.....49.95
PHD 5255 Phrases and Clauses.....49.95
PHD 5256 Subject and Verb Agreement.....49.95
PHD 5257 More About Sentences.....49.95
PHD 5258 More Than One.....49.95
PHD 5259 Word Confusion.....49.95
PHD 5260 Possessives.....49.95
PHD 5261 Capital Letters.....49.95
PHD 5262 Punctuation.....49.95
PHD 5263 Making Letters Look Right.....49.95
PHD 5264 Giving The Employer Correct Information.....49.95

HIGH SCHOOL SKILLS (Grades 9 through 12)

Writing
PHD 5265 Spelling.....49.95
PHD 5266 Punctuation.....49.95
PHD 5267 Grammar 1.....49.95
PHD 5268 Grammar 2.....49.95
PHD 5269 Grammar 3.....49.95
PHD 5270 Diction.....49.95
PHD 5271 Sentence Structure.....49.95
PHD 5272 Logic and Organization.....49.95

Mathematics
PHD 5273 Basic Numbers Ideas 1.....49.95
PHD 5274 Basic Number Ideas 2.....49.95
PHD 5275 Math Sentences in One Variable 1.....49.95
PHD 5276 Math Sentences in One Variable 2.....49.95
PHD 5277 Math Sentences in Two Variables.....49.95
PHD 5278 Geometry.....49.95
PHD 5279 Measurement.....49.95
PHD 5280 Special Topics.....49.95

Reading
PHD 5281 Practical Reading 1.....49.95
PHD 5282 Practical Reading 2.....49.95
PHD 5283 General Reading 1.....49.95
PHD 5284 General Reading 2.....49.95
PHD 5285 Prose Literature 1.....49.95
PHD 5286 Prose Literature 2.....49.95

PHD 5288 Poetry.....49.95
PHD 5289 Drama.....49.95

Science
PHD 5290 Physics 1.....49.95
PHD 5291 Physics 2.....49.95
PHD 5292 Chemistry.....49.95
PHD 5293 Earth Science 1.....49.95
PHD 5294 Earth Science 2.....49.95
PHD 5295 Biology 1.....49.95
PHD 5296 Biology 2.....49.95
PHD 5297 Biology 3.....49.95
PHD 5298 Biology 4.....49.95

Social Studies
PHD 5299 Geography.....49.95
PHD 5300 Economics 1.....49.95
PHD 5301 Economics 2.....49.95
PHD 5302 Behavioral Science 1.....49.95
PHD 5303 Behavioral Science 2.....49.95
PHD 5304 Political Science 1.....49.95
PHD 5305 Political Science 2.....49.95
PHD 5306 History 1.....49.95
PHD 5307 History 2.....49.95
PHD 5308 History 3.....49.95

NOTE... All of the PLATO Courseware is on DISKETTE and requires a Disk Memory System. The following Educational software packages are also on DISKETTE.

Texas Instruments Packages
PHD 5009 Music Skills Trainer.....29.95
PHD 5018 Market Simulation.....19.95
PHD 5023 Basketball Statistics (Extended Basic required).....24.95
PHD 5026 Bridge Bidding 1.....29.95
PHD 5030 Speak & Spell (TM) Program (Solid State Speech (TM) Synthesizer is reqired).....29.95
PHD 5031 Speak & Math (TM) Program (Solid State Speech (TM) Synthesizer & Terminal Emulator II Module required).....29.95
PHD 5039 Bridge Bidding II.....29.95
PHD 5041 Bridge Bidding III.....29.95
PHD 5042 Spell Writer (Terminal Emulator II Module & Solid State Speech (TM) Synthesizer are required).....29.95

MECC Packages (By Minnesota Educational Computing Consortium)
PHD 5078 Metric and Counting (1) (Extended Basic required).....29.95
PHD 5079 Elementary Economics (1) (Extended Basic required).....29.95
PHD 5080 Elementary Math and Science (1) (X-Basic required).....29.95
PHD 5081 Astronomy (1) (Extended Basic required).....29.95
PHD 5082 Word Beginnings (1) (Extended Basic required).....29.95

MODEL	NAME	SUGGESTED RETAIL
PHD 5083	Exploring (1) (Extended Basic Module required)	29.95
PHD 5084	Math Practice (1) (Extended Basic required)	29.95
PHD 5085	Science Facts (1) Extended Basic required)	29.95
PHD 5086	Natural Science (1) (Extended Basic required)	29.95
PHD 5087	Social Science (1) (Extended Basic required)	29.95
PHD 5088	Teacher's Tool Box (1) (Extended Basic Module & printer are required)	29.95

CASSETTES

MODEL	NAME	SUGGESTED RETAIL
PHT 6009	Music Skills Trainer	9.95
PHT 6011	Computer Music Box	9.95
PHT 6018	Market Simulation	14.95
PHT 6026	Bridge Bidding I	14.95
PHT 6031	Speak & Math (TM) Program (Solid State Speech (TM) Synthesizer and Terminal Emulator Module required)	14.95
PHT 6039	Bridge Bidding II	14.95
PHT 6041	Bridge Bidding III	14.95
PHT 6042	Spell Writer (Terminal Emulator II Module and Solid State Speech (TM) Synthesizer are required)	14.95

ENTERTAINMENT CARTRIDGES

Texas Instruments Packages

MODEL	NAME	SUGGESTED RETAIL
PHM 3009	Football	29.95
PHM 3018	Video Games I	29.95
PHM 3023	Hunt The Wumpus	24.95
PHM 3024	Indoor Soccer	29.95
PHM 3025	Mind Challengers	24.95
PHM 3030	A-Maze-Ing	24.95
PHM 3052	Tombstone City: 21st Century	39.95
PHM 3053	TI Invaders	39.95
PHM 3054	Car Wars	39.95
PHM 3057	Munch Man	39.95
PHM 3042D	Tunnels of Doom (2 Diskette games included)	59.95
PHM 3042T	Tunnels of Doom (2 Cassette games included)	59.95
PHM 3056	Alpiner (Solid State Speech (TM) Synthesizer is recommended)(for TI-99/4A only)	39.95
PHM 3110	Chisholm Trail	39.95
PHM 3112	Parsec (Solid State Speech (TM) Synthesizer is recommended)(for TI-99/4A only)	39.95
PHM 3125	E.T. (3) The Extra-Terrestrial (2) (Solid State Speech (TM) Synthesizer recommended)	39.95

Milton Bradley Packages (Developed by Milton Bradley Company)

MODEL	NAME	SUGGESTED RETAIL
PHM 3031	The Attack (4)	39.95
PHM 3032	Blasto (4)	24.95
PHM 3033	Blackjack and Poker	24.95
PHM 3034	Hustle (4)	29.95
PHM 3036	ZeroZap (4)	19.95
PHM 3037	Hangman (4)	19.95
PHM 3038	Connect Four (4)	19.95
PHM 3039	Yahtzee (4)	24.95

Adventure International Packages (Developed by Scott Adams)

MODEL	NAME	SUGGESTED RETAIL
PHM 3041D	Adventure (Pirate Adventure Disk game included)	39.95
PHM 3041T	Adventure (Pirate Adventure Cassette included)	39.95

CBS Toys Packages (Developed by CBS Toys)

MODEL	NAME	SUGGESTED RETAIL
PHM 3067	Othello (TM) (7)	39.95

DISKETTES

Texas Instruments Packages

MODEL	NAME	SUGGESTED RETAIL
PHD 5002	TI-Trek (solid State Speech (TM) Synthesizer is recommended)	14.95
PHD 5010	Mystery Melody	14.95
PHD 5015	Oldies But Goodies -- Games I	19.95
PHD 5017	Oldies But Goodies -- Games II	24.95
PHD 5025	Saturday Night Bingo (Solid State Speech (TM) is recommended)	29.95
PHD 5037	Draw Poker (Extended Basic Module required)	24.95

Adventure International Adventure Series (Developed by Scott Adams) (PHM 3041D required)

MODEL	NAME	SUGGESTED RETAIL
PHD 5046	Adventureland	29.95
PHD 5047	Mission Impossible	29.95
PHD 5048	Voodoo Castle	29.95
PHD 5049	The Count	29.95
PHD 5050	Strange Odyssey	29.95
PHD 5051	Mystery Fun House	29.95
PHD 5052	Pyramid of Doom	29.95
PHD 5053	Ghost Town	29.95
PHD 5054	Savage Island I & II	39.95
PHD 5056	Golden Voyage	29.95

CASSETTES

Texas Instruments Packages

MODEL	NAME	SUGGESTED RETAIL
PHT 6010	Mystery Melody	9.95
PHT 6015	Oldies But Goodies -- Games I	9.95
PHT 6017	Oldies But Goodies -- Games II	9.95
PHT 6025	Saturday Night Bingo (Solid State Speech (TM) Synthesizer is recommended)	9.95
PHT 6037	Draw Poker (Extended Basic Module required)	9.95

Adventure International Adventure Series (Developed by Scott Adams) (PHM 3041T required)

MODEL	NAME	SUGGESTED RETAIL
PHT 6046	Adventureland	29.95
PHT 6047	Mission Impossible	29.95
PHT 6048	Voodoo Castle	29.95
PHT 6049	The Count	29.95

PHT 6051 Mystery Fun House.................................29.95
PHT 6052 Pyramid of Doom..................................29.95
PHT 6053 Ghost Town.......................................29.95
PHT 6054 Savage Island I & II.............................39.95
PHT 6056 Golden Voyage....................................29.95

COMPUTER PROGRAMMING

CARTRIDGES

PHM 3011 Speech Editor (Solid State Speech (TM) Synthesizer is required)...................................39.95
PHM 3026 Extended Basic...................................99.95
PHM 3055 Editor/Assembler (Disk Drive,Controller, and 32K Memory Expansion required)..................49.95
PHM 3058 Mini-Memory......................................99.95

DISKETTES

PHD 5007 Teach Yourself BASIC.............................34.95
PHD 5019 Teach Yourself Extended BASIC (Extended Basic Module is required).............................24.95
PHD 5004 Programming Aids I...............................14.95
PHD 5005 Programming Aids II..............................24.95
PHD 5012 Programming Aids III (Extended Basic is required)..19.95
PHD 5063 UCSD Pascal (TM) Compiler (6) (32K Memory Expansion and P-Code Card are required)...........124.95
PHD 5064 UCSD p-System (TM) Assembler/Linker (6) (32K Memory Expansion and P-Code Card are required)........99.95
PHD 5065 UCSD p-System (TM) Editor/Filer/Utilities (6) (32K Memory Expansion & P-Code Card required)........74.95
PHD 5066 TI-PILOT (32K Memory & P-Code Card required).....79.95
PHD 5067 Beginner's BASIC Tutor (1).......................29.95
PHD 5076 Text-to-Speech (English)(Solid State Speech (TM) Synthesizer, 32K Memory & Extended Basic required)...29.95
PHD 5098 TI-Forth (2) (Editor/Assembler Module & 32K Memory Expansion are required).........................49.95
PHD 5099 TI-Advanced Assembly Debugger (2) (Editor/Assembler Module & 32K Memory Expansion required)...29.95

CASSETTES

PHT 6004 Programming Aids I................................9.95
PHT 6007 Teach Yourself BASIC.............................29.95
PHT 6019 Teach Yourself Extended BASIC (Extended Basic Module is required).............................19.95
PHT 6067 Beginner's BASIC Tutor (1).......................29.95

OTHER APPLICATION PROGRAMS

CARTRIDGES

PHM 3014 Statistics (Data Storage System is recommended)...39.95
PHM 3045D SMU Electrical Engineering Library (8) (2 Diskettes Included)...........................149.95
PHM 3045T SMU Electrical Engineering Library (8)(w/10 tapes)..149.95

DISKETTES

PHD 5006 Math Routine Library.............................29.95
PHD 5008 Electrical Engineering Library...................29.95
PHD 5013 Graphing Package.................................19.95
PHD 5016 Structural Engineering Library...................29.95
PHD 5044 AC Circuit Analysis..............................29.95
PHD 5068 Course Designer Authoring Package (Extended Basic Module required & Video Controller is optional)....199.95

CASSETTES

PHT 6006 Math Routine Library..............................9.95
PHT 6008 Electrical Engineering Library....................9.95
PHT 6013 Graphing Package..................................9.95
PHT 6016 Structural Engineering Library....................9.95
PHT 6044 AC Circuit Analysis...............................9.95

TI-99/2 SOFTWARE

INFORMATION MANAGEMENT

CASSETTES

PHT 6605 Checkbook Manager (2)............................9.95
PHT 6606 Purchase Decisions (2)...........................9.95
PHT 6607 Household Formulas (2)...........................9.95
PHT 6608 Date Timer (2)...................................9.95
PHT 6609 General Finance (2)..............................9.95

EDUCATION

CARTRIDGES

PHM 3601 Learn to Program (2)............................19.95
PHM 3602 Learn to Program BASIC (2)......................19.95

CASSETTES

PHT 6601 PTcomath-80 (2).................................19.95
PHT 6602 Math I (2).......................................9.95
PHT 6603 Math II (2)......................................9.95
PHT 6604 Sunrise Time (2).................................9.95

ENTERTAINMENT

PHT 6610 Lunar Landing (2)................................9.95
PHT 6611 Mind Games I (2).................................9.95
PHT 6612 Mind Games II (2)................................9.95
PHT 6613 Mind Games III (2)...............................9.95
PHT 6614 TI-Trek (2)......................................9.95
PHT 6615 Bioplot (2)......................................9.95
PHT 6616 The Minotaur (2).................................9.95

OTHER APPLICATIONS PROGRAMS

PHT 6617 Statistics I (2).................................9.95
PHT 6618 Statistics II (2)................................9.95

SOFTWARE LIBRARIES

PHL 7001 The Home Financial Manager (Data Storage recommended) (Home Financial Decisions, Household Budget Management, Personal Real Estate)..............................139.95

Explanatory Notes

This listing of products for the Texas Instruments Home Computer is drawn from the U.S. CONSUMER PRODUCTS DEALER PRICE LIST for January to June 1983 as published by Texas Instruments. The prices listed here are suggestions from Texas Instruments only. Dealers independently determine their own prices for these products Texas Instruments reserves the right to make changes in materials, specifications and prices without notice.

The meaning of numbers found between parentheses in this list is explained by the list below:

(1) Estimated availability in First Quater 1983.
(2) Estimated availability in Second Quater 1983.
(3) E.T. and E.T. character are trademarks of and licensed by Universal City Studios, Inc.
(4) The Attack, Blasto, Hustle, ZeroZap, Connect Four, Hangman and Yahtzee are trademarks of Milton Bradley.
(5) Developed by Microsoft (TM), Inc., Multiplan (TM) is a trademark of Microsoft (TM), Inc.
(6) UCSD, UCID Pascal and UCSD p-System are all trademarks of the Regents of the University of California.
(7) Othello is a trademark of CBS Toys.
(8) Course is designed to be used with a Circuit Analysis I textbook.
(9) PLATO is a trademark of Control Data Corporation.

KEY TO MODEL CODES

P H M ..... for M as in Module or Cartridge
P H L ..... for L as in Library (Software Library)
P H D ..... for D as in Diskette
P H T ..... for T as in Tape (Cassette tape)

MODEL	NAME	SUGGESTED RETAIL
PHL 7002	The Family Entertainer (The Attack, A-Maze-Ing, Hunt The Wumpus)	89.95
PHL 7003	The Elementary Educator (Solid State Speech (TM) Synthesizer is recommended) (Beginning Grammar, Addition & Subtraction I, Early Learning Fun)	99.95
PHL 7004	The Music Educator (Data Storage System is recommended) (Music Maker, Music Skills Trainer (Cassette))	49.90
PHL 7005	The Super Programmer (Extended Basic, Teach Yourself Extended Basic (Cassette))	119.90
PHL 7006	The Scott, Foresman Speaking Math Teacher (Solid State Speech (TM) Synthesizer is recommended) (Addition and Subtraction I, Addition and Subtraction II, Multiplication I)	119.85
PHL 7007	The Scott, Foresman Speaking Reading Teacher (Solid State Speech (TM) Synthesizer is required) (Early Reading, Reading Fun)	109.90
PHL 7008	The Speaking Scholastic Spelling Teacher (Solid State Speech (TM) Synthesizer is required)(Scholastic Spelling -- Level 3, Scolastic Spelling -- Level 4, Scolastic Spelling -- Level 5, Scholastic Spelling -- Level 6)	219.80
PHL 7009	The TI Arcade Game Series (Tombstone City: 21st Century, TI Invaders, Car Wars)	119.85
PHL 7010	The Milton Bradley Game Series (Blasto, Hustle, ZeroZap, Connect Four, Yahtzee)	114.75
PHL 7011	The Computer Introductory Package (Data Storage System and Solid State Speech (TM) Synthesizer are recommended) (Household Budget Management, TI Invaders, Multiplication I)	119.85
PHL 7012	Foreign Language Instruction (Developed by Westinghouse Learning Corporation) (Key To Spanish (1)(Program recorder is required))	149.95

SOFTWARE EVALUATION FORM

Have you purchased a product that you think is really worthwhile? Or one that is definitely 3rd rate? Spread the word! Cut this page out, fill out the form and mail it to:

MICRONOVA
P.O. Box 1058
Northampton, MA 01061

	POOR	FAIR	GOOD	SUPER
Documentation	☐	☐	☐	☐
Performance	☐	☐	☐	☐
Originality	☐	☐	☐	☐
Error Handling	☐	☐	☐	☐
Ease of Use	☐	☐	☐	☐
Playability	☐	☐	☐	☐
Graphics	☐	☐	☐	☐
Speed	☐	☐	☐	☐

PRODUCT NAME & DESCRIPTION: _____

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HARDWARE EVALUATION FORM

Have you purchased a product that you think is really worthwhile? Or one that is definitely 3rd rate? Spread the word! Cut this page out, fill out the form and mail it to:

MICRONOVA
P.O. Box 1058
Northampton, MA 01061

	POOR	FAIR	GOOD	SUPER
Documentation	☐	☐	☐	☐
Performance	☐	☐	☐	☐
Construction	☐	☐	☐	☐
Dependability	☐	☐	☐	☐
Packaging	☐	☐	☐	☐
Ease of Use	☐	☐	☐	☐
Appearance	☐	☐	☐	☐

PRODUCT NAME & DESCRIPTION: _____

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