



Timeline 99

The official publication of the Grand Valley TI-99 User Group - Grand Junction, CO

A MOCK NEWSLETTER FOR THE TI-99 HISTORICAL TIMELINE VOLUME 1, NUMBER 1 – JANUARY 1980

Our Premier Issue

We are very proud to be able to put this monthly newsletter together for our members. The joy of learning the use and the utility of our (soon-to-arrive for many of you) Texas Instruments 99/4 Home Computers is made that much more enjoyable by having this forum available to use in sharing the excitement and discovery with you. Welcome aboard and thanks for the support!

TI introduces the TI-99/4 Home Computer

You will note that the logo chosen for the **Timeline 99** newsletter (see upper left corner of this page) is a stack of Texas Instruments Command Modules for the TI Home Computer. That image was 'borrowed' from a 1979 Texas Instruments CL-435 brochure entitled "Texas Instruments introduces the TI-99/4 Home Computer". To us the Command Module symbolizes the 99/4 and the utility that it brings to our daily routines, not to mention the education, entertainment, productivity and utility yet to come.

Taking a quick look at CL-435, which is a 12-page, full-color glossy brochure measuring 8.5" x 11", the first thing one notices is that Texas Instruments is an official sponsor of the 1980 Winter Olympics to be held February 14-23, 1980 in Lake Placid, NY. Way to go TI!

Browsing through the pages one finds photos of the Solid State Speech Synthesizer, what TI calls "Remote Controls" (we call them joysticks thanks to our Atari 2600 VCS), the huge 13" Color Monitor, which dwarfs the 99/4 Home Computer, and on page three a curious photo that shows the joysticks appearing to be connected to the back of the Home Computer, or what the brochure calls the "Main Console Unit". Because we've been more fortunate than most members in that we actually have received a 99/4, we've verified that the joystick connection is actually on the left side of the Home Computer, so joysticks do not connect at the back of the "Main Console Unit". There is only one joystick port too, so it is not clear yet just how two separate joysticks can be used with a single joystick port?



On page 6 of the brochure you find the 'stack of cartridges' image we borrowed, which shows the titles (from top to bottom) being Statistics, Household Budget Management, Early Reading, Video-Graphs, Physical Fitness, Home Financial Decisions, Tax/Investment Record Keeping, Video Chess, Investment Analysis, Personal Record Keeping, Early Learning Fun, Number Magic and Beginning Grammar. In front of the stack on the left is Speech Editor and on the right is Football. According to the text for this stack of cartridges, which divides the titles into Education, Entertainment and Home Management/Personal Finance categories, the Investment Analysis, Personal Record Keeping and Tax/Investment Record Keeping modules will be available "later in 1979".

As of the publication of this newsletter, we've received no other information from TI to confirm that these Command Modules have been released, but we did see an ad in the November 1979 issue of BYTE on page 226 where Factory Direct Sales of Glendale, CA lists Beginning Grammar \$29.95, Diagnostic \$29.95, Early Learning Fun \$29.95, Early Reading \$29.95, Football \$29.95, Home Financial Decisions \$29.95, Household Budget Management \$44.95, Investment Analysis \$44.95, Personal Record Keeping \$44.95, Physical Fitness \$29.95, Speech Editor \$44.95, Statistics \$44.95, Video Chess \$69.95, Video Graphs \$19.95 and Tax/investment Record Keeping for \$69.95.

Timeline 99 – January 1980

Later in this newsletter you will read about the TI-99/3 and TI-99/4 plans that TI had for rolling out the Home Computer. The internal TI document this information comes from also lists Advanced Chess, Asset Management, Diagnostic, Demonstration, Fighter Pilot, Financial Data Access, Foreign Language, Home Math Series, Household Budget Management II, Investment Planning, Investment Record Keeping, Letter Editor, Music Composer, Music Tutor, Personal Record Keeping II, Spelling Teacher, Tax Preparation and Telecom as software titles planned for the Home Computer. How exciting is that?

TI Home Computer in the News

This month's BYTE Magazine reports that the Federal Communications Commission (FCC) has granted Texas Instruments a waiver which permits TI to connect its personal computers to home color television receivers using a radio frequency (RF) modulator. Hopefully this will allow the cost of the 99/4 Home Computer to come down, since the re-badged Zenith DC-13 Color Monitor will not have to be a part of each sale. The monitor adds a whopping \$450 to the cost of the Home Computer, which is already a little on the high end of the price spectrum for my wallet.

From back issues of BYTE, Business Week and other magazines we've learned that TI's road to the Home Computer market has not always been a smooth one. Here are some newsbytes and other observations gathered over the last few months that provide some interesting reading.

FEB 1979: TI'S NEW PERSONAL COMPUTER-Rumors are flying about Texas Instruments' impending entry into the personal computing market. - BYTE

MAR 1979: Despite its seemingly unpopular position in the market, BYTE Magazine runs an extensive article on mapping the instruction space of the TMS 9900 microprocessor.

The March 19th issue of Business Week Magazine ran a 3/4 page story on page 37 entitled "TI Gets Set to Move Into Home Computers." The article states that Texas Instruments had been expected to dominate the home computer market by the end of 1979 with a \$300-\$400 machine that could be hooked to any home TV for its video display. The article points out that the TV link has been a problem for TI due to the problems obtaining FCC approval for the Radio Frequency transmission control. Despite all of TI's legal posturing and requests for the adoption of new testing rules, the RF Modulator that would link the Home Computer to a TV Set failed FCC lab tests. The obvious concern that TI has is the increase in the price of the package by \$200-\$400 if a video monitor is used in lieu of the modulator. We agree with that concern, since the actual impact is closer to \$400 than it is to \$200, even with some of the discounted systems you can read about on later pages.

MAY 1979: A Texas Instruments internal document dated May 29, 1979, entitled "Production Specification Home Computer System" has found its way into our hands. From it we learned that the original plan was to introduce a computer to be dubbed the TI-99/3 as a mass market, consumer-oriented computer. The TI-99/4 was to be aimed at the "Technically aware" buyer. According to the document,

The 99/4 unit will provide features desirable for the technically aware, semi-professional market with attached color video display and 16K RAM while the 99/3 product will provide less capability with direct connection to a user's home TV set. The Home Computer must execute a wide variety of software packages for information, education, and entertainment in the home. The system must provide for the future addition of peripherals, software modules and internal hardware changes for an extended period of time.

The system must be able to be introduced in Europe shortly after U.S. introduction and the system must be competitive in both cost and performance with other systems that will be entering the market, both prior to and after introduction. The two most important ingredients of the Home computer are its ease of use and its ability to be a real problem solver. The Home Computer will be positioned as a useful home appliance that saves you time to do other things, saves money to divert to other uses, protects you, contributes to your children's education and is fun to use in the process.

Timeline 99 – January 1980

PRODUCT FEATURES

The following are features of the Home Computer product.

1. 40-key staggered QWERTY travel keyboard
2. Solid State software (TM) Command Module for plug-in software
3. Home Computer BASIC (compatible with TI BASIC and ANSI Minimal BASIC)
4. Home Computer Graphics language
5. Wall mounted console transformer UL approved; USA and European versions planned.
6. TV speaker and volume control utilized (99/3)
7. Color 13" video monitor with sound provided (99/4)
8. Interface for audio cassette: 1 cassette for 99/3; 2 cassettes for 99/4
9. 44 pin I/O connector for 99/4 peripherals
10. 6 pin serial I/O for 99/3 peripherals
11. System provides music, communication, and synthesized speech
12. Mini earphone jack
13. Provision for internal speaker and volume control
14. Capability to use low cost wired joystick controllers (2 ea)
15. Electrical capability to add infrared wireless joysticks (not provided on 99/4)
16. BASIC interpreter executes up to 200 lines of code per second; can contain 50-70 line program in simplest machine; Graphics language execution rate is 4500 instructions per second
17. User changeable RAM expansion modules of 4K bytes and 16K bytes (99/3 only)
18. System designed to accommodate future peripherals
19. Large selection of Solid State software (TM) Command Modules including that of Milton Bradley and other third party software vendors.
20. 99/3 system is FCC approved Class I TV device. 99/4 system to meet FCC Docket 20780.

JUN 1979: Texas Instruments officially unveils the TI-99/4 Home Computer (PHC 004).

JUL 1979: Milton Bradley Corporation has begun advertising for "Creative Electronic Engineers, Microcomputer Programmers and Technicians" to accommodate their expansion into the personal computer arena.

Travel to the Northeast to Western New England to scenic East Longmeadow, MA. nestled in the foothills of the Berkshires and a whole new world of electronic opportunity awaits you. The Milton Bradley Company has propelled itself into the electronic game and toy arena in a most dramatic and successful fashion in the last two years. This momentum is continuing in a most encouraging way. Consequently, we are seeking talented electronic personnel with both hardware and/or software experience and knowledge to expand our inhouse electronic product development capability. We have immediate openings for the following types of personnel:

Senior Electronic Product Engineers: Qualified candidates will have a minimum of ten years electronic consumer product experience with a BSEE degree or the equivalent thereof.

Electronic Product Engineers: This position requires a minimum of 5 years electronic consumer goods experience and a BSEE or equivalency.

Software Engineers/ Microcomputer Programmers: 3 to 5 years experience in microcomputer programming and know-ledge of microcomputer assembly languages is required.

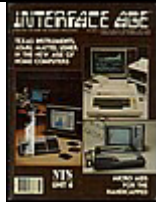
Electronic Technicians: 1 to 3 years experience as a technician in an electronic consumer goods environment is preferred. An AS degree in electronics would be an asset.

In addition to scenic beauty in the immediate locale we offer proximity to skiing, sailing, surfing and several other quality factors of life. The successful candidates will enjoy an attractive compensation package which includes a complete fringe benefit program. Please send resume and salary requirements in confidence to:



Director of Corporate Personnel Administration
Milton Bradley Company
P.O. Box 3400
Springfield, MA. 01101
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Timeline 99 – January 1980



AUG 1979: Writing a first-look at the Texas Instruments 99/4 Home Computer in the August/September 1979 issue of Interface Age magazine, Editor-in-Chief Carl Warren reports that the first modules to be produced for the new TI-99/4 will include Connect Four, Hangman, Zero Zap and Yahtzee. The modules are to be produced for the TI-99/4 by the Milton Bradley Company. Manufacturing of the cartridges will actually take place at TI facilities in Texas.



Connect Four: A Challenging vertical strategy game where the goal is to get four markers in a row, down, across, or diagonally, to win. It is for 1 or 2 Players, it offers a choice of regular, Wild Spot or Drop Out Games, One-player games at 4 skill levels are available. Wild Spot is a bingo-type bonus spot. Drop Out allows you to drop out a marker to change the game picture. The player directs marker placement, with seven different ways to play in all.



Hangman: Try to figure out the letters of the mystery word. Every wrong guess brings you closer to the gallows. It is for 1 or 2 players, has 200 pre-programmed words, allows you to create your own word list of up to 60 12-letter words, you can choose to use correct sequence or scrambled letter indication, a Special buy-a-letter option is available, there is instant correctability of misspelled custom list words, a control alphabet indicates remaining letters, musical



underscoring adds to the game play and you can store custom games with a cassette tape recorder

Yahtzee: An exciting dice game that combines strategy and chance. Build points by rolling certain number combinations. For 1 or 2 players, choice of Yahtzee or Challenge Yahtzee, Dice roll set at random by computer, indication of dice roll number, keep roll, part of roll, or roll again. Large scoreboard lists all possible scoring combinations. Player's choice of scoring categories. Constant display of each player's running total Musical underscoring.

ZeroZap: A fast-action pinball with live light and sound effects. Bounce your arrow off point markers for the highest score. For 1 or 2 players, 3 fixed playing fields, build-your-own custom field Scoring arrow with variable launching points. Large scoreboard. Choice of winning score from 100 to 999. Constant readout of shots remaining. Booby-trapped "0" point markers. Electronic light and sound effects. Allows storage of special games with a cassette tape recorder.

SEP 1979: New England Electronics runs a full page ad in Byte Magazine proudly announcing the "Revolutionary TI-99/4 Personal/Educational Computer" and the fact that they have been selected as one of the distributors. Buyers are cautioned that 99/4 product availability is September/October, but is always subject to TI's dealer allocation. - BYTE

NOV 1979: TI MICROCOMPUTER PICTURE IN TRANSITION-Although Texas Instruments finally introduced its 99/4 personal computer system in June, it is expected to be an interim product. TI failed to get FCC approval for the original version (of the computer) and also ran into processor production difficulties which forced the introduction of a high-priced personal computer system (\$1150). TI is still pursuing a rule change request with the FCC and the development of its 9985 stripped down version of its 9940 16-bit processor. TI hopes to then introduce a personal computer system for under \$500 which connects to a standard color-television receiver. - BYTE

JADE Computer Products of Hawthorne, CA 90250 is offering the TI-99/4 and 13" Monitor for \$1150.00 in an advertisement which appears in the Nov 1979 issue of BYTE magazine on page 291.

The Computer Factory 485 Lexington Avenue and 750 Third Avenue New York, NY 10017 is offering the TI-99/4 Home Computer and 13" Monitor for \$1150.00 in an advertisement which appears in the Nov 1979 issue of BYTE Magazine on page 259.

DEC 1979: Image Computer Products of Northbrook, IL has announced that it will produce the TI Six-Pack, which consists of six TI BASIC games on cassette; Mind Master, Skill Builder I, Strategy Pack I, Tournament Brick Bat, Wall Street Challenge and Wildcatting.

Timeline 99 – January 1980



#9401 - Tournament Brick Bat: This fast-action skill game may be played against the computer or with a friend. Choose competition mode and challenge another player. Or select the cooperative mode and work as a team while the computer acts as your opponent. Whether you select solo play, competition or cooperation, the computer keeps score and increases the challenge as your skill improves. Joysticks are required. For ages 10 and up. Price is \$19.95.

#9402 - Wall Street Challenge: This computer simulation of the stock exchange is easy to play and always challenging. Invest in several corporations ranging from Municipal Power and Light, a blue chip stock that usually provides steady growth, to Offshore Industries Limited, a high-flying speculative stock that is certain to change often. Stock charts and the Dow Jones show you the trends. Both 8K and 16K memory versions are included. For ages 13 and up. Price is \$14.95.

#9403 – Wildcatting: The program simulates a hidden oil deposit which you will try to find. Select a location on the map that looks promising. The geological survey will show the probability of striking oil below that spot and also estimate the cost per meter to drill. Just like the professional wildcaters, try to strike oil early for maximum profits. The computer creates a different oil deposit each game and shows the view as you drill. For ages 10 and up. Price is \$14.95.

#9404 - Strategy Pack 1: Includes both Roman Checkers and Frame Up.

Roman Checkers: This ancient game has been a favorite for hundreds of years. It couldn't be easier to play, yet playing the game well takes skill, cunning and strategy as you try to out think your opponent.

Frame Up: Try to out-manuever your opponent or play against the computer in this game of wits and calculated strategy. You will alternate selecting numbers and controlling your opponent's choices. Joysticks are optional. For ages 10 and up. Price is \$19.95.

#9405 - Mind Master: This classic strategy game takes on a new dimension as the computer designs the hidden problems and reports the results of each guess. Multiple players may compete against the computer and each player may select the level of difficulty that matches their skill, ability and patience. This program also contains a formula for solving logic problems. Create the answer and watch the computer use deductive logic to discover the secret code. Ages 10 and up. Price is \$14.95.

#9406 - Skill Builder 1: Includes both Bingo Duel and Number Hunt.

Bingo Duel: This fast-action skill game for one or two players provides an exciting challenge, because young children and adults can play equally. The computer adjusts to match your skill and problems are specifically selected to help you gain speed.

Number Hunt: Matching numbers is easy enough for young children, yet this computer game quickly advances in difficulty to challenge the experts. Joysticks are required. For ages 10 and up. Price is \$19.95.

Aside from Milton Bradley and Scott, Foresman, which Texas Instruments themselves lined up to produce software for the 99/4, it appears that Image Computer Products is the first third-party software house to support the new TI Home Computer. Bravo folks! We appreciate the support and will hopefully open our wallets to return the favor.

DigiByte Computer Systems 31 East 31st St New York, NY 10016 is advertising the TI-99/4 for \$1049.00 on page 138 of the December 1979 issue of BYTE Magazine.

CTC 5560 Ruffin Rd San Diego, CA 92123 is advertising the TI-99/4 for \$1099.00 on page 202 of the December 1979 issue of BYTE Magazine.

Len Buckwalter has written an article for the December 1979 Mechanics Illustrated magazine that reviews the TI-99/4 Home Computer in a very non-technical two-age overview. He touts the plug in command modules as being convenient, and offers the opinion the other computer manufacturers could take a lesson from Texas Instruments, who have filled their offering with color, sound and animation, while the other manufacturers seem bent on making their offerings austere looking and sounding and apparently aimed only at the technical crowd. The article can be found on page 46 and is entitled "An Easy-To-Use Home Computer". While we really didn't expect to see a computer reviewed in Mechanics Illustrated, we're grateful for any and all exposure our chosen Home Computer can get.



Timeline 99 – January 1980

Jobs at Texas Instruments

Not to be outdone by Milton Bradley Company's advertisements in our premier issue of the *Timeline 99* newsletter, we decided to include a full-page advertisement that Texas Instruments placed in *BYTE* and other magazines attempting to attract electronics engineers and such. This ad comes from the March 1978 issue of *BYTE* magazine on page 13.

Your experience with personal computers is going to open an unlimited career at TI.

TI is into personal computers in a big way, and that means a ground floor opportunity is going to be open for you, the personal computing innovator. You'll be joining the undisputed world leader in creating new products and markets for consumer electronics with the company that invented the calculator on a chip. And it's all going to happen in TI's new Management and Technology Center for Consumer Products in Lubbock, Texas. Located in the high, dry, and cool plains of West Texas, Lubbock is about halfway between Dallas and Albuquerque. It is the home of Texas Tech University. You are just a few hours' drive from skiing in Taos, or touring and shopping in Juarez, Mexico.

Make your career opportunities in the following areas:

Personal Computer

Product Marketing Manager
Responsible for establishing distribution channels for personal computer products, developing advertising and sales promotion programs, training, quoting and providing market requirements for new products and software. Requires BS in EE, math, physics or Computer Science. MBA preferred. Minimum of 5 years' experience in consumer sales or marketing related to desk programmable calculators, minicomputer

systems, microcomputer systems, or small business systems.

Systems Programmers

Outstanding opportunities – design, code, integrate and debug operating system modules, including device service routines, self-test diagnostics, and system utilities. Requires BSEE or Computer Science plus minimum of 3 years in assembly programming with some high level language experience.

Digital Design Engineers

Opportunity to design and develop digital subsystems for major new products. Projects will require design-to-cost discipline with internal and external component vendors, vendors of peripheral devices and making trade-offs of hardware and software. Requires BSEE with 2 years' experience. Prefer experience in design of bubble and/or flexible disk computer memory subsystems.

Product Design Engineer

Responsibility for mechanical design on major new personal computer products. Interface with electrical design engineers, software development personnel, marketing, purchasing, planning and all areas involved in taking a product from concept through initial production. Requires BSME with a minimum of

3 years' experience in design or closely related field. Knowledge of plastic tooling preferred.

Application Software Specialist

Total responsibility for development of complete application packages for specific business sectors and professionals. Specifications, design, coding, program check-out and documentation for personal computer systems. Requires BA or BS in math or Computer Science or BBA with data processing major with 2-3 years' experience. Program in high level language on mini, micro, or business computer systems.

Marketing Support Engineers

Project responsibility for future product service direction concerning existing as well as future products. Develop and maintain total service program for personal computer systems and field testing/check-out. Requires BSEE or equivalent with at least 3 years' experience with programmable desk calculators, minicomputer systems, microcomputer systems, small business systems, or product service management.



Send your resume in confidence to: Bill Toomey / P. O. Box 10508, M.S. 5807, Dept. B / Lubbock, TX 79408.

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BYTE March 1978 13

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