

99/4 USERS OF AMERICA  
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FLINT, MI 48506  
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FEBRUARY 1983 NEWSLETTER

ABOUT THAT BABY BOOM IN TEXAS!

The TI 99/4A now has a brand new little sister and a compact big brother! We are not sure who the prolific parents are, but our best wishes anyhow! First there is the little sister, known as the TI 99/2 officially. She will retail for \$99.95 and is a smaller version of the 99/4A. It contains a built-in modulator for connection to a monochrome display, or black and white television. It has 4.2 KRAM internal and is expandable to 36.2 KRAM. The MPU is a TMS9995 sixteen bit unit. The keyboard is an "Elastomeric" unit and is pressure sensitive. It will run in either Basic or Assembler and will operate with solid state modules and special tape system. It comes with a manual and a demonstration cassette tape. Your user price will be \$72.50!

The big brother is the CC/40 and it will retail for \$249.95. It is a hand held computer and weighs a mere twenty-two ounces! It is powered by four AA alkaline batteries and will operate with constant memory for up to two hundred hours! Impressive!!! The display is a thirty-one character integrated LCD, although it may be fed through the new Hex-Bus to a black/white CRT. It features an enhanced basic and assembler and will operate with solid state modules and special tape system. These modules, incidentally, can hold up to 128 KROM! This little powerhouse measures: 9.5 by 5.75 by 1 inch. It has 6 KRAM internal and is expandable to sixteen, it also contains thirty-four K of ROM! The keyboard is the standard Kuerty, but is reduced in physical size to fit the machine. It also has a ten digit numeric keypad built-in! The MPU is a TMS70C20 eight bit. This little computer also sports both upper and lower case on the keyboard! Your user cost will be \$178.50.

TI is also introducing a special cassette machine that is going to get rid of those nasty loading problems, hopefully! It is in fact made by General Electric, and modified for Texas Instruments. It is the PHP2700 and will retail for \$69.95. Your user cost will be \$52.50. It has color coded jacks to match the cassette cable plugs. Incidentally, I hear that the dual cassette cable is being replaced by a single cable, no price change! This is reported to be a excellent tape system, and I sure hope that it works well.

Next comes the new Hex-Bus Intelligent Peripheral Interface. This will work on the 99/4A, 99/2, and the CC-40! Three new peripheral devices will be available during the first quarter of this year. The RS/232 interface will retail for \$99.95, and your user price will be \$74.50. It is serial operation only! The Printer/Plotter will retail for \$199.95 and your price on this gem will be \$150. It uses 2.5 inch wide paper, and it is regular paper too! It also has a four color capability, an X/Y plot of thirty-six characters per line, and is quiet! The Wafer Tape Drive will retail for \$139.95 and your friendly user cost will be \$105.50. It is similar to the Conxetron stringy floppy. It is a digital tape drive that is faster than cassette, more efficient than magnetic tape, and less costly than a drive! It is a half-breed, a cross between a cassette and a diskette system! It is

fully computer controlled. The wafer tape hold forty-eight K bytes per cartridge at 8,000 baud.

TI plans to release twenty-two software packages in the first quarter for their new systems; eight modules and fourteen weafer tapes. Their plans for the third quarter show seventy-five software packages; forty-eight modules and twenty-seven wafer tapes. Some of the other second and third quarter releases will include a phone modom, printers, an input device-wand, and a black and white monitor!

The Hex-Bus Interface for the consoles is the PHP1300 and will retail for \$59.95. This will work on the TI99/4A!!! Your user price is \$46.50. Incidentally, the PES cabinet and peripherals will not work with either the TI 99/2 or the CC-40! As you can tell, TI is gearing up for a big year and is generating some interesting new products to tempt your curiosity with. They described it like this: "TI is initiating an aggressive third party software development program." We will fill you in on details as soon as more information becomes available. Oh yes, that computer for a rumored \$399.95? Well, it is just that, a rumor! The system is really a business system known as the Pegasus and sports five megabyte drives, green CRT screen, maximum RAM of 512K, and much more. It is intended to compete head on with the IBM PC, and is reported to be more potent and less costly! The MPU is an Intell 8086. It will be handled only by the TI Digital Systems division. Looks very promising!!!

#### WANT A NEW DISK MANAGER?

We have been advised by Texas Instruments that they have changed their minds about how you go about obtaining a new double-side disk manager module. You now must submit to them a receipt of purchase and \$9.95. Mail it to: Accessories, P.O. Box 53, Lubbock, TX 79408. If you do not have a proof of purchase, it will cost you the full retail shot of \$39.95! Crank up the old printing press troops! Don't hesitate, as I suspect the usual backlog of orders will slow the shipping down considerably.

#### OUR NEW PRICE LIST MAY BE PRICELESS!

Many of you have requested that we print a detailed price list that contains adequate descriptions of the many TI hardware and software products and packages. We plan to do just this! It will be ready for mailing on, or about, March 1, 1983. It won't be free however, as it will doubtless be bulky and costly to mail. Your charge will be \$3.50, and it will be worth every copper cent too! Get your orders in so we can get busy printing labels and stuffing envelopes! Don't say that we don't deliver! Well, most of the time anyhow...

## SHUTTLE COMMAND: THESE RAM'S WILL GET YOUR GOAT!

I could feel my heart pounding in my ears as the mighty engines of the space shuttle Enterprise ignited. My lungs screamed for air as the force of gravity pressed down upon my prone body. I felt the roll and pitch programs execute as the shuttle thundered heavenward on a pillar of flame. Suddenly it was quiet, unnaturally quiet. I sucked in a long deep breath, elevated my seat, and gazed numbly at the instruments before me. My orders rattled through my mind and duty soon overcame the fear of dying alone in space. I had to destroy the RAM satellites launched by the U.S.S.R. before they rendered our own satellites communications network inoperative.

I locked my eyes onto the view screen and peered out into the ethereal void of space. The myriads of stars blinked colorfully, but what was that tiny blip? I aimed the twin lasers carefully and brought the indistinct object into the crosshairs. I fired a burst of energy and the universe had one less RAM in it. Out of seemingly nowhere came another, but this one was much faster! Frantically, I tried to get it into the crosshairs, but I was too slow! Desperately I fired the retro's and rapidly maneuvered out of its deadly path. I glanced out the cabin window as it sped past harmlessly. The sheer bulk of it made me tremble with terror! There were hundreds, maybe thousands, of these RAM's up here. Would I be able to destroy enough to keep our satellite communications network intact?

Shuttle Command is a new release by FFF Software and is done in X/Basic. It can be played with either the console keyboard or optional joysticks. It is either a one or two player game. You may select normal joysticks or aircraft controls, an interesting twist! It features four difficulty levels: Beginner-all slow, Intermediate-2 slow and 1 double speed, Master-1 slow and 2 double speed, and Pro-all are double speed. You can also select the level of laser accuracy you desire: wide, normal, or narrow. The more narrow the beam becomes the more of a direct hit is required!

Your view is from the cockpit out into space and you can see the RAM's grow in size as they approach. A nifty simulated three D effect! You can move in eight directions. You score from 1 to 8 points for destroying a RAM depending on its distance from you. If you can't hit the RAM with your lasers, then get out of the way kid! The closer the RAM is to the center of your crosshairs, the greater the damage to you shuttle if you get hit. Damage is from 1 up to 50 percent per collision! When your damage is 100% the view screen will visually crack and you and the shuttle become fond memories! The crack is a most clever effect in itself! Makes it fun to lose!

You start the game with 4000 units of energy to power your lasers and navigate your shuttle. You can get your damage reduced by half each time you score 25 points and gain 2000 units of energy for each 50 points scored. These bonus points are signaled by a green flash along the screen perimeter. If two players are playing they both use joystick one and take turns. A turn ends when a player is struck by a RAM. A colorful arrow indicates just which player is in control. Your energy level and damage status is displayed on the screen, along with the points scored. It also features a pause command and menu changing options. The graphics are absolutely sensational!!! It plays well, has plenty of hot action, and is tastefully presented. It isn't as fast as assembler action, but it is an incredible effort for X/Basic! It is another super effort by FFF Software, and it won't disappoint you. Nice documentation too! The retail price on tape is \$17.50, but your user fee is \$14.75! How did I do? Well, I got a couple of those fast moving suckers in my sights, but some others blew my shades right off my face! Plenty of action and guaranteed to challenge your reflexes! Forgive me, but I feel the urge to play coming on...

-4-

## ARCADE TRICKS FOR THE CHEATERS AMONG YOU!

Some of our arcade buffs have developed some nifty, although dishonest, tricks that you can perform with several popular arcade style modules. Parsec, for instance, has two cute quirks! First, you can do an orbit around the screen by holding down the up arrow and right arrow keys at the same time! Tired of your onboard laser overheating and blowing your ship into space atoms? If you hold down both fire buttons at the same time you can blast happily away forever! Tape one of those suckers down, as it is obnoxious trying to play this game with three hands! Confuse your friends by hitting the fire button on joystick #2 and leaving laser fire trails across the screen!

You can meddle with Munch Man if you are fast. When you first see the title screen, and prior to it making that awful screeching creature racket, hold down the shift key and press numbers 838 rapidly! If your timing is right, a new menu will appear on the screen. The game has sixty screens, or three sets of twenty each. First select your round: 0-2. Zero is from screen one through twenty, One is from twenty-one through forty, and Two is from forty-one through sixty. Now pick up to nine of those neat little Munch Man critters! Finally, select the screen you desire to play. This same procedure will work with Alpiner also. The menu is changed to protect the innocent, but the shift 838 remains the same. However, speed is of no importance with the Alpiner, so take your time hitting the keys. Screen eighteen is the pits! Our thanks to David B. and Barry G. for these useful dishonest tips!

### WAKE UP MICHIGAN MEMBERS!

Our February meeting will be held on February 20, 1983 on Sunday at 2:30 P.M. NOTE THE TIME CHANGE! It is on the Flint University of Michigan campus on E. Court street in rooms 2005 and 2007. Featured will be demonstrations of the new Milliken Math modules: Addition and Subtraction, Shuttle Command from FFF Software, Up Periscope from Pewterware, and the Mini-Memory module. Keith Moore will be presenting another in a series of lectures in TI Basic for you eager to learn computer addicts.

We "NEED" volunteers to donate their equipment; such as a PES system and other hardware for the meetings from February through May! We need all of your various talents, so don't be shy and deprive us of them. Get off your cans and volunteer to do something besides sit there and look smug!!! There will be hot coffee for those of you who fade off into a doze, for whatever reason. Remember, RSVP! See you there.

### SUPER PRODUCT SPECIALS FOR FEBRUARY!

1. All Futura games in X/Basic for \$17.50 on cassette: All Star Baseball, All Star Bowling, Wall St., Galactic War, Laser Battle, Starship Concord, Hustler, London Blitz, Fowl Play, and Chutes And Sharks. Basic games: All Star Baseball, Wall St., Moon Duster, Ice Caverns Of Xen, SAM Defense, and Challenge #1 and #2. Basic packages on disk for \$21.50 are: Dr. Nuttier and Casino Pack.
2. Maple Leaf Micro Ware: Skydiver and Hang Glider Pilot Package: \$29.95 and Devil Craze for \$15.25. Super Buys!!!

3. TI Invaders, Chisholm Trail, and Car Wars: \$29.95
4. Adventure Module: \$36.50 and X/Basic Module: \$72.50 by popular demand!!!
5. Dis Controller Card and Internal Drive Package: \$478
6. RAM Card-32K: \$220 and RS/232 Card: \$127
7. PES Cabinet: \$180 shipped FOB

USED PRODUCTS: GOOD BUYS!

1. 32K RAM Peripheral: \$300 and Disk Controller Peripheral: \$90
2. Toshiba 9 Inch Color Portable: \$100-Excellent!

PRICE LIST UPDATE!

1. MPI 99C Impact Printer and Cable: \$565
2. Panasonic Color Monitor: \$314 Not the TI unit!

UF PERISCOPE: SOMETIMES IT PAYS TO TAKE A DIVE!

It is a good thing that the Navy didn't have me peering out of a periscope during World War II! A blind man firing torpedos is a real hazard on the high seas. Tom Krohn of Pewterware did a fantastic job with this new effort done in X/Basic. You view the world from aboard a submarine and see the seascape via your periscope. Your objective is to sink the slow moving target ship, and to try to avoid the rapidly closing escort. The escort will use depth charges in an effort to sink you, and it isn't too bad of a shot either! I flooded that miserable sub more times than I care to remember!

You have three difficulty levels: normal, difficult, and downright impossible. This is a one player game and is played with the console keyboard. Select your play level, load up either twelve or twenty-four torpedos and take a dive! You control your depth by hitting the "D" key and entering the desired depth. It changes in units of ten feet each. Press "P" to raise your periscope, or lower it. Periscope depth is sixty feet. Hit "S" to speed up or slow down your speed, it changes in units of one at a time. Use "C" to alter your course heading and press 1, 2, or 3 to fire torpedos. Torpedo range is 4000 feet or closer, but you may be attacked at this range if the escort spots you!

Your top speed is slower than the target ship or the escort, so you can't catch them or out run them! You must get into range by plotting an intercept course. Your course changes in increments of 30, 5, and 1 degree at a time. The screen displays your course, speed, depth, target range and tonnage, escort range and heading, and number of torpedos. The graphics are crisp, the play action is smooth, and the frustration is awesome! It is well documented and authored by a twenty year submarine vet. I managed to sink the target somehow, and the lousy escort blew my hull to pieces before I could get out of its nasty depth charge depth range! Naturally if you do send the target, or the escort, to the deep six, they are replaced! Lots of fun and a real challenge to your navigational skills. It retails for \$15 on cassette from Pewterware.

### HAPPY MATH: IT TAKES LESS MUSCLES TO SMILE!

Switch that idiot box off, grab those little yucks by the hair, and turn them loose on this educational program! Larry Sabo, Maple Leaf Micro Ware, has done some amusing tricks with this TI Basic program. It is aimed at youngsters from four to six and features both the elements of addition and subtraction. The numbers are represented by colorful graphic sets, as well as by actual boring integers! It has three skill levels for your child to master. If the child scores 80% or higher, they automatically proceed to a higher level of work. If, however, they score 60% or lower, their difficulty level is reduced! Each study session consists of five questions.

The numbers used are randomly selected, so duplication is not apt to occur. Keeps those smart little yucks from getting a pattern down and playing tricks on old Dad and Mom! Rewards are given for good work; such as, a large smile that waves at you, four smaller clever graphics, and a music chord. The author has utilized all of the powers of good education to captivate your child's attention. Speech is optional with this program! It is well done and sure to delight those little ones who are sick of Mighty Mouse anyhow! It retails for \$19.95 on cassette tape. The speech synthesizer and TE#2 are optional.

### COUNTING WITH COINS: BEATS THE HECK OUT OF FINGERS!

If you are tired of your children counting on their fingers and toes, making hash marks in pencil on the walls, and using your TI calculator...There is hope! This clever TI Basic program will help those little whippers learn how to count money in the correct denominations. A few weeks with this program by Larry Sabo and they will be making correct change at their Kool-Aid stands.

It uses graphic representations of cents, nickels, dimes, quarters, a one dollar bill. The child is tested, but not before they are given an optional chance for a tutorial review! The examples are colorful and contain different coin denominations and value sets. The coins being used and their value ranges will change in accordance with the skill level!

You may invoke options for a new quiz, a review, or a combination of both. If the child scores 80% or higher, the difficulty level is increased. If the child scores 60% or lower the difficulty level is automatically decreased by one level. The console will only accept entries of from zero to nine and the decimal point. The decimal must be used if the value of a given set is greater than ninety-nine! This would be most apt to occur when the dollar bill is used in the higher skill levels! It is a fascinating way for your child to learn how to count and barter! After they use this program they will probably hit you up for on-line time to check out the Dow Jones averages! It might also be helpful for those store clerks we all know who can't make correct change!!! Very well done and educational while being entertaining. The retail price is \$19.95 on cassette.

### TI HAM NET: REALITY OR A BAD JOKE?

We have received many letters from frustrated users who can't seem to locate the TI Ham Net we mentioned in a previous newsletter. If you are one

of those persons, or just plain curious, please contact Rick Hayner at the following address: 5904 N. Kenmore Apt. 1N, Chicago, IL 60660 or call him at 1-312-334 5963.

#### GET TO THE CENTER OF THE PROBLEM

If you have been having problems trying to get your favorite impact printer to print with centered headings, then try this. 10 CALL CLEAR 20 OPEN#1: "RS232" 30 A\$="99/4 USERS OF AMERICA" 40 A=(80-LEN(A\$))/2 50 PRINT#1: TAB(A);A\$

This routine will allow the computer to count the characters, including spaces, in a given string and subtract it from eighty. The resulting number is then divided by two. The printer is instructed to start printing the desired string "A" number of spaces over from the left margin.

#### DON'T CURSE AT YOUR CURSOR: MOVE IT!

Here is a routine submitted by J. Peterson of Ohio that will permit you to move your cursor around the perimeter of the screen. It uses 416 bytes of memory and takes roughly twelve seconds. Thanks Jim!

```
100 CALL CLEAR 110 CALL CHAR(44,"FFFFFFFFFFFFFFFF") 120 R=1 130 C=3
140 CALL HCHAR(R,C,44) 150 CALL KEY(O,K,S) 160 IF S=0 THEN 150 170 IF K=68
THEN 210 180 IF K=69 THEN 230 190 IF K=83 THEN 250 200 IF K=88 THEN 270
ELSE 150 210 C=C+ABS(CLT30) 220 GOTO 280 230 R=R-ABS(RGT1) 240 GOTO
280 250 C=C-ABS(CGT3) 260 GOTO 280 270 R=R+ABS(RLT24) 280 CALL HCHAR
(R,C,44) 290 GOTO 150
```

Please note that "GT" means greater than and "LT" means less than!

#### MILLIKEN MATH ADDITION: THIS THING CAUSES PROBLEMS!

We recently received, and tested, four of the eight Milliken math modules. My ten year old fifth grade daughter Becky was the test victim! The major comments printed here are her's, not mine! I just report the facts as she saw them.

It has sixty levels to go through, and they start very easy and get increasingly more difficult. When you get an answer correct the computer generates a colorful graphic; butterfly, dragon, bird, children, and etc. It is also accompanied by a sound effect appropriate to the particular graphic. You automatically advance to the next level after getting six problems correct. If you miss a problem twice, the computer will help you see how it should have been done! You can also carry numbers by the use of the space bar.

The screen has complete directions printed on it, the manual is quite clearly written, and the computer does give written rewards. The math levels are well structured and very comprehensive! However, the module fails to use speech, a powerful learning tool, and does not make very good use of the graphic and sound capabilities of the 99/4A. Becky stayed interested for forty-five minutes and got a perfect score. It isn't easy, but she is an exceptional math student. The program structure is very well done and the graphics used are well done. It does have a nice screen. I was disappointed only in the failure to employ the full power of the TI computer within the confines of the learning module. It retails for \$39.95 and your user cost is \$31.50. Incidentally, the favorite graphic was the dragon with its loud fierce hiss!

PROJECTS IN MACHINE INTELLIGENCE FOR YOUR HOME COMPUTER

By, David L. Heiserman

I want to call to the attention of the members a fascinating book which is perhaps prologue to the kind of project TI users will be involved with in the 1980's. David Heiserman describes Alpha and Beta Class "creatures" which give one an introduction to artificial intelligence. The difference between the two classes of creatures rests in the fact that while both can move about in their environment-(obstacles and boundries)-with the same search ahead routine, the Beta class creature has a self-programming memory which supplements workable responses that are picked at random-(Alpha class). Using contact codes these creatures can move around obstacles or in effect "kill" or delete them if required, leave trails, or move away from boundry constraints. Mr. Heiserman's previous books include BUILD YOUR OWN WORKING ROBOT-(Tab #841)-and HOW TO BUILD YOUR OWN SELF-PROGRAMMING ROBOT-(Tab #1241). After developing the self-programming robot Rodney-(Alpha class)-it occured to Mr. Heiserman that it would be far more efficient to study the principals of self-programming machine intelligence on a home computer system, rather than by watching a piece of hardware blundering around the room. The result is the present book which presents nineteen computer programs in each of two versions: TRS-80 LEVEL #2 Basic and ROM based APPLESOFT for a home computer with sixteen K of memory. I found the programs in APPLESOFT to be closer to TI X/Basic than the TRS-80 Basic.

In translating the "KILLER BETA DEMONSTRATION" to the TI I used CALL KEY in place of a single peek and poke statement in APPLESOFT. The CALL GCHAR statement proved to be the TI X/Basic equivalent of APPLESOFT'S SCR(NX,NY) etc. The rest of the program more or less fell into place since the author uses APPLESOFT low resolution graphics.

The final four chapters of the book examine the behavior of the Alpha and Beta creatures from the viewpoint of experimental animal psychology. An interesting principle developed by the author is to regard those Alpha and Beta creatures as creatures that must be observed from the outside in. Algorithms are presented for scoring creatures in an environment of random obstacles and static boundries.

Reviewing such a though provoking book is great fun. There is alot of material in this book. Wouldn't it be great if TI were to market an affordable self-programming home robot which would be a companion to the 99/4A?

Tab Books Inc., Blue Ridge Summit, PA 17214, No. 1391, \$17.95

Submitted By,

R. Costello

EDITOR'S NOTE: If Texas Instruments ever gets inventive and does fabricate such a machine, I hope they program it to rewrite their instructional manuals! What I really need is a smart mouthed robot who will make sarcastic remarks about my syntax errors or mock me when my cassette fails to load! What's worse is the fool thing just might be intelligent enough to run away so you could not pull his, or her, plug! Forget the robot, give me the "perfect" woman!

DON'T CHEW ON THE BASIC MANUAL, IT TASTES AWFUL!

Every day I get calls from anxiety ridden owners who are frustrated with basic and contemplating beating the family pet to death with their instructional manual! Just be cook, keep your knees together and your ankles loose, and drink some nice cool milk for that computerized ulcer. Here are a few tips that may help you save the life of the family pet!

You can screen print in three different ways by the use of the comma, semi-colon, and colon. 10 PRINT"DUANE FISCHER","FLINT, MI " This will print the name on the left half of the screen and the city and state on the right side. 10 PRINT"AREA CODE";"313-736 3774" This will print both print statements tight together on the same horizontal line. 10 PRINT"99/4 USERS OF AMERICA": "5028 MERIT DR.":"FLINT, MI 48506" This will print the three statements in three vertical columns.

**Instead** of using a delay loop-(FOR A=1 TO 2000 NEXT A(-to keep data on the screen; such as program instructions, try this. 10 CALL KEY(0,K,S) 20 IF S=0 THEN 10 30 IF K=32 THEN 40 ELSE 10 40 CALL CLEAR The data will stay on the screen "until" you depress the space bar! No other key will operate. You can save memory by building this routine into a sub routine.

You can clear a screen from left to right by using: CALL VCHAR (1,1,32,768) This will fill the entire screen with blanks, rather cute to watch!

COMPUSERVE: AN ALTERNATIVE DATA SOURCE FOR THE"SOURCE"

This Columbus, OH based firm may be an answer to some of your financial time sharing prayers. They have no initial hookup fee, no minimum use per month of \$10, and will take either your credit card or bill you direct. Their rates are: 6:00 P.M. to 5:00 A.M. Monday-Friday, all Saturday and all Sunday, and all holidays for \$5 per hour! Prime time is \$22.50 per hour. You can obtain a hookup kit from any old Radio Shack store: Videotex Universal Kit 26-2224 for \$19.95. Your receive one hour of use free, an ID number, and your access password. You can sign up right on line and simply mail in your card, and get your permanent password right away.

You can get such services as: AP news, Canadian Press, commodities bulletins, Dow/Jones reports, bank at home service, electronic mail, chat with many people across the country at once, games-(must be played while on-line as they can not be down loaded), World Book Encyclopedia, and much more. You may call them toll free at: 1-800-848 8990 or write them at: CompUserve, 5000 Arlington Center Blvd., Columbus, OH 43220. We have had many good reports on their services, so give them some serious thought!

ZAXXON: MAKES KING KONG LOOK LIKE A WIMP!

This spectacular arcade game is going to be available for your TI some time this April! The retail price, on either cassette or diskette, is \$39.95. It is super simulated THREE D graphics with true perspective and depth! You fight jet battles, duck laser cannons, and finally face the dreaded Zaxxon robot itself. Friendly? Not with self-homing missiles in his power! It is being produced by DATASOFT INC. of Chatsworth, CA.

HAPPY TI COMPUTING!

DUANE B. FISCHER, PRESIDENT

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