

THE GUILFORD 99'ER NEWSLETTER

VOL. 2 NO. 3

MARCH

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OUR NEXT MEETING

DATE: March 5, 1985
TIME: 7:00 P.M.
PLACE: Tax Investment Planners
218 N. Eugene St.

July- Quiz and trivia programs
for the T.I. These are in
the club library and are
games as well as
educational programs.

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August- Demonstrations of T.I.
Calc. Snap-calc and any
other spreadsheet programs
any member would care to
show at the meeting.

At the next meeting we will
demonstrate the T.I. and taxes.
The club has a program called "IRS
1040" and there is a T.I.
cartridge called "Tax/Investment,
Record Keeping". Since it is now
tax season this will be a timely
topic!

Sept.- Sound and color
demonstration on the T.I.

If any of you have have other
tax programs in your personal
library, how about bringing them to
the meeting and showing the other
members how to use them. In this
way the march meeting will be
doubly meaningful!

Oct.- Demonstration of disk and
cassete cleaning kits.

The planned topics for future
meetings are as follows:

As you can see, there is a
full lineup of interesting topics.
Please let me know of your
suggestions for other meeting
items. In this way the club can
better serve you and your needs.

April- A continuation of the
January meeting with a
demonstration of the real
estate and loan programs
actually in the library
for your T.I. computer.

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COMPUTER CLASSES

May- Drawing, doodle, and music
program demonstrations.

Our computer classes will
resume in March. The Beginning
Basic course will last six weeks
and will be taught on Saturday at
2:00 P.M. at 1504 Larson St. Ask
Bob Carmany for directions if you
don't know how to get there. The
classes will last about 1 1/2 hours
and all students should bring paper
and pencil. The schedule of
classes is as follows:

June- Graphics on the T.I.,
again using several
programs from the library.

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- March 9- Introduction to computers (PRINT, GOTO, CALL CLEAR). Program pre-planning, immediate and program mode, etc.
- March 16- FOR-NEXT loops, timing and counting loops and introduction to string variables.
- March 23- CALL SOUND, Character sets and colors, and CALL KEY. March 30- Part 1 of graphics (CALL COLOR, CALL SCREEN, CALL HCHAR, CALL VCHAR).
- April 6- Part 2 of graphics (CALL JOYST, character definition, and animation).

call for Disk memory of Mini Memory. There are even some good utility routines for high resolution pixel graphics that call for LOADING of DATA statements directly into memory.

Many of the published programs that one usually finds in books are so elementary that I usually get turned off very quickly after keying in two or three. I think that Davis did an outstanding job of providing a good cross section of games, utilities, etc. The programming is of a very high level without being overly cute or tricky. Printing and proofreading is tops (unfortunately not always the case, I have seen some real sloppy proofreading in expensive books that claim to cover BASIC). All in all this is an excellent book, good for many evenings of enjoyment as your expertise with the machine grows there will always be new program examples to explore.

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BOOK REVIEW
BY HERMAN GESCHWIND

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Programs for the TI Home Computer by Steve Davis. Steve Davis Publishing, P.O. Box 190831, Dallas, TX 75219. \$14.95.

This book appeared only briefly on the bookshelves in Greensboro, in fact I feel I bought the last copy that Atticus in Forum VI had (they do have one of the best assorted Computer Science departments of any bookstore in Greensboro that I know of). Steve Davis has put together a compendium of fifty or more programs for the TI-99/4A. These programs range in scope from simple games that require nothing more than the basic console to a variety of programs that make use of just about any peripheral that can be added to a TI. Extended Basic, with or without Speech is represented with some good examples, as are programs that

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Here is a two-liner that was sent in to 99'er Magazine back in 1982 by Craig Miller of Miller's Graphics. If you have been putting off subscribing to his newsletter this short but powerful program might help change your mind!!

```
100 CALL CLEAR :: CALL COLOR
(2,6,6) :: PRINT RPT$("+",252);
RPT$("+",252);RPT$("+",56) :: R=40
:: C=30 :: CALL SPRITE
(#1,42,2,25,17,R,C)
```

```
110 FOR K=1 TO 900 :: CALL
POSITION(#1,Y,X) :: R=R+80*(Y+R >
200)-(Y+R < -1) :: C=C+60*((X+C >
250)-(X+C < -1) :: CALL
MOTION(#1,R,C) :: NEXT K
```

PRESIDENT'S CORNER

Well, here it is the middle of March and time for another column. I'm sure that after last month's meeting you have all been busy trying out the "Lazarus technique" on all of the programs you can find. It seems to work equally well on cassette and disk based programs (they are all the same once they are in memory). But, we don't know if it will work on Assembly Language in Low Memory Expansion.

As a footnote, there is a CALL LOAD that will display only the first line of the program --- try CALL LOAD (-31950,A,B,C,D) and use the procedure as it was presented in the last newsletter.

Please check the mailing table on this newsletter to find out the expiration date of your membership and how much you owe in dues to stay current. Please see Andrew Small at the meeting and catch your dues up!

As you can see, Dave Cohen has done an outstanding job of lining up an agenda of programs through the fall. The schedule is flexible and if you have any suggestions or anything that you particularly want included, let Dave know about it at the meeting.

We are going to try to have both a PEB and tape system available at the meetings to allow those of you who are interested, to get copies of the programs that we use without having to go through the library. You should realize that the programs that we present at the meetings are only a small fraction of what is available in the library. In many cases, there are other programs that are available that may fill your needs as well as, if not better than, those meant to be a sampling of the total library.

We have been exchanging newsletters with several Users'

Groups around the area, country, and even in Canada. Some of them are good, some are bad, and some are ugly. They all have tips and reviews of software and hardware. They will be available at the meetings and, if there is enough interest, we will put them in the library to be checked out like our software. Please try to take care of them because we usually only have one copy of each one.

If anyone is interested in starting a special interest group (ie. LOGO, Assembly Language, etc.) to function as a sub-group of our Users' Group, let someone know at the meeting. We will bring it up in the business meeting and see what we can do to help get things started.

Along these lines, if you would like to have some LOGO or Assembly Language programs printed in the newsletter, let Joe Martin know and we will try to print what we have available. In many cases, there are Assembly Language versions of the Extended Basic programs. We do need some input, however, so that we know what YOU want in the newsletter.

And, we are still in need of material for the newsletter --- we can always use reviews of software, hardware, and publications. Remember, it doesn't have to be a "glowing" review either. We are just as interested in reviews of bad items as those that are good. You might be able to save a member of the club some time and grief by letting everyone know when you find a "loser".

I would like to appeal for someone to teach an Extended Basic class. We even have a "Teach Yourself" course in the library so there wouldn't be much preparation involved.

(continued on next page)

(PRESIDENT'S CORNER: continued)

The course could be taught from the programs with a little bit of practice.

The availability of TI software appears to be increasing at a faster rate now than at any time in the in the recent past. There is an increasing number of manufacturers trying to get in on the 2 million plus TI computers that have been sold. We continue to get announcements of new products (both software and hardware) for the TI on a regular basis. We will continue to present then in both of the the "Shopper" columns as they become available on the market. This has run a little longer than I anticipated, so I will bring this month's column to a close and 'till next month -- KEEP COMPUTING!!!

Bob Carmany

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PROGRAM REVIEW
BY DAVE COHEN

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BIORHYTHYM 2

This is a good program for those of you who follow this theory. Some believe that everyone has three life cycles, which start on the day of your birth. These cycles are the physical, the emotional, and the intellectual. Whether you are on a low ebb or a high tide at a certain time, now or at some future date, is based on these cycles. This at least is the theory. Where you are on the cycle is the subject of this rather interesting program.

The instructions are very clear and precise. Your biorhythm chart can be put on the monitor or go to a printer. The program then uses the speech synthesizer to guide you along in the program. Don't worry if you lack speech,

since the club library has the exact same program without it. One tip though about the instructions! For month of birth and for month of projection you must spell out the month rather use digits.

After all data is entered the program shows you a graph of your three cycles, by days, for a whole month. The highs and lows can then guide you in your activities for the period. This program is fun and it is easy to use, but it's also more than a game if you're a believer! Will you be on a high or a low for the "Big Meeting or Test"? Get this program from the library and find out!

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The latest issue of HCM has several programs of interest. The first two are grouped under the heading of "The Quiz Construction Set" and include two programs that provide for making ("Quiz Make") and taking ("Quiz Take") customized quizzes. Some of the applications that are mentioned are language tests, trivia quizzes, etc.. The tests can be stored on tape or disk after they are finished and LOADED into the "Quiz Take" program for testing. There are a number of options in the program that allow multiple choice answers, fractional letter clues, or no clues at all. They promise "Quiz Print" in the next issue to allow the user to more easily print out a copy of a previously entered test.

Another program in the same issue is a "Personal Loan Calculator". This program will calculate loans and print out amortization tables. It might be of considerable VALUE if you are contemplating a major, long-term purchase.

Of course, there are also the usual two or three games in the magazine that will definitely be of interest to our "gamesters".

HARDWARE SHOPPER

Before we go into the main portion of this month's column, we would like to mention that there is an excellent article in the latest issue of HCM that deals with interfacing your computer with a short-wave radio. There is a clear, concise discussion of the hardware and software requirements as well as prices and sources for the items that you will need.

This month's column will be devoted to some of the bugs and problems that crop up when you use the various interfaces, cables and peripherals for your T.I.

The other night, I was trying (without success) to SAVE a program to my cassette recorder. Not only would the program not SAVE but it sounded like I had a bad contact in the microphone jack in the tape recorder. I could just see the repair bill to put a new one in the recorder! Well, just before I decided to try to fix it myself, I got out my spare cassette cable and, to my surprise, I have had no more problems. Sometimes the simplest solution is the best, it seems. The cassette cables are getting quite hard to find. There is a "fix" for that little problem. HCM had the instructions for a "do-it-yourself" cable for the T.I. some months back.

If you are having any problems with your PEB, you might want to consult the June issue of THE SMART PROGRAMMER from Miller's Graphics. It seems that some of the PEB's have a hidden fuse in them. Craig Miller gives step-by-step instructions for both diagnosing and fixing the fuse when it goes bad and your PEB appears to have "given up the ghost".

Although not really a hardware item, it seems that there has been a problem of late with the T.I.-produced Extended Basic cartridges. They behave erratically when they are plugged in and do not always work. If you have not tried it, clean the contacts on the cartridge itself with a soft, "pearl pink" eraser. If that does not work, the problem may be in the console itself. One of the connectors in the cartridge port may have worked loose. If all of your other cartridges work and it is just the Extended Basic that doesn't, the problem is with the module itself (you have to take the console apart to fix the connector). Fixing the connector, however, is a project that you can do -- but see if you can find someone who has had their computer apart (and gotten it back together).

If you are having a problem with your computer "locking up" after it has been on for a half hour or so, you may have a problem with one of the socketed chips in the console working loose when it becomes warm and expands. Once again, Craig Miller comes to the rescue. He gives detailed instructions for fixing this problem in the June issue of THE SMART PROGRAMMER.

We hope that this month's column has been of some help in giving you some ideas of what may be wrong with your computer if it is behaving erratically. The magazines and newsletters are often valuable sources of information other than just being a source of programs.

Bob Carmany

The GUILFORD 99'ER USERS' GROUP NEWSLETTER IS FREE TO DUES PAYING MEMBERS OF THE 99'ERS' GROUP (ONE COPY PER FAMILY, PLEASE). DUES ARE \$12.00 PER FAMILY PER YEAR. SEND CHECK TO P.O. BOX 21691, GREENSBORO, N.C. 27420 THE SOFTWARE LIBRARY IS FOR DUES PAYING MEMBERS ONLY.

SOFTWARE SHOPPER

We are going to look at some of the graphics packages that are available in this month's column. For those of you who haven't gotten a copy of the latest TENEX catalogue, you might want to get in touch with them. These packages are all in the latest catalogue.

AMERISOFT has come out with a series of mainly disk based programs that are of interest to the T.I. User.

EXPANDED GRAPHICS BASIC is a graphics utility that adds some 40 new commands that allow the user to mix graphics and text, generate 3-D shapes and many other plotting and graphing applications. You can also dump your creations to a suitable printer. The disk version requires 32K memory expansion, and either Ex. Basic or Editor/Assembler. There is also a scaled down cassette version that omits some of the commands and does NOT have the screen dump capability. It requires the MINIMEMORY cartridge. The Disk version is \$44.95 and the cassette version is \$26.95 -- both from TENEX.

MASTER PAINTER is another offering from AMERISOFT that can be used by both the serious artist or casual "doodler". It uses a joystick controlled cursor to create your own designs and save them to disk. This disk-based program requires 32K memory expansion and Extended Basic. The printer is optional. It retails for \$34.95.

The last offering from AMERISOFT is 3D WORLD. This program allows the user to create and manipulate 3-D images and save or print them to a printer. With

it, you can rotate the image, view it from just about any angle and reduce or enlarge it. You can also control the color and subtract portions of the image before you save it. It requires 32K, and Extended Basic and a dot addressable printer is optional. It sells for the same price as the last one.

There is also a program called GRAPHICS GRABBER that is written in Assembly Language that will give you fully magnified, double size prints of your screen on a suitable printer. It will dump either vertically or horizontally and the entire screen will dump in an average of 90 seconds. It requires 32K, printer, and either Extended Basic or Editor/Assembler. The price on this one is \$17.95.

Incidentally, these are just the "new" programs that are listed in the latest TENEX catalogue. There are many more that are in this catalogue or others from third-party suppliers that might serve your needs better. There are sprite editor packages, graphing packages, screen dumps, and programs just for doodling. They vary widely in price and performance. So choose the one that best suits your needs and either send off for some literature from the company that produced it or read the product description in one of the catalogues. There is a real wealth of programs out there for those of you who would like to explore the limits of your T.I.'s graphic capabilities (and, believe me, they are quite impressive!!).

Bob Carmany

PRODUCT REVIEW
BY HERMAN GESCHWIND

THE ANCHOR AUTOMATION "VOLKSMODEM"
AND TE II

The purpose of a modem is to convert digital binary computer signals into analog (tone) signals which can be transmitted via telephone to another computer which also must be modem-equipped to convert the analog signal back into binary form.

Modems come in many forms and price ranges where price is primarily a function of transmission speed and operator convenience. A TI equipped with the RS232 card can be used with just about any modem on the market so that the choice is primarily one of economics and convenience. All modems sold in the US must have FCC type approval so that there is very little difference in basic technical quality.

Physically there are two types of modem connection, acoustical coupling and direct connect. Acoustical coupling calls for two rubber cups into which the telephone handset must be cradled once connection has been established. Acoustical types were not without problems and have just about disappeared from the market (TI sells an acoustical modem which is available from many sources at closeout prices). The more problemfree way to hook-up a modem is with the direct connect way where the telephone line makes a plug-in connection via jack with the modem.

Modems for home use presently are available in two transmission speed types, 30 characters/sec and 120 characters/sec. A 10

character/sec. variety has all but disappeared from the market. For reading information on the screen as it comes in from another computer, 30 chars./sec. is about all that can be comfortably handled unless you have taken an extensive course in speed reading. For transmitting lengthy program or data files, 120 chars./sec. will cut down on transmission time considerably. Naturally a 1200 baud modem costs a lot more, initially. It also means that the higher the transmission speed, the better the telephone line must be. Ordinary voice grade telephone lines are ok for 300 baud, at 1200 baud there might already be problems and at speeds higher than that special conditioned lines must be leased from the telephone company.

Like so many other gadgets in our life, modems can be equipped with dedicated microprocessors and are then able to provide such convenience features as automatic dial and redial, automatic answer, etc.

The "Volksmodem" is a 300 baud, direct connect modem for manual operation. Connection is established with dial-up from the handset and once the carrier-tone of the other modem is heard, a manual switch needs to be set from "Talk" to "Data". From there on in the "Volksmodem" latches to the carrier until transmission is to be terminated when the switch is reset to "Talk". All in all a basic and simple, no frills way to establish contact. Other than that there is one more selector switch for Full- or Half-duplex operation. Connection to the RS232 port of the computer is via a short coax cable with a DIN connector on the modem side and a standard D connector on the computer side. Two telephone type jacks are for the connection of the telephone line into one (cable provided) and the telephone set (continued on next page)

into the other. With the switch in the "Talk" position, the telephone will operate normally, even with computer turned off. Power for the modem is provided by a 9V alkaline battery (not included). Hardware installation is about as simple as can be with good instructions furnished.

My copy of the "Volksmodem" worked without a problem right as it came. Thus far I have had no problems connecting with The Source (via local number) or TI Bulletin boards as far away as Washington, DC and Atlanta. This in spite of the fact that my home phone line is very noisy due to interference from WBIG with a transmitter practically in our backyard.

While the "Volksmodem" might be lacking in convenience features (?) the price certainly is attractive. The price of the "Volksmodem" is \$73.00 and included with the modem purchase is a free subscription to The Source. Normally The Source charges \$100 one time sign-up fee, or presently as a special promotion this has been reduced to \$49.50. Whatever the charge might be, with the purchase of the Volksmodem the Source subscription was included at no charge!

While there are other information utilities (CompuServe, DowJones, etc.) The Source is of special interest to TI owners due to Texnet which is a Source service especially for TI-99/4A users. Among other things there are over two hundred programs available for downloading (provided by the International 99/4 Users Group)!

A modem is only hardware. In order to communicate with other computers software is also required. The most popular communications software for the TI-99/4A is Terminal Emulator II (\$19.95 from most discount houses,

often bundled with a modem purchase). TE II has provision to set up communications parameters and also the necessary routines for file up- and download.

For a newcomer to communications, the various parameters (7 bit, 8 bit, start bit, stop bits, etc.) can be a source of bafflement and confusion. Fortunately TE II has a default option which can be selected with the necessary parameters already set to communicate with The Source and most TI Bulletin Boards. Furthermore, a logon-file can be created which will work with TE II to make sign-on to The Source via Telenet or Tymenet automatic. All in all a nice feature to have.

What makes TE II truly outstanding is that for up- or downloading an "error checking" protocol is being used. This means that the software breaks up the file into transmission blocks which are checked for transmission errors by both systems. If an error is found in a block (which can happen very easily due to telephone line noise), the receiving system automatically requests a re-transmission of that block. If several retries are unsuccessful due to a bad connection, the system shuts down with a warning message. Both The Source (Texnet) and many TI BBS support this protocol. Particularly with program files this error checking is essential because an error in a program could make the downloaded file useless.

Following is a list of useful phone numbers:

Local: 274-3305 (A BB for IBM, TRS-80, etc. good for modem testing).

299-5392 (A C/PM Bulletin Board, again good for modem test). (continued on next page)

Atlanta: (404)-425-5254...The first TI Bulletin Board in the country. Has a good selection of software for download. Very busy..so be patient.

Raleigh: (919)-851-8460...A real good TI Bulletin Board. Interesting messages. Up-and download. Good selection.

Silver Springs, MD: (301)-434-0117...BB of the Washington area TI Users Group. Very busy and tough to reach. Excellent technical items. Features "Forth" programs for download.

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**PROGRAM REVIEW
BY DAVE COHEN**

EXTENDED BASIC MAIL

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This program is a utility as its name implies. It is a mail list which is very complete in terms of several features. For example, you can search for names, alphabetize your list, save to a cassette or disk, and even print your mail list. It will also make labels!

This program will hold up to 200 entries. This mail list is unique in that it has space to show the children of the main person, has space for their telephone number, space for their zip code, and space for other useful data. The program asks you, after each complete entry, if there is anything you wish to change before the computer enters it into memory. However, one thing it does not do, which is found in other mail programs, is note the person's relationship to you and whether you wish them to be on your Christmas card list.

Overall, this program is a

good one for you to have and use. It is available in the club library, but, there are several such mail programs in our library and I would suggest that you try them all. Compare their various features, and then pick the one that best suits your needs.

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WANT ADS

Bob Stitz has the following items he wishes to sell:

Commodore 1701 13" color monitor \$190

Tandon TM-100-2 DS/DD disk drive in case with power supply and cable \$200

TI 99/4A console, new in box \$75

TI 99/4A console, like new \$85

TI "side car" disk controller \$90

TI Expansion Box (bare) \$125

TI Writer word processor \$75

TI Microsoft Multiplan \$75

Panasonic RQ-2309A cassette player w/cable for TI \$35

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I'd like to take this opportunity to thank all of those that have helped me with the newsletter by contributing material and by generally giving me a helping hand. I would especially like to thank Bob Carmany, who edited the newsletters for Jan. and Feb. while I was getting my printer and RS-232, but gave me the credit for them. Herman Geshwind and Dave Cohen have also helped greatly with a great deal of material. Everyone, please submit any material you might have. Also, suggestions as to what you'd like to see in the news- letter are welcomed. Joe Martin

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**TI WRITER TIP
BY JOE MARTIN**

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Here's a little tip for those of you who may have been frustrated in trying to make use of your printer's built in features from TI WRITER. For instance, you know that your printer will make a neat, continuous underline, but when using the underline function from TI WRITER's formatter, you get a broken, character by character underline. This occurs because TI WRITER backspaces and uses the underline character ASCII 95 instead of using the printer's built in underline function. In addition to the underline, there are many other special printer functions that seem to be impossible to access from TI-WRITER.

It's not as difficult as it may seem to overcome this problem. TI WRITER can make use of nearly all of your printer's built in functions through use of the TRANSLITERATE command (page 107 of the TI WRITER manual) and the special character mode (page 98 and chart on page 146 of the manual). The TRANSLITERATE command is used to initiate and cancel printer commands which require that more than one character code be sent to the printer at a time. Special character mode is used for commands which require only one character code be sent to the printer at a time.

Let's consider some examples. The Gemini 10X printer requires the character codes CHR\$(27); CHR\$(45);CHR\$(1) to initiate its underline function, and CHR\$(27); CHR\$(45);CHR\$(0) to cancel it. Since this function requires that more than one character code be sent to the printer at a time, we

must use TRANSLITERATE to control it. To do this we must first decide on two characters which are seldom if ever used in our word processing (DON'T try using format characters such as the ampersand (&), this drives the printer crazy.). For our example let's use the left brace ({) and the right brace (}). Assuming these characters are not to appear anywhere in our document, we can perform our transliterations at the beginning of our text and not bother to return them to their original values. Were we to use characters which appeared in our document it would be necessary to TRANSLITERATE them back to their original values before the point at which they appear in the document. (It's important that the characters retain their original values when the formatter encounters them as part of the document.)

The format for the command to initiate underline function would be (.TL 123:27,45,1). This would set the value for the left brace ({) whose ASCII code is 123 to the series of codes required to initiate the underline function. In like fashion the right brace (}) is set to cancel the function with the TRANSLITERATE command (.TL 125:27,45,0). All that is necessary to return a character to its original value is another TRANSLITERATE command (for example .TL 123:123 would return the left brace to its original value). Each TRANSLITERATE command must appear on a line by itself and be followed by a carriage return.

To make use of this function in a formatted document you simply insert the left brace immediately before the character at which you wish to begin underlining and the right brace immediately after the character with which you wish underlining to halt. For instance this is how you would underline the words {cat and mouse} in a formatted document. (CONTINUED ON NEXT PAGE)

