

**Southwest
Ninety-Niners
Newsletter
contributed by
- Tom Wills -
SW99ers User Group President of Record
compliments of**



**TI99ers
On-Line
User Group**

www.ti99ers.org

SOUTHWEST NINETY-NINERS

AUGUST 1989

P.O. Box 17831 Tucson, AZ 85730

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BJ Mathis - President
David Ormand - Vice President
Ed McCullough - Secretary
Les Neff - Treasurer

NEWSLETTER

BJ Mathis - Editor

LIBRARY

BJ & Jack Mathis - Co-Chairmen
Ida McCargar - Fairware/Lending Librarian



ATTENTION MEMBERS!!

Next meeting, Thursday, August 3rd at Devon Gables Health Care Center in the Executive Dining Room at 6150 E Grant across from the Price Club at 7pm. Mark O'Dwyer was unable to attend last month, so he is scheduled again this month.

FESTWEST '90 PLANNING

Saturday, August 5th, 1pm - Mathis' home - 5941 E 26th - 747-5046.

GENERAL USERS WORKSHOP

Third Tuesday of each month at 7:30pm (August 15th).
Mathis' home - 5941 E 26th - 747-5046.

GENEVE USERS WORKSHOP

Second Tuesday of each month at 7:30pm (August 8th).
David Ormand's home - 2227 E Drachman - 795-2005.

ADVANCED LANGUAGES WORKSHOP

Fourth Tuesday of each month (August 22nd) at 7:30pm - Rod Stallard's home - 7575 E Logan Dr - 745-6071.

DISK-OF-THE-MONTH, AUGUST 1989

The DOM for August is IXB/1-5. This is a Public Domain disk containing Barry Traver's IXB program which adds 45 new CALLs to Extended Basic. This disk also includes a number of Assembly Language routines which you can merge into your Extended Basic programs, along with directions for using them. There will be a Cassette-of-the-month for Console only users who attend the meeting. If anyone has a specific request for any program on cassette, call me and I will do my best to oblige.

Edward Hallett has contributed several new disk mailers to the library, as well as a number of used mailers, which I can use for mailing disks to out-of-town members. As long as I can find enough mailers, I don't have to ask the group to buy any.

Thanks to Ralph Jones, one of our out-of-town members, the library now has the very latest (July 9, 1989) version of Funnelweb. I will be sending Ralph a program in exchange for the program he has donated. Ralph has been very helpful in keeping the library supplied with new programs. Thank you, Ralph and Edward. Your help is appreciated.

Ida McCargar - 294-3024

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( ) ( ) ( ) CO-SYSOP: TOM WILLS ( )
( ) ( ) ( ) ( ) (602) 795-1953 ( ) ( )
( ) ( ) ( ) ( )
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EDITORIAL: PRBASE VS. TI-BASE

by BJ Mathis

All the hoop-la about TI-Base has many TI users running out to buy this much lauded new program. I agree with many of the authors' opinions about the wonderful things TI-Base can do. The writers of these tutorials, reviews, etc. leave out a few important points for the average TI user. The most important point being: If you don't have a RAM disk, or Geneve you will be very disappointed with the speed of the sort in TI-Base. Currently, TI-Base doesn't work properly with a Hard disk, but that will soon be another option for those wishing to use TI-Base.

TI-Base can handle much larger files than PRBase, but most of the time, I only need enough room for name, address, phone number, and a little other information or other simple data, and usually the number of records is in the sixty to 200 range. PRBase can handle up to 700 records, I have only one data base with over 600 records. I use PRBase to keep membership lists for my church, user group, Christmas card list, etc.

The only list, I use, that benefits from TI-Base is the newsletter index. Ed McCullough is converting our newsletter index to TI-Base and Ida McCargar is now using TI-Base when updating the index. Ed McCullough has a 1 megabyte Horizon RAM disk and Ida has a Geneve. Ed told me to just copy off the programs on my Horizon, then

reconfigure it for two drives, one for TI-Base and one for the data base. When I get done using TI-Base I can reconfigure the Horizon and copy my usual stuff back onto it. Sounds like a great idea, but I can load PRBase from the Horizon, access data from a physical drive, make corrections, sort, and print the data, faster than TI-Base can sort the data, let alone do all that reconfiguring and copying.

TI users who do not have the hardware mentioned above, do not even have the option of reconfiguring a Horizon, etc. My personal opinion would be to stay with PRBase unless you NEED a larger data base or the ability to do arithmetical functions, then you better plan to do your sorting while you watch the news and eat supper!

Texaments, the producers of TI-Base, have announced TI-Sort with the capabilities of sorting TI-Base data files quicker than TI-Base can sort them. I don't understand, knowing the TI-Base sort is so slow, why Texaments doesn't make this program an update for those who have already paid for TI-Base. I realize TI-Sort is designed to work with other data files as well, but it seems to be a must have for TI-Base users. Perhaps TI-Base owners could at least be given a break on the cost of TI-Sort.

JULY SW99ERS' MINUTES

Thursday July 6, 1989

Business Cards for SouthWest Ninety-Miners are available for all group members, to be used to pass out to anyone you know that has TI equipment, or is interested in the TI99/4A.

The contract from Days Inn caterers for Pest West '90 was received this week. We are to pay 25% down and the balance 3 days in advance of Pest West '90. The cost for the meeting room and sundries is approximately \$1177.00, including tax.

Flyers will be made available with our Newsletter mailings in the next two months for our members, to be posted in businesses that will permit. Later we will have another flyer to specifically advertize Pest West '90.

There have been some enquiries from group members about getting the NYARC Hard/Floppy Disk Drive. If anyone is

interested, please contact BJ Mathis. We will then try to find a source from which we can obtain a bulk order.

Jack Mathis is again modifying DM1000 3.5jm. The new modifications will allow it to work with the Geneve and will blank the screen after a certain length of time when no key is pressed. Although other versions of DM1000 work with Geneve, none of them blank the screen and only DM1000 3.5jm includes the features Jack has added.

Mark O'Dwyer was unavailable to present his graphics demonstration.

Tom Wills demonstrated Rodger Merritt's Form Shop program.

Ed McCullough, Secretary

GRAPH MAKING PROGRAM SPECIFICATIONS

by David Ormand

Here is a specification for a graph making program that I would like to see on the market. The graphing programs I have seen are fairly good, but the printouts are always merely screen dumps, which are useless for scientific work, much less to include in reports. With the desktop publishing and WYSIWYG products appearing, I think it is time for a more professional graphing program. I think it would have positive cashflow potential (I would buy it, anyway).

Also, the format of the specification may be useful for those of you interested in formal software development. It is similar to design specifications I see in the defense software industry.

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1.0 Introduction

This specification describes a computer program for the TI 99/4A environment to produce line graphs from printers of selectable sizes to be to be useful for scientific or engineering purposes, and oriented normally or at 90 degrees so as to be included in reports as desired.

2.0 Hardware Requirements

The program shall run on a standard TI 99/4A with one single-sided, single-density drive, 32K memory expansion, and RS232 card. It shall be compatible with the 9640 computer running in GPL mode, or include a separate version to run on a 9640 from MDOS mode. It shall support the use of standard RAMdisks and hard disk drive controllers.

3.0 Software Description

3.1 Startup

The program shall be loaded as an Editor/Assembler option 5 memory image file or as an option 3 object file that auto-runs upon being loaded. Loaders for Extended Basic, Mini-Memory, and other environments may be included. The use of virtual memory techniques such as overlays is acceptable. Program files, overlays, font files, temporary files, etc. shall all be on the program disk. The program shall load and run from any drive, and shall not require a disk name. If a file is not found, the program shall notify the user and return to the menu screens.

3.2 Inputs

The program shall be interactive, and allow the user to create the format of the graph to taste. It shall also have the capability of reading a command file to set the parameters for a graph, and saving the parameters set

interactively by the user to a command file. Graph data shall be input via a data file of paired numbers, and the capability to build a data file from the keyboard may be included.

3.2.1 Keyboard Input

Interaction with the user shall be made via a structure of nested menus. Alpha entries shall not be case-sensitive, and illegal entries shall either be ignored or cause the display of an error message.

The menus shall allow the user to set parameters, load a data file, save parameter settings to a command file, load a command file, view a graph on the screen, print a graph to the printer or a file, and quit.

The following set of graph parameters shall be accepted via keyboard input:

- Margins (left, right, top, bottom)
- Orientation (normal, 90-degree)
- Printer type (Epson, Panasonic, etc.)
- Output filename (PIO, DSKx.nnn, etc.)
- Title of graph
- Title location (top, bottom)
- Ordinate range (numeric, or automatic)
- Abscissa range (numeric, or automatic)
- Ordinate label
- Abscissa label
- X=0 line (on/off)
- Y=0 line (on/off)
- X grid lines (on/off)
- Y grid lines (on/off)
- Density of ordinate numbers (number of number references, or automatic)
- Density of abscissa numbers (number of number references, or automatic)

If graph data is to be entered from the keyboard, a separate screen shall be used to allow the data to be entered in a tabular format, such that several adjacent entries are also visible. The table shall scroll as the user moves up or down, and an end-of-file marker shall appear at the end of the table. If data entry is provided, editing of the data shall also be provided, and must use the same table screen.

On-line help shall be available at one or more menus, of sufficient detail to allow a new user to create a graph without using the manual.

3.2.2 Data File

The data file is a set of paired numbers in an X Y order. Floating point is assumed, and no decimal points shall be necessary after integers. No format shall be required, such as punctuation, spacing, or the presence of flags. The file shall be a display/variable 80 type, allowing files to be created by other programs using

default file type. The capability to accept numbers in scientific notation may be included. If data entry capability is included, the program shall also be able to write the data to a file.

3.2.3 Command File

The command file is a set of command lines to set the parameters of a graph. It may be created by saving the settings the user selects from the menus, or may be created off-line on a word processor. It must be a display/variable 80 file. A command has the form of a tag to indicate which parameter is being affected, followed by the setting. If a graph parameter does not have a corresponding command in the file, it remains at its default setting. When saving a command file, the program shall not include commands for parameters which were at their default setting. The parameters are given in paragraph 3.2.1. Defaults are: titles and legends, none (empty string); ranges and densities, automatic; 0-lines and grid lines, off; printer type, Epson; output filename, PIO; orientation, normal. In addition, a command to load a specified data file shall be included.

3.3 Processing

After all parameters have been set and the user chooses to view or print the graph, the program shall process the data. When viewing a graph on the screen, orientation and margins are ignored, and the graph is scaled to fit the screen. Displaying on the screen shall take less than 3 minutes. When printing to a printer or file, the graphics data appropriate to the selected printer shall be generated and output to put the image within the specified margins and with the specified 0- or 90-degree rotation. It is preferred that the 90-degree orientation be with the bottom of the graph placed on the right side of the page, to facilitate inclusion in reports. Margins enclose the graph and all legends, titles, and axis numbering. Printing a full-page graph on an Epson-compatible printer shall take less than 20 minutes. Fonts for characters may be loaded from external files or be built-in datasets; however, the provisions to load from files shall be included to allow expansion. In both cases of writing to screen or printer, the following shall be included: The entire graph shall be enclosed in a border. The title shall be centered top or bottom as selected. The abscissa legend shall be centered. The ordinate legend shall be centered vertically, rotated 90 degrees with the bottom facing the graph. If any legend or title is omitted, the graph shall be scaled to fill the available space. Ordinate numbering shall be spaced as specified, or automatically at 1/2-inch intervals. Numbers shall be rounded to fit within 8 characters, or if a number will not fit within this bound, asterices shall be displayed. A preferred alternative is to use scientific notation. Abscissa numbering shall be spaced as specified, or automatically according to the length of the abscissa data in the data file: the numbers shall be spaced by a number of character spaces equal to the maximum number of characters per number plus two. Numbers

shall be centered under the corresponding line on the graph. Tic marks on both axes shall be placed adjacent to the numbers. The X=0 and/or Y=0 lines shall be placed if set on. Grid lines from the tic marks shall be placed if set on. Lines shall be drawn between consecutive data points.

These functions may be made in whatever order maximizes efficiency of execution, and by whatever means. The use of virtual memory in mass-storage devices (disk drives or RAMdisks, etc.) is permissible as long as the display or print time is less than the limit. It shall be possible to interrupt processing, especially printing, to return to the menu screens by pressing function-4 or control-C.

3.4 Output

The monitor shall be used to display menus and input from the user when keyboard input is being accepted. Graphics or text mode are acceptable. Bit-map mode shall be used to display the graph when the user selects to view the graph, and the mode shall change back when the user presses any key when finished viewing the graph. When the printer (PIO or RS232) is selected as the output device, the program shall print the graph to the printer in the form described in paragraph 3.3. When a disk file (DSKx.nnnn) is selected as the output device, the program shall write the printer data for the specified printer to an internal/variable file to save space.

3.5 Program Termination

When the user chooses to quit, the program shall close all open files. If possible, the program shall reset the screen mode to the mode of the loader environment (E/A, Extended BASIC, etc.) and return to that environment; otherwise, it shall return to the GPL color-bar title screen.

4.0 Notes

4.1 Definitions

Abscissa - The X, or horizontal axis.
Ordinate - The Y, or vertical axis.

4.2 Future Enhancements

The menu structure and command file are such as to allow the addition of options in the future. Some possible enhancements are:

Graph type - line graph, semi-log (specify number of cycles), log-log (specify number of cycles), etc.
Accept multiple data files to put several plots on the same graph.
Indicate data points by symbols (triangles, circles, crosses, etc.).
Variable widths of borders, 0-lines, grid lines, or plot lines.
Different line styles (solid, dotted, dashed, broken).
Accept character fonts from other TI 99/4A programs.

CS1*FINDEX AN AUTOMATIC CASSETTE TAPE PROGRAM LOCATION SYSTEM

Review by Charles Good - Lima Users Group, OH

This one is for cassette tape users and for those interested in unusual programming techniques. Have you ever wondered if it was possible to mark with software the position of a specific program on a cassette tape full of many programs and then have the computer search the tape from the beginning until the specific desired program is found? TI did once develop such a system for its 99/8 computer, but TI's WAFERTAPE drive was never released. Coleco ADAM computers successfully use such a system. Not so for the TI99/4A, according to many well respected commentators. I have read again and again in our newsletters expert comment to the effect that with the TI there is not way to automatically, under software control, advance a long cassette tape to the exact physical location where a program starts. Well..... way back as early as 1983 Joseph E. Bartle of Parish NY wrote a TI BASIC program that does this for the TI! I recently acquired a 1985 update of Joe's CS1*FINDEX program (still entirely in TI BASIC with no assembly routines) and after removing a few bugs I am quite impressed with the capability of this software.

CS1*FINDEX will do its stuff even if you don't have a printed list of which programs are on a program tape, even if you are using a tape recorder that does not have a numerical tape counter, and even if you are using a tape recorder that is not automatically controlled on/off by the 99/4A. CS1*FINDEX finds semiautomatically the exact location of a program on a long tape. The manual tape recorder operations required of the user are all prompted from the screen. If you are using a TI compatible recorder, CS1*FINDEX will advance the tape to your program's location after you press fast forward, and then automatically stop the tape. If you are using a tape recorder that the TI cannot automatically turn on and off, CS1*FINDEX will turn the screen from green to yellow and finally to red to indicate when you should manually press cassette STOP once the location of your program has been reached. Neat!

With CS1*FINDEX you can create a catalog of up to 10 programs you want to put on one side of a C60 tape and put this catalog at the beginning of the tape. The catalog includes program name (up to 12 characters with spaces anywhere), and there is also provision for catalog to display a 12 character comment for each of the 10 programs. You can then put your up to 10 programs onto the tape, with CS1*FINDEX advancing the tape recorder to the correct tape location where you should SAVE CS1 each program. It is necessary to reload CS1*FINDEX for each of the programs you put on the tape. Thus, users with only a console/cassette system will appreciate the fact the CS1*FINDEX is designed to be small enough to load into the

MINIMEORY module with SAVE MINIMEM. Then each time you need to load CS1*FINDEX all you do is type OLD MINIMEM, and CS1*FINDEX boots in a few seconds. Otherwise it takes about 90 seconds to load CS1*FINDEX from tape.

Later, when you want to use the tape you load CS1*FINDEX into the computer and then load the tape's catalog from CS1*FINDEX. From the catalog you select the number of the desired program on the tape. You are then instructed to rewind the tape to the beginning and press FAST FORWARD. CS1*FINDEX then advances the tape to the program's location, automatically stops the tape if you are using a TI compatible recorder, displays the name of your program on the screen, and informs you this program has been located. Then CS1*FINDEX BREAKS to command mode and allows you to load your program in the normal way by typing OLD CS1 and following all the usual screen instructions, except you DO NOT again "REWIND CASSETTE TAPE". CS1*FINDEX can easily be modified in extended basic to load the located tape program into the computer from within CS1*FINDEX rather than from command mode. Change line 1770 to read RUN "CS1".

If you already have a printed list of each program on the tape and in which order the programs occur, you can bypass the catalog loading procedure. When you RUN CS1*FINDEX your first option is "LOCATION SEARCH (Y/N)". From here you can use CS1*FINDEX to locate the first or second or third, etc. program on the tape without using time to boot the catalog.

What's the secret? How does CS1*FINDEX using only TI BASIC with no assembly routines do what all the experts say can't be done? Have you ever noticed how the tape recorder behaves when you read or write tape serial FILES (as opposed to PROGRAMS)? The recorder starts, reads in or writes what I presume to be a file header, then stops. Then the recorder starts again and reads or writes the first record and then stops. Then the recorder starts again and reads or writes the second record and then stops, etc, etc. The total number of start/stop cycles equals the number of records plus one. The computer controls the turning on and off of the tape recorder motor and IT DOESN'T MATTER TO THE COMPUTER IF THE RECORDER IS SET FOR PLAY OR FOR FAST FORWARD. When searching for a program, CS1*FINDEX writes a false file to the tape, turning the tape recorder motor on and off several times as this file is written. The tape recorder is set for FAST FORWARD rather than for RECORD as this file is written, so the tape never receives any data. The computer cannot directly sense that the tape is not getting any data, so the computer continues to turn the recorder motor on and off as it writes its fake file to

the tape. When turned on, the tape advances very rapidly because the recorder is set for FAST FORWARD. A tape file designed to write up to 10 records with a record length of 192 will go through up to 11 start/stop sequences on a C60 tape before the tape is completely wound up on the take up reel. This is how CS1*FINDEX locates physical blocks of tape space. This first block (corresponding to the false file's header) is where the catalog is stored, and the next 10 blocks (each corresponding to a false file record) are where the programs are stored. Enough space is included in each of the program storage blocks to store the largest possible tape PROGRAM.

LIMITATIONS: 1--You can't use CS1*FINDEX with already existing program filled tapes. The spacing of the programs on the tape won't be right. You need to load programs onto your program storage cassette tapes using CS1*FINDEX. 2--Problems may occur if different tape recorders are used to store and later play programs. If

the FAST FORWARD speed of the two recorders differs very much CS1*FINDEX will not correctly find the location of the desired program. 3--There is only room for a short program in the last (10th) program block before the tape runs out.

The author of CS1*FINDEX has written some rather wordy documentation files to explain the use of CS1*FINDEX. These files are in PROGRAM format so they can be loaded from tape and read by console/cassette-only users. In general most users can play around with the program and figure out how to use it without these docs. CS1*FINDEX is released to the TI community as FAIRWARE. If you like it, send whatever you think it is worth to Joe E. Bartle, 16 S&E Traylor Ct, Parish NY 13131. Joe has other FAIRWARE offerings. Write or call 315-625-4409 for details. You can obtain a copy of CS1*FINDEX from the SW99ers library by contacting Ida McCargar 294-3024 or directly from Joe at the above address.

FOUR-A/TALK - RANDOM RAMBLINGS ABOUT THINGS TI

by Bill Gaskill - July 1989

WHAT'S HOT:

Barry Boone's new EPROM for the Mechatronics 80-column card, AV-Indexer from Genial Computerware, a promised upgrade to 99 FORTRAN by Al Beard, MY-WORD External from J. Peter Hoddie, cSHELL99 from Joe Ross and GENIEINDEX from Scott Darling.

NEWS:

Geneve 9640 users will be happy to hear that Peter Hoddie has created a way to add new commands and keypresses to the current version of MY-WORD. I don't have any more details on it other than to report that a demo External and documentation are available for downloading from DELPHI's TI-NET SIG.

Al Beard, Professor Emeritus of the Fortran language for our two 9900 series computers, has promised an upgrade of 99 FORTRAN to V4.0 to help it keep up with the immensely popular 9640 FORTRAN that seems to have taken over c99's spotlight (at least for now) as the developer's language of choice for the 9640.

Barry Boone, guru of DSR's for the 99/4A and the author of the best archiving utility in existence in my opinion (for any computer), has announced a \$20.00 EPROM for the Mechatronics 80-column card that contains fixes for the bugs that apparently existed in the original EPROM. There are several other enhancements to the card too, including the ability to use any CRU base so that ram disks can be used with it and an 80-column version of John Johnson's

Menu V7.3 for the Horizon Ram Disk, to prove it. Cost is \$20.00 plus \$2.00 for S/H. Write or call Barry at:

Barry Boone
Box 1233
Sand Springs, OK 74063
(918)356-4648 8am-10pm weekdays
10am-10pm weekends.

Don and Aaron West have authored a new program called AV-INDEXER that will print labels for cassettes and VCR tapes. It also provides some indexing capabilities and can import files from Asgard's Cassette Labeler. It is available through Genial Computerware for \$15. Write to Genial at:

Genial Computerware
Box 183
Grafton, MA 01519

Joe Ross, a here-to-for unknown programmer (to me at least) has created a REALLY slick looking product called cSHELL99, which is designed to provide a GEOS-like front end for the 99/4A. In case you didn't know already, GEOS (Graphics Environment Operating System) is an icon-based add-in for the Commodore 64/128 line of computers that looks and acts like the user interface that comes standard with an Apple Macintosh.

cSHELL is written in c99 and assembly and it gives the user the ability to point at icons (little pictures, like

a trash can) to provide various disk management and printer functions. It also provides loaders for files that can be loaded with the Editor/Assembler module's option 3 and option 5, and it allows you to link to c99 programs so that the cSHELL99 interface is reloaded upon exiting. The graphics on the program are superlative and program performance is quick and efficient. I hope to have more information on cSHELL after I get more time to spend with it. Although I have yet to really get into the program, it looks NEAT!!! Program cost is \$30.00, which includes S/H. That buys you two floppy disks and a 48 page manual. If you are interested, send your inquiries to:

Joe Ross
119 Knollwood Terrace
Clifton, NJ 07012

DISCOVERIES:

Word is that Warren Agee is readying the next version of FirstBase and Genial Computerware is looking for suggestions from users on new features they would like to see in it. You may write to Peter Hoddie at the Genial Computerware address with your suggestions.

J. Peter Hoddie has been working on a program tentatively named Sign Shop, that will operate like Broderbund's Print Shop for Apple and IBM type computers. JPH also intimated that he hopes to produce a Navarone to FirstBase conversion program to allow owners of the Navarone DBMS to port their data files over to FirstBase format.

Scott Darling, one of GENIE's TI-SIG hosts, has uploaded a neat file to the TI RoundTable that lists a ton (if not all) of the products and services available on GENIE. The file un-arc's to 359 sectors and prints out to 39 pages of information. If you are a GENIE subscriber and want to have a quick source for what GENIE has to offer, this is the file to spend your downloading dollars on. It covers everything from games to on-line shopping, with excellent descriptions of each product or service. If your club receives Four-A/Talk from me directly, the file should be available from your librarian. A TI-Base adaptation of the short-list of GENIE's products is also available from your librarian as a shareware offering. I ask \$7 for a copy of it. I think that you will find it to be one of the best TI-Base command file programming examples around. It covers menu creation, and offers features to add, browse, change, find, list, report on and search for data. It also provides a command file to print a disk label for the diskette that you store the file on. I think TI-Base owners will like it.

THIS MONTH IN TI-99/4A HISTORY:

1981:

Proposal is made in fourth issue of the TIHOME Tidings magazine to set TIHOME up as a recognized Users Group by Texas Instruments.

1983

Anteater game module released.

-First issue of TI*NES is published by Britain Clive Scally.

1984:

JOYPRINT, a printer interface that is designed to work out of the joystick port, is released by Model Masters.

-Impending publication of the Super 99 Monthly magazine is announced by editor Richard Mitchell.

-Article appears in Popular Computing that derides TI and its non-standard 16 bit chip, citing the failure of the TI-99/4A as an example.

-QUICK COPYER is released by Quality 99 Software.

-TINY LOGO released for the 99/4A.

-WILD WOODS game program by JW Software debuts.

1985:

FUNNEL WRITER 2.1 arrives in the U.S., introducing the Australian programmers Tony and Will McGovern to the American TI-99/4A Community.

-Myarc announces XB II for use with its new Ram Disk.

-Navarone Industries announces its ill-fated HYWAY (Have it Your Way) program.

-TI-99/4A Users Association of Canada is formed with Jane LaPlante as contact person for membership interest.

-Steve Lawless, author of MASSCOPY, has a new program available; 128-WRITER. It stores the TIW editor and formatter in bank 3 of the FOUNDATION 128K card.

1986:

Rave add-on keyboard announced for the 99/4A.

1987:

MICROpendium publishes the history of Disk Manager 1000.

-Federal Communications Commission plan to tax on-line communications services is announced.

-Ralph Fowler announces that his TIBBS, the first bulletin board system for the 99/4A, will shut down for lack of use.

1988:

Bill Knecht, pioneer member of the TI-HUG (Houston Texas Users Group) and long time programmer of music for the 99/4A, dies of cancer.

-McCann Software, Omaha, Nebraska, releases the Avanti-99 Forth card for the 99/4A PE Box.

-Rave99 releases the MX01 Memory Enhancement System, which is a ram disk card capable of being configured to store up to 544K.

-Texaments, a New York based supplier of 99/4A products, relocates to Yaphank New York 11980, 244 Mill Road.

-John Gwion, Dallas, Texas releases a plug in upgrade to the Triton/MG Super Extended Basic module that provides SXB, Disk Manager III, Editor/Assembler and TI-Writer capabilities in one module.

-Sierra On-Line, former producer of 99/4A game modules such as Jawbreaker, publically announces it will not enforce its 99/4A copyrights.

-John Birdwell begins assembly language programming series for MICROPENDIUM. He decides to teach the language by making each published installment one part of a working word processor when complete.

-Ray Kazner, 13225 Azores Ave. Sylmar, Cal. 91342, becomes the first person in the history of MICROpendium magazine to have two articles, one review, one User Notes and a letter all published in the same issue.

TRIVIA:

Did you know that...

-Stephen Flanagan, the author of Data Base 1, marketed quite successfully by SPC Software out of Brightwaters, New York, is now doing his programming on the Commodore Amiga?

PRBASE 2.1 COLOR CHANGES

by Jack Mathis

Have you ever wished the colors on PRBase 2.1 were not white on black? Well, here's how to change them. Load up your favorite disk editor, in PRB:1 file find >020007F0 in the first sector of the file. The F=white and the last 0=transparent. Since no color was assigned to the screen, transparent becomes black. Using the Basic color code

-Chicago TI-UG members Roger and Orlan Degris created a "49-99" keyboard for the 4A in 1985 that had a second function key? The additional key was built onto the existing 48-key board just to the left of the letter A. Sort of a compliment to the <ENTER> key in the same position on the right side of the board. I remember actually seeing one at the '86 Fest-West.

-John Keown, creator of the Module Emulator that was primarily marketed through Pilgrim's Pride in Philadelphia, is credited with giving Myarc's computer on a card the "Geneve" name? The name apparently came from a framed print that was hanging on a wall in Lou Phillips' place. Lou gave the computer the 9640 designation, the 9 coming from the 9900 series chip that the computer is based on and the 640 coming from the size of the RAM that it comes with.

-Texas Instruments had a promotional policy in effect that offered a free "Teach Yourself Basic" cassette to 99/4A purchasers? I haven't been able to discover when it ended, but it was still in effect in May of 1984 for those who had proof of purchase prior to October 31, 1983.

-The famous random number generator benchmark that compared the 99/4A to Apple, IBM and Osborne I computers (and that showed it outperforming them) appeared in an article in the July-August '84 issue of Interfaces Magazine, pages 81-87? The article was authored by D.T. Modianos, R. Scott and L.W. Cornwell.

-Another obscure article on the 99/4A appeared in the Journal of Computers in Math and Science Teaching, in the Fall of 1983, that discussed 99/4A computers as science lab instruments. The article appeared on page 28 and was authored by Frederick Thomas.

-While supporting the TI Community, Navarone Industries moved from one address in Sunnyvale, California to another one, then to Sonoma, California, then to Texas, back to California and ultimately back to Texas again? (whew!)

Until next time...

choose the colors you wish, subtract 1 from the code and change the code to HEX. Replace the F and 0 to reflect your choices. If you wish white letters on a blue background the code would be 020007F4. Save the changes. Do the same to the CRT:1 file.

SWAN'S POND

WHERE DO WE GO FROM HERE? - FUTURE SPECULATIONS

by Steve Mickelson, 9T9 Users Group

As the second anniversary of the production model 9640 approaches, one can exercise some interesting speculation as to the future of Myarc. All that's required is an open mind and vivid imagination.

Most computer manufacturers are concerned with the direction of product development, and marketing plans are both driving and driven by the demands/needs of the market place. Apple, as an example, started as one of several companies in the market place, who eventually created their own niche in the market place to dominate; namely in the desktop publishing field. Today Apple enjoys the pleasant position of both generating and taking-care of the needs of their users.

With other models, their niche is not so clear and Myarc's approach of using an operating system, M-DOS, with the same instruction set as MS-DOS can be advantageous and a liability, at the same time. True MS-DOS was patterned after the CP/M operating system and provided a familiar feeling to users who changed from one system to another, history does not necessarily repeat itself. Witness, the relatively few converts who moved up to OS/2, from MS-DOS. Besides, if a person were inclined to go the way of MS-DOS, wouldn't it seem logical that instead of buying a Geneve, they would buy a clone?

Granted, there is enough similarity that a user with an IBM or clone at work, could easily run a 9640, from MS-DOS. But the relative lack of software for the 9640, compared to the IBM world is a distinct disadvantage.

A mouse-driven "GEM-like" operating system would seem a better way to go, as the 9938 mouse and its VDP RAM could easily contain an instruction set of micros which could be selected by mouse, thus freeing the CPU for other tasks, or should I say multitasks.

The preference toward more simplified "non-technical" oriented operating systems seems to be the way to go, witness the popularity of Windows in the world of Big Blue. I digress too much, back to the speculation as to where Myarc is leading/following.

As far as new hardware/software is concerned, Myarc is the manufacturing leader of new hardware. While the standard memory expansion card and disk controller cards have captured their share of the TI market place, the 9640 and Hard Floppy Disk Controllers, especially the HFDC, have created a significant market within a market. All new software, generally must address the compatibility "problem" with the 9640 and the HFDC. Here the hardware

has impacted upon the software. So where do we go from here?

If we follow the development of the 9640, we must go back to 1983, when Myarc as a supply arm of TI had produced around 150 TI-99/8, when TI pulled-out of the market place, officially at least.

The large base of users still hoped for and expected someone to pick up the torch and produce the upgrade. The 9640 went through many changes, appearing in some TI publications as a stand-alone suspiciously similar to the 99/8. The discontinuation of the 9918 video chip by TI, along with the trend towards larger RAM than the 64K in the 99/8, delayed the introduction and drove up the costs of production. The memory jumped to 128K, then 256K and finally 512K. The need for a replacement video chip was answered by the Yamaha's advanced 9938 chip. To keep costs down, the computer evolved into a P-Box card, using an IBM style keyboard. This innovation led to the emergence of companies like RAVE, which make keyboard interfaces for 99/4A users.

Many of the bugs of the 9640 were resolved through the Myarc RAMdisk/expansion memory card, which had a "TI" version of 9640 Advanced BASIC. This card was originally designed to work with the 9640 and as Lou Phillips had put it, the card was re-wired for the 99/4A. So the TI users beta tested both the memory expansion and Advanced BASIC for the 9640. This kept costs down and helped promote compatibility between the 99/4A and 9640.

The 9640 is out and some final version software packages are nearing completion. Where to now?

A couple of years ago, an interesting prototype was shown at the Chicago TI Fair, namely a 9640 incorporated into a Sony monitor with built-in 3-1/2" disk drive. Last fall, a non-functioning Myarc expansion system made its appearance at Chicago. Both of these systems point toward a stand-alone 9640, much like the original concept that embodied this computer.

Interviews from Compuserve, Delphi, and in MICROpendium indicate that the 8-bit data bus in the P-Box limits the speed and memory capacity of the 9640, (which is about two Megabytes in its present form). Also, prototypes of a "new" 9640, with a 20 MHz clock reveal more of what may come. The upgrading of the 0-wait state RAM for the CPU from 32K to 64K enables the 9640 to conceivably jump to a new GPL speed of 6.

The CorComp microexpansion system shows just how small a memory, RS-232, and disk controller could be made five years ago, so imagine what could be made today! Lou mentioned to me that a small extension to the 9640 could be made to provide for a RS-232 cum parallel printer port.

Let's put the pieces of the puzzle together and see what we could have; a stand alone super Geneve with 20 MHz (I've heard that you could almost double the clock speed to 40), minimum of 2 Megabytes expandable to a full 16 Megabytes, with both a Hard/Floppy controller, with the same hi-res graphics and mouse capabilities as the 9640. This computer would have a minimum 16-bit databus, and super fast 0-wait memory cache'. It wouldn't be TI compatible, but would be able to run the M-DOS software, Run time Pascal, Advance BASIC, GENE, etc. or a modified version of this software.

So we know what the next step of the 9640 evolution would look like, based on the evidence of the past, just who would buy such a unit and how would it be marketed?

Again we have some clues, but here not so clearly hinted. It has been mentioned that the new multifunction card will

have a Yamaha music chip on the MIDI interface, as Myarc "has a good relationship with Yamaha", having produced the 9938 video chip for the 9640. From this, a conceivable scenario could be a stand alone 9640, running a software based Z-80 simulator (much like the one Jim Ballentine developed and had running on a 9640), running as the GPL interpreter simulates the 99/4A. But, here the Z-80 simulator on this super Geneve would provide an upgrade for the Japanese MSX2 computers, which use the same 9938 video chip.

Myarc, could conceivably agree to have Yamaha and other Japanese MSX2 manufacturers produce, under license, Geneve overseas in high quantities for both their domestic and our markets, eventually both users weaned off of their respective GPL or Z-80 environment to one which uses the full power of the Geneve's native environment?

Who could be behind such a plan to capture two segments of the world computing market, in a "back door way"? Possibly Myarc's original patron Texas Instruments! So much for the power of a vivid imagination. The next few years reveal how accurate are such deduced speculations.

BUYER'S GUIDE

The following information is provided as a service to our members. The items listed are for sale by the individuals indicated and are subject to prior sale. The group assumes no responsibility for items listed and makes no claims as to their condition or interface capability with the TI-99/4A computer. Only computer related items will be accepted for publication in this newsletter.

TI-99/4A Console \$25; PE Box w/all cards SSSD \$350; PE Box empty \$75; Color TV \$75; Seikosha Printer \$30; Speech Synthesizer \$25; Navarone Disk Fixer \$5; Monitor Cable \$2; Replacement keyboard \$4; TI Extended Basic \$25; Editor Assembler (new), Centipede \$10ea; Alligator Mix \$6; Early Reading, Logo II \$5ea; Hunt the Wumpus, Jaw Breaker II, Music Maker \$4ea; Picnic Paranoia, Blasto \$3ea; Personal Real Estate, Personal Record Keeping, Personal Report Generator, Household Budget Management, Home Financial Decisions, Tax Investment Record Keeping, Securities Analysis, Terminal Emulator II, TI Invaders, Munchman, Parsec, The Attack, Tombstone City, Chisholm Trail, Early Learning Fun \$2ea. Books: Programs for the TI Home Computer, Games TIs Play \$3ea.; Computer Playground, The Best Texas Instruments Software, The Best of TI 99/4A Cartridges \$2ea. Call Jack or BJ 747-5046.

Smith-Corona Fasttext 80 printer w/manual, and Printerf (instructional software especially for this printer from McWare). This printer is mostly Epson compatible for text. Contact Pam Elliott (816)534-7790 or BJ 747-5046 for address.

TI-99/4A Console, Expansion Box w/CorComp RS232, TI 32K, TI Disk Controller, SSSD Disk Drive, TI Extended Basic, Editor Assembler, Multiplan, Writer, Personal Real Estate, \$380. Optionally 2 DSDD half height drives. Call Dick Paschal 790-4779.

Parsec \$4, Donkey Kong \$8, Big Foot \$8. Call Dick Paschal 790-4779.

TI-99/4A Console, Speech Synthesizer, TI Joysticks, 7 modules, 24 basic programs on cassette, make offer. Call Sue McLaughlin 297-9804.

FROM SOUTHWEST NINETY-NINERS: Speech Synthesizer \$25; Mini-Memory \$10; Adventure w/disk \$3; Tunnels of Doom \$4; Tax Investment/Record Keeping, Home Budget Management, Parsec \$2ea. Printer Ribbons: Star Micronics NX-10 or NX-1000 \$3, Gemini 10X \$1. Tractor feed 1-across mailing labels 500/\$1; Cassette Cables \$3. Books: Starting Forth \$10; Thinking Forth \$10; The Writers by Harry Brashear \$3, Home Publishing by Harry Brashear w/disk \$15; "Best" Newsletter \$5; Using & Programming the TI-99/4A \$4; Smart Programmers Guide to Sprites, Programming BASIC with the TI Computer, COMPUTE!'s Programmer's Reference Guide to the TI-99/4A, COMPUTE!'s TI-99/4A Sound and Graphics, Creating Arcade Games on the TI-99/4A, Fundamentals of TI-99/4A Assembly Language (Morley), COMPUTE!'s TI Collection Vol One, Art & Graphics with your TI-99/4A, Hidden Powers of Disk Fixer, 99(/4A) Tips, Introduction to Assembly Language for the TI Home Computer (Molesworth), The Innermost Secrets of the TI-99/4A, Software Development (Texas Instruments), \$3ea. Call BJ or Jack 747-5046.

HORIZON CHANGE NOTICE

from PUG Peripheral - April '89

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These changes are recommended for ALL HORIZON RAMdisks and are compatible for use with the TI99/4a or Geneve.

1. RESET on power-up

This change allows the computer to reset the HORIZON during the CPU power up cycle. The reset feature, as TI designed it, does provide a reliable method to hold the HORIZON in the shut-off state until the PE-Box voltage has been on long enough to stabilize.

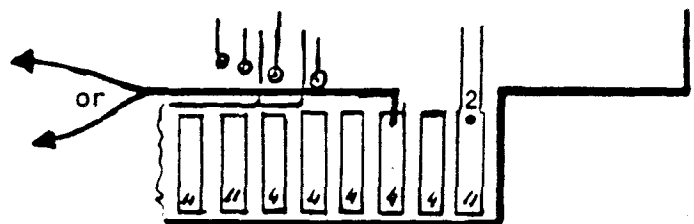
The modification consists of the removal of one diode, one resistor and one capacitor. These parts are replaced by one wire from pin 6 of the card-edge connector (bottom edge of ramdisk card) to the positive side of the capacitor location.

HORIZON serial numbers below 100:

Remove C8, CR2 and R2. Connect wire to front (or left) hole of C8 location.

HORIZON serial numbers above 100:

Remove C1, CR3 and R5. Connect wire to + (positive) side of C1 location.



Connect other end of wire to pin 6 of card-edge, i.e., the 3rd lead from the right on the COMPONENT side of the PC board.

2. DISABLE SWITCH

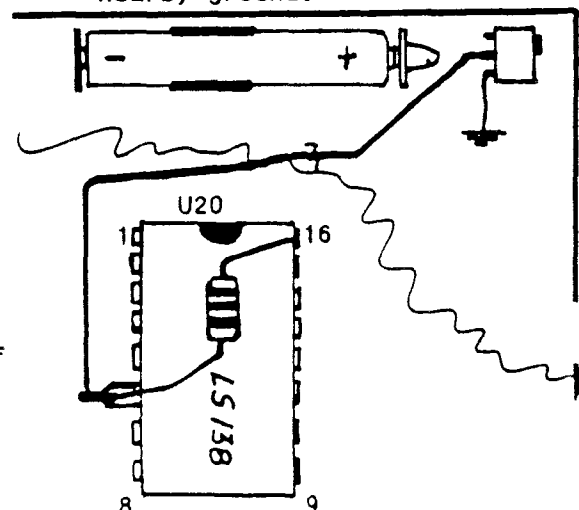
This modification provides a method to turn off (or hide) the HORIZON from the rest of the system. This switch allows you to turn off the ramdisk in the event of a system crash when the computer locks up. With the card turned off, you can power up the console and PE-Box, turn the card back on and proceed to re-load the operating system. No need to remove the batteries to erase the contents and in most cases the files may be recoverable. Other reasons for "hiding" the card could be a conflict between the ramdisk and a program you want to run - or you may wish to keep the kids out of it.

The mod is simple: We remove the voltage from pin 6 of U20 (serial 1999 and below) or U20A (HRD+, 2000 and up) and reconnect it via a resistor (1K-10K will do) thru a SPST switch to ground. Closing the switch pulls the pin low and shuts off the CRU access at U20.

Bend pin 6 of the chip out, attach enough wire to reach the switch and connect the resistor from this pin to pin 16 of the same chip. Run the other end of the wire to the switch.

NOTE: The HRD+ circuit board on cards with a serial number below 1999 required stacking of U20. Attach the wire and resistor to the top chip's pin 6 and cut off the bottom end.

Mount a miniature SPST at the top back edge. Run a lead from one pole to a nearby ground.



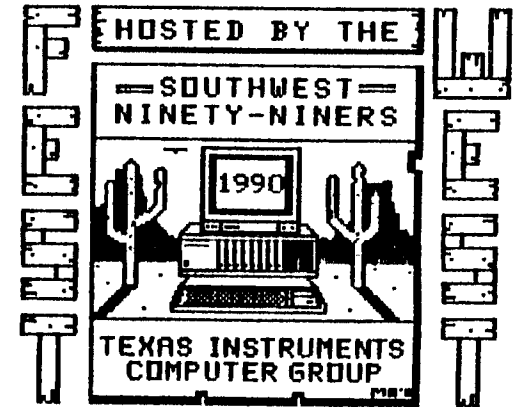
--- ANNOUNCING ---

TI FEST WEST '90

HOSTED BY: SouthWest Ninety Niners User Group
P.O. Box 17831
Tucson, Arizona 85730

DATE/TIME: Saturday, February 17, 1989, 9:00 A.M. til 5:00 P.M.
Sunday, February 18, 1989, 9:00 A.M. til 3:00 P.M.

LOCATION: Days Inn (formerly the historic Santa Rita Hotel)
88 East Broadway Blvd
Tucson, Arizona 86702



FEST WEST '90 IS THE BEST IN THE WEST!! Fest West, in past years, has been held in Los Angeles (hosted by the Los Angeles User Group), Las Vegas (hosted by the Southern Nevada User Group), and San Diego (hosted by the Southern California Computer Group). This year, in what promises to be the best Fest West yet, it will be held in Tucson, Arizona and will be hosted by the SouthWest Ninety Niners User Group.

Dealers, vendors, and user groups from all over the United States will be present, offering a complete selection of hardware, software, and accessories for the TI-99/4A and the Myarc Geneva 9640 computers.

5200 square feet of exhibit space is available. User Groups and vendors are invited to display and sell their wares. There are plenty of electrical outlets with good lighting available. Booths will be available for \$25 for the first eight foot table and \$15 for each additional table. Each booth reservation will include two free admissions for both days of the fest. For more information, see the contact list at the end of this announcement. All announcements will be uploaded to the mentioned BBS's in Form_Shop and TI-Writer formats.

Days Inn is giving us great rates during the peak of the tourist season. For only \$49.18 (\$44.00 plus all local taxes) per night, rooms with 1 King size bed or 2 Queen size beds are available. See the accompanying flyer for more information on Days Inn. For those who wish, Days Inn also has suites available. Call Days Inn direct for those rates. Be sure to mention you will be attending Fest West '90 when calling and ask for Olivia.

RV facilities will also be available for \$16 per night (tax included). Reservations are required, and should be made through the Fest West '90 Committee. No deposit is required. Use the enclosed form when making your reservation. Send the reservation to the address listed at the end of this announcement.

As an added incentive, the SouthWest 99'ers are negotiating special airline fares. More information will be forthcoming in future news releases regarding these reduced plane fares.

Besides attending Fest West '90, Tucson is a great place to visit in February. With normally sunny days, warm temperatures, and beautiful evenings, Tucson is a very active community during the winter months. After Fest West '90, consider a vacation in the "Old Pueblo".

Things to see in and around Tucson include historic downtown Tucson, Old Tucson (a famous movie set/museum), The Arizona-Sonora Desert Museum (one of the 10 best zoos in the country - includes a zoo, museum, and botanical gardens), Reid Park Zoo, the Mission San Xavier Del Bac, the Titan Missile Museum, and many, many more sights to see.

During the weekend of Fest West '90, Tucson will also be the site of the Tucson Balloon Festival. More information on this and other activities will be forthcoming in future Fest West '90 news releases.

For additional information, contact the SouthWest Ninety Niners Fest West '90 Committee via one of the following:

Write to :
SouthWest Ninety Niners User Group
Fest West '90 Committee
P.O. Box 17831
Tucson, Arizona 85730
OR call: 602-747-5046 (BJ Mathis) or 602-886-2460 (Tom Wills)

BBS's:
Cactus Patch BBS
602-795-1953
24 hours a day, 300/1200 baud at 8N1 parity
Address a message to user 2 (Tom Wills) or user 3 (BJ Mathis)
Logon as User #27 with the password FESTWEST

American People/Link
Via Telenet
Address your inquiry to WIS*99ER (Tom Wills)

CompuServe
Address your inquiry to 71550,3213 (Tom Wills)

Delphi
Address your inquiry to TAWILLS

Genie
Address your inquiry to T.Wills or I.McCargar