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30 Years Ago...

Historical Information taken from Bill Gaskills TIMELINE

March 1989:

Paul Charlton releases a developers Kit for the Geneve 9640.

Mickey Schmitt's Adventure Reference Guide book is released by Asgard Software, as well as Paul E. Scheidemantle's Artist Borders III. Both products are announced in on page 12 of Asgard News V1N4, which is mailed to subscribers on March 21 st, 1989.

Advanced BASIC for the Geneve debuts.

Or. Ron Albright, author of the ORPHAN CHRONICLES and ORPHAN SURVIVAL books, as well as being a partner in Heritage Software, and co-columnist with Jonathan Zittrain of the Computer Shopper's II Forum, leaves the II Community to pursue other interests.

Al Beard, spokesman for LGMA products, announces 99Fortran for the Geneve.

Asgard Software announces a challenge to design a new 99/4A compatible computer to pick up where the Myarc Geneve left off. Owner Chris Bobbitt is critical of Myarc's mismanagement of the Geneve and their lack of customer support for the product.

MICROdex for TI-Base is released by Texaments. The Bill GasKill authored program is the first third-party commercial application to be developed for the TI-Base data manager.

Geometer's Apprentice debuts from McCann Software.

The Northcoast 99er User Group begins accepting non-attending members, following the lead of the Chicago TI-UG.

T.I.C.O.F.F. is held March 18 at the Roselle Park, New Jersey High School.

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WIDGET	

MICROpendium publishes the sources of several computerized indexes to their magazine.

Disk of Pyrates by Ken Gilliland is released by Asgard Software.

Calendar Maker Utilities is released by Asgard Software.

Cryptogram Solver is released by Jeff Bunting.

Rodger Merritt releases Jiffy Card through Comprodine.

Noted programmer and GEnie Sysop John Johnson is selected as the first recipient of the "Hall of Fame" award given out by the TI Users Group of Orange County, CA. Johnson is best Known for his Remind Me! personal productivity program and for the 'Menu' application designed to be run from the Horizon RAM Disk.

MICHOPENDIUM NEWSBYTES MARCH

Chris Bobbitt, general manager of Asgard Software, has announced several new products from the company.

The Adventure Reference Guide by Mickey Schmitt is a 108-page book which lists nearly 200 adventures available for the 99/4A with ratings, needed equipment & sources.

Artist Borders III by Paul Schiedemantle is a package of 31 geometric & decorative border patterns.

Disk o' Pyrates by Ken Gilliland. It is described as including pirate artwork, games, music, utilities, animation pieces, history lessons & biographies.

Calendar Maker Utilities by Chris Bobbitt & Ed Johnson is designed for use with Asgard's Calender Maker 99.

YESTERDAY'S NEWS IS PUBLISHED MONTHLY BY RALPH REES (SPARKDRUMMER), COMMENTS, SUGGESTIONS, IDEAS, ETC ARE ALWAYS WELCOME

By Dave Howell

COURTESY OF THE ERIC 99'ERS

Part 17

STRING FUNCTIONS - continued

Last month, the topic of string functions was introduced. As explained previously, the computer usually expects all information to be numerical. Certain information, however, is treated as strings, or groups of characters. This Kind of information has to be treated differently. Accordingly, the computer must be told that this information has to be treated differently by enclosing it in quotations marks. For example, PRINT 7 + 15 * 2 tells the computer to print 37, but PRINT "7 + 15 * 2" tells the computer to print 7 + 15 * 2.

In this program, 10 LET N\$="TI-99/4A" 20 PRINT N\$

The computer is signaled to treat the value of a variable as a string (in quotes) by ending the variable name with \$.

Strings can be concatenated (combined) with the ampersand (&). To combine the string "TI-" as A\$ with the string "99/4A" as B\$, use the statement PRINT A\$&B\$, as in this program:

10 LET A\$="TI-" 20 LET B\$="99/4A" 30 PRINT A\$&B\$

If B\$="99/4A" was changed to B=99 in the above example and the \$ was dropped from B\$ in line 30, a "STRING-NUMBER MISMATCH" error message would result. Strings and numeric expressions cannot be combined in this manner.

The string functions in II-BASIC include ASC, CHR\$, STR\$, VAL, SEG\$, LEN, and POS. The ASC function was discussed last month. ASC(X\$) produces the ASCII character code for the first character in the string X\$. If the string expression is a constant, it must be contained within quotation marks. The CHR\$(X), also discussed last month, does the opposite of ASC. It produces the character for the ASCII number of X.

STR\$ Function

It was just demonstrated above that numeric expressions & string expressions cannot be combined (or concatenated).

But suppose it is necessary to combine a name and an age—the name is a string and the age is a number. To concatenate the name and age, convert the age number to a string. Then combine the two strings. The function STR\$(x) will convert the number x to a string. If x is an expression such as 4×2, the expression is evaluated (multiplied in this case) and the result is converted to a string. The string will be the number only, with no leading or trailing spaces. To illustrate:

10 N\$="U.S. CONSTITUTION, AGE: " 20 A=200 30 B\$=STR\$(A) 40 PRINT N\$&B\$

It would be easier to combine the string N\$ and the number A in line 40 and do away with line 30. But it can't be done in BASIC. So... line 30 converts A(200) to the string B\$("200") so that it can be combined with the other string N\$. The program could be shortened by eliminating line 20 and rewriting line 30 to read B\$=STR\$(200).

VAL Function

Sometimes it is necessary to convert a string like "200" to its corresponding numerical value 200. The function VAL will do this. This is the opposite or reciprocal of the STR\$ function which converts the numerical value of 200 to its corresponding string "200".

The function VAL(A\$) is the numerical equivalent of the string A\$. If A\$ does not have a numerical equivalent, then VAL(A\$) is equal to zero. Here is an example of using the VAL function:

10 A\$="200" 20 PRINT A\$ 30 PRINT VAL(A\$) RUN 200 200

It appears that both PRINT statements print the same value 200. In order to see the difference between VAL(A\$) and A\$, add these lines to the above program:

40 PRINT VAL(A\$)+10 50 PRINT A\$+10 RUN 200 200 210 *STRING-NUMBER MISMATCH IN 50

The results show that the number VAL(A\$) can be added to 10 because the VAL function converted the string "200" to a number. Since both are numbers, they can be added. In line 50, however, trying to add the string A\$ to the

that adding or combining strings with numbers cannot be BASIC. Now, change line 10 to read 10 A\$="CONSTITUTION".

CONSTITUTION * BAD ARGUMENT IN 30

The error message for line 30 shows up because the argument in (A\$) is not numerical. "CONSTITUTION" is not a number. Now change line 10 once again to read:

10 A\$="3.7E9" RUN 3.7E9 37000000000 37000000010

* STRING-NUMBER MISMATCH IN 50

Since "3.7E9" is the exponential value of 3700000000 (the exponent 9 tells the computer to move the decimal point to the right 9 places) is a number, lines 30 and 40 are executed properly, But A\$ in line 50 is the string "3.7E9" and cannot be added to a number. Hence the error message.

To show that the functions STR\$ and VAL are opposite or reciprocal functions, type the following program and run:

10 PRINT STR\$(VAL("200")) 20 PRINT VAL(STR\$(200))

On page II-103 in the "User's Reference Guide" that comes with each TI-99/4A console are further examples of the use of the VAL and STR\$ functions.





GarKon's Getaway stands among the most entertaining games written in Extended BASIC that I have seen. It is fun to play and fun to watch. The graphics are well done and the challenge is such that once you start playing you don't want to stop.

Performance: Garkon's Getaway, written by Bill Zielinski, is a game of escape. According to the game's story-line. Garkon is trapped in the dungeon of a wizard. Your job is to help him escape by climbing through an opening in a wall at the left side of the screen.

numerical value 10 produced an error message. This shows ceiling which fire randomly at the dungeon floor. Wherever the laser beam hits, a colored block is formed, thus raising the floor of the dungeon. There are 28 blocks to each row and 20 rows. If Garkon is unable to escape by the time the entire dungeon is built up, well, it's curtains.

> Using the joystick, you move Garkon about in the hopes of avoiding the lasers. If a laser should happen to hit Garkon, forming a block over his head, he dies. His demise is depicted by an angelic, white figure rising to the top of the screen to the tune of Taps. Fortunately, Garkon starts out with nine lives. The game also ends when Garkon runs out of lives.

> As long as Garkon manages to keep from being struck by the laser, the laser beam continues to lay down-colored blocks. (This process is interrupted only long enough to allow Garkon's angel to rise out of sight.) However, this by itself would not be of much help, since Garkon is able to jump up only one block at a time. Since the lasers are aimed randomly, the floor is built up randomly. But GarKon is not simply a powerless victim of fate. He is armed with a gun that is capable of vaporizing blocks, one at a time. By vaporizing blocks, Garkon can adjust the level of the block rows, creating a stairway of sorts to the exits, which are located at the left side of the screen.

> There are three exits, each at varying heights. The lowest exit is easiest to reach. The highest exit is extremely difficult to reach. Bonus points are awarded by virtue of successfully escaping through one of the exits. The lowest exit adds 1000 points to the total score and one life. The second level adds three lives and 3000 points. The third level adds five lives and 5000 points.

> Points are also scored for each block Garkon vaporizes. Plain blocks score few points. Treasure blocks, which are shaped differently than the plain blocks, are worth more. The value of any block also depends on which row it is on. The higher the row, the more a block is worth. There are also Zapper blocks which, when vaporized, cause an entire row of blocks to be created on the floor. While Zapper blocks do not produce points, they come in handy when trying to compensate for the randomness of the lasers. The lasers do not create a block over the spot the Garkon is standing on when the floor is being zapperized, to coin a word.

> Having escaped, Garkon is returned to the dungeon for another round of dodge the lasers.

This game has many strengths, including the use of color. The combination of colors used in the various rows of blocks is actually pretty, going from magenta at the bottom, to red to yellow to green. Also. I did not feel Ironically, you can't escape without the help of the frustrated by this game, despite the fact that the action wizard. You see, the wizard has installed lasers in the is fast-moving and relentless. You have to think very

Yesterday's News

avoid being hit by a laser.

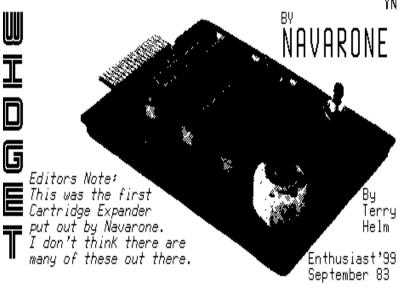
The graphics, though simple in design, are effective and flawless. The sound effects, those representing the laser in particular, are realistic and do not become annoying despite the number of times you hear them.

The only drawback I can see is in the fact that Garkon is able to move only two squares at a time without pausing. I suspect this is due to the limitations of Extended BASIC. This creates a problem when trying to jump out of the way of the laser when it is about to shoot. The program must either fire the laser or respond to the joystick command to move Garkon. At times the joystick seems to take precedence over the laser and at other times it is the other way around. The fact that you can't predict whether the joystick will take precedence at any particular point is bothersome at first, but I adapted to it. Written in language, this game would have enormous potentiāl.

Ease of Use: Garkon's Getaway is simple to play and, once you get started, obvious. All input is through the joystick. The program, as far as I could tell, is crash proof.

Documentation: The game comes with a brief but adequate manual.

Value: I enjoyed playing this game a lot. So have others of varying ages who tried it out. And the price is right.



In the myriad of new products that are becoming available almost daily for the Tİ 99/4A, there is a special class of hardware that is both fun and practical. The Widgit, a product of Navarone Industries, falls into this catagory.

The Widgit is a cartridge expander board that allows the user to plug in up to three solid state command modules at

fast, not only in deciding which blocks to vaporize but to once and then select which module is to be used with a built in rotary switch. The Widgit has proven invaluable to me because I am always having to go from II Extended BASIC to the Disk Manager and back. The Widgit handles this task with the turn of a switch and the press of a button.

> Before anyone gets the wrong idea, the Widgit does not allow you to use the capabilities of three modules at the same time. It is simply a device that lets you go back and forth between three modules.

> The Widgit consists of the circuit board, three module ports and the selector switch. The circuit board fits in the module port on the console and the three modules of your choice fit vertically on the Widgit. The reset button allows you to reset the computer without turning the power off, and has a safety cover to protect it from damage and rubber feet to Keep it from scratching the console.

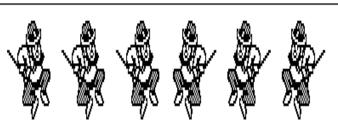
> An added effect of the Widgit is that it allows air to circulate under the Widgit and through the air holes on the console. This Keeps the modules from overheating which sometimes leads to failure.

> We here at the Users Group believe that use of the Widgit should significantly reduce console lock ups caused by the computer getting too hot. I use my machine about ten hours a day and until I got the Widgit, the computer told me when to go to lunch by refusing to turn on until I left it alone for an hour or so. Now the computer rarely balks at a full day of helping me solve programming problems, do word processing or review programs for the software exchange library. If you are one of the many 99/4A owners plagued by the overheating console, the Widgit should prove a worthy investment.

> The Widgit is a product of Navarone Industries, a fairly new developer of software and hardware for the 99/4A. Other products now available from Navarone include Hen Pecked and Topper ,two arcade style games modules, and for the more technical enthusiast, Navarone has developed a Disk Fixer that allows access to any sector on any disk.

> For more information about the Widgit or other products from Navarone Industries, contact the Users Group or write Navarone Industries.

> The Widgit is now available through the IUG to both regular and President's Club members.



Yesterday's News



I recently received a copy of a review and article about Disk Fixer and repairing blown disks. The article appeared in the December 1984 issue of the 99ers Association's newsletter. It was written by Niraj N. Shahand Mike Ballmann.

First of all I would like to say that the article was well written and the authors appear to be very Knowledgeable about disk layout.

There is a new program out, called Disk+Aid that, put simply, runs circles around Navarone's Disk Fixer program. The program has 32 menu-driven operations and the price is half of what Navarone charges for Disk Fixer. The program also comes with full update and money back guarantee support. The manual that comes with it is a complete course in understanding the way II disks are formatted. There is a 4-page section that is dedicated to repairing disKs that have had sectors blown away. The manual is 8.5" x 11" and the pages are packed full of information. I have Disk Fixer program from Navarone and I don't particularly care for the unfriendliness of the program along with Navarone's policy of "All Sales Are Final", which to me means that if you don't like it you're out \$40.00. With Disk+Aid, if you don't like it send it back and get your money back.

I have found that if you come across a disk that gives you a DISK NOT INITIALIZED message it usually means that the initialization code in sector zero has been scrambled in some way. I have experimented and found that this is the only thing DM 2 looks for when it determines that a disk is initialized or not. As a matter of fact, about 95% of the disks I have seen with the error were repaired by simply putting the initialization code back in the sector. With DisK+Aid it is a simple matter of placing the bad disK in the drive, selecting your drive, from 1 to 4, and pressing R. The sector will be read in and displayed in either ASCII or Hex, whichever you prefer. If you are in ASCII, I suggest this mode for viewing the initialization code, search for the letters "DSK". They will be located in the sector address range >0D−>0F. The sector addresses are displayed down the side of the screen for ease of use. If you don't find the code, go into to the ALTER mode by simply pressing A. A cursor will pop up in the upper left corner of the sector information. Use the arrow Keys to position the cursor at address >0D and type in "DSK". Now press ENTER to get you back into the command mode. At this

point simply press FCTN W to write the altered sector back out to the disk . FCTN W was used so it would be harder to accidentally write a sector out to disk. To get an idea of what will show up when you catalog the disk using DM 2, press FCTN P. The program will turn all the bits and bytes of sector information into human readable form. All the information contained in sector zero for disk controller operation will be displayed before you.

Now is the time to read in sector 1 to see if it is intact. Increment the sector counter number by one by simply pressing F. Now press R and sector 1 will be read in and displayed on the screen. Put the display in HEX mode so you can see the directory sector numbers. At this point, if you have a printer, you can do a screen dump to printer to have a record of directory sectors on the disk. The numbers in this sector are a representation of the number of files on the disk. If you have a recent catalog of the disk, check the number of files against the number of directory sectors. If they match you're done. If not you will have to go and find the other directory sectors on the disk.

This is a relatively simple task when compared to Disk Fixer. Press the S Key to enter the search mode. You will first have to enter the starting and stopping sectors numbers to search between. Next you will be asked whether you want to search for an ASCII string or a Hex string. Enter the file name you want and press ENTER. The program will search the specified sector boundaries until it either finds the string or doesn't find the string. When it finds the string, it will be displayed on the screen. The sector displayed on the status line of the screen is the directory sector number. Do a screen dump so you can enter the information later after you find all the lost files.

When all the lost file s have been found, reload sector 1 and go into the ALTER mode with a Hex display. Move the cursor two bytes past the last directory number displayed. Start typing in the new directory sectors. Remember to skip one byte between each directory sector number. After all the numbers have been entered press ENTER. Now press FCTN W to write the altered sector back out to disk.

You should now have a disk with all the required files listed. You will now want to do a non-selective backup using DM 2. This will put all the files in alphabetical order as well as eliminate any files that have been fragmented on the original disk. To make sure you have all the files off the disk use Disk+Aid to scan the disk and check for any more file names. If you find a sector that has a filename in it and want to know if it is a directory sector, press FCTN P. This will turn the bits and bytes of the sector into a human readable form just like mapping sector zero. All of the information about the file will be displayed in a neat format. The map will give you a listing of all the sectors that are used in the file. If

disK scan, you can be pretty well assured that you have in your hands a list of all of the files and directory sectors on the disk. The screen dump feature of the program gives you a hard copy of anything you want for future reference.

Persons who want to obtain in-depth information on the disk and have Disk Fixer can now spend another \$10.00 and get a book from Navarone. You will now have close to \$50.00 invested. Disk+Aid has a manual that has all the information already. The total price of Disk+Aid with the manual is \$20.00 plus \$1.75 shipping and handling. For an extra \$7.00 you can get the source code for Disk+Aid on disk with the object code. If you wish to obtain this program it can be ordered from: M&T Utilityware.

EASY-TO-USE HOME COMPUTER

Mechanix Illustrated Dec. 1979 By Len Buckwalter

One of the problems with home computers is a home-owner might buy an expensive, not to say complicated, setup and in the end have a system he's unable to boss. Programming the thing can take all the fun out of owning it.

Now, however, there's a new computer that helps solve that problem. It's Texas Instruments' Model 99/4. This machine not only provides useful information when needed, but also entertains you at the same time. It sort of bridges the gap between machine and man.

It's not a cheapie, at \$1,150, but it does simplify the home computer so we can make better use of it.

You can have it running 5 minutes after you get home,or so says Texas Instruments. The 99/4 is a machine as easy to program as a video game – just insert a cartridge. Buť it also contains advanced features for a computer hobbyist.

The reason behind the boast that the computer is easy to use is a library of what TI calls Solid State Software. Plug in these ready-made programs, then sit back and wait for the screen to tell you what to do .

example, insert a module called Home Financial Decisions and a display on the screen asks for the purchase price, down payment, interest rates, and other data pertinent to buying a house. The computer juggles the numbers you key in and the screen displays the monthly mortgage, taxes, and insurance payments you have to make.

The same module also answers questions about the cost of leasing vs. buying a car and paying off loans, that is, how much you might save by paying off early. These canned programs are in modules which cost from \$20 to \$70. (The most expensive one plays video chess.)

the file is fragmented it will be shown. After doing this TI might teach other computer manufacturers a lesson in sparKing the public's interest. While other outfits present their machines as serious scientific instruments, with maybe a game of Star Trek tossed in, the TI arrives with whistles, bells, and fireworks. It's fun to hear and

> Although the company offers no breakthrough technology, it crams the displays with bright colors, sound effects, lively motion, and music. A bugle sounds at the start of a ball game. Graphs turn red when your checking balance goes below a certain level, a warning your next check may bounce higher than a Kangaroo in heat.

> images are not only entertaining, they're more understandable. II, incidentally, teamed up with toy-maker Milton Bradley for computer versions of Hangman, Vahtzee, Connect Four, and a new one called Zero Zap.

> You can also advance beyond canned programs and try your hand at computer programming. The 99/4 has a Keyboard for entering commands to the computer. Permanently stored inside īs a programming language Known as Basic. Its lingo is close to plain English. You can teach yourself with the manual provided, or you can buy a book written especially for those who want to learn advanced programming.

> Besides an ability to produce 16 colors on its video monitor and generate three-note musical chords, the II computer has provision for add-ons. For \$150, a voice synthesizer talks in electronically created English. Other add-ons include a printer (for a copy of what appears on the screen) and a magnetic disk system that stores and retrieves large amounts of data.

> Now that II has introduced a system to appeal to the non-technical buyer, the next step could be to eliminate the color video monitor, reducing the price. A suitable converter would allow you to plug into a regular color TV. could slash cost and accelerate the day when simplified computers, like the new TI model, become a home appliance for fun and serious business.

1 !***"NUKE THE WHALES"*** ****** TINVGRAM**** ***BY MIKE STANFILL*** ****MEMBER DTIHCUG**** 2 CALL CLEAR :: J\$(1)="0A150 40E3F7F86" :: J\$(2)="0000008 7BF7F0E" :: CALL SPRITE(#3,9 7,2,9,1,0,-22):: DIM A(24) 3 CALL CHAR(97,"00000003FE10 0800007EFF3C18183C1818") 4 FOR T=10 TO 24 :: IF A(T)= 1 THEN 5 ELSE IF INT(RND*10) >6 THEN CALL SPRITE(#T,96,2, T*8-7,1,0,4):: A(T)=1

5 CALL CHAR(96,J\$((-(T/5=INT (T/5)))+1)):: CALL KEY(1,K,S):: IF K<0 THEN 9 ELSE CALL</pre> POSITION(#3,C,Y) 6 G=G+1-(G=0)*2 :: IF G=25 T HEN 8 ELSE CALL SPRITE(#1,42 ,7,G*8-7,Y):: CALL COINC(#1, #G,6,M):: IF M=0 THEN 6 ELSE CALL DELSPRITE(#G) 7 CALL PATTERN(#1,98):: FOR H=1 TO 30 :: CALL SOUND(-99, -7,H):: NEXT H :: A(G)=0 8 G=0 :: CALL DELSPRITE(#1) 9 NEXT T :: GOTO 4



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GAME T	ITLE	SCORE	JOYSTICK JOCKEY	TI CLUB	DATE
TREASUR	ROULD	150400000000000000000000000000000000000	STEVEN JAKABFY DAVID HANDLE MIKE CENDRO MIKE FRANTZ RAY FRANT ELEK WAY CENDRO MICKEY HOFF MICKEY HOFF FRANK ZIC FRANK ZIC FRANK ZIC FRANK ZIC FRANK SER NE ELEA WAYR CENDRO ELEA WAYR CENDRO FRANK SEACK FRANC FRA	OSHTI UG 999 999 999 999 999 999 999 9	09/994 11/994 11/994 11/993 11

Please submit all scores to SPARKDRUMMER via private message on the ATARIAGE TI-99/4A forum.

BOLD LINES INDICATE NEW HIGH SCORE OR GAME SUBMITTED



yesterday's News Information



Yesterday's News is a labor of love offered as a source of pleasure & information for users of the TI-99/4A and Myarc 9640 computers.

TI-99/4A HARDWARE
TI99/4A COMPUTER
MODIFIED PEB
WHT SCSI AND SCSI2SD
MYARC DSQD FDC
MYARC 512K MEMORY
HORIZON 1.5 MEG HRD
TI RS232 RS232 TRIPLE TECH 5.25 DRIVE 3.50 DRIVE 5.25 DRIVE 3.50 DRIVE 3.50 DRIVE CORCOMP 360K 360K 720K

TI-99/4A SOFTWARE
PAGEPRO SOMPOSER PAGEPRO FΧ PAGEPRO HEADLINER PAGEPRO GOFER Pagepro flipper PAGEPRO ROTATION PIXPRO PICASSO PUBLISHER BIG TYPE TI ARTIST GIF MANIA PLUS

PC HARDWARE
COMPAG ARMADA 7800
COMPAG ARMADASTATION SAMSUNG SYNCMASTER

PC SOFTWARE
DEAD WINDOWS 98SE PRN2PBNS IRFANVIEW Adobe distiller

Yesterday's News is composed entirely using a TI-99/4A computer system. It consists of 11 PagePro pages which are "printed" via RS232 to PC to be published as a PDF file.

