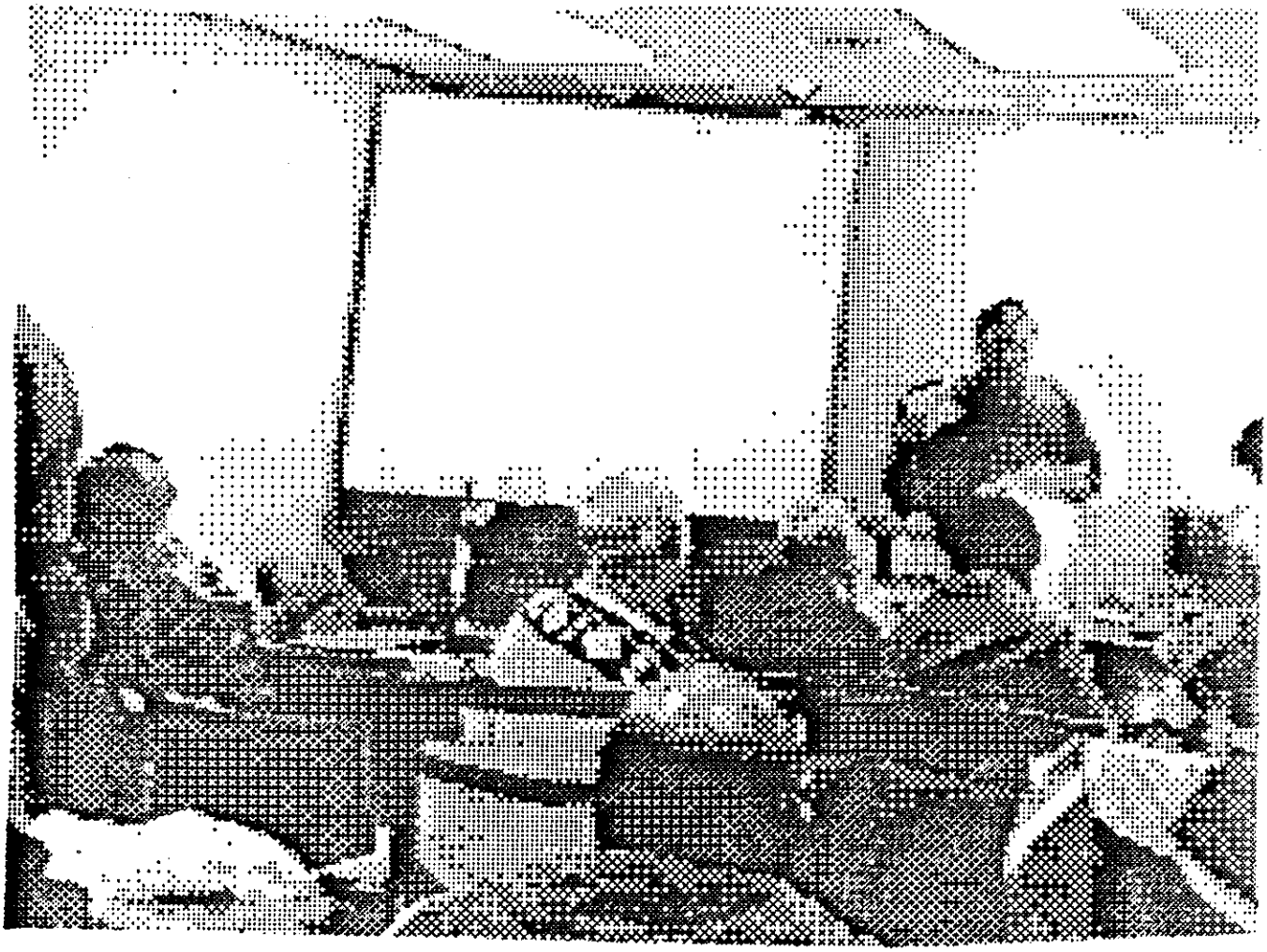
Newsletter Nine-T-Nine

April 1991 Issue

Texas Instruments
USERS GROUP
TORONTO

Andy Parkinson shows 9T9ers a printout from January's Disk Of the Month.

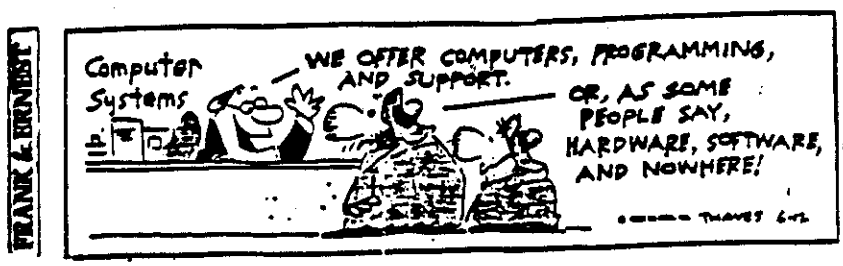


FROM:
9T9 USERS GROUP
15 KERSDALE AVE.
TORONTO, ONT., M6M-1C9
CANADA

To:

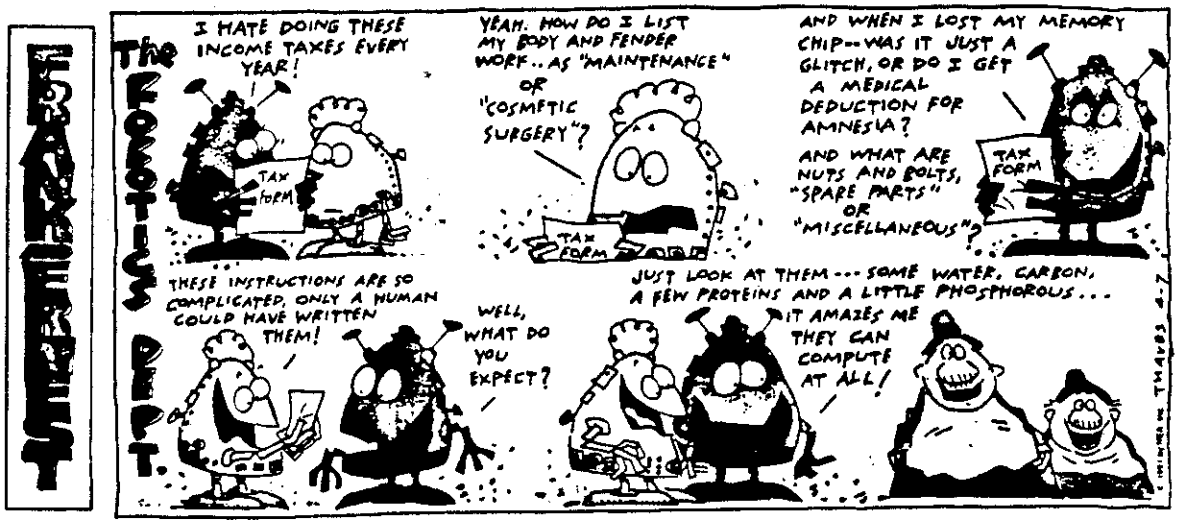
NEWSLETTER NINE-T-NINE

9T9 USERS GROUP



MEETING DATES FOR 1991:

JANUARY 30 - FEBRUARY 27 - MARCH 27 - APRIL 24 - MAY 29 - JUNE 26 - SEPTEMBER 25 - OCTOBER 30 - NOVEMBER 27 - DECEMBER 11 - ALL MEETINGS ARE ON A WEDNESDAY



From the Desk of . . .

TIDBITS #48

-By Steve Mickelson, President 9T9 Users Group
Compuserve 76545,1255; Delphi SMICKELSON; GEnie S.MICKELSON

Secret Solved:
Last month's case of the mysterious missing budget, turned out to my fault! Cecil had brought his diskette to our previous Exec. meeting, at Neil's place, in a DS/DD format, and as Neil uses DS/SD, he was unable to copy the diskette. I had forgotten that Cecil had mentioned that, and thought that somehow I had wiped the file off the diskette.

Mike Returns Next Month:
Mike O'Dowd called to say that he has finished the next installment of his 'Butterfingers Repair Series', which did not reach me in time for the newsletter deadline, but expect it in next month's issue.

Meeting Perk's:
In addition to the regular demonstration of the 9T9 Feature Disk, presentation and discussion, we have added a couple of perks, to act as fund raiser for the treasury. Starting last month, we had a 50-50 draw, which your truly happened to win,(no, Virginia, not fix involved). All I can say, is if I can win, anyone else can!

Starting this month, Randy hopes to have doughnuts-4-sale for $0.50, each, to help keep up your blood sugar!

Also, if anyone has any books or cartridges or other TI-related items, that they would like to donate to the club, we hope to have a swap/sale meeting in the near future.

Finally, if anyone out there has any idea's, as to a topic of discussion, for future meetings, please give us a call, whether you would like someone to demonstrate something TI-related or if you want to show us yourself!

Newsletter 101, revisited:
Last month's article, about putting together a newsletter, though passing the spell-checker, had a lot to be desired, in the syntax department.

I hope to reprint the article, in condensed format, if I get spare space, a more polished version, sometime in the future. If you have access to Compuserve, Delphi or GEnie, you can download just such an improved rewrite!

Modem Problems, Still:
I am still having problems accessing Compuserve and GEnie, using my TI and Zoom V.42bis modem. To upload to either one of these databases, I had to upload to Delphi, with my TI and then log-off, switch to my clone, then download the files again, and then upload the files to GEnie and Compuserve. This technique, though a royal pain, is the only way I can upload for now. I will try to see if I can transfer directly from the clone to the TI, and vice-versa, until I get the problem resolved.

I did try sending the same escape codes that I send from the clone, to the Zoom modem, from the TI, but without success. This could be expected, as I believe the X-ON/X-OFF codes are sent to the Zoom by hardware switching, and the software of the TI, (Fast Term and Mass Transfer), weren't written to support error checking,(MNP 5), or data compression,(V.42 bis), both supported by the Zoom modem! I hope, eventually, to report a solution to this dilemma, as this particular modem is widely being sold for around $165.00, U.S., by various U.S. mail-order firms.

One Year on a Laser:
This issue, marks one year that much of our Newsletter 9T9 is produced on a HP Laserjet IIP. Since then, I've noted that at least a couple of others have jumped on the laser bandwagon. I still hope to see some control code files available for TI Writer, Funel Writer or Myword, supporting PCL language. It would be nice to make available files that could be printed by any HP compatible.

Asgard's Invisible Reflections:
Over a year ago, I renewed my subscription, through Delphi, to Asgard's Reflections TI Magazine. I received one issue early last year and that was it! It seems that Chris Bobbitt has seen fit to produce and upload catalog and product news to the various databases and explained that he had hired a new editor, but no issue has been forthcoming. I had hoped to order the Asgard mouse hardware adapter and software to adapt a spare IBM serial mouse for my TI system, but I am reluctant to do so, until I get my money's worth from Asgard.

If anyone has seen an issue of Reflections, since the first of last year, please let me know, so I can contact Chris. I am not amused by this apparent Myarc-like "stone-walling" of the public.

P-Box Updates:
Last fall and early this spring, we have run a few articles on changing the P-Box power supply. Recently, I received a couple more related articles, to update and augment the knowledge of our readership.

Welcome Back Steve:
After working several month's south of the 49th, on a work-related assignment, Steve Findlay has returned and hopefully, will produce an updated Hard Copy. I hope that Steve can make the next meeting.

Well that's it for this month's TIdbits!

West Penn 99'ers

NEWS ANNOUNCEMENT
(03/15/91)

Tony Lewis has sold the rights to his Interface Standard and Design Guide for the TI-99/4A Peripherals to Jeff Guide as of 1991. Jeff will be the sole distributor for the manual and utility programs. Tony will still be available to answer inquiries concerning the contents of the manual. Jeff is in the process of updating and enhanceing the manual format to make it even more useful. Unfortunately, the new manual may not be available for a while, so send letters of inquiries to:

Jeff Guide
PO BOX 244
Lorton, VA 22079

Please be advised that the final price of the enhanced manual has not been set to date (3/15/91), so it is recommended that you write for more information before sending an order. No orders should be sent to Tony Lewis.

Tony has also added a couple of new programs to the utility disk for DSR writers. First, Wayne Stith has graciously provided some useful standalone subroutines, such as VSBR, that can be put into a DSR (you can't use these external routines by REF or DEF in a standalone DSR; they will be loaded outside the >4000 block by the /4A). Another useful program that Tony wrote is called EE/DSR for people that want to program an EPROM, EEPROM, or static RAM in one of the peripheral spaces. It is a modified version of John Johnson's DSRSL program which now will load an executable program (E/A option 5) into the >4000 peripheral space from a disk file (DSRL could not load programs into the peripheral space, unless the file was modified). Now, a DSR author can write his or her DSR, save it via the RAG Linker, then load the program into the memory chip. This eliminates the problem of using the Editor/Assembler package for creating DSRs; the E/A system WILL NOT allow you to save a memory image (opt. 5) program that is AORG'd to the >4000 block. The EE/DSR program has some error checking included to insure that a true memory image program is being loaded into the memory chip, and that the total number of bytes being loaded is less than 8K long. The program has also been rewritten to insure that it works properly with the EEPROM programmer design that was presented last year in a series of MICROpendium articles. The program should work equally as well if a static RAM or EPROM is used. EE/DSR is also available on some of the major computer networks.

--Tony Lewis

NINE T NINE USERS GROUP
Income statement

Feb. 28th 1991

INCOME		EXPENSES	
Membership Fees	860.00	Newsletters	159.97
Library/Copying	281.80	Misc. Expenses	5.05
Interest	.00	Contest Prizes	.00
Advertisment	30.00	Downloads	12.00
		Rent	.00
		Stamps/Stationary	116.29
		Disketts	.00
		Bank Charges	3.00
		BBS Subsidy	.00
		Mail Box rental	25.68
		Excess	849.81
	1171.80		1171.80

BALANCE SHEET

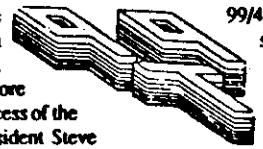
CURRENT ASSETS		LIABILITIES	
Bank	863.76	Capital	900.00
Cash in Hand	.00		
CASH ADVANCE			
Steve Mickelson	125.00		
Randy Rossetto	117.80		
FIXED ASSETS			
CLUB System	537.80		
Library :-			
Disks,Tapes,Modules	250.00		
Library (printed)	150.00	Prior Year's	294.55
		Current earnings	849.81
	2044.36		2044.36

Please NOTE: This statement is form Jan. 1st - Feb 28th 1991

Cecil G. CHin
Treasurer

Scoops from the Groups

9T9 president Steve Mikelson and his executive re-elected



Thanks to the Gulf War, George Bush may be on his way to a second term in the oval office. However, it will be awhile before he can match the electoral success of the 9T9 User Group's proud president Steve Mikelson. Steve and his entire executive were once again unanimously elected for another year.

There's other news sure to please the 9T9 executive echelons. Despite the fact that the TI-99/4A has been an orphan computer for several years now, the 9T9 user group continues to grow. The club is now probably the largest TI-99 user group in Canada. And a flood of new American subscribers to the 9T9 Disk of the Month Service is raising the user group's visibility on the international TI-99 scene.

The 9T9 Club's latest growth initiative is an effort to increase the circulation of the 9T9 newsletter while offering an ancillary service to smaller TI-99 clubs. The 9T9 Club is offering smaller TI-99 user groups the option of including a subscription to the newsletter as part of their membership benefits.

Additionally, future issues of the newsletter will include reports from participating clubs. In turn, each club group would remit to the 9T9 user group a small subscription fee for each newsletter sent thier members. Smaller user groups usually don't have the resources or manpower to put out a regular newsletter. However, under the 9T9 Club's new newsletter initiative, such clubs can now offer members a regular monthly newsletter at a fraction of what it would normally cost to produce a publication of the quality of the laser-printed 9T9 newsletter.

In other 9T9 news, resident 9T9 genius Gary Bowser has finally completed work on his new high-resolution video kit for TI-99/4A systems. Gary is now selling his Tiny TIM kit (TI Image Maker) to TI-99/4A users looking for 80-column VGA output from their TI-99/4A systems. A V- 9958 chip, along with customized software, allows TI-99 users to experience the kind of high-resolution colour computing now taking the MS-DOS world by storm. The kit is expected to retail for $150 U.S. ($116 Canadian).

Gary has also completed work on his innovative RAMBO upgrade for the Horizon RAM Disk. This new add-on device allows the TI-99/4A's CPU to use the Horizon RAM Disk's onboard memory as pageable memory (similar to expanded memory in MS-DOS systems).

As a result, applications can treat the Horizon RAM Disk's memory as additional memory for application use. This in turn means larger spreadsheets and databases in, for example, application programs that can use this expanded memory.

On the new product front, Steve Mikelson has passed on news of two other exciting new TI-99 products. Asgard is now selling a MIDI interface for both the TI-99/4A and the Geneve. This very versatile adapter can even process IBM-compatible music files that have been downloaded from a BBS. Yet the list price is only $49.95.

Closer to home, Hamilton's Clint Pulley has developed a cross compiler that runs on IBM-compatible systems. The twist is that you can program for the TI-99 and Geneve while working away on your MS-DOS machine.

For more information about these and other TI-99/4A peripherals, or about the 9T9 Club, phone 469-3468 between 7:30 and 10 p.m.

New book helps users avoid those costly computer repairs

By Alison Cunliffe
TORONTO STAR

Computers are getting cheaper all the time. Repairs certainly aren't.

My modem died on me several years ago: $50 to fix. Ouch. Three or four repairs and I could easily buy a brand new gadget to let my computer talk to another over telephone lines.

So it was with more than a bit of interest that I started flipping the 328 pages of a large-size paperback called *Upgrading & Maintaining Your PC: Cost Effective Ways To Stretch The Investment In Your PC.*

The $33.95 book is by Guido Rochrig and Ulrich Schueller, published by Abacus and distributed in Canada by Don Mills-based Addison-Wesley Publishers Limited.

Avoid repairs

There's the kind of advice you'd expect on maintaining your IBM or compatible (or any other machine) to avoid repairs:

☐ Don't smoke, drink or eat next to your computer. (Why? Just ask the repair technician who once told me what fun he had cleaning up the peanut-butter-bedecked keyboard of an Apple computer. As for smoke, the particles are as bad for disk drives as they are for people.)

☐ Clean your keyboard every now and then. A can of compressed air or a cotton swab and cleaning solution can save you a hefty repair fee.

☐ Don't pile junk on your computers. Getting any office — or home — to live by this rule is as hard as getting a 12th century king to take a bath, but computers really need clear vents so the fans can keep the heat down below fried-chip levels.

☐ Protect your disk drives whenever you move the computer. Use a PARK, SIT or SHIP program to put the read/write heads of your hard disk over an empty portion of the disk; and protect floppy

drives with the cardboard insert your computer was shipped with originally.

The main thing that interested me in *Upgrading & Maintaining Your PC*, though, was the advice on disk drive head cleaners. The book has this to say about that:

"(W)e do not recommend using a head-cleaning kit. Floppy disk drives are delicate instruments ... using an abrasive head-cleaning disk to remove magnetic oxide build up is like using sandpaper to clean dirt off a strawberry."

I'm not sure I entirely agree with this advice, however.

I've had a disk drive repaired, for reasons that had nothing to do with head-cleaning. The drive door had been opened and closed so many times it wouldn't open or close any more. It hung as crookedly as a Mafia lawyer and probably did even less work. I didn't enjoy unhooking the myriad cords and cables that keep my PC alive to haul the main computer case, which houses the disk drive, down to the repair shop.

Recently, though, that same disk drive started dishing out error messages about how it couldn't read any of my disks any more.

I looked at the whole, huge box that the drive lives in. I thought about untangling all the cords hanging out its back, again. I thought about shifting the monitor on top of the box and hauling that whole unit down to the car and into the repair shop. I thought about putting this whole mess back together again. And I reached for the head-cleaning kit I'd bought because I hadn't yet read *Upgrading & Maintaining Your PC.*

Strawberries, huh?

I squirted some liquid on something that looked much like blotting paper inside a typical floppy disk sleeve. I slid the square into the drive and issued a "dir" command to make the read/write head whirl around on that liquid-dampened felt, trying to read the "files" on it.

Presto, the drive started reading my real disks again.

I think I'll take that strawberry analogy seriously enough that I won't be using that head cleaner regularly. On the other hand, sandpapered strawberries by any other name are just jam. And I'll take jam on my toast any day over a cordless computer box sitting in my car, waiting to be schlepped to the repair shop, with half an hour's worth of untangling behind and another half hour's worth ahead when the thing finally does get fixed.

Little cleaning

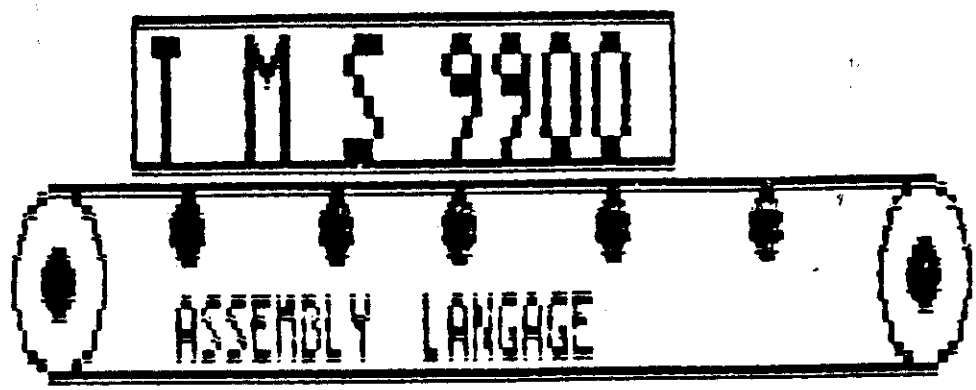
As for the keyboard, there's 10 years of grunge down in beside and under the keycaps of my computer. As I found out when pounding, the A key refused to register on the screen, popping off the keycaps for a little cleaning is no big deal.

The cute little vacuum cleaner that came with my disk head cleaning kit was just that: Cute.

W oops. ere we go again. T e is gone.

Say, could you pass me t at cotton swab? And old t at can of compressed air aimed rig t ere ...

Peek, Poke



S I G or is it S A G

or short for "shrink the assembly gap understanding"

By Ralph Goodwin. 9T9 Users Group

The introducory session was led by the main processor (CECIL CHIN) and assisted by the co-processor (Gary Bowser) (who says you have to have a clone to have these anyway?)

Introducing the group to the basic concepts of assembly programing and good housekeeping procedures. For example not forgetting to comment your source codes (nobody has a perfect memory) you probably would'nt remember your train of thought in ten minutes of intense programing except maybe a few.

The other points that were discussed on this first session was the syntax (not sin-tax) of the LABEL, OP-CODE instructions or ASSEMBLER directive and the OPERANDS following and lastly the ever important COMMENTS.

On week two of the sig we wrote and assembled a small program to demonstrate a reverse scroll where a line of text was scrolled down the screen from top to bottom one time and repeating the program by pressing the spacebar or quitting with any other keypress.

Third week of this sig John had been toying with a small program and still had a few bugs in it so it became the project of the group. The program runs just fine now except that Proffesor Chin has handed out homwork assignments (talk about being back in school) to the group to enhance the programs operation. The result's were demonstrated at the march meeting.

That's all for now except for and I speak for the group is to thank Cecil and Gary for their expertice and assistance.

```
**********************
*   REVERSE SCROLL   *
**********************


        REF   VMBW,VSBW,KSCAN utilities used by program
        DEF   START            program start
STATUS  EQU   >837C
KEYVAL  EQU   >8375
START   LWPI  WSPACE          ws pointer imead. instruction
AGAIN   BL    @CLEAR          jump to clear
        LI    R3,23           load R3 with a value of 23
        CLR   R0              clear R0
WLINE   LI    R1,NAME         load R1 with text in name
        LI    R2,32            load R2 with a value of 32
        BLWP  @VMBW
        LI    R6,5000          load R6 with a value of 5000
DELAY   DEC   R6               decrease R6 by 1
        JNE   DELAY            if not equal to 0 jump to delay
        LI    >2000            load R1 with value of 2000
CLINE   BLWP  @VSBW
        INC   R0               increase screen address
        DEC   R2               decrease counter
        JNE   CLINE            if not equal to 0 jump to CLINE
        DEC   R3               decrease R3
        JNE   WLINE            if not equal to 0 jump to WLINE
        LI    R1,NAME          load R1 with contents of NAME
        LI    R2,32            places value of 32 in R2
        BLWP  @VMBW
NOKEY   BLWP  @KSCAN
        MOVB  @STATUS,@STATUS  compares status to 0
        JEQ   NOKEY            if equal to 0 jump to NOKEY
        CLR   R5               clear R5
        MOVB  @KEYVAL,R5       places keyval in R5
        CI    R5,>2000         compares keypress to space
        JEQ   AGAIN            if equal to space jump to AGAIN
        BLWP  @0
********************
*  CLEAR SCREEN    *
********************
CLEAR   CLR   R0              put screen address in R0
        LI    R1>2000         put space in MSB of R1
        LI    R2,768          R2 contains screen length
CLEAS   BLWP  @VSBW
        INC   R0              increase screen address by 1
        DEC   R2              dec counter
        JNE   CLEAS           jump to CLEAS if not 0
        RT                     return
NAME    TEXT    THIS IS A TEST OF REVERSE SCROLL
        EVEN
WSPACE  BSS   32
        END
```

KAWARTHA KRONICLE

PETERBOROUGH, ONT.

"Console-ing the Orphan"

The monthly newsletter of
The Kawartha 99'ers

224 Woodward Ave
Peterborough, Ont
Canada K9L 1J7

Vol.9 No. 1

April, 91

WRESTLING WITH RAMBO

Having had an opportunity to work with the program "RECALLIT +2" from O.P.A. software I have discovered all kinds of things about it. The program was written by Cecil Chin of the 9T9 user group of Toronto. Credit is also given to O.P.A.

RECALLIT +2 is a mailing list database program which only works with a Horizon 3000 ramdisk, from Bud Mills Services, equipped with RAMBO from O.P.A. I currently have version 1/26/91. The program is made up of 6 files; "RECALLIT", "RECALLIU", "RECALLIV", "RECALLIW", "LOAD" and "NOTES". Somehow the example file didn't get copied onto my disk when Gary made the copy for me. The program comes with very readable manual although it is not very thorough.

The files can be copied onto your ramdisk. If you are using John Johnson's "MENU" loader which comes as part of the ROS 8.14 software for the horizon card, you do not need to the "LOAD" program. The program can be run off floppy disk as long as you have the above mentioned hardware configuration. There must be some unused, unformatted memory on your ramdisk for this program to create and hold files. The greater amount of unallocated memory, the greater the number of records that can be held in the file, up to a maximum of 4000 records. The files can be saved to the ramdisk, a hard drive or a floppy drive (drives 1-9, A-Z).

The drive default is set to DSK1, I have used a sector editor to change the default to DSK7 which is the ramdisk allocation that I have chosen. You can change the default to whatever you want if you know how to use a sector editor. It would be more helpful if these kinds of configurations were available through a menu in the program.

The printer commands can be configured within the program. You will need your printer manual to put in the correct commands for compressed, expanded, elite and pica pitches for your brand of printer. Unfortunately, the set up is saved with the file rather than as part of the program, so you have to enter the printer codes for each new file that you create. I see this as a drawback to the program.

Because the program and its file is running out of ram instead of from floppy it is lightning fast. This is a BIG PLUS when it comes to sorting or manipulating the records or searching for records in a file. This speed is the program's strength.

Sorts can be made on any field as can searches. Searches can utilize up to 10 characters in a string. Searches made on the "CODE" field can be based on 1 to 4 codes, which you put into the database when you set it up. Codes can also be changed, deleted or added to at any time. (nice feature).

The adding and editing of records uses the TI Writer editing features, F1 deletes, F2 inserts etc. You can return to the previous field by using F8 and return to a previous record with F9. A menu or prompt is always available to you throughout the program, another nice feature.

There are a variety of printout options; the SCREEN, so you can view the files and the PRINTER for lists (single/ double column options) and labels with the correct spacing for the standard mailing labels. The 2 column print out on the program version I have is too wide for the standard size paper.(big problem) I have a wide carriage printer so it is not a problemfor me but a standard size printer will not give a satisfactory print out at this option.

Also on this version there is no place to put in the name of the country in the address and there aren't enough lines in the label printout to accommodate this needed field either. These shortcomings will make it difficult for anyone wanting to make serious use of a mail database. The "REMARKS" field cannot be printed in the label format as yet, though Gary has mentioned that this is an upgrade he sees forthcoming.

My biggest problem with the program occurred when I tried to use a database that I had previously created. When the file was loaded in, most of the records had their data scrambled with many weird characters appearing on the screen. After several frustrating hours of editing and retyping, to no avail I decided to phone Gary. He suggested that I remove the SUPER EXTENDED BASIC cartridge since RAMBO doesn't get along with it. That solved the problem. RAMBO doesn't like my TI EX BASIC cartridge either. Sometimes, RAMBO doesn't like speech synthesizers according to Gary. As it turns out, Rambo is the problem, not the software. None of these problems are documented either in the manual nor in the "NOTES" file on the disk. Hopefully this will be rectified shortly.

At the moment "RECALLIT +2" sells for $10.00 in Canadian funds. When the problems are put right this program could be terrific, but considering the major bugs and shortcomings in the program I would advise that you wait for a corrected release before purchasing it.

Bits, Bytes & Pixels

BITS, BYTES & PIXELS
Published by Lima OH
99/4A User Group

ADDRESS- P.O. Box 647
Venedocia Ohio
45894
Published monthly except
July and August

Bits, Bytes & Pixels

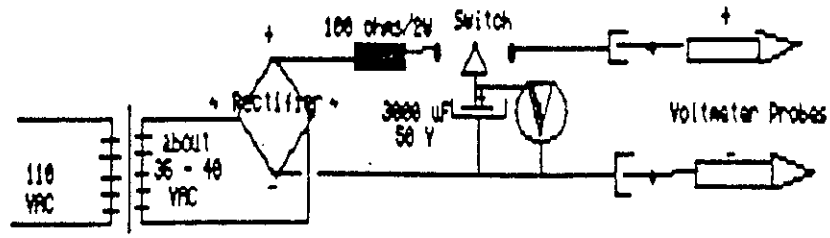
THE ZAPPER

"....An internal short. .... Such a malfunction is typical of Nickel cadmium cells. No amount of charging will eliminate the short. The output of a "fully" charged battery pack becomes low.

"I (Swinnen) have been annoyed several times, enough to start a "course of inquiry" as to the source of this annoyance. Dissecting a defective battery I found a well defined dendrite in its insides. While the dendrite proved to be conductive, it definitely was identified as the villain who shorted my battery. A simple application of about 50 volts evaporated said dendrite. Thusly the Zapper was born.

"The schematic diagram shows what is needed. A power supply, either one you put together from a discarded transformer and a bridge rectifier or an existing one, capable of supplying about 50 volts at a few milliamps will do. An electrolytic capacitor of at least 3000 uF at 50 volts has enough energy stored to zap even the most recalcitrant battery. A voltmeter (your VOM will do nicely if it has in the vicinity of 100000 ohms per volt internal impedance so as not to load too heavily the charged capacitor) is handy to find out when your capacitor is charged up and ready for the next zap. A switch allows you to charge the capacitor slowly when switched to the left and to discharge the capacitor quickly across the NiCad cell when turned to the right. To this end, drill three small holes, about 2 mm, on either side of the battery pack, THROUGH THE PLASTIC ONLY, so as to expose the heads (metal) of each cell. Your voltmeter probes come in handy to apply "zapping power" through these small holes to each cell. Sometimes, a couple of applications are needed. It is good practice to zap a known shorted cell a couple of times, then to charge it for an hour or so. If it still doesn't take a charge, zap again.

"I have had success in about 90% of all the cases, taken over more than forty batteries zapped."



Circuit for
"THE ZAPPER"

OSHTI

OSHAWA TI 99/4A COMPUTER USERS GROUP

T.I.M. IS HERE

TI IMAGE MAKER (Tiny TIM) has arrived....! Oasis Pensive Abacutors 80 column HIRES upgrade for the TI 99/4A is now available for $179 (US or CAN). Now you will be able to luxuriate with the W I D E S C R E E N. Load in GIF pictures and use the 256 colour Graphics mode 6 and 7 which the V9958 video chip supports.

Although TIM uses the newest YAMAHA video processor the V9958. All of the software that supports the older 80-column cards (the V9938) also works. OPA has made sure that there is compatibility between them. The installation of TIM is very simple. You "pry out" your V9918A chip (from your console) and pop in the TIM board and make a simple solder connection to the bottom of the mother board. You also remove the two GROM chips and add the S.O.B. (Son of a Board) and make another solder connection, this time to ground.

The instructions are easy to follow and most anyone will be able to add TIM and SOB to their console. If you are faint at heart hen I suggest that you make use of a 'techie' from your user group. If you still can't do this, then you can send your console into OPA and they will do it at a small additional charge.

The S.O.B. is a 'stand-alone' unit and can be added to anyone's console. It is a powerhouse by itself. In fact it will perform more operations than Editor/Assembler. S.O.B. replaces GROM 1 and 2 in the console so that you will have TRUE LOWER CASE characters and a MICRO disk manager as well. OPA has also changed the STANDARD TI screen(s) as well.

OPA also supplies the purchaser with software so that you can immediately use the system. X-HI,X-80 from Alexander Hulpke are packaged with it as well as a GIF viewer and of course 80-column FUNNELWEB (DISK REVIEW) 4.31. There are also other programmes which make use of the V9958 graphics.

If you are presently using TELCO, you can readjust your set-up for 80 columns it works in a 'flash'. Now you don't have to worry about wrap-around from BBS's.

TIM is a complete package and the PRICE is definitely RIGHT. You get TWO great hardware upgrades which will turn your TI 99/4A into a computer for the 1990's.

OPA is also thinking ahead has engineered in lines for future add-on devices - GENLOCK devices, IMAGE SCANNERS,as well as a composite monitor adapter. Presently an ANALOG RGB MONITOR is needed with TIM (see article later).

If you've been waiting for 80-columns, now you can get it and not worry about the support for it. You get 512x424 pixel resolution and the FULL 192 K of VDP ram.

OASIS PENSIVE ABACUTORS
432 Jarvis St. #502
TORONTO,ONTARIO,CANADA
M4Y 2H3
$179.00 + 7.50 shipping and handling

Our fellow TIers, Phil and Glen and John from Kawartha 'graced' us with their 'presents'. Tom and Keith tried feverishly to get a Commodore RGB monitor to work on the newly obtained TI Imagemaker(T.I.M.) from OPA (AKA Gary Bowser).

Unfortunately the cable used was missing a much needed pin to make it work. We will have to wait for next month's meeting to see.

However, Tom demonstrated the S.O.B., Son of a Board which comes with T.I.M. As mentioned in the March OSHTI newsletter, this board can be purchased separately from T.I.M. for $59 (Can.) The board features TRUE lowercase characters for all console cartridges, BASIC and XBASIC. Even the zero is slashed.

With the PBOX attached you can choose to RUN a disk based programme from the micromenu screen or choose the module. If your speech synthesizer is attached the SOB says "READY to START" on power-up, then "DEVICE" for disk drives and "MODULE" for cartridges. When you access a drive it says "RUN". The menu screen runs smoothly but there is a complaint about the screen colours on a B-W monitor. It was also noted that there is a compatibility problem between SOB and the MYARC FDC (floppy disk controller). If there is NO synthesizer attached, the MYARC FDC causes the SOB to hang up before displaying anything. Gary Bowser, is working on the fix for this apparently unusual incompatibility. Unfortunately, this might delay orders of TIM and SOB.

T.I.M. and YOUR MONITOR

As mentioned in the Mar. OSHTI meeting minutes, I purchased my TI Image Maker (aka 'tiny' TIM) but was unable to get it to work on the monitors I brought home. Well, here it is Mar.22nd, only 4 days later and TIM is up and working. I sure learned a lot about RGB monitors in the last week.

First thing that you should know about RGB monitors is that there are basically two(2) types. There are the:

RGB analog and the RGB digital(or TTL)

TIM to date ONLY works on the RGB ANALOG! No digital models will work. To Keith's and my disappointment, the COMMODORE 1902 RGB monitor will NOT work...it is DIGITAL ONLY!

Most of the Amiga monitors (1084,1084S)from Commodore will work.

I also suspect that the RADIO SHACK monitors,CM5 and RGB11 will work. The reason that I say this is that they have relatively LOW RESOLUTION and have a Horizontal sweep rate of about 15.75 kilohertz. Herein lies the next problem; the horizontal scan or sweep frequency.

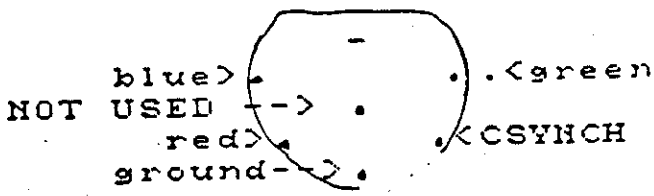
TIM works well on a 15.75 kilohertz scan,but most inexpensive RGB monitors are 31.5 kilohertz, or double this frequency. This causes a small problem (I'm not exactly sure, but it is significant enough). This makes a wide variety of modern VGA monitors for the moment out of contention.

The last problem lies in the wiring diagrams to these monitors. They use separate Horizontal and Vertical scan lines. TIM, at the moment is set up to use only a Composite Synch line.

The good news is that TIM WORKS ! It works with a variety of monitors (see list below). Gary Bowser of OPA is to be congratulated for the work he has done on TIM. Gary continues to work on these last two problems and hopefully TIM will eventually be able to work on more (inexpensive) monitors in the future.

Commodore AMIGA 1080,1084 MAGNIVOX 8CM515 THOMPSON 4120 SONY XBR series(KV1311CR)

The following is the pin-outs for the DIN 6 plug on my version of the Commodore 1084



Looking at the back of the monitor at the female plug.

Another thing to keep in mind is the SIZE of the PIXELS. From experience with the AMIGA monitor and from the advice of others (Will McGovern), a pixel size of 0.42 mm is ACCEPTABLE but a SMALLER size is BETTER !

Finally, besides the cost, you want a monitor which can do a screen size of 640 x 480 pixels. This is fairly standard on most VGA systems. You will pay more for the higher sizes but the TIM can only do a maximum of 512 X 424 so any larger sizes than the 640 x 480 won't improve things.

To summarize you want a monitor for TIM that is:

>RGB ANALOG
>less than 0.42 mm pixels
>640 x 480 pixel screen
>15.75 kilohertz Hor.scan

Tom (Mar.24 1991)

MAILING ADDRESS:

OshTI

Tom Jakabfy
660 Given Rd.
OSHAWA, Ont.
L1H 8L7

DO YOU HAVE AS MUCH SENSE AS A GOOSE?
By Earl Raguse

The following was copied from the 2/91 Dallas 99 Interface from an article by the same name. No author was given. I thought it appropriate, now that our annual election of officers is coming.

This spring when you see geese heading back north for the summer, flying along in "V" formation, you might be interested in knowing what scientists have discovered about why they fly that way. It has been learned that as each bird flaps its wings, it creates an uplift for the bird immediately following. By flying in that "V" formation, the whole flock adds at least 71% greater flying range than if each bird flew on its own.

Basic Truth #1: People who share a common direction and sense of community can get where they are going quicker and easier because they are traveling on the trust of one another.

Whenever a goose falls out of formation, it suddenly feels the drag and resistance of trying to go it alone and quickly gets back into formation to take advantage of the lifting power of the bird immediately in front.

Basic Truth #2: If we have as much sense as a goose, we will stay in formation with those who are headed the same way we are going.

When the lead bird gets tired, he rotates back in the wing and another goose flies point.

Basic Truth #3: It pays to take turns doing hard jobs--with people or geese flying north.

The geese honk from behind to encorage those up front to keep up their speed.

Basic Truth #4: We need to be careful what we say when we honk from behind.

Finally, when a goose gets sick or is wounded by a gunshot and falls out, two geese fall out of formation and follow him down to help him and protect him. They stay with him until he is able to fly or until he is dead, and then they launch out on their own or with another formation to catch up with their group.

Final Truth: If we have the sense of a goose, we will stand by each other like that.

Protecting your PC from sudden shocks

By DAVID WILLIAMS

Summer is approaching, and with it comes thunderstorm season in Southern Ontario.

Hot and lazy days will be interrupted by flashes, bangs, and the anguished cries of computer users whose equipment has crashed or, worse, suffered physical damage.

Money, saved for pleasurable pursuits, will be diverted to pay for repairs. Summer will be less enjoyable, for some, than it might have been.

Nothing can be done, short of burying our computers deep underground, to guarantee that they will survive unscathed through thunderstorms.

Even a machine which is unplugged from the A.C. supply and from any other external connections may be damaged if lightning strikes very close to it. Through a phenomenon called inductance, a nearby strike may produce sufficient voltages within a computer to damage its circuits even if no actual lightning current reaches it.

Fortunately such damage is unlikely. Although an unplugged computer is not perfectly safe, it is much less likely to suffer damage in a storm than one which is left directly connected to the A.C. supply and/or to other wires such as telephone lines.

The computer may be unused and switched off, but, if it is still plugged in, the A.C. or phone connection represents an avoidable hazard.

Consequently, unplugging external connections is a wise precaution to take when a storm approaches. However, it does not guarantee safety.

May be impractical to disconnect power

Furthermore, this precaution may not be practical. Perhaps it's desirable for a computer to continue functioning through a storm. Perhaps it's impossible for anyone to reach the machine to unplug it.

Can anything be done to reduce the likelihood of damage to equipment which remains connected to external wires that may carry high induced voltage spikes, or may even be directly hit by lightning?

An acquaintance of mine, who is in the business of making surge-protection equipment, proudly shows proof of one case in which lightning directly hit the power lines leading into a building, yet a computer inside, which was connected through one of his devices, was completely undamaged. The protection circuit, itself, also survived unscathed!

While he admits this case is an example of good luck as well as good design, it is possible to make equipment which will substantially reduce the risk of damage from spikes coming along external wires.

The risk cannot be reduced to zero, or even to the level which could be achieved by simply unplugging the computer. But it can be reduced somewhat. That is better than nothing!

On my own equipment, I use two protection devices.

One is in the A.C. power line. It is a commercially available device, supplied by the above-mentioned acquaintance. His sales pitch was good enough to convince me! The device is thoroughly sealed, so I don't know for certain what is inside it or how it works, but its substantial weight suggests that large inductors and/or capacitors are included in it.

The other device is in the phone line leading to my modem. It was designed and built by myself.

Since installing the device, I have been rash enough to leave the modem connected to the phone line through even the most violent thunderstorms. So far, it has suffered no damage. Maybe I have been lucky. But theory suggests that my device should provide some protection.

Something awful would happen

Like all normal telephones, my phone and modem are connected to the exchange by only two wires, which are the ones with red and green insulation in a regular indoor telephone cable. (The yellow and black wires are unused, and can be left disconnected.)

Combinations of D.C. and A.C. signals flow in the wires to make the phone ring, dial, carry phone or modem communications, and so on. The voltage between the two wires can vary from virtually zero, when the modem is in use, to about 100 volts, when the phone is ringing.

In normal use, the currents in the two wires are always equal and opposite.

The number of milliamps which is flowing into the phone from the exchange along one wire is exactly balanced by an equal number of milliamps flowing the other way in the other wire.

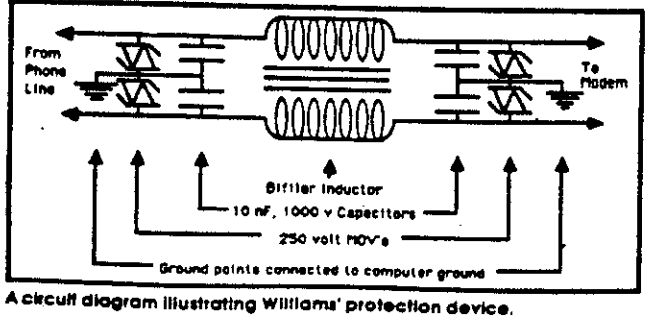
Of course, it has to be so. Otherwise huge voltages would be produced and something awful would happen, such as a breakdown of the insulation between the phone circuit and ground.

This kind of awful occurrence is exactly what happens when lightning strikes. The lightning forces current to flow in the same direction in both wires.

Huge voltages are produced within the modem, which has part of its circuitry connected to the phone line and another part through the computer to ground. The insulation between the two parts breaks down. Hardware is damaged.

My protection device uses a bifilar inductor (that is, one with two wires).

It offers a high impedance to currents flowing in the same direction in the two wires, and very little impedance to normal currents flowing in opposite directions. The theory is that this blocks lightning strikes, but allows normal communications to pass unhindered.



A circuit diagram illustrating Williams' protection device.

Most components easy to find

The complete circuit of the protector is shown in the accompanying diagram.

In addition to the inductor (about the construction of which I will say more later), it includes four 10-nanofarad, 1,000-volt capacitors and four 250-volt Metal Oxide Varistors (MOV's). One of each is connected between each end of each wire and ground.

The MOV's are intended to ensure that no point goes to a voltage more than 250 volts from ground potential.

The capacitors reduce the rates of voltage change, giving the MOV's, which are somewhat slow devices, time to turn on before the voltages become too large.

The "ground" is the computer and modem's ground—the signal ground of the system. A wire is used to connect the ground point in the protection circuit to the ground of the computer.

Apart from the inductor, all the components should be easily obtainable at any electronics store, and wiring them together should be a simple job for anyone who can handle a soldering iron.

The inductor, however, is a different matter! It is not a standard component. I had to make my own, which proved to be an adventure. You can follow my procedure, if you like, or you can invent an adventure of your own.

My inductor consists of "speaker wire" (the two-conductor stuff which is sold in electronics stores for hooking up loudspeakers to amplifiers) and a ferrite toroid which came from the deflection yoke of an old colour TV set.

I acquired the yoke for next to nothing at a surplus store. I imagined that it would prove to be a cheap and simple source for the ferrite toroid which I wanted for the core of my inductor.

Inductor presented a problem

Cheap it was. Simple it was not. I hacked at it, trying to remove the windings, with little success. They proved to be held in place with a dense impregnation of something that looked like epoxy cement. My visions of simply unwrapping the windings became mired in a mess of glue.

The solution occurred to me when we had a backyard barbecue.

When the cooking was finished and we were about to move indoors, I put the whole yoke among the red-hot coals.

Smoke and flames soon proved that the glue was yielding to the fire.

A few hours later, when everything had cooled down, I retrieved what was left of the yoke. The epoxy had all burned away. The copper coils were then simple to remove, leaving the ferrite toroid—which proved to consist of two semi-circular pieces!

I think it was made that way. The ends were too flat to have been formed by thermal cracking in the fire. Anyway, a couple of drops of Krazy Glue put the pieces back together with virtually no separation between them. This was important, of course, so as not to disrupt the magnetic continuity of the toroid.

Winding the inductor wasn't a big job. I started with a 10-metre length of speaker wire, almost all of which went into the inductor before the hole in the centre of the toroid became jam-packed with wire. This provided about 100 turns.

The winding was done doughnut style, with the wire going through the hole in the toroid, around the outside, through the hole again, and so on.

I tried to do the winding reasonably neatly, in layers. That way, the voltage difference between any turn in the winding and its neighbour would only be a small fraction of the total voltage across the coil when lightning strikes. This should maximize the inductor's capability to block high voltage spikes without its insulation breaking down.

The only exception is the bit of wire that leads directly to the interior of the coil from the outside. Where it passes through the outermost layer, the full voltage of the spike is across the insulation between them. For this reason, I wrapped this bit of wire in some extra insulation.

The conductors in the speaker wire I used were colour coded, so I could easily ensure continuity along the two phone lines. (Actually, this doesn't matter much, but it is nice!)

Coils are "virtually" identical

One conductor is in series with the green phone wire, the other with the red. If they hadn't been coded, I would have experimented electrically to find out which was which.

The connections are made the "obvious" way. The two conductors at one end of the piece of speaker wire go to the modem. The other ends go to the phone line.

The inductor works quite simply. The method of its construction ensures that the two coils—the two conductors in the wire—have equal numbers of turns and are virtually identical.

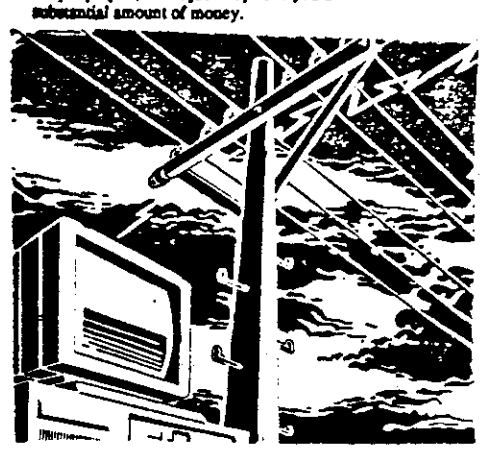
When the currents in the two coils are equal and opposite, as is the case in normal operation, the magnetic fields of the two coils cancel each other out.

No magnetic energy goes into the ferrite toroid. The effective inductance of each coil is virtually zero. But if lightning forces currents to go in the same direction in the two coils, their fields add, instead of cancelling. Their inductance is substantial.

This type of device could be put into the A.C. supply lines to your equipment. However, speaker wire would probably not be suitable because of the higher currents that would be involved.

I would suggest using rather heavy wire, and running the completed inductor at maximum current for a long test period, checking frequently to make sure that it does not become hot.

Making this lightning protector is a fairly simple project, and it just may save you a substantial amount of money.



You don't HAVE to have it all!

by Jim Peterson

Do the conversations at your user group meeting sound like a coffee break in Silicon Valley? Are you confused by talk of GROMs and GRAMs, puzzled by references to MFDCs, intimidated by discussions of megabytes and frightened by talk of burning EPROMs? Well, join the crowd, buddy - so am I!

There are basically three types of people interested in computers. First, there are those who use a computer to run programs, to accomplish something useful or just to have fun. I believe that those people are still in the great majority, although we don't hear much from them.

Then, there are those who get their kicks out of writing programs, of creating software for others to use. There aren't too many of those left in the TI world.

And finally, there are those who like to tinker with the computer, soup it up, plug in doohinkies and thingama-jigs, and talk in that strange language I mentioned above. I don't know how many of those folks there are, but they are certainly the most knowledgeable, active, and interested, and they tend to dominate the conversations and the printed material in the TI world nowadays.

I presume that those fellows also do actually run programs on their souped up systems. And, some of them must be skilled programmers, because many of their hybrid hardware creations would be useless without specialized software.

I'm very glad that those people are around. Once in a while they invent something that I actually find useful, and they are a lifesaver when my equipment breaks down.

But, don't be intimidated by all that high-tech talk, and don't think that the computer world is passing you by. There are so many things to do with a computer that no one could possibly find time to do them all. Do your own thing and don't worry about the rest.

I have operated a TI software company for seven years, and I also spend a lot of time writing programs, using the computer as a word processor, etc. I probably spend more time on my TI than 90% of the users. So, what does my equipment consist of?

I have a console with the Extended Basic module plugged in, attached to a P-box which contains a TI disk controller, two double-sided drives, the 32k card, RS232 card, and a Horizon Ramdisk. Also plugged into the RS232 card is an old Gemini 10X printer and an Avatex 1200 baud modem.

I also have a Speech Synthesizer, a pair of TI joysticks, a TEII module and an Editor Assembler module, all of which I plug in occasionally when I need them; also, a cassette recorder and cable which hasn't been used in a long time.

I use Triton's Super Extended Basic module because it has some editing features which are useful when programming. It also has some limited plotting capability which I have never used - and have never heard of anyone who has. If you don't program, it would hardly pay to switch from the old TI Extended Basic. I also have the Mechatronics module but never got around to trying it.

I had a Gram Kracker but soon sold it and bought a Ramdisk instead. The Gram Kracker has fantastic capabilities if you have the skill and knowledge to take advantage of them, but most users don't seem to have done much beyond personalizing the title screen.

I had a widget, and I guess it is still collecting dust around here some place. It was a nuisance, and since I use XBasic 99% of the time I didn't need it. There are now widgets or "module expanders" that allow you to access more than one module from within a program. That is, if you have the skill to write such a program. I don't know that anyone has released such programs to the public domain, and I can't think of any practical use except to access TEII speech from XBasic - but you can do that with the Text-To-Speech disk.

The ram disk is the one tool that I would not be without. In order to assemble my TI-FD catalog, I screened over 4000 programs, debugged and modified, merged in help files, conversions to XBasic and loaders, and assembled over 400 disks of programs. It took me hundreds of hours of work - without a ram disk it would have taken thousands of hours and I would not even have attempted it.

The ram disk enables me to switch from one program to another almost instantly, and with John Johnson's Boot program I can just as quickly catalog a disk or view a file. Mine has 256k of memory. I could get one with much more memory but I see no reason to do so; I have every program on it that I am apt to use even once a month, and it is only half full. That leaves plenty of room for temporary storage and downloading.

However, if you only use your computer to play games, do a little word processing and a bit of record keeping, a ram disk would be an expensive convenience rather than a necessity.

Since my ram disk is only half full, I would consider a hard drive to be about as useful as the mammalian appendages on a swine of the masculine persuasion. If I was running a BBS, sure - or if I was doing a lot of work with those memory-gobbling graphics and needed everything quickly accessible.

My old Gemini printer has been a faithful workhorse, although the hood over one sprocket wheel has lost its spring and is being held down by a loop of elastic cord. I will have to give it up soon, because the Gemini printer codes are becoming obsolete and I need to be able to write and test Epson codes. But, I hate to give up these 79-cent typewriter ribbons and start getting ripped off on $2.50 cartridges! As for a color ribbon, the temperature will have to go way down, down under, before I pay for one of those.

Once in a while, when someone sends me a double-density diskfull of stuff, I wish I had a CorComp disk controller. Otherwise, with diskettes selling for a quarter or less, it wouldn't pay to change.

If I ever get around to subscribing to GENie or Delphi, it will pay me to get a 2400 baud modem.

I can't think of anything else I need, and I don't want what I don't need. If I really wanted to play joystick games, I would certainly get something better than the TI joystick. And if that MIDI interface cable becomes a reality, I wil be sorely tempted.

I can't see any advantage in putting the 32k under the hood, or anyplace other than where it is now. If I used speech a great deal, it would be nice to get rid of the synthesizer - but I know only one user who uses speech that much. I don't need a clock built in because I have a watch on my wrist. If I really did a lot of serious writing, an 80-column card would be wonderful. But then I would have to buy a monitor capable of displaying 80 columns. I certainly don't want to give up color, and high-resolution color monitors cost more. I would still want to use my old monitor for programming, because I like to write programs for folks who have basic equipment. I don't have room on my computer desk for two monitors, so I think I'll pass.

I'm a three-finger typist, so a RAVE keyboard wouldn't speed up my typing very much. If I really wanted an IBM keyboard and 80-column capability, I would throw in a few bucks more and get a Geneve.

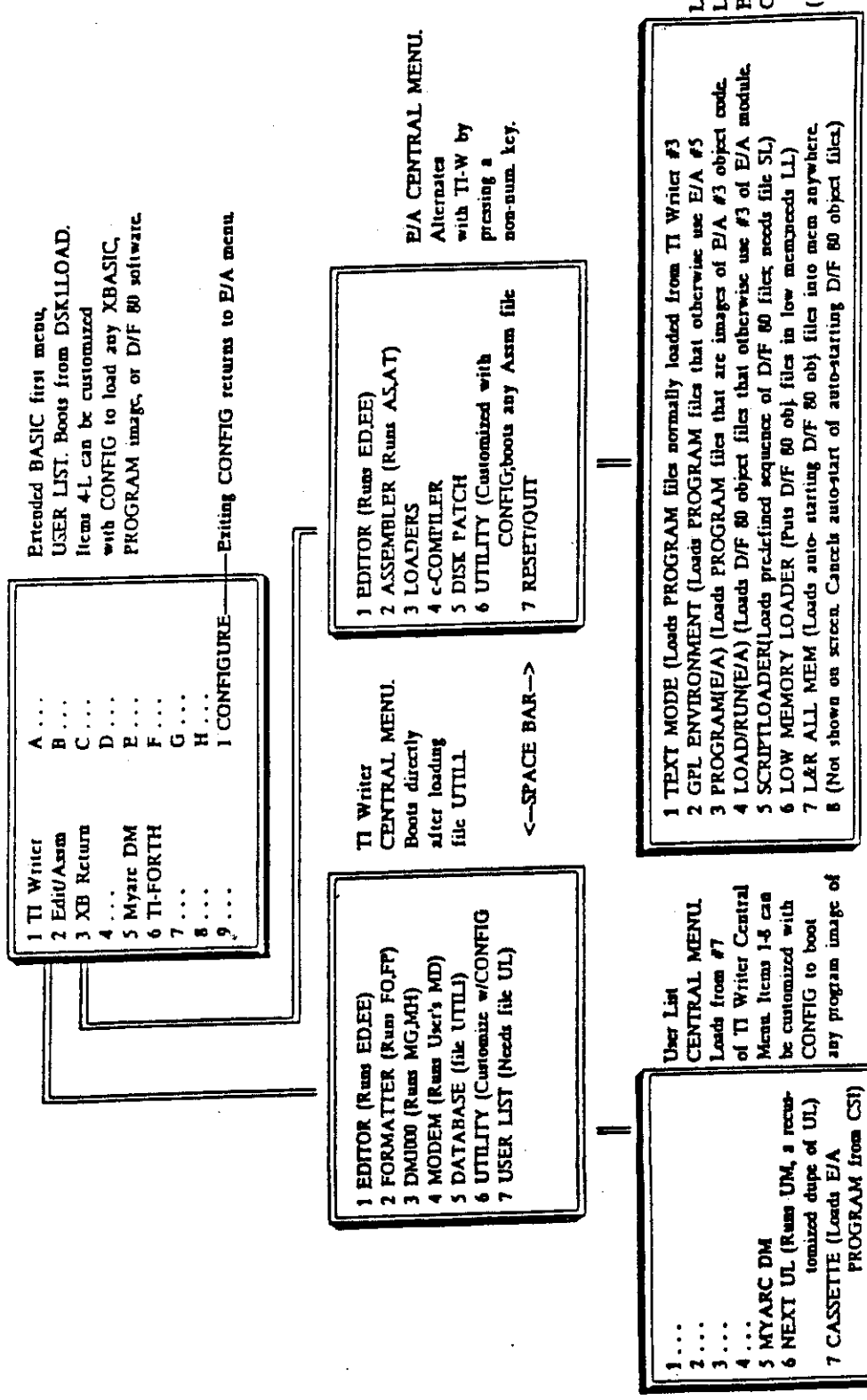
So, what about the Geneve? If I had an irresistible urge to run the few great programs that have been written for it, or if I wanted to explore its great programming capabilities, I would get one. But, I like to write programs for other people to use. When so few are interested in programs that I write for a computer that sold in the millions, why would I write programs for a computer purchased by a couple of thousand people?

I am sure that many folks will disagree with what I have written. That's why I wrote it. I hope they will disagree so strongly that they will immediately boot up Funlweb and compose a blistering reply. But don't send it to me - send it to your newsletter editor. The newsletters are badly in need of more articles by more writers!

Special thanks to Robert Simms, Editor, TI READER, Charlotte, NC TI-99 UG Newsletter
March, 1988. FunnelWeb Farms Funlwriter V.4.0 Freeware by Tony & Will McGovern, 215 Grinsell St., Kotara NSW 2288, Australia.

FUNNELWEB 4.0 MENU FLOW CHART

FCTN-7 (AID) from any of these menus gives a disk directory.



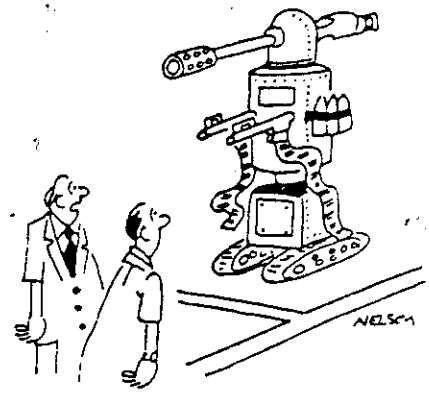
Reformatted by Robert Simms from versions printed in the Lima, Ohio Users Group newsletter.

9T9 Want Ads

① FOR SALE

1 TI-99/4A COMPUTER CONSOLE WITH ALL MANUALS, ETC.
C/W CASSETTE CABLES, JOYSTICKS AND 3 MODULES,
HOUSEHOLD BUDGET MANAGEMENT, INVADERS AND MUNCHMAN.
-WOULD LIKE TO SELL AS A PACKAGE, ALL IN ORIGINAL BOX,
AND VERY LITTLE USED.

WRITE: MR. A.T.J. VANZON
R.R. #2
KIPPEN, ONTARIO
N0M 2E0



"It was developed for the Army, but they couldn't use it—it actually works."

② FOR SALE

I would like to place the following ad in the next 9T9 Users Group newsletter:
11 Books (including Compute's Guide to Sound and Graphics and Best of 99er)
.....$3.00 each.
20 Cartridges,(including Pacman, Terminal Emulator II, Music Maker, Physical Fitness, Video Games, Personal Record Keeping, Touch Typing Tutor, Fractional Numbers, plus twelve more)
.....$3.00-$5.00 each.
Speech Synthesizer.....$30.00
TI tape recorder.....$30.00
Infocom interactive adventure games:
Witness
Planetfall
Zork
Hitchhiker's Guide to the Galaxy
Deadline
.....$10.00 each or $40.00 /set
--> Phone Laurie at 690-9623 (Leave message)