

Aug 86



The Ottawa T.I.99/4A Users' Group



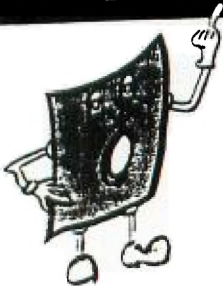
VOLUME 5 NUMBER 06.....AUG 1986

TUESDAY SEPTEMBER 2ND
 7PM MERIVALE HIGH SCHOOL

change of date for
 meeting

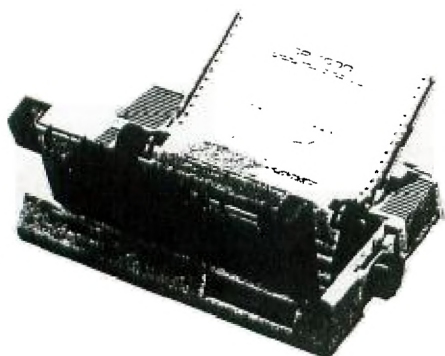
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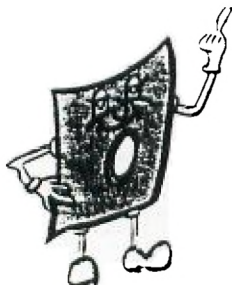
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CHAIRMAN'S TWO CENTS WORTH

by Berry Minuk

Well here we are with the summer almost over and a new season of activity about to begin. By the time you read this our new BBS should be in operation. There should also be a provision for 1200 baud access as well as 300 baud. Those of you who frequent the board will know that Lloyd and I have been looking for a Hayes compatible modem for less than \$300.00 and if any of you have any leads for us they would be most welcome.

Talking about our BBS brings to mind 2 very important items. Firstly, I would like to extend a special vote of thanks to Benoit Tanguay who as well as being a Sysop on our BBS for over a year now, has also written a fantastic new Board for us. Also with many regrets I will have to bid au revoir to Benoit since he is leaving the TI world. Shades of Bruce Caron!

The last meeting for those of you who missed it and there were many who did had a demo of the Mouse from RYTE Data and some other new products. The meeting ended with a copy session (public domain and fairware). This was an excellent opportunity to fill some of the holes in your software collection. Since many of you missed it we will try to repeat it during the coming season.

The next meeting will be the first of the new season and will feature a demonstration of the Ramdisk from the New Horizon Group. This is a very useful new product and contains a copy of our fairware program DM-1000. By the way the latest version is 3.3 and the plans are to have another revision ready for the Chicago Show in November. There will also be at least one other demo of a new product.

In my last column I told you we were in need of a new Librarian and am happy to announce that Steve Bridgett has agreed to take the job. Congrats! This is also another reminder that Steve McWattie has agreed to act as Chairman in charge of pictures and other graphics created with any of the drawing programs such as GRAPHX, TI-ARTIST or DRAW N PLOT, etc. Give yours to Steve and he will see that you get those created by others in the Group.

We are still collecting for the following 3 freeware programs and are now over the \$60. mark but this is still not enough for the c99, Neatlist and Fast Term. There is only 1 more meetings so get your donations in. We are still a bit short on the Hard Disk drive so get that in also.

The Tutorial Schedule has been changed to Wednesdays and they will now be held at the J. S. Wordsworth School on Chesterton Drive. Further details will be announced at the meeting.

We have decided to try a new format for our meetings so they will not drag so much. The meeting will start at 7:45 PM sharp. You will have from 7:00 to 7:45 to talk, buy, look and socialize but this must stop at 7:45. The business portion will only last until 8:30 and any business not finished by then will be held over till the following meeting. There will then be a further break until 9:00 for whatever you want and the demos or other feature will start. If we have a lengthy demo we may have to start at 8:45.

The software contest is postponed again. We must have a volunteer to run it with Henri. Also remember elections are just around the corner-October. Start thinking about next years executive.

I will see you all at the Sept meeting and let's have a super turnout for our first meeting of the season.



EDITOR'S NOTES
By MARG OCONNOR

Back again for the fall season with the first meeting being Tuesday September 2nd at Merivale High School, 1755 Merivale road in Nepean. The school will be open at 7pm for those who wish to do business or to chat, and the meeting will start at 7.45 sharp. This is a change from last spring due to the auditorium not being available to us on thursdays this season.

A big welcome to our new Ass't Editor, Bob Soutar, and I am sure that Tony Hopkins will be glad of his assistance with the adds as well.

We are still looking for someone to look after the hard disk drive as well. We still need \$120. over the pledges. Several people pledged money a way back when we first had the drive and have not as yet sent in their pledges. It would be appreciated if they could see their way clear to do so now.

Bob Boone will have some RAMDISK boards for sale at the meeting so if you are in the market get to the meeting early with your check book, as they may go quickly.

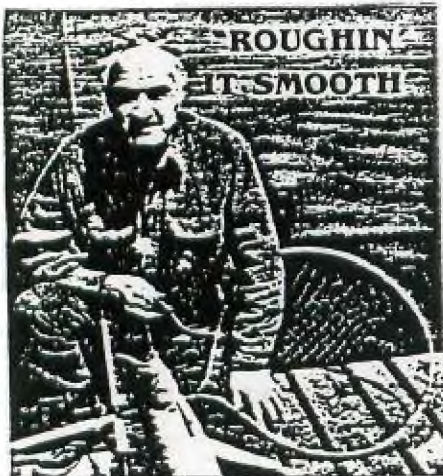
At last count there were 139 members of the OTUG and 32 NUAC so we are still going strong.

There is one other thing we need - MORE ARTICLES from members. Bob Boone has supplied most of this months newsletter and it would be nice to hear from other members. To send in your article either give it to me at the meeting - hard copy, disk, or tape, or if you have a modem you could phone it in, in the evening.

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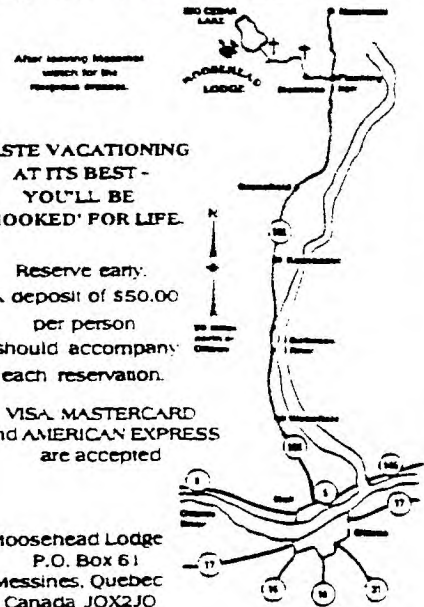


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PRIOR PATTERNS August 86
By Bob Boone

What a summer its been. Each peak has built on the one before it and those of us up front are now above cloud nine! Some of us experienced the phenomenon commonly known as 'post-partum blues' after the resounding success of our FEST here in Ottawa in late April.

The update to INSCEBOT's TI-Artist, which began to arrive en-masse at the Faire, generated new excitement with its powerful graphic capabilities. It hasn't fully crested yet! Through the magic of TI-Artist; Graph-x, CSGD and a program called MAX-RLE digitized pictures have now found their way to TI's world! These pictures show amazing detail and it warms the cockles to see them displayed (where they belong, I might add) on our little orphan's screen and printer! I now have about 4 DSSD disks full of these pictures. To be fair, they're not actually done on a TI (they're developed mainly on IBMs and CO-DOs and converted with that powerful MAX-RLE program mentioned earlier). The point is they LOOK like they belong on our screens!

WICO Trackballs (AKA the poor man's TI mouse) At \$35 CDN per unit they come in at almost 1/4 the price of Mechatronics TI Mouse and work already with oddles of software. They are very responsive, especially with games and utilities (TI-Artist fits here) that allow full spacial movement on the screen. If you are running a program that uses only horizontal and/or vertical movement you'd probably fair better with a joystick. It contains on board electronics to remember and translate motion (in case you get ahead of the cursor in your excitement) so does require an outlet on your power bar. Its particularly nice to have if you do a lot of graphics with your system. Curved line drawing with the trackball is a snap. Terry Atkinson of TINS says his son consistantly beats the computer in TI-Tennis (in expert mode!) using the trackball whereas he only rarely can do so with a joystick.

Late in June we learned there's a company in the US that's TAKING ORDERS on the new computer (called GENEVE [with an accent ague above second 'e'] or The 9640 Family Computer) at \$425 US per unit! I last spoke to MYARC on the first week in August, at which time they estimated 4-5 WEEKS till it would be available to the public. The two big stumbling blocks they're now experiencing are bulk source of parts and the sheer number of telephone calls they're getting about the new machine. I've been advised that they'll TRY to keep me in the picture, as they'd like me to be the distributor for them here in Canada. They've had several successful demonstrations of Geneve over the summer, most notably at the CES in Chicago, the Boston Computer Society meeting in July and in Elmira New York near the end of July. The big news here is that those of us that have waited years, then quarters, then months, now have just WEEKS to sweat through! Hopefully DAYS and HOURS are just around the corner.

Small c (AKA c99) was released at our TI-Fest North 3 months ago and proved to be the sleeper of the year (at least for me!). With Tom Bentley's guruship and a tickle in our ear from Lloyd Galenzoski it has come alive and has the local TI community buzzing. My flame was fanned to proportions approaching 'raging inferno' by a tutorial in the August COMPUTER SHOPPER written by either or both of Ron Albright or John Zittrain. I haven't MADE time for programming in a good many months; now I can't make ENOUGH time! Its easy and veerry powerful! I wish there were an adequate way to convey my excitement about the language. At our July OUG c-tutorial Lloyd suggested we try to write a BBS. This month the class was allocated various blocks of the project and its already well under way. c 99 == "power plus!!" !!!

Two other factors weigh heavily on my degree of ebullience concerning c99. Not knowing which way to prioritize them I'll treat them alphabeticly:

FUNNELWRITER V.3.3-D (I have received no less than 3 updates from Tony McGovern since the 1st of July when he released it in Melbourne Australia; thus the '-D' appended to the version number by Tony.) This package is a development system that to my mind is unequalled by those on the IBM-PC and its ilk! It has, under one cover:
A Word Processor.....

Modified and greatly improved TI-Writer (my opinion)
Editor/Assembler....
Modified and improved with every feature on the original module!
Disk Manager 1000...
Currently V.3.1 (soon to be updated)
Diskpatch.....
An upgrade from the original modified by Tony
c99 Compiler.....
Version 2.0 (which I only sent him in late May)
and several user levels into which you can plug whichever programs your
little hearts desire!

The documentation is extensive, comprehensive and very interesting reading. In short, if you haven't got it; get it! then find an unobtrusive corner to park your TI-Writer; Editor/Assembler and Disk Manager modules in and do c99 development till the cows come home! If you'd care to make a contribution to him (THE PROGRAM IS FAIRWARE), I have, so far, \$120 from local members and the Almonte TIUG which I'll hold off sending till after the September general meeting. I'll be glad to add your contribution to it then if you wish.

RAMDISKS!!! (In particular the Horizon Ramdisk; currently the only one with battery backup) I have FUNNELWRITER permanently installed on my ramdisk (DSSD). There's plenty of room for workfiles left over if you keep the FUNLDOCS elsewhere (as I do). Cee source files, Assembler source files and Assembler object files store nicely on a ramdisk! Compiling and/or assembling to and from a ramdisk does NOT give you enough time to walk to another room to watch a half hour sitcom or whatever. It speeds up virtually every step of the development process involved with c programming. If we'd had ramdisks like this available to us in the spring of 1985, I wouldn't be surprised if Bruce Caron wouldn't still now own a TI. I think that's about the best (and ONLY necessary) endorsement I can give this product! For those of you that are holding off here because your planning to get a Geneve... the two are and will be compatible and as far as I can see a battery-backed ramdisk will still be very USEFUL with the new computer. New operating systems are being developed and are nearly finished to allow use of the Horizon RD as a print-spooler and at least one other undisclosed application.

Before I say what I'm about to say, I want to stress that I believe mine is an isolated case. I acquired a MYARC 128K card about the same time as I got the Horizon Ramdisk (back in early April). My MYARC card is still not fully operational. It has an intermittent fault and I'm hesitant to send it back as I need its 32K function for my system at work. Again let me stress this isn't MYARC's fault but mine; they've been very co-operative. The card has been back to New Jersey once where apparently no fault was found; they've assured me that once they get it back again I'll get a new card. Anyway, to get to the point: I have managed to access the Ramdisk on this card a few times and am afraid to report I'm not nearly as enthralled with it as I am with Horizon's. The operating system has to be enabled and the Ramdisk filled each time you power up your system making it far more cumbersome. There is an undocumented and UNWARRANTED feature on the MYARC 128/512K card which reportedly allows you to add an external power source to keep the RD memory intact on power-down but obviously won't work during a power failure. The 128K version of the board which retails at about \$280 CDN is roughly equivalent to a SSSD drive whereas the Horizon Ramdisk at about \$230 holds a full DSSD disk-full of information. The significant gain with the MYARC card is the ability to configure part as a print-spooler and part as a ramdisk. In conclusion, I'm not giving up, by any means on the MYARC ramdisk and am in fact going to upgrade it to a 512K card very soon, so watch for more here.

DM-1000 V.3.3 was released on a large scale during the 3rd week of July and is being well received by all accounts. You can now access drive numbers up to and including DSK8. you can now edit more input fields in case you inadvertently hold down a key too long and we've changed certain defaults to reflect the fact there are now evidently more 2-drive TI systems out there. We've also put in a transparent feature that checks the type of controller you're using and sets certain flags within the program to enable built in functions of, for instance, the MYARC disk controller.

Deadline for this issue is fast approaching, so, [T]hats [I]t for now.

NUAC NEWS August 86
By Bob Boone

Its not looking good folks. As of this date I've had and underwhelming one entry in our NUAC logo contest announced in my March NUAC column and winding up at our mid-September OUG executive meeting here in Ottawa. It was a joint venture so what it amounts to is that all of TWO PEOPLE in all of Canada cared enough to submit a design! I KNOW its not for lack of talent so can only attribute it to one of two other factors(or both...). Either of these factors is deadly; one is slightly easier to overcome than the other so I'll deal with it first.

Many of you reading this have joined NUAC as a club; but our newsletter is still mailed to only one individual member of the club. Evidence abounds that those issues are rarely, if ever, seen by the rank and file of your individual organizations. Many people I've pressed on Timeline were not aware there was a TINUAC Logo contest or that their National Users Association was soliciting advice and input from them! It doesn't appear to have mattered much anyway.

Since I announced the contest again on Timeline, almost two months ago, there's been no additional response on any front.

Information dissemination is the name of the game; without it we're lost! If you people that receive our newsletter, on behalf of your club, do not pass on information from it to your members; then there's nobody but you to blame if our efforts go down the tubes.

Its time now(or never) to pull together. Appoint an official NUAC rep if you have joined as a club and give him/her at least a SMALL piece of each of your general meetings! Hopefully, that person will, on their own initiative or through group sponsorship, join TIMELINE, so that information of a timely nature can be exchanged easily. Information flow MUST be bi-directional! We ned to know what we're doing right and what we're doing wrong for you.... The OUG Executive is rightfully pressing us for more information on direction, goals, plans, a direction to take.... Some of our local people are somewhat less than enthusiastic about the project. There is no OFFICIAL pidgeonhole into which it can be stuck. Whether or not its obvious to you, or not, each individual membership in NUAC is costing the OUG money and the club memberships (at \$30 per) are only slightly in the black. The Ottawa group has underwritten the effort all the way. My personal opinion is that its some of the best money we've ever spent and that virtually no effort should be spared in trying to carry on, but thats only my opinion and I've never heard yours. Should we let it slide and pack it in on January 1st next year or should we attempt once more to draw up a battleplan? I won't take that responsibility alone.

Personal thanks go to Terry Atkinson and Wayne Joyce of TINS, who, so far are lonely entrants in the TI-NUAC logo contest and Tony Robinson, Terry(again), Paul Meadows, Jane Laflamme, Tony Hopkins, Tom Hall and a group of local people that sat around my dining room table on a Sunday in June discussing our dilema. Special thanks to Michel Johnson, who remains tireless in his efforts on our behalf. He wrote a rather lengthy and heart-felt discourse on this very topic on TIMELINE that helped spur several others to contribute ideas last month. Your many ideas, Michel, were wonderful, with practical ways to implement them our battle would be won!

We're not out of the battle yet though(I hope). Till next month,

PS: Two of my letters to TIers in other countries bore fruit. This months issue contains articles from Paolo Bagnaresi of Italy and Steven Shaw of England. Hope you enjoy reading them as much as I did.

FPS: The other factor(Para 1 above) I feel is nearly impossible to overcome in our current crisis is APATHY. Are you guilty of it?

Take care; Keep on TIing. Bob Boone

THE VIEW FROM MILAN ITALY
BY
SPECIAL CORRESPONDANT: PAOLO BAGNARESI
(AUTHOR OF BA-WRITER)

"TI-99/4A in Italy seems to be the fourth largest used computer, Commodore VIC 20 and C 64 being first. They are followed by ZX SPECTRUM and QL (Sinclair) and APPLE II. However, PC IBM and compatibles are catching up really fast. Other computers, Atari 520-1040 ST, Apple Mc Intosh, are slowly increasing their market share. Commodore Amiga hasn't shown up yet: it will be available in the next few months.

TI-99/4A typical configuration is console and tape recorder. A 5-10 percent of owners have also the disk drive system, expansion memory, a RS232 and a printer. Few users also have a second drive and maybe some fancy disk controller (CorComp or Atronic, this one is from Germany).

Users of TI-99/4A have not gathered into any user group. This may be due to the mediterranean way of life: everybody does not trust too much anybody else. Moreover, in a user group you would have to work for free. Are we crazy? We do not like to work even if we get paid for, let alone for free. No way we will do it. Some others argued that a TI club could be seen as a blatant american supporting team: we could be bombed by our mighty neighbour on the other side of the Mediterranean sea (Khaddafi) as a dangerous US base (since we would have US computers we might as well have some US missile, couldn't we?). I think that it is mainly for this second reason why we do not have a user group.

There is wild frontier life here. You exchange a program for another program, sometimes for two programs, if you are lucky. If you do not have anything to exchange with, chances are you are gonna pay for that program you want. Mind, we are talking about programs that have been imported, that are copyrighted, that are sold by dealers in North America at regular prices. Anyway, no one here seems to give a damn about copyright, about rewarding a programmer. The only concern seems to be: "is it copyable? That's enough, what the hell!

Here the real smart guy will join a user group in the US, get some really good stuff, and then he will sell it all over Italy: prices for any program span from US \$ 15 to \$ 35. To the smart guy that program costs \$ 2.00 each, the copy fee he payed to the US user group! Good business, isn't it? Here there is a real spaghetti market. Only spaghetti, the meat balls are gone, and for ever.

I know one of those smart guy, he lives in Bologna. He used to write to US user group pretending he was an user group! He was also able to get his name published on Home Computer Magazine, Oregon, USA. In this way he was able to receive a vast number of programs. Now he can sell you ANY program you can think of, no matter what. Obviously, having being on this business for over three years, he did not have time to learn how to program vet. But, after all, who cares? Good money will come to him as a steady flow anyway: net income, no income tax to pay, no anything. Good life, isn't it?

Ah, I forgot to tell you: documentation will not be provided by the pirate. It is like a "mafia": a dumb user it is not supposed to have the right to know how to use a program. The less he knows, the better for the pirate distributor. Obviously, the dumb user gets hungry for some understandable program. Eventually, he will buy some other program from the pirate distributor, a program that will be more or less the same as the one he bought previously. That program was rather useless, wasn't it? The next one will be the same. By now, the trend has already been started. The dumb user gets addicted to the pirate distributor. He will consider him like a good willing person who does his best to help the fellow man. The pirate distributor is his friend, no doubt about it. If only those darned programs were easier to use...!

On the other hand, photocopies are too costly and too time consuming. As a result, intelligent users will have to figure out by themselves how to use that pirate program: well, well, well, that is the fun of it, isn't it?

So much for the bad news. As for the good news: we have none. Here everybody seems to be waiting to see when the new Myarc computer will be working and ready to be shipped to Europe.

As for the rest of Europe. Germany (and Austria) are the strongest market for TI-99/4A. There are several companies that are developing good hardware and software. Most of what is available in Germany is already imported in North America by RYTE DATA of Canada.

France used to be a good country as for TI-99/4A. After all, the fabulous "TENNIS" game, by Nicesoft, comes from Nice, France. There was a french magazine "99 MAGAZINE", from Paris, that used to be pretty good. Unfortunately, it ceased publishing last year. Now we do not hear too much any more from our cousins on the other side of the Alps.

We do not know what is going on in England. We know the Queen is still kicking and alive (God save Her), but we are afraid that TI-99/4A is dead there. I'll be happy to be wrong on that assumption.

Greece does have some small market, but they seem to have only the console, no disk drive and only a few few memory expansions.

We do not know anything about Spain, aside from the fact that Bill Bronos lives there.

Back to Italy. There is a slow, but steady, shifting of users toward the PC IBM (and compatibles). Each month some friend calls me up and says: "Paolo, I am sorry, but I wanna sell out my system. Can you help? You see, I have been offered a true PC IBM compatible. It's such a deal.... I know, I know, we said we will never give away our beloved TI-99/4A. But you see, I simply need it for work. They recently asked us employees to become PC IBM expert. Our office will be fully equipped with lots of PCs, and I don't want to be the least informed person in my office. C'mon, don't take it so hard, after all, we did not marry TI, did we?"

This rap kinda goes on now and then. Boys, does it give me a chilly on my back! Will I be the last survival of an dwindling race?"

If you ever publish this article, I would be glad to receive a copy of that newsletter.

I developed a small assembler routine, named PARTS. It is good to partition the MYARC RAM DISK, and to choose the drive # to emulate while in assembler. These functions can be easily performed in basic by two CALLS provided by Myarc. However, when you are in assembler, no hints have been given by Myarc on how to perform the same task. I faced this problem. My solution seems to work well. As explained in the source code, it will work also in a running extended basic program, while with normal Myarc calls you can't do that. It is possible to modify the source code, just to change the drive # you are emulating in a running extended basic program. You are free to publish it, if you think it is worth it.

THANK YOU VERY MUCH FOR YOUR CONTRIBUTIONS PAOLO. YOU WRITE ELOQUENTLY ON TI'S BEHALF. PERHAPS, IF YOU'D CARE TO WRITE AGAIN YOU COULD TELL US A LITTLE BIT ABOUT THE ATRONIC DISK CONTROLLER (WHICH I, FOR ONE, HAVE NEVER HEARD OF). CAN YOU TELL US WHO MAKES IT AND WHAT ITS SPECIFICATIONS ARE?

PS: AS YOU'LL SEE FROM STEVEN SHAW'S ARTICLE ELSEWHERE IN THIS ISSUE; TI IS ALIVE AND WELL IN THE UNITED KINGDOM BUT SUPPORT THERE DWINDLES AS IT DOES AROUND THE WORLD. convenience, this letter and the source assembly file has been saved.

Yours truly,

Paolo Bagnaresi
Via J.F. Kennedy 17
20097 San Donato Milanese, Italy
Phone 514.202 (Milan area code : 2. Calling from U.S. dial 011-39-2 first).

REVIEW:

4FRONT : A DISKAZINE FROM THE U.K.

The UK's very own TI Diskazine, and, because few UK owners have disk drives, a cassette magazine as well, both called 4FRONT and published quarterly.

Overseas prices are: Single copy by airmail: Six pounds Annual sub (4 issues): Airmail: Pounds 22.00 Seamil: Pounds 19.00 Bulk Sub for User Groups: (Minimum ten copies to one address): Airmail: Pounds 20.00 each copy. Seamil: Pds 17.00 per copy. Payment: By bank draft drawn on London in pounds sterling please - this avoids any problems with fluctuating exchange rates!

Clubs and users are requested to respect copyright. The two versions are not quite the same, as some offerings are really only suitable for disk owners, but those with a cassette system have their own unique offerings.

The publisher is :

NEW DAY COMPUTING, Jerrard Close, HONITON, Devon, ENGLAND, EX14 8EF
If writing from Canada (or elsewhere outside the UK) please would you enclose a couple of International Reply Coupons!

Launched very quietly at the May 1986 TI Faire held in Leeds, England, this latest publishing venture for the TI has a very promising first issue.

This review is of the DISK version - the cassette version has added two TI Basic games and a brief article on Enhanced Basic, which is what you obtain by plugging the PRK module in.

On the disk....

4FRONT contents are menu-selected, and include programs and text articles - in the first issue the text was only directed to the screen, but most owners would be able to redirect it to a printer by making the simple required modification.

I shall leave the best til last...

The text articles are prefixed by 4, and include the obvious introduction and contents programs, plus 4MAT, 4FINGERS, 4PLAY, 4RUNNERS, 4SIGHT, 4SMALL, and 4TASTE.

With display limited to screen, these articles are not too long, and include a section for game high scores for the younger owner, small-ads, jokes(?) and so on.

The games in this issue are WUMPUS, which you like or you dont like! but at least it is neatly presented. Extremely difficult to get the Wumpus: those Bats keep moving you around....

and POWERBALL, a very playable Extended Basic program, which has tenuous links to Q*Bert, but is really quite different. Several different screens.

For anyone using a cassette recorder there is a machine code program which saves and loads at a faster rate than normal - though you need a pretty good tape recorder to handle it : mine couldn't.

There is also a "poor mans graphics program" which enables you to draw on screen a circuit diagram and then save it to disk or printer, the program is called GOCAD. This program has predefined a variety of characters for you to use, and the alpha-numerical keys all work for labelling purposes. The circuit conventions used are the most modern - where a resistor is an open rectangle, and a variable resistor is an open rectangle with a side connection!

For the programmer who wants to proceed from Basic on to something else, there is one of the best machine code articles I have seen anywhere, on using the Bit Map graphics mode. To help you out, there is a utility program which will help you to write a program to display bit map graphics even if you have never used machine code before - and the source and object code of a demonstration program. You will have gathered that this offering is not aimed at the more sophisticated owner who dashes off a new machine code language in ten minutes - but there is something for everyone.

Watch out for a review in Micropendium one day ... a copy has been sent to them.

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If writing from Canada (or elsewhere outside the UK) please would you enclose a couple of International Reply Coupons!

Launched very quietly at the May 1986 TI Faire held in Leeds, England, this latest publishing venture for the TI has a very promising first issue.

This review is of the DISK version - the cassette version has added two TI Basic games and a brief article on Enhanced Basic, which is what you obtain by plugging the FRK module in.

On the disk....

4FRONT contents are menu-selected, and include programs and text articles - in the first issue the text was only directed to the screen, but most owners would be able to redirect it to a printer by making the simple required modification.

I shall leave the best til last...

The text articles are are prefixed by 4, and include the obvious introduction and contents programs, plus 4MAT, 4FINGERS, 4PLAY, 4RUNNERS, 4SIGHT, 4SMALL, and 4TASTE.

With display limited to screen, these articles are not too long, and include a section for game high scores for the younger owner, small-ads, jokes(?) and so on.

The games in this issue are WUMPUS, which you like or you dont like! but at least it is neatly presented. Extremely difficult to get the Wumpus: those Bats keep moving you around....

and POWERBALL, a very playable Extended Basic program, which has tenuous links to Q*Bert, but is really quite different. Several different screens.

For anyone using a cassette recorder there is a machine code program which saves and loads at a faster rate than normal - though you need a pretty good tape recorder to handle it : mine couldn't.

There is also a "poor mans graphics program" which enables you to draw on screen a circuit diagram and then save it to disk or printer, the program is called GOCAD. This program has predefined a variety of characters for you to use, and the alpha-numerical keys all work for labelling purposes. The circuit conventions used are the most modern - where a resistor is an open rectangle, and a variable resistor is an open rectangle with a side connection!

For the programmer who wants to proceed from Basic on to something else, there is one of the best machine code articles I have seen anywhere, on using the Bit Map graphics mode. To help you out, there is a utility program which will help you to write a program to display bit map graphics even if you have never used machine code before - and the source and object code of a demonstration program. You will have gathered that this offering is not aimed at the more sophisticated owner who dashes off a new machine code language in ten minutes - but there is something for everyone.

Watch out for a review in Micropendium one day ... a copy has been sent to them.



UK USER GROUP TI-FAIRE LEEDS (ENGLAND) MAY 3rd 1986
By Stephen Shaw May 1986

The fourth UK TI-Faire was held on Saturday May 3rd 1986, in LEEDS, a fairly central location with the motorway network leading straight into the City.

This presented some problems, as in common with many large UK cities, Leeds has chosen to make life difficult for the motorist, with a multitude of one way streets, pedestrian only areas, and a remarkable lack of signposting.

In common with some other visitors, my arrival at the hall was delayed by having to circle Leeds for an hour or so, trying to get in!

At the first Faire, held in Manchester just after TI made their dreaded announcement, there was a very brisk trade in modules and other assorted goodies and not much else! In Leeds, despite having MORE trade stands, two rooms were available for users to show what THEY were doing. and there was a good opportunity for a gossip.

Traders present made some real bargains available, and a few TI owners staggered out of the hall with large boxes full of modules, which were selling for just three to five pounds for the games. Even Extended Basic was selling for thirty pounds, and some consoles went for thirty pounds.

Not many peripherals on sale - the generally low level of demand seems to be such that those wanting peripherals must import them themselves.

A new item, launched at the show, was the first issue of the UK's very own TI Diskazine, and, because few UK owners have disk drives, a cassette magazine as well, both called 4FRONT and published quarterly.

Overseas prices are: Single copy by airmail: Six pounds Annual sub (4 issues): Airmail: Pounds 22.00 Seamail: Pounds 19.00 Bulk Sub for User Groups: (Minimum ten copies to one address): Airmail: Pounds 20.00 each copy. Seamail: Pds 17.00 per copy. Payment: By bank draft drawn on London in pounds sterling please - this avoids any problems with fluctuating exchange rates!

Clubs and users are requested to respect copyright. The two versions are not quite the same, as some offerings are really only suitable for disk owners, but those with a cassette system have their own unique offerings.

The publisher is :

NEW DAY COMPUTING, Jerrard Close, HONITON, Devon, ENGLAND, EX14 8EF
If writing from Canada (or elsewhere outside the UK) please would you enclose a couple of International Reply Coupons!

New Day is also offering what amounts to a brokerage service, buying in redundant TI equipment and offering it for sale.

New Day had a good range of TI-related books on sale at half price.

Another stall holder with new products was Arcade Hardware, from Manchester, who was offering the new Millers Graphics disk-based programs, and a surprise item:

Many many moons ago, TENEX advertised in their TI catalogue three modules by Thorne-EMI, called River Rescue, Computer War, and Submarine Commander. But the modules were never made...

However, some sample modules were procured - very neat, with surface mounted chips! - and the programs were excellent. The remaining years have been spent in negotiation, and Arcade is now selling them all together on ONE disk.

Overseas terms are not known, but at the Faire the disk was being sold for thirty five pounds.

Interested? Try writing to:

Arcade Hardware, 211 Horton Road, Fallowfield, Manchester, UK, M14 7QE

PARCO ELECTRIC was possibly the largest TI stockist after TI pulled out, and had a very wide range of modules and books on sale at very very low prices. Parco also have their own TI Magazine which was on sale for two pounds per copy. Parco are at 2 Devonshire Court,

Heathpark, HONITON, Devon, EX14 8SB

There were also two smaller stall holders, selling cut price disks, and a few Mechatronic Extended Basic 2's.

In a separate room there were stalls manned by the Oxford group and by the West Midland Group. They had a number of interesting items on sale, but sales seemed very slow. Examples of merchandise include a stand alone 32k ram, the Espial module, and a number of manual reprints (eg TI Forth Manual).

Meanwhile in another room... one system was kept busy copying disks from the group library - including Version 3.1 of DM1000 which had arrived just that day from Barry Traver. (The "official" copy from Bob Boone arrived on May 17th - two weeks later! Canada has a slow mail service!).

Also on display was a home-brew expansion box, with ram-disk, and a console with 32k ram built right inside it. And a very alien machine, running CPM... no not a TI, but one of the many very cheap CPM machines now available here, which was connected to a TI via an RS232 link. The TI99/4A was then dumping its disk DSR down to the CPM machine... purely as a demonstration of the RS232 card, as telecommunications were not possible from the hall.

There was an auction in the afternoon, which seemed to lack any real enthusiasm, and those who bothered to bid had some very fine bargains indeed.

Attendance ? Unofficially I would be surprised if more than 300 attended, possibly a lot less. In the afternoon we had a marvellous thunderstorm, which (as a result of a little accident elsewhere...) increased ground radioactivity somewhat. NOT ONE CONSOLE FAILED! (Not one console owner failed either...).

Two antique TI owners, founder members of the first UK user group, and both authors of books on the TI, were present, and both were NOT asked to autograph any of their books!

The UK TI mob showed that they were still there, still using their now very dated consoles. Out dated? The cost of expansion still holds many back, coupled with a lack of PEBs, but those with expanded systems are revelling in the new powerful Fairware offerings now available, such as DM1000, Funlwriter, C99 (attracting a lot of interest), and Pilot-99.

We were very sorry to hear of Tom Weithoffers demise. If the news has not reached you yet - please make Fairware donations to your national Cystic Fibrosis charity.

Stephen Shaw May 1986

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ADDING 8K OF RAM AND BATTERY BACK-UP TO YOUR EDITOR/ASSEMBLER CARTRIDGE By Richard J. Bailey, NH99EK USER GROUP

John Clulow and Ron Gries came up with an excellent modification for the E/A cartridge. They wrote an article in the June, 1985 LEHIGH newsletter on how to add 8K (8Kx8) of RAM to the E/A cartridge. This opens all sorts of possibilities, some of which they mention in their article.

I have taken this modification to the next logical step (that John and Ron suggested) and that is to add battery back-up to the 8K of RAM. The circuit I've used is a modification of the back-up circuit TI used in the Mini Memory cartridge and the caution on page 6 of the Mimi Memory manual applies to this modification as well. When removing or inserting the modified E/A cartridge with a program stored in the added 8K, the console should be switched OFF to prevent the possibility of any data being lost or altered. I have inserted and removed the modified cartridge with a stored program when the computer was ON and most of the time the program was not destroyed. Any program should be backed-up on disk, just in case.

I will describe the entire modification of adding the 8K and battery back-up here because I changed the way the 8K RAM was added to the board. You should read both their article and mine to decide which way you want to add the 8K. If you want to know how the back-up circuit works, read the following explanation and refer to the schematic.

When the cartridge is powered by the console the +5 volts will reverse bias the two diodes connected to the battery, effectively disconnecting the battery from the circuit. When the power is turned off, the two diodes from the battery are forward biased allowing the battery to supply power to pin 28 and bringing pin 20 high for the low power standby mode. The 2N3904 is used as an inverter to allow the battery to bring pin 20 high during standby but bringing the junction of the 1K and 3.3K resistors low during line operation. During back-up the two diodes connected to +5 volts are reverse biased and the 2N3904 is off. The total drain on the battery is less than 100 microamps with the 6264PL-15 and less than 1 microamp with the 5564PL-15. Either RAM will give a battery life of several years. If you don't use the low power version of the 6264, battery life could be decreased by a factor of 20.

WARNING!!! Proceed at your own risk. I have made this modification to my own cartridge, and it worked. Neither John, Ron, or I are responsible if your cartridge is destroyed.

First get a Munchman, Parsec, or other module that has one 24 pin chip and space for up to 4 to 16 pin GROMs. These cartridges have plated "pins" on both sides of the edge connector, and more importantly, most of the runs needed to add the 8K of RAM. Desolder and remove all chips on this board. Add one 16 pin socket in the location nearest the 24 pin chip. This is for the E/A GROM and makes it easier if you want to undo the modification in the future. Also add a 16 pin socket to the original E/A board and save it for the same reason.

The added 8K chip is a Hitachi 6264LP-15 or Toshiba 5564PL-15. These are Low Power chips with the 5564PL-15 being the superior of the two with 1/100th of the current drain of the 6264LP-15 in the stand-by mode. The 6264LP-15 is much more readily available and the battery will supply either chip for years. If you are going to use battery back-up, make sure that you get the low power version of these chips.

Put the 28 pin chip in the 24 pin location with the index toward the top of the board and the "extra" pins toward the top of the board. Mark where you must drill four #60 holes for these pins. After the holes are drilled, use a 1/4 inch drill bit and remove the copper ground plane on both the front and back side of the board. Do this countersinking by hand otherwise you may end up with 1/4 inch holes through your board. Note that the run near the old pin 24 on the upper right hand corner of the old 24 pin chip will be cut almost through by the countersinking operation and you will have to cut and remove the section of this run for 1/4th of an inch on either side of where it passes near the pins and replace this section of run

with a piece of #26 solid teflon insulated wire soldered in place. All pin references for now on will be for the 28 pin chip.

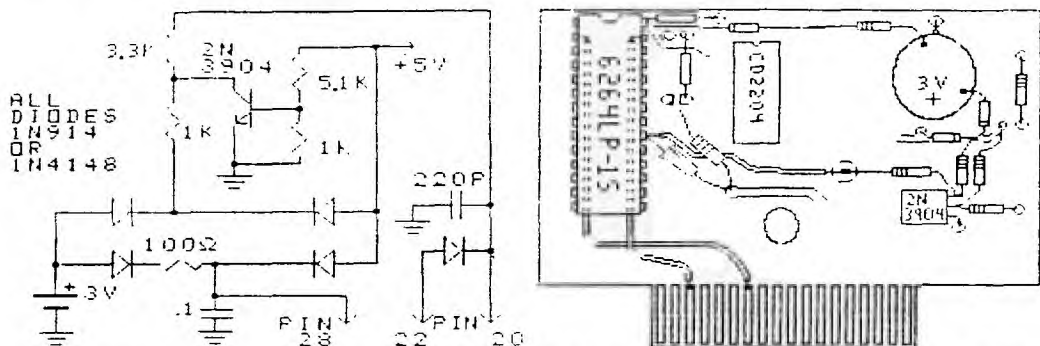
Modify the top side of the board first as shown in the pictorial. Cut the foil between the two pads near pins 22-23 and move the capacitor to the right of holes. Insert a 1K resistor between the bottom left pad and the ground run. Insert a 220 picofarad capacitor between pin 20 and the ground run. Solder the two leads in the ground run pad. Add wire from pin 20 to the logo pad that you will be using for a tie-point. Add wire from pin 27 to edge connector pin 3 and pin 2 to edge connector pin 7 making sure they don't cross and pinch under the 6264LP-15 chip. Add a .1uF capacitor from pin 28 to the ground plane feed-through hole. Also into pin 28 push the cathode end of a 1N914 or 1N4148 diode. Push a large sewing needle in these holes to open them slightly if the chip and parts don't fit. Solder a 100 ohm resistor to the anode end and sleeve these components and leads so they can't short out. Add the other components (less battery) using existing feed-through holes in the 5 volt run and ground plane. Note that some components just have their leads soldered together and are free-standing. Make sure that none of these leads short out.

Now modify the back of the board. Cut the runs near pins 20 and 23. Insert the 6264LP-15 with the index notch towards the top of the board. Solder pins 5 and 17 to hold the chip in place. Add a bare wire jumper from pin 22 to the pad immediately to its left. The ground plane near the top of the board has been severed by the countersinking operation so a jumper must reconnect it as shown. Pin 23 must be jumped to the run 20 and pad near pin 22. Add diode between pin 28 and run going to pin 26. This diode is shown positioned slightly different in the pictorial for clarity so mount it in the most direct way on the actual board.

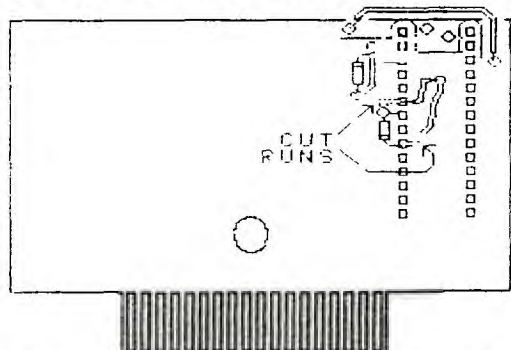
All components, except battery, should now be on the board. Double check all components for location and polarity, especially where component leads come through pin holes, and any diodes going to the battery. Now consult the article by me for replacing the mini Memory battery for instructions for soldering to the battery and the warning with it. Solder a piece of #26 wire to the negative side of the battery with insulation extending 1/16 inch beyond the edge of the battery. Now use one layer of double-back tape over this terminal. Cut a slit in the tape so the solder and wire are not covered by tape. Now put another layer of double-back tape over the first, covering the wire. Push the wire through a cleared ground plane feed-through hole, and stick the battery to the circuit board. The tape should extend well beyond the edge of the battery so there is no chance of it shorting out. Now carefully, following the battery soldering instructions in the other article, solder the two diodes to the positive terminal (case) of the battery as shown. Measure the voltage on pins 20 and 28 with a high impedance voltmeter. Both pins should read about .2 volt lower than the battery's 3 volts. Reassemble the cartridge making sure the two wires soldered onto the edge connector pins don't interfere with the spring-loaded protector if you have the black case cartridge; or if you have the white case, cut grooves in the case where the wires interfere with its closure.

You are now ready to try the modified cartridge. If you have the CARSTBUSTER disk, this is a good check. Take one of your ASTARISOFT or similar cartridges and store it on disk. Read it back to the RAM in the E/A cartridge. Quit then press enter to see that you now have 3 choices, the last being the name of the cartridge that you saved. Turn the system off or remove the cartridge and reinsert it to see if the 3rd choice is still there. If it is the modification is complete and you now have an added 8K of battery backed-up RAM.

As with my other articles, all drawings and schematics were done with GRAPHX. If you need more information on this excellent graphics program, contact Helene.



SCHEMATIC OF ADDED PARTS TOP SIDE OF MODIFIED BOARD



BACK SIDE OF CIRCUIT BOARD

The CorComp PDM99-Diagnostic Module

A review. By Terry Atkinson

Some years ago, TI produced a diagnostics module for the TI99/4a which, although limited in scope, served a useful purpose in its own right. Though this review will eventually lean towards the PDM99, I feel it necessary to do a comparison between the two modules so that potential readers of this article can draw their own conclusions and perhaps purchase one of the modules for their own use.

I will not go into the other diagnostics programs which are available. Most notably, the MG Advanced Diagnostics, and at least two other disk-based diag programs. I will comment, however, on their limited usefulness. Being disk-based, you would need a WORKING system in order to load and execute those programs. In other words, 32K, disk-drive and consol. With the module based diagnostics, one only needs a working consol to be able to CHECK OUT those other peripherals... which is the whole purpose behind a diagnostics program in the first place!

I am going to touch briefly on the TI Diagnostics Module (PHM3000, circa 1979). I find this module excellent for comprehensive tests of the consol itself but useless for peripherals and external memory. Some of the tests performed are keyboard, RAM, video, sound, calculation, cassette and joystick ports. A final test is for maintenance personnel only, and requires a signature analyser in order to evaluate this test. The question may be asked: "Well, if the consol is not working, why have a diagnostics module to check it out?". My response is very simple. For most faults other than a power supply fault, the module would indeed work. In fact, a long time ago, I had a fault with my computer and this module told me where the fault was. Replacing a chip solved the problem, which has not recurred. Also, it was brought to my attention the TI technicians used the module to initially identify trouble areas when computers were returned for repair.

Now on to the more recent trouble shooting diagnostics module released in Dec 85 by CorComp. Called the PDM99 (Peripheral Diagnostics Module), it goes beyond where the PHM3000 left off in that it checks out the external equipment, such as disk-drives, RS232/PIO and 32K expansion. Since it is menu driven, it is very easy to use and the results easily interpreted.

The opening screen allows you to select the above tests, along with which disk-drive to access. Drive tests include formatting in 1S1D, 1S2D, 2S1D, or 2S2D format. Once the disk is initialized, it will randomly check a number of sectors for correct information. If an error is found, the program will let you know where the problem is. You can also check to see what the track-to-track access time is set at. This is not so important with the TI controller as the time is fixed at 10 or 20MS. However, the CC controller and the later 9900 systems allow a variation on access times. I have mine set for 3ms access using Teac half-heights, and find it works excellently using all formats and have had virtually no problems with other TI systems reading/writing to my disks.

Like the MG AD, the PDM99 will also check drive motor speed. No fancy graph-like display, though. The PDM99 give you an indication of motor speed with real numbers negating any error of interpretation.

The 32K test has two parts. First the program writes to the full 32K memory and reads the information back to see if it is the same. If so, the memory is good. The second part of the memory test is a refresh test. The program writes information to the full 32K and then counts down from 20 and goes back and reads the information. This ensures that data is not being lost due to a bad refresh.

The final major check is for the RS232 card, in that a test is sent to either RS232 port or the PIO port if desired. A printer is required for these tests. Another feature is the loop-back test. Supplied with the PDM99 is a DB25 plug, already wired for this test. This connector is hooked to your RS232 port, and the test executed. Data is sent from port 1 through port 2 and checked for accuracy.

Although I find these modules usefull, I would not recommend purchase of them by individuals. Rather, I would suggest that users groups purchase the modules for loan to their members as required. The cost of the PDM99 is about \$25 (U.S.) and is available at CorComp or TexComp. However, the TI version may be hard to come-by. I had to borrow one from the Ottawa 99/4 Users Group in order to refresh my memory (no pun intended) as to it's capabilities. I certainly wish I had not sold my original as I have had occassion to use it in the past, and probably will in the future.

The documentation supplied with the PDM99 is adequate. Since the program is menu-driven, it is extremely easy to use anyway. Once a problem has been discovered and diagnosed with the PDM, however, there is no further instructions on how to correct the problem, or to even narrow it down further. The only way out at that point would be to take it to a technician, or a member of the users group who is technically inclined.

EXCELTRONIX

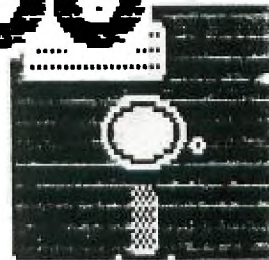
217 BANK ST
230-9000

PANASONIC DRIVE

159.00

COPAL PRINTER

329.00



MYARC RAM DISK CALL PART and CALL EMDK from assembly

Paolo Bagnaresi, July 1986, Italy.

Via Kennedy 17, 20097 San Donato Milanese, Italy.

This program will initialize the MYARC RAM DISK from assembler. It will emulate the basic command CALL PART(360,120) and CALL EMDK(1)

Change the value "DISKPA" to modify disk partitioning Change the value "SPOOPA" to modify Spooler partitioning Change the value "DREMUL" to modify the drive # to emulate

Note: although I have not tested this routine with other DSR call from basic, if think it might work with ANY DSR CALL (basic calls that reside in DSR cards). Even calls not MYARC could work; This routine, provided you add a suitable DSRNLK source, has been proved to work efficiently with Extended Basic, in a running program. User should also provide some parameter passing routines, such as NUMREF, to be able to read parameters from basic (DISKPA, SPOOPA, DREMUL). Please note that some Scratch PAD content have been saved, in order to leave the Basic Scratch Pad area untouched (832C, 8420, that would be modified by the Myarc PART and EMDK calls). If you do not save these words, the routine will still work well in assembler environment, but you will get a "SINTAX ERROR" while calling it from extended basic. With basic, other calls might modify different memory locations. You will have to check by yourself what memory is modified by calls different from PART and EMDK

```

DEF      PART
REF      VSEW, VMBW, DSRLNK, KSCAN
B        PART
MYWORK  BSS      32

* CALL PART(360,120)
PARTD   DATA CLPART      Cpu ram address of string
        DATA CLPEND      String length
CLPART  BYTE PA1--$-1      Length of the string "PART" (4 bytes)
        TEXT 'PART'
PA1     EQU      $
        BYTE    B7, C8      "(" basic token
        BYTE PA2--$-1      Length of "360" (3 bytes)
DISKPA  TEXT    '360'
PA2     EQU      $
        BYTE    B3, C8      "," basic token
        BYTE PA3--$-1      Length of "120" (3 bytes)
SPOOPA  TEXT    '120'
PA3     EQU      $
        BYTE    B6          ")" basic token
CLPEND  EQU      $-CLPART

* CALL EMDK(2)
EMDKD   DATA CLEMDK      CPU ram address of string
        DATA CLEEND      String length
CLEMDK  BYTE EM1--$-1      Length of "EMDK" (4 bytes)
        TEXT 'EMDK'
EM1     EQU      $
        BYTE    B7, C8      "(" basic token
        BYTE EM2--$-1      length of "2" (1 byte)
DREMUL  TEXT    '2'
EM2     EQU      $
        BYTE    B6          ")" basic token
        EVEN
CLEEND  EQU      $-CLEMDK
PAB     EQU      F80
PART    LWPI    MYWORK
        BL      DSR
        DATA PARTD      * Disk partitioning
        BL      DSR
        DATA EMDKD      * Drive # emulator
OVER    LWPI    83E0      * Exit
        B        006A
DSR     MOV     *R11+, R2
        MOV     *R2+, R1
        MOV     *R2, R2
    
```

```

LI      R0,PAB
BLWP   VMBW      * Create PAB in VDP RAM
MOV    R0, 8356  * Set pointer for DSRLNK
MOV    832C,R2   * Save 832C if you are in
                  extended basic.
MOV    R0, 832C  * 832C is the line basic
                  pointer.
CLR    R1        * Clear status byte, to avoid a
AI     R0, FFF8  * meaningless error issued by
BLWP   VSBW      DSLRNLK
MOV    8342,R1   * Save this word if you are in
BLWP   DSRLNK    extended basic
DATA   A        * Link to DSR SUBROUTINE
JEQ    ERROR
MOV    R1, 8342  * restore these two words if you
MOV    R2, 832C  are in extended basic
RT
ERROR  BLWP   KSCAN
        MOVB  837C,R0
        JEQ   ERROR
        MOV   R1, 8342  * restore these two words if you
        MOV   R2, 832C  are in extended basic
        JMP   OVER
        END

```

=====

REPLACING YOUR MINI MEMORY BATTERY FOR UNDER \$2.00
 by Richard J. Baily, NH99ER USER GROUP

Apparently some people have checked with T.I. and found that it would cost up to \$35. to replace the battery in their Mini Memory. However for those brave souls who are willing to replace the battery themselves, it can be done for \$1.79. To find if your battery needs to be replaced, measure the battery voltage, it should be 3 volts, if it's much less than that, replace it.

The battery you need is a Radio Shack CR2032 (CAT#23-162). These cells have a shelf life of between 5 and 10 years and should last almost that long in the circuit. The case is the positive terminal just like the original but unlike the original, the CR2032 doesn't have leads and these must be carefully soldered on.

**WARNING!! Lithium batteries can be destroyed
 by heating them and certain types can explode!!!!**

If you don't think you're competent to make this modification, don't try, you might destroy your Mini Memory, or worse.

Scrape the center of the case where you are going to solder a solid #20 (or thereabouts) wire. A lead from a 1 or 2 watt resistor is ideal. Melt a small glob of solder onto the end of the wire and quickly solder it to the battery case. This is best done with a 100 watt soldering gun. Make sure the gun is hot before you try to solder the wire on. Soldering should take 1 second. Have a helper with a wet paper towel ready to press on the battery as soon as you remove the soldering gun. The insulation between terminals may be thermal plastic and could deform allowing the battery to short if you aren't quick. Cut the soldered lead close to the resistor body and flip the battery over and solder a lead on the other side, making sure that it doesn't touch the positive terminal. Make sure that this lead points 180 degrees away from the other lead so the battery will mount the same way as the original battery. Bend the leads so they will fit into the slots for the original battery. Before you remove the original, note that the positive lead is connected toward the outside of the board. Quickly solder the replacement in the same way. Check the voltage across the battery. If it reads 3 volts, you're all set.



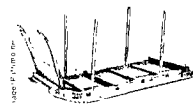
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