MICRO USER News

POSTAL ADDRESS ----- 36 STURT ST.   ADELAIDE 5000

This newsletter is a monthly circular produced by the members of the ADELAIDE MICRO USER Group who have an interest in Tandy & Z80 based hardware. This includes the TRS-80 and SYSTEM-80 but we also cater for those with homebrewed equipment and other areas of special interest.

NEXT ISSUE'S DEADLINE 16ᵗʰ May

EXPIRED ??? ANNUAL SUBSCRIPTION IS $8 ...CHECK LABEL FOR YOUR EXPIRY DATE $$$$$

| NEXT GENERAL MEETING.......$$$$$$$$$$$$$$$$$$$$$$$$$ | 7.30 pm | THURSDAY 6th MAY | $$$$ SERVICE CLUB CENTRE | $$$$ |

Pre-meeting drinks & 'counter lunch'........... 5.45 pm WAVERLEY HOTEL (25 Unley Rd) $$$$ 49 OXFORD AVE. UNLEY $$$$

BASIC PROGRAMMING GROUP ... 3rd TUESDAY each month at 7.30 pm Organiser Rod Stevenson............(at above address)

M/L and ASSEMBLY GROUP ... 4th TUESDAY   monthly at 7.30 pm Organiser Rod Stevenson ....(at above address)

committee

Rod Stevenson (secretary)	a.h. 337-6682	
	bus. 51-5241	
Dennis Morath	a.h. 271-7618	
Geoff Lane (treasurer)	a.h. 79-3627	
Richard Newcombe (editor)	a.h. 272-3081	
Ian Robertson	a.h. 263-0653	

groups & information

PROJECTS & HARDWARE... Allan Dent	a.h.	276-7233
SYSTEM-80 USERS ...... John Ross	a.h.	261-8689
TRS-80 MODEL II ...... Keith Neighbour	bus.	272-9855
MODEMS & SOFTWARE..... Richard Newcombe	a.h.	272-3081
SUPER-80 USERS ....Rob Gillespie	a.h.	382-1909
RADIO HAMS ....Garry Herden	a.h.	297-4950

Last Meeting

The main event was Ian Vagg's demonstration of the Hitachi Peach. He gave details of the machine's hardware configuration, and ran the demonstration programs to show the hi-resolution graphics, color, & sound capabilities. Eddy Paay, after his Japanese class (which he's studying to gain a greater grasp of the technical manuals; shows his commitment in not depending on translators' skills!) came along to answer the questions into the hardware and technical aspects.   There's no doubt about the enormous potential available for the programmer to use. Time will tell whether it will be developed, or will go the way of the Sorcerer which 3 years ago was also seen to have enormous potential.   For we repeat our standing opinion that it's software support that sells any micro these days; and as nothing will ever see the independent support enjoyed by the Model 1 which was early onto the market, why not the Peach? Indeed, Ian did not attempt to cover-up this very important point in answering the many questions which showed the great interest & enthusiasm developed by his demonstration and honest sales ability. And we'd point out that Ian's honesty in business has paid off - a number of our members do prefer to buy from him rather than any opposition whose prices may be a little cheaper, but are interested only in "The Mighty Dollar" with the result that you're on your own if there's a problem. Ever been the victim of an aggressive salesman?

We've gone into more than usual detail here for the benefit of our "postal-members" who don't have the opportunity to benefit by being at meetings: one of their "observations" is that there's not much detail reported on the meetings. While we did offer the voice-tape to try to remedy such, not a great proportion of our 35% want to be involved. However it's not too late! Just advise Rod & he'll add you to the circulation list.

The last meeting was the closing date for the voice-synthesiser hardware project.   Rather than take up space in this journal, we've decided to correspond direct with the participants to keep them advised. Richard is handling this, & he's happy to make it a two-way effort, so those who wish please direct communications to him.

Allied to the hardware project was the mention of a printer cable for those who wish to participate in the voice synthesiser (it uses the printer port) but who've not got an interface. While we have details of members who want it for that purpose, we suppose there might be others who want it not for such; contact Allan Dent or Richard for details.

Also at the last meeting was the usual time allowed for members to bring up individual interests, problems, etc. We feel this together with the after meeting chat session is probably THE most beneficial (not at all to belittle Ian's demonstration) part of every meeting. We see THE OBJECT of our Group as putting people with like interests in touch.

Yet more in the saga of the System 80 problems with EDTASM+. John Ross advised that he has found the absolute cure now - the earlier "cures" of adding the capacitor have been found to work in not all versions of the System 0. So those with the problem (i.e. not being able to record the assembled object code to tape) are advised to send John a copy of their version of the program (there are numerous) on tape with return postage, & he will make the necessary modifications, test, & return it. We must express our thanks to John for the great amount of work he has put into solving the many System 80 problems. He is collating all of his fixes into a document which we will be circulating privately to all the System 80 owners, as we did with his last one concerning the sound modifications. So if you're not listed as a System 80 owner, but want a copy nevertheless, advise Rod.

The suggestion sheet circulated last meeting was again spectacularly unsuccessful. Apart from the System 80 sheet (as above) which was already in hand, was a request for a talk on CP/M. We have added this to the list of topics. Anyone with a suggestion is invited to contact any of the committee - anonymously if you like.

The answer to the question why we no longer circulate the Newsletter from the South Australian Microprocessor Group is that it's now a quarterly; we have one in hand ready for next meeting. While this may not be the reason, we'd point out that WE need a continuing flow of members' contributions to avoid this journal following the same fate!

But we warn: DOCUMENT any listing you submit - we will no longer include stuff WE can't understand! Not to forget Our Esteemed Editor's ambitions to become The Adelaide Source! Tho we suspect he's not told Spouse Sharon yet!

Russell Bambridge took amendments for the latest update of the membership list, as we advised in the last edition. So if your's is still not as you'd like, make sure you contact Russell before the next one in August.

next meeting

A number of topics remain as alternatives for the next meeting but arrangements with the individuals concerned were not completed before going to press. Apart from the above, we will be discussing our planned Incorporation, & open to suggestions for clauses to be incorporated into our constitution. No, we don't intend having formal monthly meetings, with members passing motions on the floor, etc. Just that to Incorporate we need to have a constitution, A.G.M., and some other formalities that we'll be discussing. So come prepared if this is your thing!
 In any case, the proposed constitution will be presented to a future meeting for formal approval, but NOW is the time to say what YOU want in it! If you can't be at the meeting, contact Secretary Rod to ensure your voice is heard.

DISCOUNT DEALS

Allan's in Gawler Place no longer advertise their former special (which ran for 4 months anyway) of $22 for a box of 10 TDK-D C-90, but we understand you can get it by asking.

However The Muses in Regent Arcade offer the same price for C-90, as well as $18 for C-60. We don't know how long this will continue, but we suspect for less than 4 months.

And talking of discount deals, whether these or later, there's no need for our "postal members" to miss out or feel further discriminated against. Secretary Rod will be pleased to purchase & send off any such item on receipt of sufficient to cover the cost + postage.

Mc Gill's Authorised Newsagency, 187 Elizabeth Street, Melbourne, have advised they offer a 10% discount on orders of 6 or more books (of same or different titles) as well as a flat fee for postage irrespective of the size package. Any member can take advantage of this at a personal level by dealing with Peter Schultz in the mail order department (03)60 1475. Even if you only want one copy of something, Peter is far more helpful than just speaking to some unknown personage that might happen to answer the phone.

random bits

Accounting Management Resources Pty. Ltd., P.O. Box 1092 North Sydney, 2060, is looking for programmers accomplished in the business and serious use area. So if you have written something they might like, or if you consider you can do something for them, make contact.

There seems an anomoly in screen memory if you have the 2-ROM set & the Tandy (or Micro-80) lowercase conversion. It is that characters from the screen with hex-codes between 40 and 60 appear in memory as hex 0 to 20. This means that A is 01H in memory even though it is correctly an A on the screen. And changing the memory value to 41H (as it should be) results in no change on the screen. Let's not complicate things by reasonable explanations; suffice it to say the hardware takes care of this predicament. It is truly "a trap for young players" though.

treasurer's report

During the first quarter of the year our membership has grown at a steady rate from the 92 members we had at the end of 1981 to a total of 122 at the end of March. A further 6 new members were enrolled at the April meeting boosting our income and the committee have instructed me to commence the paper work associated with our becoming an incorporated body.   Work has been commenced on a draft constitution and details will be made available to the members as soon as the committee have completed their review.

If any member has some thoughts to add in this direction please contact one of the committee members as all ideas are welcome.

SOFTWARE

OMNITERM Terminal Program.   (from Goeff Lane)

Produced by Lindbergh Systems of 49 Beechmont St Worcester MA 01609 and priced at $US95
Requires 32K RAM and one disk drive to run.

This software product is designed to turn your computer into an intelligent terminal. Its major feature is its ability to configure any of seven translation tables so that certain codes or all of the available characters are translated from and to ASCII and other alphabets such as EBCDIC or BCD.   These tables handle the character streams to and from disk and RS232C port, to the screen, to the printer and from the keyboard.

The software as supplied contains tables that respond to the format of the American Source but may require some modification for use with the Australian Beginning.   These tables can be used to drive an EBCDIC coded printer from an ASCII system but will not convert the Murray/Baudot alphabet.

A feature that may prove useful in electronic mail is its ability to stop anytime and scroll back through the received data buffer, a handy reference when preparing replies.

One additional gimmick is the provision of a bell tone that comes out of the cassette port and can flash a picture of a bell on the screen.   Suggested use is as a go-ahead signal. The program can also give you a count of how full the buffer is and how many transmission errors have been detected. The software is supplied on disk and a 76 page manual is provided, it is menu driven and appears relatively error free.   Program updates are said to be available for $US15 but as Lindbergh Systems is a one-man operation you are at risk unless a local supplier takes up distributorship.

SYSTEM 80'ers   (from John Ross)

SCRIPSIT TAPE Version only   Program Changes for SYSTEM-80 Line Printer (ie for PORT addressing)
M/L code module: START, END, ENTRY.. 4300   6A46 4300

ADDRESS	CONTENTS	CHANGE TO
4342	3E 0A	3E 0D
4344	32 E8 37	00 D3 FD
4F18	3A E8 37	00 DB FD
5617	3A E8 37	00 DB FD
5628	3A E8 37	00 DB FD
5636	32 E8 37	00 D3 FD
56EC	32 E8 37	00 D3 FD
69B8	32 E8 37	00 D3 FD
69C6	32 E8 37	00 D3 FD
6A27	32 E8 37	00 D3 FD
6A31	3A E8 37	00 DB FD

PRINTER ROUTINE, Changes for MON3 etc
CODE Address for MON-3 starts at 70DE
  "   "   MONHI "   " E0DE
Contents.....   3A E8 37
Change to....   DB FD 00
ALSO for Address starting at 7826   (& E826 for MONHI)
Contents....   C9 7B 21 E8 37 56 CB 7A 20 FB 77 C9
Change to...   C9 DB FD CB 7F 20 FA 7B D3 FD 00 C9

collectors' corner

If we include program listings, we like people to gain from some explanation and not just fill space: it's the old, old priciple.... a program is USELESS without DOCUMENTATION !! So some listings never get past our "what does it do??" stage.

The following program was provided in its original form by Brenton Hoff but has been modified to cope with M/L programs or DATA statements that fall above 32767 (ie 7FFF or 16K). Also some alterations may need to be made if it is run under various DOSs. After running the program it leaves only a series of data statements with values derived from the address of the M/L program supplied. Hence much sweat and errors are avoided. There was a similar but less versatile program in a recent Alternate Source

Basically the program stores the current BASIC program end and then sets it a lot higher to accommodate the DATA statements (line 10). TRSDOS 2.3 does not like the USR pointer used as storage before the second CLEAR (produces an Internal Error) and the printer driver address is possibly more suitable. Line 40 sets up the dummy line numbers and the DATA statement (decimal 136), beginning from the original end of the BASIC program. Subsequently RAM is peeked and the decimal value is split into its component parts eg 1,2,5 and stored, this is then followed by a comma (decimal 44, line 70). This is repeated for the designated line lengths until completed.

The final trick is repairing the line pointers and thereby producing valid line numbers. Line 60 finishes off by jumping into a line repair subroutine in ROM at 1AF8H and voila !!.

******** All but Model III TRSDOS users should delete the P=P-1 in line 30. This was inserted for this DOS as the end of BASIC is 1 byte different and the first DATA statement would otherwise end up with some horrendous value line number.

```
 5 '  *** M/L to BASIC DATA Statement Conversion Utility ***
10 CLS:PRINT:PRINT:PRINT:CLEAR0:P=PEEK(16633)+256*PEEK(16634)-2:
   POKE16526,PAND255:POKE16527,P/256:POKE16634,144
20 CLEAR200:DEFINTA-Y:DEFSTRZ:P=PEEK(16526)+PEEK(16527)*256
30 INPUT"Enter Start line, Increment, & Line length ";S,J,C:
   IFS<100THENCLS:PRINT:PRINT:GOTO30ELSEINPUT"Enter Starting address,
   End address ";A!,B!:P=P-1:PRINT@42,"Address Count";
40 D=4:POKEP,1:POKEP+1,1:POKEP+2,SAND255:POKEP+3,S/256:S=S+J:
   POKEP+4,136:IFP=32763THENP=-32768ELSEP=P+5
50 PRINT@56,A!;:GOSUB90:Z=MID$(STR$(PEEK(A0)),2):FORI=1TOLEN(Z):
   POKEP,ASC(MID$(Z,I,1)):GOSUB80:NEXT
60 A!=A!+1:IFA!>B!THENPOKEP,0:POKEP+1,0:POKEP+2,0:DEFUSR0=&H1AF8:
   A=USR0(0):CLS:DELETE10-90
   ' for Level II users POKE16526,248:POKE16527,26:A=USR(0)
70 D=D+LEN(Z)+1:IFD>CTHENPOKEP,0:GOSUB80:GOTO40ELSEPOKEP,44:GOSUB80:GOTO50
80 IFP=32767THENP=-32768:RETURNELSEP=P+1:RETURN
90 IFA!>32767THENA0=A!-65536:RETURNELSE A0=A!:RETURN
```

ASCII FILE MANIPULATION
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Converting upper case text or BASIC files to lower case text may seem the realm of budding editors trying to get contributions from a reluctant following. However, with the increasing use of modems more may find themselves in this pickle. Deleting line numbers and REM statements from a BASIC program to turn it into text is tedious and no fancy word processors will do it. Also I am not about to use X varieties of word processors to just invert the case (as in Lazy Writer).

This program is slow but it handles both pure ASCII and BASIC files. It also demonstrates a few useful points. Most have never tried to use Scripsit as a BASIC program editor (or repairer) but it adds remarkable flexibility. However, one catch is that when saving a file, the "A" option must be used or bit 7 is set for control characters such as line feeds, ie line feeds ASCII value 0DH (13 dec) becomes 8DH. Also the file is terminated by a zero byte, or CHR$(0) (not an ASCII 0). Another curiosity some have never tried is accessing a BASIC (or even a M/L) program file using random access file techniques to retrieve any section for editing.

The program below scans each character for line feeds, REM statements (as "'") and full stops. It ignores line numbers and associated spaces and appends the wanted characters to a string array. All letters are converted to lower case except after a line feed or full stop is detected. Solitary "i"s can be easily changed with global commands in any word processor. It is useful to add some unused ASCII character at the end (eg an upper case ä) so the program does not read the unused part of the disk sector.

To avoid the string garbage collection line 105 sets up a huge array of blanks. Hence by using MID$(A,X,1)= the blanks are replaced. Level II has to use A$(X3)=A$(X3)+A0$ which becomes increasingly slower as string space is used up.

```
10'      *** UPPER TO LOWER CASE ASCII FILE CONVERSION ***

100  CLS:CLEAR9000:DEFINTX,Y,Z:DEFSTRA,B:XY=99:XZ=99:X0=1:DIMA(65)
105  FORX=0TO65:A(X)=STRING$(128,32):NEXT
107  PRINT@10,"** FILE CONVERSION UTILITY **":PRINT:PRINT:
     PRINT"1/ for BASIC file":PRINT"2/ for ASCII text file":
     LINEINPUTX$:Y0=VAL(X$):PRINT:PRINT
110  PRINT:PRINT"Enter File for conversion to lowercase ";:LINEINPUTA:
     PRINT:PRINT"Enter filename for output to disk      ";:LINEINPUTB
120  OPEN"R",1,A:OPEN"R",2,B
140  FIELD1,128ASAA,128ASAB:FIELD2,128ASBA,128ASBB
299  CLS
300  FORX1=1TOLOF(1):GET1,X1
320  A1=AA:X2=0:ONY0GOSUB1000,2000:A1=AB:X2=0:ONY0GOSUB1000,2000:NEXT
400  XX=0
420  CLS:FORX=0TO5:PRINTA(XX);:XX=XX+1:IFXX>X3THENX=99:NEXT:GOTO460ELSENEXT
440  LINEINPUTX$:GOTO420
460  LINEINPUT"<ENTER> to save file ";X$
510  X4=1:FORX=0TOX3 STEP2:LSETBA=A(X):LSETBB=A(X+1)
520  PUT2,X4:X4=X4+1:NEXT:RUN

1000 X2=X2+1:IFX2=129THENRETURNELSEA0=MID$(A1,X2,1)
1001 IFA0="@"THENMID$(A(X3),X0,1)=CHR$(0):GOTO400
       'note the "@" is the upper case form
1002 IFXY=99ANDA0="'"THENXY=98:GOTO1000
1003 IFXY=99THEN1000
1004 PRINTA0;
1005 IFA0=CHR$(13)THENXY=99:XZ=99:GOTO1040
1010 IFA0="."THENXZ=99:GOTO1040
1015 IFXZ=99ANDA0<>" "THENXZ=98:GOTO1040
1020 IFA0>"@"ANDA0<"["THENA0=CHR$(ASC(A0)+32)
1040 MID$(A(X3),X0,1)=A0:X0=X0+1
1050 IFX0=129THENX3=X3+1:X0=1
1060 GOTO1000

2000 X2=X2+1:IFX2=129THENRETURNELSEA0=MID$(A1,X2,1)
2001 IFA0=CHR$(0)THENMID$(A(X3),X0,1)=CHR$(0):GOTO400
2004 PRINTA0;
2005 IFA0=CHR$(13)THENXZ=99:GOTO2040
2010 IFA0="."THENXZ=99:GOTO2040
2015 IFXZ=99ANDA0<>" "THENXZ=98:GOTO2040
2020 IFA0>"@"ANDA0<"["THENA0=CHR$(ASC(A0)+32)
2040 MID$(A(X3),X0,1)=A0:X0=X0+1
2050 IFX0=129THENX3=X3+1:X0=1
2060 GOTO2000
```

CO-ORDINATOR of GREAT WISDOM
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Most probably did not notice Ian Robertson's name included on the front page and we could not find an explicit title for what he has offered to do. We have included odd pearls of fairly short nature, particularly in our earlier issues (some of us grew too wise, or is it stale, to know what lesser beings may want). He has offered to compile odd useful tips from magazines etc but specifically wants YOU to pass on any you may find to him. As usual we can rely on a few to help out and otherwise be shattered by the thundering silence...... care to prove us wrong ??.

alternating sources   [Ed Grigonis]

Gadzooks!!! fame, fortune(?) and maybe even acceptance. In case you are wondering what I am going on about, I have recently begun a D.F.E. Course in "writing for the media".
It may sound puerile to some, but it was most gratifying to find that my efforts have become acceptable enough to be afforded the provision of a standard heading in the newsletter (** we look forward to the day we are flooded by articles and don't have to wring blood from stones!! ED **). Funny though it may seem, I expect this to spur me on to even greater endeavours and I look forward to feedback and comments on this and future contributions.

A recent addition to the stock of my favorite local computer store is "The Captain 80 book of Basic Adventures". Priced at $24.95, this may seem an expensive proposition to some, however I can assure you that you would be hard-pressed to make a better investment. This excellent book provides complete basic listings for sixteen adventures, many of which retail for from $20 to $25. Also included is an adventure generator program. So far I have managed to key in four of the programs with excellent results. Most of the programs will run in 16k although you will need to compress them to achieve this. The listings are spread out for clarity, thereby necessitating compression during entry (sounds obscene!). Each of the programs I have tried runs perfectly which indicates that the contents are fully debugged. Most programs provide routines for saving current data to tape or disk as one would expect.

The adventure generator program requires disk basic and one drive so I have been unable to test its operation, however I have no reason to suspect that it will not operate as claimed. This book provides an excellent tutorial for those who wish to write BASIC adventures as it shows many examples of how this can be achieved. The only possible complaint is that in keying-in the various listings it is difficult to avoid figuring out how to solve some aspects of the particular adventure. This would not be a problem when allowing others to try their skill.

In summary, I have no reservations about recommending this book to anyone interested in computer adventures. I would welcome comment from any purchasers of this book. I can be contacted at work on 259813. If there is no answer, I am out of the office, so try again later.

Another new arrival is a stock of back-issues of 80-US, another American magazine devoted to the TRS-80 and its various incarnations. Computer Campus is the Australian distributer for 80-US and enquiries about the magazine should be directed to that source.

I have collected the following tips and hints after perusal of all copies of 80-US to which I have access. If you do a lot of programming of graphic displays, the following method will help you to save your stock of video display sheets. Make a copy of the video display sheet in your manual and encase it in an 8 x 10" piece of clear adhesive plastic. Work out your graphics using a transparency pen and when you have finished with it simply wipe clean with a damp rag.

If you need more space in memory, it would seem natural to change the rems to apostrophes (assuming you need to leave your remarks in the program). Don't! the REM takes three bytes on the screen and one byte in memory. The apostrophe, however, takes one byte on the screen, but three in memory.

This next one is a beauty. Whenever a BASIC program is saved to disk, if the BASIC program is exactly 5885 bytes long it will give an internal error when you try to load it back from disk. 80-US does not mention if this problem relates to a particular DOS and no-one seems to know why it happens.

A little known page in the Level II manual is page 11/1. It contains tips for saving memory space. For example, if you are going to call a routine from different places in a program then a GOSUB is the most efficient method, however if the call will always come from the same place, then a GOTO is more efficient.

Want to save both space and time in the execution of your programs. An integer variable takes two bytes of storage space compared to seven for a single precision variable (the default type for all basic variables). This savings in space also results in savings in speed in loops. To put it another way, if you are going to use something like this:-

```
10 FOR X=1 to 100
20 PRINT X*X
30 NEXT
```
(this is just a simple example) then your program would execute faster if you started off with "DEFINT X".

There is a problem with BASICs handling of "raise to the power" function. Try to get the powers of 2 for the values 1 to 15 and you will see what I mean. This is not always a problem but it is something to watch out for. It should be of interest that IF-THEN-ELSE statements may be nested in a similar manner to FOR-NEXT statements.

Try the following program:-

```
100 FOR J=0 TO 10
200 A=RND(5):B=A$A
300 IF A<>1 THEN IF A<>2 THEN IF A<>3 THEN 400 ELSE B=30 ELSE B=20 ELSE B=10
310 PRINT"AT LINE 310 A=";A,"B=";B
320 GOTO 410
400 PRINT"AT LINE 400 A=";A,"B=";B
410 NEXTJ
```

BEGINNERS' CORNER

The reason we've not been including beginners' hints, tips, is that we assumed our Basic & Assembly groups would have attracted any in need of such. As well, Ian Robertson's proposed collection (as detailed elsewhere) will cater for those who are not beginners, or who can't come to the groups, but still want them. However, we thought it may be of interest (& also will test if indeed you're justified in considering yourself not a beginner) to detail the exercise set for the assembly group. Not that it's enormously useful in itself; its use lies in the need to think & understand. And we repeat: it's only by doing that one truly learns! The exercise is set in self-contained levels, so that wherever you get up to, it will run thus far on its own.

1. Write a routine (all in assembly) to paint the screen white.
2. Patch this in to the operating system so that whatever is going on (listing, running, etc.) will be interrupted by pressing ANY shifted alphabetic character.
3. Modify the routine to paint the screen with the pressed character.
4. After a delay, continue whatever was interrupted.
5. After the delay, wait until the shift-key is pressed before returning.

As the assembly group is run as a "self-help" format, the idea is that each participant will produce his own code. The correctness of it will be only that it does the job, not the "fanciness" of the coding. The best sections of all efforts will appear in a future edition. So here's your chance. We'd expect the whole lot to take up less than 40 bytes. Of course we're open to any member sending in their effort.

Rod's Ramblings

I've had a number of inquiries about my in-keyboard memory expansion. In the 6 months I've had it, I've not had the predicted heat problem - remember the hot days? And I can't feel any extra heat from the keyboard, which has always had a degree of heat from the vents. So my personal advice would be to do as I've done! I've even read (in 80-microcomputing) that this is a better way than putting it in the expansion interface because of reliability, but whether this is academic or real I can't say. I assume one would have to cut the addressing track to avoid confusion.

The reason for even wanting more than 16k is also the subject of some enquiries. My reason is not to fill it all up, but to allow me to scatter monitors/utilities through it to "fiddle". Such as EDTASM+ without running out of memory & having to quash ZBUG, Micro-80's DBUG, MON-3, as well as the m/l I've assembled into memory. If fiddling BASIC, as well as the program, with the m/l it usually contains, DBUG, MON-3, PACKER, RNMD. Admittedly some of these have overlapping facilities, but I find it easier to use certain parts of each with which I'm more familiar. With plenty of memory, why not? And of course it's useful to be able to write more than 4k as a Scripsit file!

There seems to be some notion of difficulty in getting m/l from disk onto tape. Not being a disk-person, I'm not acquainted with all the possibilities. To me it seems simply a matter of recognising that having been put to disk with LMOFFSET which attaches a tail to the end of the "real" program, all that's necessary is to look at this tail to find where the program originally started, how long it was, and the original entry-point.

Having done so, move (NOT relocate) it using MON-3 (or something similar I suppose) & record it onto tape using the entry-point given in the LMOFFSET tail. A trap is in running it as a test before recording, which means you won't be recording the original program. Of course, if you have enough memory there's no need to move it at all, just use it with the tail intact to do its job of moving every time it's run. The reason for the tail at all is to move the original program out of the DOS area. And the reason you can't just relocate the whole thing with its tail is that when the tail does its thing it may cause the program to over-write itself. The exception to this is the (relatively few) programs which are originally on tape with a loader, and which have actually been modified to be put on disk. And of course a program which has been written as a disk program, residing in higher than 16k, may not be relocatable to run in low memory. It seems to me the key to the whole supposed problem lies in an understanding of MOVE (which LMOFFSET does) and RELOCATE (which most programs can be but not all). Of course there is the possibility that some other utility has been used to put the original tape program onto disk; I'll leave this to some of you "diskies" to explain.

SYSTEM 80'ers

We've had a report that Dick's printer cable requires the printer to be turned on LAST, as opposed to usual practice. So if you have one, & are having trouble converting programs to print, try it.

Allan Jeffries reports that his fame as a modifier of System-80s (on a commercial basis, as part of his T.V. servicing business) is spreading. He's now offering a vast array of mods in addition to the $40 worth of his original offer. So if you doubt your ability to do it yourself (if you have doubts, they're probably well founded!) contact Allan. Even if you only want to talk about it, contact him & he'll tell you what's required so that you can judge whether to attempt it yourself.

NEWSLETTER news

Because this journal enjoys cheap postage as a registered publication, it's low down on the list of priorities for delivery. The list seems to come from the local post office, as some country members get their's before the inner suburbs. Obviously there's nothing we can do about it. It shouldn't matter even, as we post usually the Wednesday of the week preceeding the Thursday meeting. However, if your's doesn't ever arrive, please conclude that it's gone astray in the post, not that we've missed an issue! We ALWAYS do post in the aforementioned week, so ask me to send the missed issue. But if you've changed your address, tell me it or you'll miss the replacement too! The exception is the January issue which isn't.

random bits

From "BYTE"... The IBM Person Computer with its 16 bit 8088 CPU is not much faster than the present 8 bit CPUs. The 8088 version of the 8086 does all its I/O in 8 bit form (and is probably the cause of the slow down) but internal operations only are 16 bit.

LDOS 5.1 has come down in price in the USA with some alteration in backup options ($169 to $129).

The Australian Beginning will not have toll free links to other cities including Adelaide until later this year (maybe?). Under the circumstances the American Source (via OTC & Midas) would still be cheaper. Imagine one hour on the phone STD and its effect on your phone bill.

Unfortunately the above service does not comply to the CCITT standard and uses an 8 bit word, 1 stop bit and no parity (despite this the CCITT standard almost seems to work better ??? more clarification is needed). This has confused some as problems tend to come in clusters as those new to modems have been telling us.

Prediction.... Judging recent writings from Jamieson Rowe, he is in the thick of developing an updated modem for Electronics Australia.

In contrast Dick Smith is selling something (an acoustic modem) for once that is "TELECOM approved".

We hear that YOUR COMPUTER Magazine got into financial difficulties and nearly wound up. However, it seems that it has been bailed out by a take-over by some other business interest. Probably explains why the last issue was so late.

Personal Microcomputing (ie the SYSTEM-80) in the USA has lost the first round against Tandy for copyright infringement. Tandy is persuing the matter to stop sales and seek damages. If successful it may filter back to Australia through reduced production volumes in Hong Kong (& hence reduced competitiveness) or through similar legal action.

Granthams now have a supply of gold plated edge connectors in stock at a very reasonable price of $18.50 a set. Stocks have till recently been scarce.