

NATGUG NEWS

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***OFFICIAL JOURNAL OF THE
National Amstrad, Tandy
&
General User Group***

INFORMATION ON THE GROUP

Membership of the group is by subscription to the Newsletter which is published at regular intervals – application forms are available from the secretary. Membership is open to anyone with an interest in computers but special emphasis is placed on equipment within the Amstrad, Tandy and MS-DOS range.

Details of the group's accounts and constitution are available from the Treasurer – please ensure that your requests are accompanied by a S.A.E.

Members requiring assistance with problems related to the machines specified should contact the P.R. Officer who will endeavour to put them in touch with possible advisors.

Sub-groups exist in many areas and their secretaries are invited to forward details to our Editor/Publisher for inclusion in the magazine. The back page is being reserved for this purpose.

Public domain software libraries are maintained in five separate collections : Model 1, Model 4, CP/M, Amstrad and MS-DOS. Names of the appropriate librarians are available from the secretary. There is a copying charge of 1-00 per disk or tape. (see also Vol.8, Iss.10)

Back numbers of the magazine, in 6 month volumes, are available at the price indicated on the application forms.

The group has no paid Officers or employees, and the issue of the magazine depends on contributions from Members, who are also invited to submit responses to questions raised in the previous issue. To allow legible print, we prefer contributions to be submitted on 5.25" disk, direct to the Editor – ASCII files are perfectly acceptable but please indicate the disk format used (SS,DS,SD,DD, track count, DOS etc.). Your disk will be returned if you enclose an addressed label, normally within 7 days. The Editor will accept written or typed articles where members insist - publishing will depend on readability.

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Editorial

Welcome to all those who have recently joined NATGUG, I would appreciate being sent any first impressions you may have about this organization. Thank you also to the two members who rejoined this month, we began to think you had managed to escape.

My work load since the last time of writing has eased a little, so I have been able to get some things done at home. I have managed to sort out the memory problem on my computer, a pin on a piggy backed chip had come adrift. I have also put all four half height drives inside the case of the Model 4. I was uncomfortable about the amount of heat being generated and retained in the case, so I also fitted a small fan, now everything stays cool to the touch.

It seems a number of members have taken to the idea of fitting more or higher density drives, all at the same moment. I spent most of one weekend answering queries and sorting out drive problems over the phone. Would members please remember the following points, some mentioned because of that weekend, when changing/adding disk drives. These certainly are not comprehensive and should be used with common sense and as pointers only. Main point to remember is that Tandy pulled pins out of drive cables to effect drive and side selection, and did not configure the drive selection on the drive boards. If you change drives and have problems, the first thing to check for is a full compliment of pins in the header sockets. Pin 10 selects drive 0, pin 12 selects drive 1, pin 14 selects drive 2, pin 6 selects drive 3 and pin 32 is for side selection. Any of these missing and you may not get the required function. The factory link setting for a TEAK FD55x drive is HS, DSO, SM AND IU. After fitting a full pinned cable, remember to reconfigure the drive selection on the board, to the drive number required. On a Model 4 (and I don't know if this would include a Model 111), if you add a third and/or forth drive, use an external drive cable only and set the DIP switches or whatever, as drives 0 and 1 respectively, not as drives 2 and 3. The internal drives will also be set as drives 0 and 1. Also you will require an additional terminating resistor in external drive 0. A member did not experience a problem, but I did. That is, I could not read HIS disks. I believe this was caused by his drive writing the track to one side of where the track should be written. He had no problem, as he only had one drive of this type and could read/write his own disks. If this is only at the stage of being a slight error, it might be detected when another drive has difficulty reading the higher tracks. If you suddenly have problems reading only part of a file in double sided drives, suspect that one of the heads has gone dead. Try the disk in another drive, but this will be difficult with a system disk and drive 0, try changing drives around in this instance. Another problem was that a member used an older type of drive and experienced spasmodic input output errors. Remember that the step rate set by DOS 6:x is 6ms, your old drive may not be able to step that fast, you will have to change the step rate. Another indication of this is that DOS will tell you it has formatted a disk, but will not be able to verify it. Do not use SU+ to format a disk and then expect it to work with DOS x:3, it will not work

correctly. A member explained that he used SU+ as it was faster than going through all the format questions. Why not BUILD a format JCL file ? On my Model 4, drives 0, 1 & 2 are 80T D/S D/D, drive 3 is 40T S/S D/D so I have a FORMAT80/JCL file and a FORMAT40/JCL file as follows:-

. FORMAT80/JCL

. To format an 80 track D/D D/S disk

FORMAT :1 (SIDES=2,CYL=80,DDEN,ABS,NAME="COLLINS",Q=N) and

. FORMAT40/JCL

. To format an 40 track D/D S/S disk

FORMAT :3 (SIDES=1,CYL=40,DDEN,ABS,NAME="COLLINS",Q=N)

at DOS Ready enter: DO = FORMATnn. The "-" sign stops a SYSTEM/JCL file being compiled to disk. (nn = 80 or 40). If more than one formatted disk is required at that moment, just enter CTRL-R. S'easy and all in the manual. I have a number of little JCL files like the above and find it saves a great deal of typing and remembering the correct DOS syntax.

Also see Leo Knaggs article "FORMAT/CMD and the DCT" NATGUG News Vol. 9, issue 1, page 38. If there are any doubts out there, please drop a line, but only expect an answer from me to appear in the next NATGUG News, so then every member will benefit. After I have made that statement, I will not expect to here another, "But I do not understand anything about that", coming from the other end of the phone. Please write and say what it is you do not understand.

One of the most revealing DOS commands, when work has been carried out such as the above drive fitting, is DEVICE, enter that and see if the table is as you would expect it to be.

Please do not hold on to articles for the November issue, in the hope you will see me at Swindon in October, or October's issue in the hope of seeing me at Blandford on the 11th September. I have not yet decided if I have the time to be away at Swindon for a whole weekend, and is too far to travel for a day.

UPDATE: EMAIL, Etc, nothing more has yet been made concrete, but the committee are progressing along various lines. Our thanks to all those members who have been involved. Perhaps, just perhaps, the breakthrough will be announced this issue.

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And from U.K. subscribers, YES we do want you to continue through 1989 Lance.	

Lance, in those closing remarks, has a NEWSFLASH of David Goben's latest effort, called T6DOSXT. This being a complete patching program that will upgrade your TRSDOS 6:2 disks to accept dates all the way to December 31, 1999 and is 100% compatible with the dating standards set by LS-DOS 6:3 and LDOS 5:3 DATE and TIME entries will accept single digits. Running JCL files will no longer abort if they execute a SYSTEM (SYSTEM=d). Includes more utility files. T62DOSXT is available for \$18.00 plus \$7.00 shipping from:-

David Goben, 28 Monticello, Willimantic, CT. 06226. U.S.A.

In a separate article David states, "In regard to the protected-scheme attributed to LS-DOS; it does not exist, or it doesn't work. I've totally disassembled the DOS, and no such code exists, encrypted or otherwise".

Model I and Video Genie users may like to take note of the following comment by Lance. [I have received many letters wanting to know why the Model I was excluded from TRSTimes. The answer is simple. When the magazine was first conceived, I was prepared, if need be, to do everything myself. Since I only own Model III's and 4's, obviously it would be sheer insanity to promise support for a machine that I couldn't produce or verify material for. Well, a few days ago Charlie Rider of VTUG called my 'bluff'. He presented me with a large cardboard box. I opened it and, to my surprise, inside was a good looking Model I complete with monitor and two 35 track drives. "Here", he said, "It only needs an expansion interface. You ought to be able to pick one up fairly easy. Now quit messing around and do something for the Model I". Maybe, just maybe. Thanks Charlie.]

Let's stay specifically with our Model I users for another two paragraphs.

Model I and 5:3. And this is where Roy Soltoff will "shoot me at dawn" for not asking permission to reprint from The Misisys Quarterly - Spring 1988 issue, page 22. So please, will members who do not subscribe to that very informative magazine now do so, it may help get me off the hook. Write to:- MISOSYS, INC., PO Box 239, Sterling, VA. 22170-0239, giving your Access (MasterCard) or Barclay Card (Visa) number, my recent statement asked for \$35.00. Roy, who is replying to one of his readers and gives his address which follows, writes, "Kudos for

your efforts. I thought I would provide your address herein so that other Model One folks could communicate with you. Perhaps you'll share your efforts". He refers to:- T. J. Hodges, 3711 S. Hereford Lane, Philadelphia, PA 19110. T. Hodges has written to Roy the following: I only quote a small part, "I am running LDOS 5:3 on my Model 1. That's right my Model 1. Everything is working fine, including HELP, BASIC the updated library commands and directory date/time stamps". T. Hodges goes on to explain the work he carried out in order to get LDOS 5:3 up and running on his Model 1. In the article, there is no explanation as to how Model 1 users can obtain this DOS, but I would suspect that purchase of a Model 111 LDOS 5:3 would be mandatory. If a member does write to T. Hodges for further information, could I be given some news update for publication please. I hope that sells some more copies for you Brenda/Roy.

J. Burns, in the last issue, asked for help in getting a Hard disk running on his Model 1. Very soon I had a member loan me an 26-1132 Model 1 Hard disk Adapter, then two days later I managed to purchase the complete kit, which includes the above mentioned adapter, three operating disks and manuals. What surprised me was that the DOS system is LDOS 5:1:3, not TRSDOS 2.x. All we need now is to get the interface card sorted out. This weekend I have also received a letter from a member giving details of his hard drive running on a Model 1. My thanks go to both of those members for their very ready assistance. I may be asking for the loan of a Model 1 for testing purposes, is there a volunteer close to me please ?

UPDATE: Hard drives for a model 4. Eleven members have now stated an interest. An interface board did arrive from the States, but had a 62 way card edge connector strip, information has been requested for this, so we are delayed in giving firm information. One advantage with this interface board, is that both the board and the drive, maybe also be able to be used with an MS-DOS machine. Host adapter cards are available from myself, they cost £20.00 each. Please include £2.00 extra for postage and packing. They do not include any connecting cables, but if I receive sufficient requests, I will cost these out and supply them.

Keep your eyes peeled shortly for a "Tandy" edition of Micro Mart on the news stands, which should include an article and advert about NATGUG. Maybe it will be there by the time you receive this.

I have available the following items, members wishing to purchase any item should send a cheque made payable to Gordon Collins. All hardware is in its original box - unless otherwise stated. The price includes VAT, postage and packing. **YOU PURCHASE THEM ON THE UNDERSTANDING THAT THERE IS NO GUARANTEE**, and can not be returned for refund. I would not be able to give advice for fitting/running, but it is possible other members maybe able to assist. Could I please ask for comments, good or adverse, about fitting/running these items so that the information can be printed in NATGUG News for the benefit of all. Only one small problem reported to date.

RS Part No.	No. Held	Item	Price
26-1143	5 off	Mod I Double Density Adapter	14.00
26-1103	3 off	Mod I Numeric Key Pad upgrade kit	7.00
26-1146	1 off	Mod I RS232 Software, incl. 6 cassettes	6.00
26-1411	1 off	Mod I Printer Interface Cable-looks used	5.00
26-1148	3 off	Mod III/4 RS232 Upgrade Kit	15.00
25-1125	3 off	Mod III Hi-Res Graphics Kit	30.00
25-1596	1 off	Mod 4 Disk Scripsit	8.00
26-1512	1 off	Mod 4 Target PlannerCalc	10.00
26-3016	1 off	CoCo Low Profile Keyboard	8.00
26-1530	2 off	Mod 4 Multiplan	26.50
26-1520	3 off	Mod 4 VisiCalc	19.00
26-1630	3 off	TK!Solver	40.00

The above is complete with 26-1631, Financial Man: 26-1632, Intro, Science and 26-1633, Mech. Eng. Packs. Original price around £230.00

26-1121	3 off	Mod III BASIC	5.00
26-3018	2 off	CoCo Extended BASIC	4.50
26-4105	6 off	Mod II 64K RAM Board	6.00
26-5160	4 off	M 2000 128K RAM Board	8.00
26-6010	1 off	Mod II to 16 Upgrade Kit	27.00
68000	3 off	16 bit CPU PCB	15.00
DMP 100	2 off	Dot Matrix Printer - USED	70.00
26-1120	3 off	Mod I Level 1 - 2 upgrade	6.00
26-5141	2 off	Mod 2000 Colour Chip Kit	7.00
26-1102E	6 off	16K RAM upgrde	6.00
8" Floppies		Boxed 10's S/S D/D	12.00

If members would like other items - like the above - would you please send me a letter with S.A.E. if you require a reply, otherwise look for further news here. I will then compile a list and see if they are obtainable. Please do not expect an immediate turn round.

Also available is 1 off - Model III to 4 upgrade kit at £110.00. Tandy catalogue number is 26-1123, this kit contains the cluster arrow keyboard. You should send orders to me for this item, but in this instance would you please make your cheque payable to NATGUG.

UPDATE: Lescrypt V1:8. On the 10/6/88 I received another letter and disk from Anitek with an updated LESCRIPT/CMD V1:8 file, this would now seem to run with only two faults. If I have LESCRIPT/KSM in memory, I can not get an apostrophe, quotes or hash on screen, I only get two spaces, with the previous V1:8 file this happened only with the quotes sign. Also the column function has disappeared. It has been reported that Lescrypt will not load the dictionary

files into the memory of the XLR8er board.

If any member or group of members has an individual project in mind or on the go, why not invite other members to join in? Or if you see a need of something that would benefit NATGUG, why not volunteer to have a go? I dare every member to have a think and let me know your thoughts. Non clean ones will only be published in 'Blue NATGUG News', which is circulated every blue moon.

Was it a long while ago that a member wrote, saying his fingers were not nimble enough to get paper into a printer before a Model 4 had timed out should the printer not be ready, i.e. out of paper? I recently came across the following, AS THIS IS UNTESTED, perhaps someone would like to have a look at it and report back to me please. If using a Model 4 try the following. You can modify the Model 4 printer driver so that it hangs up (waits), like the Model III, when a printer error occurs. To do this, you must first find the printer driver, The DEVICE (B) command identifies this as starting at locations 0E01 hex. The present value is 07D0 hex. the following PATCH replaces the delay with code that freezes the computer:

```
PATCH SYS0/SYS.LSID0S (X'0E01'=3E 08 EF FE 80 00 00 00 00 00 00)
```

As the PATCH zaps the disk and not memory (SYS0/SYS is always in memory after BOOT-up) you will have to re-BOOT for the PATCH to work. This PATCH keeps the printer driver hung until either the printer is ready or you press <BREAK>. PLEASE PROCEED WITH CAUTION UNTIL REPORTED THAT THIS HAS BEEN TESTED.

I hope members receive their NATGUG News in time to read this and take action, as Peter Tootill is to give a talk to REM80 members on July 27th, starting at 8.30 pm. His talk will be on 'FIDO' the bulletin board network used in the States and the U.K. Non-members of REM80 are welcome, but are expected to pay an admission fee of £1.00. Details of meeting place in Local Club News under Gtr. Manchester. Out of courtesy, I think you should contact Brian Disley to say you will be attending. I will try to be there.

What are the chances of having every member, and I do mean every member, write in, on disk files - organizing yourselves so as not to all write at once, I suspect the law-of-averages will even things out, as I now know some of you are quicker than others - naming up to five of your most favourite programs and why you use them. If I do get sufficient response, I will try to compile a league table for publication. I will separate the different DOS's and/or systems into their own leagues, dependent on replies.

I recently hit a new problem at some banks. I need to send money overseas frequently. I have always used Barclays Bank, as they used to only charge £3.00 commission for money orders, they now charge £5.00. The other banks I believe used to charge £8.00, this has now been increased to £15.00. (By the time customs duty, VAT and postage has been paid, that would really make a \$10.00 item from the States expensive) I find, where possible, that it is 'cheaper' to

seven lenses altogether; two condenser lenses and five imaging lenses. The condenser lenses concentrate the electron beam onto the specimen, and the imaging lenses produce the enlarged image.

The group I was working in in Bristol was mainly interested in crystallography, using the electron microscope. Shortly before I arrived they had obtained a Philips EM400 microscope. This instrument has a built-in provision for external control, both analog and digital. Moreover, the internal control is mainly digital, with DACs to convert the digital code to analog lens currents. In those days microcomputers were becoming available. One of the people in the EM group got the idea to get one of those to control the lenses of the microscope. This would make it possible to experiment with non-standard settings of the lenses. Normally the lenses are set automatically according to a chosen magnification, and individual control is impossible. The use of a microcomputer would have the additional possibility of storing interesting combinations of lens settings on cassette tape or so, for later reuse. So I was asked to take this project on. At that time my knowledge of microcomputers was nil, but that didn't matter. At least I had a knowledge of electronics.

I had to do several things. I had to find out how the EM400 worked, before buying a suitable microcomputer, and then to design an interface.

The first thing took some time. It is a good habit of Philips to provide a full set of maintenance manuals with their electron microscopes, with full circuit diagrams. Unfortunately these contained a number of mistakes. I remember sitting at my desk, fully covered with the diagrams of the lens control, when the Service Engineer happened to look in. "Are you looking for the mistakes?" he asked me. I replied that I had found three already! The imaging lenses are digitally controlled. The condenser lenses aren't, but they can be. It was decided to leave them for the time being, as the required DAC cards were about £350.00 each, ex. VAT!

The next thing was to obtain a microcomputer. Of course it had to be done as cheap as possible, so most systems available at the time were rejected. They were either too expensive, or the price looked right, but then you had to provide an additional cassette recorder and TV set. Two systems remained: the Commodore PET and the TRS-80. The PET had nicer graphics, but with that horrible keyboard... So a TRS-80 Level 2 with cassette recorder and 4 Kb of RAM was ordered. It must have been one of the first in Bristol, there were only Level 1 machines available for demonstration at the time. Tandy had promised to give us circuit diagrams, but we needed a formal declaration from the Head of the Physics Department to Tandy, that we would keep them to ourselves. Incidentally, they were the same circuits that were published in the TRS-80 Microcomputer Technical Reference Handbook! When I got the machine, I started trying out all sorts of things. It was great! Just playing about with it and finding out how it all worked. Pretty soon we decided to upgrade to 16 Kb of RAM. Those were the days! Considering that I am typing this on a machine that has 40 times that amount... Well, in the meantime the rudimentary lens control

program started to grow. The first versions were not very good, containing all sorts of beginners errors. I discovered that the amount of memory increased when the program was running, and it turned out that it jumped out of subroutines into the main program without RETURN. So a new version was written that remedied this. The final version, still in Level 2 BASIC, has the following possibilities:

- a diagram on the screen showing the state of the microscope
- setting of values for lens currents
- instantaneous change of lens currents
- continuous change of lens currents up or down
- changing the speed of the continuous change
- storing up to 100 combinations of lens settings in memory
- saving those combinations on cassette tape
- load formerly stored combinations from cassette tape
- switching the microscope from internal to external control from the keyboard

I had the intention, if time permitted, to have a go at an assembly code version, but I never got round to do it. The interface was designed round the Z-80 PIO chips. I used seven altogether, one for each lens of the microscope, although for reasons already mentioned, the outputs of the condenser lens PIO's were not connected to the microscope. The TRS-80 combined the Z-80 signals MREQ, IORQ, WR and RD to signals called RD and WR for memory, and IN and OUT for I/O. The interface required a little unscrambling circuit to be able to use Z-80 PIO's. It also contains a circuit to switch the microscope from external to internal control, and a hexadecimal display to check the lens codes. This was provided for service purposes. Normally these codes are checked with a device containing 16 LEDs that is plugged into the microscope interface, where the connection cable was now plugged in. A switch is used to switch it off, or to select the lens to be checked. Two illuminated push buttons were provided to switch from internal to external control.

The interface was built by Electronics Lab according to my design. When finished, it was connected to the microscope, and after some minor corrections worked. In fact it should still be working, but the man most interested in its use left soon after me. The last time I visited the lab, in 1986, it was still connected, but probably never used. A shame, after all that effort...

As for the TRS-80, I never had serious problems with the machine, not even with the CTR-41. Originally it had a slightly wobbling screen caused by the 60/50 Hz difference, but the conversion kit made available, through the then National TRS-80 User's Group, made the image rock stable.

For information, contact the Electron Microscopy Group, H. H. Wills Physics Laboratory, Royal Fort, Tyndall Avenue, Bristol BS8 1TL. I can not guarantee that it is still connected.

Hindrik J. Elema, Aart van der Leeuwlaan 1136, NL-2624 MC Delft, The Netherlands

Life Revisited by Hindrik Elema

Probably the TRS-80 Model 1 library has one or more versions of the game of Life. This game was invented by the Cambridge mathematician John Horton Conway, and was popularized by Martin Gardner in his Mathematical Games columns in Scientific American. It is played on an infinite matrix of square cells. Each of the cells is either on or off. First you set up an initial pattern of cells on the matrix, the zero generation. From this, the next generation is determined by a few simple rules, and every following generation is determined by its preceding generation. The rules are:

- Each cell is surrounded by eight other cells, horizontally, vertically or diagonally.
- Each cell can be on (alive) or off (dead)
- If a live cell is surrounded by less than two live cells, the cell will die of isolation.
- If a dead cell is surrounded by exactly three living cells, it will come to life.
- If a live cell is surrounded by four or more living cells, it will die of suffocation.

Note that you must use the cell state in the present generation to determine the new generation, and not the future state. Years ago I wrote a program for the TRS-80 Model 1 to play this little game. The first attempt in BASIC was e-x-t-r-e-m-e-l-y slow. It took about ten minutes to determine the new generation on a field of 46 by 46 cells. I even put in a blinker to show that the program was running and hadn't crashed. So I had a go at assembly programming. The improvement was miraculous! Only about one second per generation! I intend to send a copy of the source code to the Model 1 library, as I have not the facilities to assemble it. It might work on the Models 3 and 4 (in model 3 mode) too, someone could try, but I don't know.

The principle of the program is as follows. The simple Model 1 graphics are made of little rectangular blocks. Each character position contains six of such blocks. There is a memory location in video memory for each character position. The character codes for the various graphics characters run from 80H (hexadecimal, 128 in ordinary numbers) to 0BFH (191). In binary numbers bit 7 (the most significant bit) is always 1, bit 6 is always 0 and bit 5-0 are set or reset to form the graphics characters, as shown here:

```

+---+---+
| 0 | 1 |
+---+---+
| 2 | 3 |   Bit numbers for TRS-80 model 1
+---+---+   graphics characters. Bit 6 is 0,
| 4 | 5 |   bit 7 is 1. If a bit is 1, the
+---+---+   block is white, otherwise black.

```

This property is used to set or reset cells in Life. At the start the screen is filled with characters 80H, resulting in a dark screen. When a certain cell must be turned on, the appropriate pair of bits is set with the Z-80 SET operation. I used pairs of blocks, because the rectangular single elementary blocks don't give a nice display. Pairs of blocks result in squares. Similarly, to clear a cell, the RES operation is used for the pair of bits. To test a cell, only one of the pair has to be tested with the BIT operation, as the other one will be in the same state.

The image data are held in two buffers, one being the current generation, the other one the next generation. Originally I used the video memory as the current generation buffer, but this resulted in a nasty screen flicker. Each cell in the current generation buffer is tested, and the corresponding cell in the new generation buffer is set accordingly. When all cells have been tested, the new generation buffer is transferred to the current generation buffer, and then to the screen.

How to use the program.

When you start the program, the screen will be cleared and in the middle a blinking cursor will appear. You can move the cursor about with the arrow keys. To set a live cell, press the space bar. To clear a cell that was set by mistake, press <CLEAR>. To start all over again, press <BREAK>. To return to the TRS-80 system, press <SHIFT>Q (which on Model I produces the code for "q") (in the original version you had to press the reset button; as quitting in the present way consists of a JP 0 instruction, the difference is only for convenience). Once you have finished setting up a zero generation, press <ENTER> to start running. You will see, how the pattern changes. If you want to have a closer look at a certain generation, press <SHIFT>@. Then a pause starts which will be ended by hitting a key. To return to the setting up, press <BREAK>, and the program will start all over again.

Summary of keystrokes

<BREAK>	restart program, both from setting up and when running
<ARROW-LEFT>	when setting up: move cursor to the left
<ARROW-RIGHT>	when setting up: move cursor to the right
<ARROW-DOWN>	when setting up: move cursor down
<ARROW-UP>	when setting up: move cursor up
<SPACE>	when setting up: turn cell on (alive)
<CLEAR>	when setting up: turn cell off (dead)
<ENTER>	when setting up: end setting up and start running
<SHIFT>Q	when setting up: restart computer
<SHIFT>@	when running : pause; hit any key to continue

It might be desirable to modify the <SHIFT>Q for other models than the Model I, if the program can be used on these models.

PROfound Notes

In the last issue I mentioned that I had sent a copy of the program "REMBRANT" to a member, to underline what the Editor said at the end of my article, the program I was refering to was the Hi-Res Graphics Basic program published in 80 Micro, NOT the one advertised in the same magazine by Spectre Technologies Inc of California, their program does not need the Hi-Res board, the member in question was actually asking about the Spectre Technologies program but was very satisfied with the one I sent him.

Now that 80 Micro is defunct I have subscribed to the magazine PCM, I have the January, February, March & June issues & will get April & May later, once they start sending the subsequent issues.

PCM supports all the Tandy MS-DOS computers as well as the Laptop portables, even prints bar-code listings for people who have the bar-code reader, program disks are also available & all the familiar advertisers are there, programs are published in Basic, Quick Basic, C, Pascal as well as Machine Code.

The member who wants to upgrade the memory on his Model 100 as well as get a lot of useful programs would do well to subscribe to PCM, there is an article in the February issue on how to add the extra memory. The address of PCM is :-

PCM, The Falsoft Building, P.O. Box 385, PROSPECT, KY 40059-0385, U.S.A.

The anual fees are \$65 surface mail, more than 80 Micro but it seems worth it to me to be able to keep in touch with what is going on in the Tandy world.

Having read the copy of the letter to the PC group I should imagine that by now they have been able to answer the writer, however if he were to buy the magazine PC PLUS he would soon find all he needs to know about hard drives & hardcards as well as the price & source of RAM upgrades. This magazine is as informative about Amstrad PCs as 80 Micro was about our machines.

I have not yet heard any more from ACC about the PC show so I think it is time I rang someone up & asked if there is even going to be a User Group section this year, if there is, then the main problem is going to be, what equipment are we going to have on the stand & how to transport it.

As far as I know the 'patch' for LDOS 5.1.4 for the Model III is LDOS 5.3, I don't know if there is still anyone in this country that supports it, but it can be bought from Misosys in the 'States, if anyone knows to contrary please put a note in the next issue. (I am sure you are right John. Ed. **)

John Kilpatrick

Moving SuperLog 4 into the XLR8 Board

I have been using Pro-Wam for some time now and must confess it is a fine utility but, it has what I consider one shortcoming, it lacks a large window filing system, database, call it what you like. Superlog, on the other hand, does have a large window, but lacks the many facilities of Pro-Wam, however, these two utilities can be made to compliment each other. Superlog is a database which can be called up through a windowing facility similar to Pro-Wam, but each of these two utilities fulfill the windowing task in a different manner. Pro-Wam always works from bank 0 and uses the allocated ram bank as a data store. Data is extracted from this bank when required. Superlog, however, resides and runs in its allocated bank. Superlog was designed for use with the standard 128k machine and works fine in those two extra banks, but trying to run Superlog from any of the additional banks provided by the XLR8 causes problems. I found the inability of Superlog to move to a bank greater than 2 to be a bit limiting now that I had the extra memory, also, I normally try and keep the lower two banks reserved for DDuty. It was my intention to find out if both DDuty and Superlog could be made to run together, therefore, something had to move. At present they both want to use the same banks. Superlog appeared to be the easiest to try and move and I decided that was the way to go. A brief look at the inner workings of Superlog revealed that Superlog did actually work in the XLR8 banks, only the screen I/O ended up confused.

The additional memory of the XLR8 does not support VDU shadowing (the switching in of the VDU ram while the XLR8 memory bank is selected), however, this is possible with the standard 128k and, Superlog was designed to make use of this facility. Although the XLR8 driver ensures memory bank 0 is always switched in when VDU i/o occurs while a XLR8 bank is being accessed, this does not resolve the problem of a block move to or from the VDU when the sending or receiving area is in the XLR8 bank. For instance, if Superlog is running in, say bank 4, and wanted to send a string to the VDU, Superlog would simply point to the string in its own memory (bank 4) and request the display supervisory call (SVC @DSPLY). The operating system will then deal with the request, but first the XLR8 driver will switch in bank 0 and in doing so switch out the string to be displayed. The SVC has been given a pointer which now points to an area in bank 0, which will probably contain rubbish, and that what gets displayed, however, once the SVC is finished, control will, very correctly, be passed back to Superlog in bank 4.

It was not too difficult to solve that little problem. It was just a matter of transferring any message strings to be passed to the VDU into a work area in low memory first. Surprisingly that was all that was required to get Superlog to run in banks greater than 2. There is a limit though, without major surgery Superlog will only work up to bank 7. I considered that to be sufficient and left it at that.

The purpose of this whole exercise was to get Superlog to work with Pro-Wam and DDuty, and that is where the problem started. Solving the problem

once it was found was easy, but finding it first was a long and tedious task. I nearly gave up a couple of times, but curiosity got the better of me.

Using Superlog and Pro-Wam together the first time proved to be a disaster. Going into Superlog and then into Pro-Wam was fine, and as long as you remained in either of these utilities, no problem, however, when returning from Superlog to the system I was never quite sure what would happen. After the first crash I made sure there was nothing in the system other than a backup of my boot disc. Debugging in the extended memory banks is very frustrating and I would be very pleased to hear from someone who has found an easy way of doing it, anyway that is another subject. Furthermore, the problem was not really a bug, the software was doing exactly as it was designed to do, it was just the inevitable when asking a number of programs to interface with each other. You may argue that windowing programs were designed to work with other programs; yes they are, but everything has its limits. Because Pro-Wam is a popular program and it contributes to this particular problem and, because the problem may reoccur when interfacing with other programs, I considered it worthwhile giving a summary of what can happen.

Although Superlog is hooked into the keyboard for input, it is also task driven to allow it to be invoked under any condition. When Superlog is installed another task is added to the system. My system also has a clock running, which is task driven, therefore, I have, in addition to the system tasks, two further tasks running. Under these conditions my stack can reach half capacity (0340H). This is an important point as can be seen later. Superlog uses its own stack, but because it is task driven the Superlog driver needs to store the interrupt information before passing control to Superlog main. This information, comprising mainly of return addresses, is held on the main system stack and, depending where the interrupt occurred, this information may take the stack below 0340H. When using Superlog on its own this presents no problem, however, using Superlog and then calling Pro-Wam will overwrite anything on the stack below 0340H (and that is not a bug). At this stage it will not affect either Pro-Wam or Superlog and you are able to switch between them as much as desired. The problem occurs when trying to return to the system. You never know what will happen, in most cases the system will crash.

I will try and explain in simple terms (I hope) the sequence of events leading to the problem. I have mentioned above, when Superlog is invoked the return address of the calling program is stored on the stack before passing control to Superlog. Depending what else is running in the system this may push the main stack below 0340H. Superlog maintains its own stack (07E0H for those interested) in its own work area and has no further call on the main stack. At this point everything is still OK. If you now call Pro-Wam which, incidentally, is already installed and is quietly sitting in high memory, in most cases above 0F300H, but always in bank 0. Pro-Wam will now take control of the stack and move it into its own work area. The first thing that Pro-Wam does after initialization is to present the user with a menu and prompt for a keyboard input using the system SVC facility. The use of any SVC facility will pass

FACTS SHEET OF THE

Revised June 1988

National Amstrad & General User Group
(NATGUG)

Membership of the group is by subscribing £12.00/year to the newsletter, "NATGUG News". This is published at regular intervals, and should be received normally during the first week of each month. Application forms are available from the Membership Secretary. Membership is open to anyone with an interest in computers, but special emphasis is placed on the Amstrad, Tandy, Video Genie and MS-DOS range.

Weekend workshops are held in March & October, usually at Swindon, and other meetings are held whenever possible.

Details of the group's accounts and constitution are available from the Treasurer. Please ensure that ANY enquiry to anyone, is accompanied by a S.A.E.

Members requiring assistance with problems related to the machines specified should contact the P.R. Officer who will endeavour to put them in touch with possible advisers.

Sub-groups exist in many areas and the Secretaries are invited to forward details to our Editor/Publisher for inclusion on this Facts Sheet.

Public Domain software libraries are maintained in five separate collections: Model I/III, Model IV, CP/M, Amstrad and MS-DOS. Names of the appropriate librarians are given in this Facts Sheet. There is a copying fee of £1.00 per disk. (This is to supplement the librarians cost of maintaining their equipment)

Back numbers of NATGUG News, in 6 month volumes, are available from the Treasurer, at the price indicated on the application form.

The group has no paid officers or employees, and the issue of NATGUG News depends on contributions from Members, who are also invited to submit contributions in response to questions raised in the previous issues. To allow legible print, we prefer contributions to be submitted on 5.25" disk, direct to the Editor - ASCII files are perfectly acceptable but please indicate the disk type used (SS,DS,SD,DD, track count, DOS etc.). Your disk will be returned if you enclose an addressed label, normally within seven days. The Editor will accept written or typed articles were members insist - publishing will depend on readability and time to type them up.

TRSTimes Magazine, for the TRS-80 Systems and Video Genie. £12.00 for 6 issues bi-monthly or £2.00 each. Contact: Gordon Collins, Editor. Programs from issues 1, 2, & 3 on disk. For details see page 7 of NATGUG News, Vol. 10, Iss. 7

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Local Club NewsBOURNEMOUTH

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Alternate Sundays, October to March. Brian Pain (0908) 564271

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2nd Thur. 7.30 pm Mansion House Hotel, Milton Road West (A1),
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If your club is not mentioned above then for your FREE advert, write with
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Mr. Leighton Davies,
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Details in Vol. 8, Iss. 10, Page 10

CP/M

Mr. Peter Hall,
 11 Gerrard Street,
 Brighton,
 Sussex. BN1 4NN
 (0273) 684286

Details in Vol. 9, Iss. 4, Page 11

Model IV

Mr. David Sampson
 4, The Coots,
 Stockwood, Bristol,
 Avon. BS14 8LH
 (0272) 830591

Details in Vol. 10 Iss. 5, Page 9

MS-DOS

Mrs. Ariela Taylor,
 42, Davenham Avenue,
 Northwood,
 Middlesex. HA6 3HQ
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Details in Vol. 9, Iss. 3, Page 17 and
 Vol. 9, Iss. 6, Page 9 and 19

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Some Useful Guide Lines: When sending cheques, unless the money is for subscriptions, or to Roger, then please make the cheque payable to the person you are writing to. Roger, our Treasurer, is the only person able to bank cheques made payable to NATGUG, as the account in that name, is in Bristol. Roger is also the only person in NATGUG able to process plastic card transactions. Please, do not send mail with material included, which you expect to be sorted, and posted on to other committee members. This is definitely not the way for the intended person to receive that mail quickly and also helps to overload that committee member. Please do not be puzzled, when you do adopt this method, to then find it takes a l-o-n-g time before you get an answer or action. The Secretary writes and receives correspondence; The Treasurer, deals with money for subscriptions, and distribution of NATGUG News; Our P.R. Officer helps to sort out your problems, if not able to, then he possibly knows who to put you in touch with; The Editor/Publisher of NATGUG News accepts articles for that. Once the copy leaves the Editor for the printer, he is then finished with that issue. The Editor has no records to show who receives NATGUG News, that is Rogers province, and who also has the left over copies from the printer. Please think before firing from the hip, you may then leave a bit more time for those who are trying to help and serve YOU, to have that little time for others and to do other things. Thank you in anticipation.

I have compiled this "Facts Sheet" so that members can have facts about NATGUG in one readily available form. I ask that you remove this and keep it in an easily accesible place. I do not pretend that it is comprehensive and if members have any objections/suggestions/helpful comments, I am perfectly willing to consider them and alter this sheet if necessary. I hope to publish an updated "Facts Sheet" at regular intervals. Gordon Collins, Ed. **

control to the system while the SVC request is being processed. Readers familiar with LS-DOS may have notice that Pro-Wam keeps its stack in the VDU/keyboard overlay area and if the stack stayed there while the VDU/keyboard is switched in the stack would disappear, probably resulting in a crash. The system is clever enough to realise this and if it detects that the stack is above 0F300H then it will place the stack somewhere safe. There is only one place where the system can place the stack and that is in its own stack area, however, because it is an SVC and SVCs can be called from anywhere, the system will preserve its own main stack by place this second stack half way down the main stack area, you will have guessed by now, at 0340H. Anything else in that area will be overwritten which, in this case, is the return information for Superlog to get back to the system.

Now, you may argue that any windowing program must preserve the stack of the foreground task. Both Pro-Wam and Superlog do exactly that, however, who expected one windowing program to run inside another. The system does the right things and there must be limits to the stack, so its really up to the application program. Each program (Pro-Wam and Superlog) work fine on their own, yet they were designed to be used while other programs are 'running'. So where does the responsibility lie. I will leave the question there.

I was already digging around in Superlog, and there appeared to be plenty of space, I found it easiest to take care of the stack problem within Superlog. Superlog and Pro-Wam can now work happily together without any disasters.

It is also possible to have DDuty, Superlog and Pro-Wam working together, however, this requires a more cautious approach. It is possible to use both DDuty and Superlog on their own, but only if the Superlog driver is installed in low memory and only if a Superlog window is opened and close in the same Dduty partition without changing a partition. Any attempt to change a Dduty partition with a Superlog window open will cause a problem. To be able to change partitions with open windows would require some serious modification to Dduty. I am not sure it is worth the effort. DDuty and Superlog will, nevertheless, work very well together if Pro-Wam is used as a stepping stone, but again, only if Superlog driver is in low memory. What it really comes down to is that if you do need to change partitions and leave a Superlog window open you must pass control to Pro-Wam first. In other words open a Pro-Wam window inside of a Superlog window and then there is no difficulty in swapping partitions and you can still open more Pro-Wam windows in the next partitions, but no further Superlog windows. Before returning to the original partition any Pro-Wam windows must be closed. Once in the old partition, close the Pro-Wam window and continue where you left off. This procedure is a bit makeshift, but it can get you into the next partition without closing a Superlog window. I am not so sure there are many member who use Superlog and probably even fewer who use Superlog and a XLR8, however, I hope the discussion on the stack problem may prove to be informative. Should anyone require a patch for Superlog to run in a XLR8 machine please get in touch.

John Coyne (04203) 7165

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TREAS'ured Notes

I think the good news for this month must be the Model 4 Library. My good friend David Sampson has gone International and acquired something in the region of twenty disks of PD material from the States.

As you all know, Gordon has cemented a first rate relationship with Lance Wolstrup, and David seems to be doing the same with Tim Sewell. Tim evidently runs a colossal library which despite being twice burglarised (I love Americanese) is second to none.

I would invite all Model 4 owners to send David a formatted 40 track S/S D/D disk preferably TRSDOS together with the normal £2.00 fee for a library catalogue. I have seen a hard copy of the library list and it would seem to be full of lovely goodies. There is for instance a series of TMM files which play tunes through the Model 4 tweeter - quite fun. David has concentrated on Utilities for the moment but there are some games and business programs. Due to the cost to David of importing these PD disks from over the 'Pond', future acquisitions will depend on the income that the library generates over the next month or so. Suffice it to say there is a plentiful supply of interesting material still to come if he can justify the expense of further importation.

It might be worth repeating again the Library procedures. All catalogues cost £2.00. All are on disk except the Model 1/111 which is a hard copy from me. Program disks carry a copying fee of £1.00. Format is the basic standard for that system, 40 S/S for TRS80 and 40 D/S for MS-DOS.

David Sampson has also imported the first eight disks of TRSLINK which, like TRSTimes was initiated to fill the gap left by 80 MICRO. I have purchased a set of disks for myself and although, I have, as yet, only glanced at them, I do feel they will be useful. The disks are certainly very full - articles and adverts. Circulating a magazine on disk is an idea that has been discussed quite a bit recently and it is interesting to now have an example to test. David will supply TRSLINK under the same conditions as program disks from the library.

At various times members have asked me not to give out certain items of personal information. Some for instance do not want their phone numbers circulated. I would like those people to remind me from time to time, so that I do not transgress. Now would seem to be a reasonable time, as I have just decided a new system of flagging these facts.

I have been asked to find a home for the following games.

COCO SOFTWARE - Tapes all complete wit instructions and in original case.

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ROM PACKS WELL USED BUT WORK AND WITH INSTRUCTIONS.

26-3058 SKIING.	26-3154 HANDYMAN.
-----------------	-------------------

MICRODEL "WORLDS OF FLIGHT" FOR 32K TANDY OR DRAGON - tape.

I would suggest that the tapes are worth £2 each and the Rom packs £5.
I would stress that this collection is in very good condition.

I still have the following genuine articles for sale - 80 MICRO

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1985	DEC;	1986	FEB;	ALL £1 EACH	

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MODEL III QUICK REFERENCE SHEETS FOR ROM BASIC

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---	------

We also have a considerable number of MODEL 1 tape programs. They are as listed in Vol 10 Issue 1 but many more of each.

All programs offered below are on original disk or cassette with manual.

[illegible]

MS-DOS Library

Thank you Ariela. Do I presume that you are going to inflict the arm twisting on Alan Solomon? Ed. **.

Another problem is to do with Profile's link with the forms filter under LS-DOS 6:3. When a report is printed the program apparently checks for a forms filter, and reports forms filter not resident if it is not there. However my experience is that the program ignores the forms filter even when it is present, and reports it not resident in the same way.

I find this particularly annoying when combined with the next problem which is that the program will not allow you to print a 1.5 inch deep standard address label consisting of 8 lines with one line space between the labels, even though the manual says that 8 lines can be defined. I presume There must be a very simple control in the program which would allow for 9 lines if someone expert in machine code could locate it and make the change. Alternatively if the forms filter did work then the filter could be set to a page length of 9 lines, and 1.5 inch labels could be used.

Finally do you know of the Profile utilities to be found on the public domain TAS disk No.22B, available from David Washford. This contains a number of useful file management routines, written in BASIC. The ones I have tried do work, and promise to be quite useful. An advantage is that they are so cheap. 3 for the disk

If you get any further information on these problems/bugs I will be very happy to hear about them.

With best wishes, Yours sincerely, Stoker Wilson

~~~~~

FROM:- 24 York Close, Whitehill, Bordon, Hampshire. GU35 9PX

Dear Gordon,

More on LS-DOS 6.3 L+ upgrade

If Barry K Morely is not familiar with the workings of LS-DOS, then I can quiet understand why my note on the change from LS-DOS 6.3 L to L+ was not understood. It was only intended as a brief note. I will try to provide Barry with an explanation, however, because I don't know how the level of Barry's experience with LS-DOS, I will try and keep it simple, albeit a bit long winded.

The model 4 operating system (LS-DOS) can be considered to be a very busy operating system, unlike its predecessors LDOS 5.x which, when not running a program, had a fairly leisurely life. LS-DOS on the other hand, even when idle, has a lot of work to do which, I must add, the system can easily cope with. This work comprises a lot of individual tasks which are conducted while the system is apparently idle, ie scanning the keyboard, flashing the cursor etc. All of these tasks involve some form of data manipulation for which the processor requires a temporary data storage area. This temporary storage area is provided by the operating system within its own work area and is called a stack. It is probably called a stack because it handles the data in a stacked

fashion similar to a stack of coins, the coins being the data elements. This method of storing data also implies that the last word on the stack (each data element stored on the stack is two bytes = one word) must also be the first word to be retrieved. Although there is nothing to stop you from pulling something out of the middle of the stack, you run the same risk as with the stack of coins, the stack may fall over, and with it the operating system. The operating system and any program using a stack relies on the principle of orderly stack operation, anything interfering with this process is likely to result in a problem.

LS-DOS 6.3 operates its stack in the area from 0380H (hex) to 0300H. Please note the model 4 operates an inverted stack ie the stack starts at 0380H and, as it fills, it gradually move towards 0300H. The last word placed on the stack has the lowest address.

Even in its simplest form stack operations are not quiet as straight forward as described above. While the operating system is going about its housekeeping chores it may be interrupted by other tasks, or while running a program the operating system may have a need to change to its own stack, for example, to service an SVC (Supervisory Call). In either case, without going into more detail, it may not be appropriate to use the main stack. To cater for this requirement the operating system provides another stack within the main stack area (at 0360H for version L and before). The placement of this second stack relies upon the main stack never exceeding 0360H when the second stack is invoked. I believe LSI discovered that if further background tasks are installed (other than the ones provided by the system), such as the spooler, the main stack can exceed 0360H. Under these circumstances, providing the operating system does not need to invoke the second stack there is no problem. However, unknown to the user, this second stack usage can be user driven through a variety of application programs, and if the main stack is above 0360H and the second stack is invoke, then the top part of the stack will get destroyed. When control is passed back to the operating system anything can happen.

LSI realised that, although many users would never experience the problem, the problem is easy to avoid by simply moving the second stack start address further down the main stack working area, and that is what the change of L to L+ consists of. The second stack start address has been moved from 0360H to 0340H. The second patch tells the spooler where to find the new address.

For more detail on the potential two stack problems, refer to my description of the difficulties encountered trying to make Superlog 4 work in the XLR8 additional banks. It is the first time I have made acquaintance with the two stack problem and it was a problem; solving it was not difficult, but finding it was.

John Coyne.

*Vol. 11, iv, of Misosys Quarterly has the patches for L to L+ listed. Ed. \*\**

The committee HERE thank ALL members who send letters to NATGUG. Would members please accept that I do not have the time available to answer every letter individually AND output the copy for NATGUG News. I am very grateful to those members who write, saying they understand, AND ACCEPT this situation. Ed

## Model 4 Library News

Want a new catch phrase? TRY.....



Now for the more serious stuff, I have spent a great deal of time getting all this together, It has also cost me a fair amount of money as well, all for a good cause I might add. Its about time that the group had some of the better stuff so PLEASE SUPPORT your library. In turn, if I can recover the cash spent so far I will expand the library further for the benefit of us all. And to all you sceptics out there, no I am not making a lot of money charging for copying disks. The original idea of a copying fee was to pay for the upkeep of the librarians equipment, But I am using it to help us all so that we might enjoy some of the goodies which have so far been exclusive to the guys in the states.

The price of a disk load of programs would not pay for any commercial program that I know of, and believe me, a lot of these programs are as good as any commercial software, and indeed BETTER than some I've seen.

Well that's enough spouting from me for now. If I can help then give me a ring or drop a line to:- David Sampson, full details below.

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### TRSLINK -- A new dedicated magazine on disk

Those of you who subscribe to TRSTimes, available from Gordon Collins our beloved ED. will be familiar with the name TRSLINK. Those who don't get this worth while publication are missing a great deal. When Micro 80 decided to abandon the TRS 80 computer, bands of dedicated users in various parts of the world started to produce magazines (for want of a better word) to give the widespread Model 1/111/4/4p users a common link of information and help. TRSTimes from Lance Wolstrup is one such publication. Another lesser known but equally important publication for the dedicated user is TRSLINK, a FREE magazine which is available on disk. Initially this was an amateurish group of ASCII files which were downloaded from the BBS's all over the place. As the interest in these first issues grew, a lot of effort was put into making them more interesting and they became packed with information, letters, programs hardware projects etc. It is now a first rate magazine. But of course here in good old England BBS's don't get used as a way of life as they do across the pond. As a result I have imported the first eight issues. These are available FREE from the Model 4 Library (The standard copy charge of one pound applies however). This magazine is for all Models and as such there is a utility on every disk after issue 3 to display the mag to the screen or printer. The first couple of issues you had to use the 'LIST' command from DOS. The utility for reading the files is referred to as 'a quick and dirty reader' but is, in fact a clever machine code program to display the mag to the screen or printer. The magazine contains all you would expect to see in a paper form of magazine including adverts. The adverts are interesting in themselves as apart from supplying information many of them contain special offers.

To order TRSLINK contact:- David Sampson, 4 The Coots, Stockwood, BRISTOL. BS14 8LH (0272) 830591

## SEXNOTES

*(The file this month arrived from David as 'SEXAUG', I did begin to wonder what I might be reading. Ed. \*\*)*

It is extremely gratifying to note that our membership figures continue to grow at a steady pace - I'm always worried that the Committee 'moans' might frighten some of you off, but thankfully it seems not. My only moan this month is an echo of Gordon's comment last month on how disappointing it is to come home to an ansaphone which says that it took twelve calls but only has three messages. Do say something please, even if it is only tennis balls - at least I'll be reassured that the machine is not defective.

By the time that you read this, Micromart will have run their Tandy & NATGUG feature; both this magazine and PCW continue to be kind to us within their Club pages - look out, Computer Shopper, here we come.

I had a phone call from a member to tell me that BDS (Basic Development System) is distributed by Grey Matter. Apparently two different versions are sold, one for standard GW-Basic, and another for Basic-A; the member has found that Quik Basic was superior - how I wish that I'd attended Paul Ostwind's talk on this last October at Swindon. How about a repeat this year, Paul?

Copies of NEWDOS86 have been sent out now to all who ordered, and initial comments have, without exception, been favourable for the system but not so for me. It seems that I've goofed again - in trying to be helpful by sticking my neck out and supplying a working DOS, I haven't pointed out that you'll need a copy of the basic (no pun intended) Newdos Manual. Also some Members were alarmed by the message to run Patch/Bas before using. Newdos86 is essentially a collection of patches to Newdos80 version 2.0 or 2.5 (Hard Disk version) for either the Model I or the Model III, PLUS a fantastically improved, almost unrecognisable, BASIC called Custom Basic. It is all the work of Warwick Sands from Queensland, Australia who has licensed NATGUG to distribute Newdos86 in the UK and Europe, and although it comes with comprehensive documentation on the disks (5 sides for Model III/4, 9 for Model I) this is only to cover Warwick's enhancements and not Apparat's Newdos80 - it is assumed that prospective purchasers already possess that operating system and its manual. Purely to save members the time consuming task of copying system files between various backups, and in the belief that a latterly disinterested Apparat would not prosecute, I personally took the decision to supply disks which contained the Newdos86 patched Newdos80. However I must stress that I cannot supply copies of Apparat manuals.

Newdos86 can be tailored to meet individual requirements in many areas, and to facilitate implementation to suit the new owner, a program entitled Patch/Bas will set various parameters as requested; in addition this program does set the main DOS features - hence the instruction to run Patch/Bas before using.



Local Club NewsBOURNEMOUTH

TOPIC Computer Club. MS-DOS & Tandy 1st & 3rd Wed  
at Kinson Community Centre 7.30pm. Ring Barry Smith (0929) 463093  
(The two Bournemouth Clubs have now amalgamated)

CHELMSFORD

1st Wed. @ 7.30pm. Ring Richard Creak (0245) 413725. Woodcote,  
59D Little Baddow Road, Danbury, Chelmsford, CM3 4NT

GTR. MANCHESTER

Last Wed of Month 8 pm, Barton Aeroclub, Barton Airport  
Brian Disley, 061-723 5033

LONDON

Nth West London; 1st Sun, Central Common Rooms, 10.30-1.30 Northwick  
Park Hospital. Geof Smith, 01-950 6345 after 8 pm

Nth East London-80; 1st Sun, 77 Old Church Rd, Chingford, LONDON. E4 6ST

MILTON KEYNES

Alternate Sundays, October to March. Brian Pain (0908) 564271

SCOTLAND

2nd Thur. 7.30 pm Mansion House Hotel, Milton Road West (A1),  
Edinburgh. Dick Mackie, Chairman, SPeCS. 031-447 6651 out of hours

SUDBURY

2nd Wed. at:- 3a Gainsborough Street. John Kilpatrick (0787) 79504

TYNESIDE

North East Users Group 2nd & 4th Wed. 7.30pm in Hebburn, Tyneside.  
Contact: Mike Easey (0661) 843781

WEST MIDS Every Wed. Fred Challenor, 40 Whoberley, Coventry, CV5 8EP. 0203 78180

BLANDFORD - Sunday 11th September '88 for details see SEXNOTES, Vol. 10, Issue 8

Next Swindon Weekend

October 21st-23rd 1988 Celebrate NATGUG's 10th Birthday  
Ring: Wiltshire Hotel, Swindon (0793) 28282

**Do Not Wait - Book Now !!!**

TRSTimes Magazine, for the TRS-80 Systems and Video Genie. £12.00 for 6  
bi-monthly issues or £2.00 each. Issues one, two, three & four all now sent out  
TRSTimes, programs from issues 1, 2, & 3 on disk. For details see page 7 of  
NATGUG News, Vol. 10, issue 7 Contact: Gordon Collins, Editor

If your club is not mentioned above then for your FREE advert, write with  
details to:- Gordon Collins, NATGUG News, Editor/Publisher