

NATGUG *NEWS*

Volume 8, Issue 11/12.

May/June 1987

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 of the group 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 advisers.

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 four separate collections: Model 1, Model 4, CP/M and MS-DOS. Names of the appropriate librarians are available from the Secretary. (also see 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 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 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

Thank you for all the nice comments received about the format of the last Newsletter, to date there have been no adverse comments, or have you all been too polite to say? Since writing the first Editorial the committee have taken steps, some of which you have seen directly, to build up the membership of NATGUG, already we are showing progress. Most, not all, of the work has been done by Roger Storrs, for which we thank him.

Various requests have been made to members of the committee for information or items, Please be assured that these requests are being processed, but as we are all volunteers with regular jobs, this may not be done immediately. When a request is received, that we can see will benefit all members and will be asked for repeatedly, we then try to make it efficient to deal with. Any future requests will then be dealt with quickly, and not take time and a great deal of 'work' such that a one-off request would, each time.

To all those members who have requested a copy of the Model 1/111 library listing. We now have the data to hand, this has got to be put into some type of format and then sent to the printers.

An item that was discussed at the A.G.M. was the amount and the worth of the Newsletter back issues stock held, £300 on the balance sheet. Due to the recruiting drive and the contact with 'lapsed members', NATGUG is now in the position that some issues of the Newsletter are now out of stock. The committee may have to take a decision to find a way of doing a reprint. We (the Treasurer really), are trying to compile a listing of numbers held, that is quantity of each issue, for publication in the Newsletter.

Today (16-5-87) I received in the post a circular from Molimerx saying that as of the 30th June 1987, they will no longer support Tandy machines. The committee may have some more information of developments about this at a later date. Molimerx have issued a list of items for sale and announced that until 30th June, everything in the catalogue will be at half price.

To get back to the favourite subject of Editors, could I just mention, that as of this date, I have only two items for publication, so maybe you will only receive an 8 page Newsletter this time. There are now about 180 members, and it would be nice to send out at least a 16 page Newsletter each month. This would only require (at a rate of one article per page for the remaining 12 pages) 12 articles times 12 = 144 articles. So is one contribution per member per year, asking to much - please! No this does not mean a restriction OF one contribution per year per member.

This Newsletter is being sent out as Issue 11/12, that will bring the Newsletter's month of issue to the same month in which it is received by the membership. (Nobody doubts that, do they ?). Please note my timings of Newsletter production. It is my aim to send the copy to the printers around the end of the third week of the month, you should then receive it from the printers about the first weekend of the month. Would Members sending articles please bear this in mind, as I know you would like to see your contribution in the 'next Newsletter', and not have it just miss being included.

Looking at earlier Newsletters, there used to be a section containing members letters, which on occasions caused some lively discussion. I propose to try, with your help, to pursue this again. To that end, any letter now received by any member of the committee and which is considered of benefit to the membership by publishing it, then that letter will be included in the Newsletter - unless received with a request NOT to. Since the A.G.M., we (the committee) have received just some such letters. As in the immediate past, it has not been the 'norm' to publish letters received, we have not done so. Look out for "Readers Forum". (Who will get the first letter in ?)

This paragraph is addressed only to those people who are reading this Newsletter and have not subscribed to NATGUG, (IF YOU = "paid-up member" GOTO NEXT paragraph). Your subscription would give you membership of NATGUG (see the first paragraph of "Information on the Group"). It may not bring the cost of your subscription for the Newsletter down, but it would certainly help to hold the price at its present level. Members of the committee also tend to discourage giving advice/help to non-members except for one little bit, please join NATGUG, we can then help you.

One benefit of NATGUG Membership is the 10% DISCOUNT allowed on items purchased by a member, from Os House. You could well recover the price of membership and indeed show a profit.

Does any member have any suggestions, likes or dislikes that they would appreciate seeing in the Newsletter? Please let your Editor know. Do we have a very satisfied membership?

You have read about the two meetings held at Swindon each year, (October and March). Also the "Open House", ('never have known if that is not some form of a pun), held at the invitation of Os House, normally on a Sunday in September. These are clearly in the south of the country, but are attended by members from all over the country, including Northern Ireland and France, (also Wales). Could the Secretary or I hear from any member(s) who would like/have an additional venue, which the committee could consider? The meetings at Swindon and Blandford have proved to be very popular, enjoyable and successful, and do not affect the funds of NATGUG in any way.

With effect from Volume 1. Issue III of "The Misosys Quarterly", there is included an "LSI LS-DOS Column", submitted by LSI. This will include information on technical subjects concerning LS-DOS 6:3, and all patches to the system.

We hope shortly, to have access to a copy of "The Source".

I am hopeful that more information may shortly be available about the 1 mByte RAM boards from Terry and Ian.

My thanks to those people who sent in articles for this Newsletter, and the last one. Best Regards to all, Ed **.

STOP PRESS

One article arrived at the last minute, this would have required being typed in. I thank the member and appologize that it will now have to wait for the next Newsletter. I wrote that on Thursday, 21st May. Today, Sat. 23rd May, I received further articles as well as a number yesterday. No, I am not complaining, just very thankful. If I

had written an article, I would wish to see it appear in the next Newsletter. Due to the number of articles received, when I was just about to send the copy to the printers, I am now in the position of having to apologize to those members who will not see their articles in print this time, also you may see more typos than usual due to the rush. For those members who have requested information about Model 1 doubler boards, I have received a phone call promising an article about one members experiences, if received, I hope to have that in the next Newsletter. Ed. **

SEC's NOTES

I write these notes, late as usual, to a background of political rhubarb from which no TV channel or local radio station seems capable of escaping - it is enough to drive one to Radio One! One point that I have picked up, and which is common to the speakers of all political persuasions, is the fear of the apathetic voter who won't bother to turn out, leaving it to others to do his job for him. By the time that you read this the General Election will be over, and judging by the responses received by your Committee, not more than five of you will have voted - I trust that you are ashamed of yourselves!

The little bit of feedback that I have had has been virtually all from Model 1 users (would you believe, that after my last month's comment, two people have rung to ask how they can get Newdos to work with the Tandy Doubler?) and in almost every case they have declined to renew their membership because they don't feel that NATGUG is interested in their machines. Please, please, please, will SOMEONE write to one of us and say just WHAT THEY DO WANT. As you might gather, I do feel very strongly about this since it was the very comments by one or two Model 1 (or Genie) users that spurred me into accepting this Secretaryship and I do not enjoy being advised of these peoples' non-renewal of Membership. Just for the record I repeat that I use a Model 1 nearly every day, together with a Model 4 that, apart from CP/M use, runs Model 1 programs (see further article).

And of course we need correspondence on every other aspect of computing and model of computer as well!

How sad to hear that John Harding is closing down Molimerx after ten years - there can be absolutely no doubt that Tandy owe an enormous amount of their earlier success, particularly in business applications, to Molimerx. I remember quite clearly how Tandy eagerly sold me my Model 1 and then the Scripsit package, but I had to go to Molimerx for Visicalc (Ironically in a Tandy package) and for all my text books (and games). John is actually finishing on June 30th, so you have precious few days left to ring him, on 0424 220391 to buy that software you kept promising yourself. After that date, he intends to offer his services in Consulting, Custom Programming, and Disk Repair and anyone wishing to avail themselves of any of those services should write to him at:-

PO Box 10, Bexhill on Sea, E. Sussex, TN40 1PX.

Leo Knaggs has very kindly offered us space on his Blandford Bulletin Board which currently runs at 300 baud. Before we set up the NATGUG sig, Leo hopes to get automatic baud rate recognition working so that virtually any modem can access his system. As with so many other projects at the moment, you'll just have to keep watching this space for news of the switch-on date. (I have asked if we can have a talk at one of the meetings on the theme of, "Now I have a Modem, what do I do with it? Ed. **)

80-Micro for April included help for lost Superscripts files (models 1/3/4), a model 4 BBS driver, and model 1000 articles on Graphics, Basic & Assembly, and Batch Files. The May issue includes an automatic Date Stamp utility for 4 or 1000, a Model 4 text file comparison utility, and a 1000 text buffer. The Load-80 disks (now renamed Disk Series) relate only to Model 4 programs - how would members react if NATGUG became a \$199 per annum subscriber? (Replies to your Secretary please. Ed. **)

Regrettably we still cannot confirm that the August meeting at Blandford will take place, accommodation being the main problem. Os is giving the matter his urgent consideration, and hopefully we'll have more news next month. In the meantime, Os comments that models 1000 and 3000 are selling extremely well which proves that they are accepted as being superior to so many other machines, as well as being a good omen for future NATGUG membership.

That's all for this month's random jottings - I just hope that between us we get more than five letters in response!

David Washford, Secretary.

FROM OUR LITTLE TREASURE(R)

(my words, Ed. **)

In the last Newsletter, I made no contribution, so my colleagues have decreed that I must now contribute. (Hope the broken leg soon mends, could not have been the arm as this stops keyboard input. Ed. **)

The Key to our success must be communication and that means the Newsletter. We want you to know what we are up to and what our problems are. This must work two ways. The Newsletter can only respond to your needs if you stimulate it to do so. We have lost a number of members over the last four years due to a combination of reasons. The new committee will do its utmost to respond to your needs, so please talk to us.

The Newsletter is yours. You are the subscribers, the contributors and the readers. Write to it; criticize it; stimulate it; contribute to it. I suspect that many of our lost members may have joined for six months, read the Newsletter and decided for a variety of reasons that the Newsletter was not useful to them. Please if you do not find the material you want in the Newsletter, write to the editor and say so.

Now what have we been doing since the AGM? The first Newsletter we put out, was the last of Geof's editorship. It was delayed a good deal by the takeover, the need to put in the Stop Press, and physically getting the Newsletter from Brian to Gordon. Due to a misunderstanding the Stop Press copy had to be done twice and Gordon had to work quite hard transferring Brians mailing list onto POWERMAIL. I made a trip to Sutton Coldfield on Saturday 28th March to give Gordon moral support and generally get under his feet. The following Saturday when the final Stop Press sheets were ready, Gordon and David visited my home,

to stuff envelopes and generally have a sort out. Finally I managed to post that Newsletter out on Monday 6th April. That was our first hurdle over; I think we all learnt a great deal.

As some of you may know John Bodsworth is now printing the magazine for NATGUG and he has taken responsibility for mailing. Gordon supplies him with the copy and the address labels. We hope this will be fast and efficient.

I have opened a new NATGUG bank account in Bristol. All NATGUG funds from Stony Stratford having been transferred. I have had some dealings with Access and Barclaycard and have been using the former, but there will be developments in this area, I think. It seems that both systems allow for a sort of automatic direct debit. With the co-operation of the members who use credit cards and that from the end of 1987, we will have yearly subs, I will do the majority of the slips during my christmas break. This would make life easier for me. The easiest system for me is of course payment by cheque, but my main concern is the future of the club. I therefore, will accept payment anyway you wish to send it.

I have spent quite a bit of time trying to supply those members who are owed back Newsletters, I think I have found most. At this moment in time we still have a problem with some back issues, but David is in the process of photocopying his personal copies, so I should be able to rectify this problem very soon. (The Committee do not have a copy of Newsletter number six, that would have been, Volume 1, Issue 6. Please would any member with a copy that we could borrow for the purpose of photocopying, please contact the Secretary). The other biggish hurdle has been Model I/III software library lists. We did not have any. This one should be sorted fairly soon. Leighton Davies kindly sent me a Model I, S/S S/D TRSDOS disk which I managed to read with SU while David coached me on the phone. They will be on the way to the printers as soon as they have been edited.

The database that many of you saw at Swindon, now contains 304 names, only about half are fully paid up members. I am in the process of mail shooting the other half, if we can reclaim half I shall be very pleased and a bit surprised. Brian supplied us with a membership list in a Basic data file. It was quite beyond my meagre abilities to deal

with this, so David transferred this into the well known database for me. I have now re-organized both these files into what I hope will become the basis for a set of efficient management files. I am going to need some help from the experts for this though.

The two databases have identical fields, three name fields, four address fields, post code, telephone, six single character fields for membership subs and flagging. The Basic data file has 866 names which reduces to 760 when you remove the names on the later file. It took me several hours to write a command file to do this and about three quarters of an hour to do the business. When I have finished the first mail shot of 150 it is proposed that we have a go at the 760 on the 'old' file. If we picked up five per cent here, I think we would be very lucky.

Our next task must be to extend the database to include members interests and areas of expertise. John Kilpatrick is desperate to have this information at his finger tips. If you are willing to give help to others, please make sure John knows, and that he is aware of your area of expertise. I think John may prefer to build his own file, so I now propose to let him see all your membership forms.

I am trying to make a point of replying to everyone, who writes to me, whether the writer sends stamped addressed envelope or not. I do not include straight forward renewal forms, except where the member resigns, then I will tell him that we regret his departure and hope he will change his mind.

I would like to congratulate Geof Bazin who has already used the extra renewal form to enrol a friend, William Fildes, and has requested MORE forms. Now who is going to outdo Geof. Welcome William.

Roger Storrs, Oakfield Lodge, Ram Hill, Coalpit Heath,
Bristol. BS17 2TY. (0454) 772920

SOCIAL TIME. Each year, during July, for the last five years, Roger and Gillian Storrs have held a party at their home for friends and colleagues at work. This consists of an 'Hot Dog Barbecue' and Disco, a fully equipped bar is also to hand (drinks have to be purchased). This year members of NATGUG are invited. So that numbers for catering

can be assessed, any member who would like to go along is asked to contact Roger or Gillian, soonest please, to above address. Ed. **.

THE XLR8er

The XLR8er is a small PCB that fits into your Model 4 or 4P, & is connected to it by a length of 40 way cable and connector that plugs into the Z80 socket, the Z80 being no longer needed. In the case of the 4P, the board slides into the slots which would otherwise be used for a Modem, if we had one that BT would approve.

It has an HD64180 processor, 256K of ram & all the support chips needed to improve the operation of the computer quite considerably.

When the advert first appeared in 80 Micro, I wrote away to HI-TECH for extra information about the board because there were a lot of missing details. After about six weeks without a reply, I wrote a second letter to them saying that I was surprised they had gone to so much expense in advertising & then not replied to letters. I also said that I was sending a copy of my letter to the Advertising Complaints Dept of 80 Micro, as a result I had a free copy of the manual back within two weeks.

The manual raised some new queries, so I listed them & sent off another letter, including yet again money for postage as I had done with the first letter. By the end of January I had not had a reply so I wrote again telling them I was sorry they had not answered my letters as I had hoped to have a board up & running in time for the March Swindon meeting, to this day I have not heard from them.

When I went to Swindon (the Highlight of my year), I had the good fortune to meet Stuart Ranson who had an XLR8er board & wanted it fitted, naturally I volunteered to help. As a result most of my outstanding queries were answered, it still however leaves one or two points to clear up. The question of Model III compatibility still needed resolving. The MODEL4/III ROM image software would not load, even with the 'speedup' software not installed.

Being the Swindon meeting, it was not long before someone came to the rescue. Laurie Shields promptly went away & cooked up a program to get around the difficulty. That's the beauty of a meeting like Swindon, there is always someone who can sort out a problem, may they long continue!

It so happened that Stuart had trouble getting his board, it was held in Customs for a long while, in the meantime he wrote & told HIGH TEC who sent off another board. Of course, the first one turned up in the interim. As a result, I was able to buy the second one from him a couple of weeks after the Swindon meeting was over. It's no trouble to fit on the 4P, although the connecting cable could be longer.

Now as to what I think about the board. It certainly speeds up the computer, using the PCW Basic benchmark tests the average increase in speed is about 30%, even loading Basic was 16% faster. Of course, it took time to load the speedup software, but as it nearly all could be 'sysgened' this was a one off function.

Here are the actual times of the various PCW benchmark tests:-

	<u>Unmodified Machine</u>	<u>Modified Machine</u>
Integer Math	5.15 secs	3.48 secs
Real Math	7.19 "	5.35 "
Triglog	45.50 "	31.90 "
Txtscreen	59.69 "	41.22 "
Loading Basic	7.57 "	6.31 "

The 'speedup' software is supplied on discs for TRSDOS 6:xx, Montezuma's CP/M 2.2, & now I believe LDOS. The most detailed instructions being given for TRSDOS, setting up being in JCL files, the top speed under CP/M only being possible with BIOS 2.32.

It's not a lot of use loading all your system files, with the JCL file provided, into the now quite large (by Model 4 standards) memory, unless you are going to be using the computer for quite some time. But you can load your program, say, Visicalc & files into ram, & running at full speed the difference is considerable.

Using Supercalc the same way, seems to give an even greater increase in operating speed. dBase II programs also run very fast, screen refresh is almost instantaneous.

So, as far as I have gone, the verdict is that if you are going to run your machine for several hours each day, it's a good investment. You do have a lot of ram to play with, but if you only use your computer occasionally, it's a nice improvement if you can afford it. The high-res graphics work very well too.

I hope to be able to persuade HIGH-TEC to write to me as they also advertise the ZCPR3 operating system specifically written for the XLER8er board, this system is 'upward' compatible with CP/M but makes use of the HD61480 processor's extra instructions & speed. One snag I have run into, is that when you first switch on or reset a disc, it sometimes tries to load the Model III ROM image software, even if it is a CP/M disc in the drive.

When I say it's not difficult to fit, I mean for anyone who doesn't mind taking his machine apart & doing things to it. There are no traces to cut or wires to solder. Anyone who buys one & needs it fitted, can call on my help at any time if I am near enough, (my only transport is shanks's pony unfortunately).

So now I am going to write another letter to HIGH-TEC, & hope they have the courtesy to answer me.

E.C. (John) Kilpatrick, 3A Gainsborough St, Sudbury, Suffolk. CO10 6ET
0787 79504

(The above article arrived on a CP/M 80T,D/S,D/D disk in ASCII format, was ported to a second Model IV onto an LDOS 6:3 disk in a blink, then put into the one long LeScript file for the Newsletter. Ed. **)

NEWSSCRIPT - ALLWRITE

Although I use my TRS-80 for several different uses, I find I use word processing most of all.

As soon as I changed to disks on a Model I, I went over to NEWSSCRIPT. I found it an excellent program, with an easy to follow manual. However, it had one infuriating fault. To produce lines longer than the 64 characters of the screen, you had to move the text so that the left was no longer visible until you switched back. Since I often do pages of tickets with 6 or 8 per page there was always the fear that those on the right might not exactly duplicate the left versions.

When I changed to my present machine, a TRS-80 Model IV, I obtained a Model III version of NEWSSCRIPT, but it still only provided 64 characters per line on the screen. I therefore got in touch with PROSOFT, only to find that NEWSSCRIPT had been replaced by ALLWRITE. By the use of an ACCESS card, I managed to prize a Model IV version of ALLWRITE from the depths of California, Prosoft, Box 560, North Hollywood, CA 91603, U.S.A. I also obtained a spelling correcting program, ELECTRIC WEBSTER, from:- Cornucopia Software Inc., PO Box 6111, Albany, CA 94706, U.S.A.

I have found ALLWRITE meets my every requirement and I recommend it to Model IV owners. I send this to swell the NATGUG News and in the hope that some may be interested. Incidentally, if anyone would like to make me an offer for my NEWSSCRIPT, for Models I & III, complete with manuals, I would be glad to part with it.

Eric Brandes, Tele:- Gerrards Cross (0753) 882982.

FONTASY ON A MODEL 4 & MODEL 1 or DOT WRITER FONTS DECODED.

I have used the old GEAP and TINY GEAP Programs for a while, and always wanted to use the DOT WRITER FONTS as GEAP does with medium large & cube letters, i.e., typed in anywhere on the screen. With this in mind I looked at DOT WRITER FONTS to see how they worked, in conjunction with the Basic version of TINY GEAP.

I have also looked at using Laurie Shields program of Screen Dumping, this was originally written in one of the earlier issues of the Newsletter, for Model 1. The result is, I have written a program

to dump DOT WRITER fonts onto the Screen, save the screen to disc, to be later used if required from Basic for more interesting screen displays. This will work in Mod 1, Mod 4 in Mod 3 Mode and Mod 4 under TRS 6. I have added High Res graphics under GBasic. This latter works closest to FONTASY, & can be printed with a screen dump. Further additions allow full movement of font chars or groups of characters around the screen. By using DDUTY, I can put GBASIC's Draw program in one side, my program in the other, both can then be swapped around to produce a very effective drawing & graphics program in High-Res.

DOT WRITER FONTS DECODED.

The font is written as one continuous piece. The first 4 Bytes are the most important ones. They indicate the length of each font character, number of bytes needed to make the character, and the number of vertical lines of the character.

e.g., 1C 00 0E 00 1C gives 28 chars to make Char.

0E gives 14 chars wide for Char.

1C / 0E gives 2 lines for Char.

There are some further information bytes on some fonts ending in 60. These I have not dealt with as they are used by DOT WRITER to indicate information as 'No lower case'. The font is then made up of 28 byte divisions, but have no markers at all. The first division contains the information as above then the chars. follow. I to z in order, if the font is long enough to contain all the chars. DOT WRITER or TINY GEAP calculate the position in the file of the char. and loads into memory the 256 bytes which includes the char. Each char. represents 8 vertical dots, each bit of a byte indicates if the dot is set or not. The char. is scanned left to right, then starts again 1 line down.

TINY GEAP on input of char. required, calcs. the record number to bring into the buffer, loads it, then by VARPTR of buffer, reads in the calculated start of the char. If the char. goes into the next record it will bring that in. Each byte is then printed to screen or paper. TINY GEAP uses many USR calls & I have not decoded them, so I wrote all in Basic.

The program works well but not quite as fast as FONTASY, but for program development, i.e., screen formatting using font chars., it is quite adequate.

Programs In practice.

TRSDOS 6 basic has no SET & RESET calls, but an additional machine code program from 80 Micro is used to give these functions. Since no drawing program is around for TRSDOS 6, I wrote one to add GEAP type drawing using arrows & Keypad to move cursor. This whole program was adapted for GBasic and High-Res., adding a few High-Res commands like SAVE, LOAD and PRINT. The program has also been adapted for Mod 1. In High-Res the chars. are small as are the set points. In Low-Res a char. can fill half the screen, but by choosing the right fonts an enhanced Screen can be produced; adding in drawing to produce boxes etc.

Using Laurie Shields screen dumping program, a fast and impressive screen i.e., menu or display can be produced from Basic. The Screen Program in the original form was in an earlier Newsletter. An enhanced version working under 2K of screen memory and TRSDOS 6 basic, is now available. This enables a screen formed from fonts to be saved to disk as a file of many screens, these can be loaded into Memdisk for fast access. I use the original screen program to load 6 @ 1K screens from memory to screen:- menus & data inputting screens. These screens also give a very fast screen refresh.

THE PROGRAM ITSELF. Below is a listing of the Font Print-Out part.

```

3500 CLS:CLOSE1:ONERROR GOTO4500
3505 PRINT "NORMAL OR REVERSE" ' Reverse Chars can be printed
3506 Z$=INKEY$:IF Z$=""THEN 3506
3507 IF Z$="R" OR Z$="r"THEN R%=0 ELSE R%=1
3510 CLS:PRINT"HIT KEYBOARD SYMBOL FOR FIGURE: ";
3520 A$=INKEY$:IF A$=""THEN3520 ELSE I=ASC(A$)
3530 PRINTA$:IFI<33 THENI=I+64
3540 IC=I-32
3550 PRINT"ENTER LETTERSET FILE NAME (0 TO CANCEL): ";IF D1$<>"" THEN
PRINT "<ENTER>ALONE FOR ";D1$
3560 LINE INPUT A$:IF A$="0" THENGOSUB310:RETURN

```

```

3570 IF A$="" AND D1$ <> "" THEN A$=D1$
3575 CLS:IFY%THENGOSUB310
3580 D1$=A$:OPEN "I",1,A$:CLOSE1:OPEN "R",1,A$
3590 GET 1:FIELD 1,2 AS B$,2 AS C$
3600 W%=CVI(C$):IF W%=0 THEN PRINT "FILE;A$;" NOT FORMATED CORRECTLY !";FOR
      I=0 TO 4000:NEXT:RETURN ' W% = No. of Bytes to Font Char.
3610 Q%=CVI(B$):M%=Q%/W%:I=VARPTR(B$):H=PEEK(I+1)+256*PEEK(I+2)
3620 IC=IC*W%*M%:NR=IC/256+1:NB=IC AND 255 ' Q% = Width of Char
3621 IF R%=0 THEN FOR XX=X1% TO
      X1%+W%-1:FOR ZZ=Z1% TO Z1%+M%*8-1:SET(XX,ZZ):NEXT ZZ:NEXT XX
3630 X0=H+NB:L%=1:M1%=0:M1%=1 ' M%,M1% refer to Height of Char in
      lines
3650 GET 1,NR:GOSUB 3800:NR=NR+1:X0=H:IF L% THEN 3650 ' NR = rec No.
3660 CLOSE1:Y=R3%:X=C1%+W%+2:RETURN ' These set cursor for return to
      display.
3800 ' X0 is varptr calc position of char in buffer.
3900 X%=PEEK(X0) ' Byte to be acted on for screen print
4000 IF R%=0 THEN 4300 ' Reverse char Mode
4010 IF X% AND 128 THEN SET(X1%,Z1%) ' Printing to screen bits of byte
4020 IF X% AND 64 THEN SET(X1%,Z1%+1)
4030 IF X% AND 32 THEN SET(X1%,Z1%+2)
4040 IF X% AND 16 THEN SET(X1%,Z1%+3)
4050 IF X% AND 8 THEN SET(X1%,Z1%+4)
4060 IF X% AND 4 THEN SET(X1%,Z1%+5)
4070 IF X% AND 2 THEN SET(X1%,Z1%+6)
4080 IF X% AND 1 THEN SET(X1%,Z1%+7)
4230 MM%=MM%+1:X0=X0+1:IF MM%=Q% THEN L%=0:RETURN
4232 IF X0-H=256 AND MM%-(W%*M1%)=0 THEN M1%=M1%+1:Z1%=Z1%+8:X1%=X1%-W%+1
      :RETURN:ELSE IF X0-H=256 THEN X1%=X1%+1:RETURN
4235 IF MM%-(W%*M1%)=0 THEN M1%=M1%+1:Z1%=Z1%+8:X1%=X1%-W%+1:GOTO 3900
4239 X1%=X1%+1:GOTO 3900 ' above calcs end of line, end of FONT char,
      end of buffer so next record.
4300 IF X% AND 128 THEN RESET(X1%,Z1%) ' Reverse printing of bits.
4310 IF X% AND 64 THEN RESET(X1%,Z1%+1)
4320 IF X% AND 32 THEN RESET(X1%,Z1%+2)
4330 IF X% AND 16 THEN RESET(X1%,Z1%+3)
4340 IF X% AND 8 THEN RESET(X1%,Z1%+4)
4350 IF X% AND 4 THEN RESET(X1%,Z1%+5)
4360 IF X% AND 2 THEN RESET(X1%,Z1%+6)
4370 IF X% AND 1 THEN RESET(X1%,Z1%+7)

```

```

4380 GOTO4230
4500 CLOSE1:CLS:PRINT"DISK ERROR ";ERR$;:FORR=1TO4000:NEXT:RESUME 4510
4510 ONERROR GOTO0
4520 GOSUB 310:GOTO1250 ' 310 is screen Zap from stored memory to

```

The program works by a keyboard entry of "T" which stores into memory the present screen, notes position of cursor and goes into above routine. The char. is printed from cursor point, looking at 8 vertical pixels at a time, scanning across then dropping one line (8 pixels), then printing the next line until end of char. The cursor then is moved to 1 pixel past printed char. and ready for next entry. The reverse mode is carried out by printing a white background & resetting instead of setting. This was found best since this is how Mod 4 works with its reverse mode. If you print a char., the computer exclusive or's the background to print white if background is black & visa versa. This is quicker, as only the pixels required to be printed on are printed.

The Hi-Res mode in Mod 4 works very similar, but the screen handling is easier as it does not need to be saved to memory since the Hi-Res screen uses its own dedicated memory. Saving & loading of screens are done using Gbasic commands. Printing of screens is carried out in the same way.

THE REST OF THE PROGRAM

A Main Menu lets you SAVE, STORE Screens to a disk file. Load GEAP Screens, (In Mod 4 Mode allows offset since GEAP is only a 1K Screen). The Screen Edit Mode allows Keyboard chars. to be entered on screen. Goto Font Mode. The sub menu is as below. Instructions are available.

```

'W' allows cursor movement to write to screen.
'E' " " " erase "
'Q' " qursor " without erase or write
'C' Clears screen
'S' Brings in saved screen from memory
'T' Loads in FONT Char
'@' Ends this mode storing screen to memory & returns to main menu.

```

Goto High Res Mode.

Key Board movement of cursor is as above with the addition of:-

'S' Now loads sub menu.

1. Load Screen from Disk
2. Save Screen to Disk
3. Print Screen
4. Enter Standard Print Mode (Allows KeyBoard Chars. be printed on HI-Res Screen, NB Space is true delete)
5. Enter Reverse Print Mode (As 4 but reverse chars.)
6. Change Mode (Changes screen mode so cursor is larger)
7. Move Block about. (Set Beginning marker with 'B' , set end marker with 'E', acts like box command, ie use diagonals of Block required. Arrow keys move the block around as required.)
8. Insert Block. (If you return to main mode CTRL 'R': Move cursor to new position, Press 'S' to sub menu '8' Then allows a Block set by '7' to be placed at the new cursor position, and moved around main mode is returned to.
9. Return. (Return to main mode)

I am sure there is more that could be added to this program, also there are errors and modifications necessary, but I have used it together with Gbasic's draw program to print out simple electrical drawings, flow drawings & large labels using Font Characters with little trouble.

This program is available from the MOD 4 library, complete with Laurie Shields part. For any further information I should be glad to help.

Brian Edwards, 9 Wayground Rd, Corfe Mullen, Wimborne, DORSET. BH21 3ED

THREE CHEERS FOR NEWDOS

Every time I lug my Model 4 to a meeting, and boot it up as a Model 3, I get no end of advice about how I ought to be using the machine properly, with either 'ELDOSE' or 'DONKEYDOS'. This I was

somewhat reluctant to do, since I dally use self-written Basic programs developed, and still used, on the Model 1; my main application is basically a mailing list which incorporates various sales figures and other data and which a whole suite of programs revolve around. The unique Newdos80 lgel is a fantastically fast utility for datafiles which makes Random Access so very easy to use.

Enough. I must learn to move with the times (they said). I must not waste the capabilities of the Model 4 (they said). I must learn to appreciate the power of TRSDOS 6x (they said). And so, after wiping the tears of laughter from my face, I sat down for a couple of months to convert my software, and now, now that all the beta testing is over, I can reveal that I learned a great deal.....

I don't think that the most fanatical TRSDOS fanatic would claim that his Basic datafile programming was easy, particular if he wanted random access, and with record lengths other than 256 byte; I must admit that I very nearly gave up the project. However, there is a remedy - enter ZBASIC. Now I apologize for mentioning Newdos again, but ZBASIC offers the nearest thing yet to the Newdos lgel that I have seen, and I really did get excited at the prospect of using my software on my machine running as Tandy had intended.

I'm sorry, folks - I wasted my time. I forgot to say that my applications depend an awful lot on either keyboard input or printer output and I'm sure that that is the reason why my Model 1 software running under NEWDOS 80 v2.0 on a Mod 4 in Mod 3 mode runs faster (i.e. takes less time from start to finish) than it did under 'DONKEYDOS' with ZBASIC in Mod 4 mode. It may well be that all the little bits, bytes, and nibbles move faster in Mod 4 mode, but if they then have to wait for a keypress or a lineprinter then they have achieved nothing. And the awful boot up time taken by 'DONKEYDOS'

(Written by David Washford, using Newdos 80 in Model 3 mode)

FAINT HEART NEVER REPAIRED A FLOPPY DISK !

I was horrified when a CP/M disk refused to boot - yes, you're quite right, it hadn't been backed up. I never learn, there seems to be one of those Parmesian Laws that says backed up disks never crash

whilst uncopied ones always will. Anyway, I removed the disk from the drive, with unusual difficulty, and was surprised to note that the quite sturdy sleeve was inexplicably distorted. Attempts to read the disk in drive 1 were equally unsuccessful, and I must confess to speaking a few naughty words as I resigned myself to the loss of 420k (yes, of course it was an 80 tracker!) of work.

Much later, I picked up the offending article to see if I could determine what might have caused the damage. I couldn't, but I did observe that the actual disk itself looked OK..... I wonder if

I knew that I had a couple of disks somewhere that just would not format; they should have been thrown away but no doubt some guardian genie had stayed my hand in readiness for a time such as this! I hastily retrieved one of these disks and carefully opened up one edge of the jacket, tipping the plastic disk into the waste bin. With a heavy heartbeat, I opened the damaged jacket, and taking care to keep the top side uppermost, a finger and thumb gripped the the CP/M disk carefully and slipped it into its new cover. Would it work? I booted another CP/M disk and delicately fed the repair job into drive one. MDIR B: was followed by an anxious, agonizing, moment or two and then, up came the directory! I can assure you that absolutely no time at all was lost in calling up SWEEP and transferring all those precious files across!

Despite having been forced to actually hold the edge of the disk, all the data was saved. I hope that my success might encourage others to have a go - but of course you won't need to, you all made backups, didn't you ? !!

(Written by David Washford, and supplied on an LDOS disk!)

LIBRARIANS

We now have five librarians organised, in principle at least:-

Leighton Davies	for the Model I tape and disk. Much of the Model 1 stuff will run on Model III, hence this being being erroneously called the Model I/III Library.
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Mike Gordon-Saker for the Model 4. Three out of the four programs are for hi-res. Please send him some more contributions.

Ariela Taylor for the MS-DOS machines.

Dave Holman for anything in the Amstrad 3.5" format.

Committee for the Tandy applications within the CP/M User Group Library.

Please note a MAJOR policy change concerning the 'free' Public Domain Software libraries. The software is free, the copying is chargeable at the rate of £1.00 per disk or tape. (No limitation on the number of files). You send a tape or a formatted disk to the appropriate librarian, together with a return label and the correct return postage, PLUS ONE POUND per disk or tape to be copied. I am sure that this change in policy will be a surprise, and I would just point out that it is less than that charged by any other group I know of; it will be used by the librarians to fund their stock of storage media and their maintenance costs, both of which were previously met from NATGUG funds (which meant that non-library users paid library costs).

Incidentally, they do say that imitation is the best form of flattery; I understand that Quanta is currently copying our model 1 library and re-writing code where necessary!

David Washford, Secretary.

MODEL 1 NOTES

In later issues I will endeavour to dig out and reprint earlier NATGUG articles which seem to me to be of current relevance. In the meantime, here are some more of my own personal experiences based on a Model 1, 48k with 3 off 40 track double-density drives and an Epson MX-80 printer.

I remember that there was something special about double-density LDOS - we had things called LBOOT and SOLE, but I never really used or understood them. Could some other member please submit an article describing them? The important thing to understand about double density on the Model 1 is that the machine cannot boot up in that mode and therefore track zero is always in a single density format. Thus a 40 track disk became a 39 track disk if you used it as a system disk; data disks were OK at 40 track, and became popular since one could easily swap them between a Model 1 and a Model 3. However, a NEWDOS disk configured to read either a system or a data disk in drive 1 was very obstinate in refusing to read a disk formatted in the alternative style, and so a very wonderful utility program welcomed by Newdos users was DDSD.

By invoking DDSD upon boot-up, one could switch drive 1 from system to data and back again with total freedom from worry as to which disk was what format.

The Model 1 had one major drawback - edge connectors. If you have a Model 1 disk system that has just done something that is totally inexplicable, or hasn't done something that was very straightforward, then almost without doubt an edge connector problem is the reason. You can wear out rubber erasers almost daily in an effort to clean them - to no avail. You simply MUST get a set of GOLDPUGS. These are an extension to the edge connectors, but which have goldplated electrical connections; they are slipped over the existing connector and soldered into place. Cables are plugged on in the normal manner and all your troubles have vanished - just like that! Richard Creak of Chelmsford (for address, please see back page. Ed. **) used to supply them, at around £3.50 each. I don't know if he still has stocks, but if your machine doesn't have them, then you certainly need to be contacting him! David Washford, Secretary.

SOLE - See Above

SOLE is a MISOSYS utility, this enables a boot in double density for those that have installed a doubler board in a Model 1 or Video Genie. Normally, even with a doubler board installed a double density LDOS disk can't be booted, a boot up has to be done with a single

density LDOS disk, a doubler driver installed, and only then can a double density disk be accessed, whether it be a system disk in drive 0, or a data disk in any other drive.

Without going into any system detail, first you have to create a double density LDOS system disk, then use a utility called SOLE1 from the program disk, which formats track 0 as single density, a utility SOLE2 is then used to complete the process. A configuration file will now be on your disk, so that this new LDOS system disk will automatically boot up into double density, without the need to change system disks. Once used, mirror image backups can be made, but I seem to remember that SOLE2 has to be applied to each new system disk once, but only takes a second, now all is transparent.

Gordon Collins, Editor.

Tools, Toys or Gimmicks

The Model 100 and the Psion Organizer came out several years ago and neither set the world alight like the Sinclair or Amstrad machines. On the other hand both sold well enough to justify a new version. The Model 100 probably sold to Journalists and in the US it is suitable for electronic mail and the Psion picked up some commercial applications.

Both promised portable computing with built in data and text but as the model 100 users found, you can use the diary but its probably more convenient to use a paper version, text files fight for space with the limited data files. Most model 100 users found it easier to forget about the database and to dump the text to a "proper" computer.

The Psion had various limitations and most people were unaware of it's potential. While the Filofax suddenly became trendy the electronic version sold mainly to corporate users. The Psion II jumped on the band wagon and started a vigorous sales campaign that appears to be bearing fruit.

What's that got to do with the TRS-80 you may ask. The point is that the Psion is in many ways what a lot of people actually wanted in the first place. I bought the Model 1 on the expectation that it would do many things that more experience has shown highly unlikely. Word Processing was only practical if people were prepared to come and read the screen. Not only did I need a printer that cost as much as the computer but I needed an expansion interface to use it. It was only later, that Tandy thought to offer a printer interface that did not contain a disk controller for disks that were even more unaffordable.

My dreams of fast access to data melted away, with a series of database programs that took so long to get up and running, that the need had long passed before it could find the vital data. One could visualize the desperation, as somebody tried to find the telephone number of the fire station, and perished long before they got past the data not found.

The Psion on the otherhand, can find almost anything in seconds. It can hold more data than most Tandy disks and there is no need to remember key fields. If you cannot remember the doctors name, then doctor will find him and doc will also get there, but it might take a little longer. Ford will find the Ford Motor Company, but it will also find ILFORD. It might even find Anna Ford but you should be so lucky.

How does the Psion hold so much data, when other computers consume batteries in trying to hold 32K, with special low drain memory? The Psion uses data packs which are in fact EPROMS. These are a cross between ROMS and RAMS and once programed, hold their memory without using power. On the other hand, like paper, they cannot be changed without erasing the entire memory. This makes it suitable for data base applications, where the names and addresses remain fairly constant, and less suitable for text which keeps changing.

The data file can be changed, but this involves deleting records and re-writing a complete new record at the end of the file. If a lot of records are changed, the file can be full up with dead records and there is no more room. At this point, you can copy the file to a new pack and only the live records are copied. This is like the backup reconstruct on disks, but data packs are much more expensive.

Data packs come in different lengths and cost about £1.20 per K. However for many applications you only need two. This is where the TRS-80 comes in, because it is possible to manage with only one pack if an alternative storage is available. The whole of the datafile can be sent down the RS232 and stored on the TRS-80 disk. This allows the datafile to be erased and the file reloaded, without the second pack. It is possible to modify the data during the process and some companies use the Psion to distribute data from their main frames. A special price list can be downloaded in a short time and the data pack can be sent by post. Suitable boxes are available at most newsagents, but the matches should be removed first.

The Psion has a calculator that can be programmed. This allows prompts to be incorporated, and even more important for me, it allows repeat calculations for which I can never quite remember the formulae. It also allows the applications pack to extend its power and it is probably on the introduction of these packs that the Psion will depend. At the moment there is a small spelling checker, Financial and Maths Packs. Both are very advanced and I have heard that there is one for Garden Centers. You want a plant with Blue flowers, one which flowers in the spring, or details of any named plant and if its listed, you will find it rapidly.

How does it compare to the Model 102? Its a matter of horses for courses. The Psion is a portable data handler, despite the advertised word processor, it is not very practical for text. If you are creating a database over a period of time, then the keyboard is quite usable, but for many applications, it is easier to generate the file on a proper keyboard and to down load it. Although the Psion has no disk drive like the model 100, its data packs are more practical, especially now the 128K version is available.

The comparative costs are not quite as obvious as might appear at first glance. The Psion cost just over £100 while the model 100 is over £300. Data packs are almost a necessity, a practical working Psion is going to cost almost the same as a model 100, but the model 100 also needs a disk drive and that adds another £160. There is no top limit to the amount of data that either systems can hold, but

obviously the model 100 scores on the lower cost of disks. However, most business users find the Psion with one or two packs, large enough for any application.

While the model 100 can use cheap disks, it can consume a lot of batteries at nearly £2.00 a set. Add the disk drive batteries, then you see the attraction to Tandy. The Psion uses a single 9V battery that is no cheaper, but can last for months. I say can, because the battery life is very dependant on the type of use. A long spell on the RS232 will soon knock out a new battery, and makes the optional mains adapter a most useful extra. The mains adapters is also useful when changing batteries, although it is not strictly necessary. Once the battery has been removed, the memory will be retained for 30 secs or so, time enough to fit a new battery.

PRINTERS

Some years ago there were two reasonable printers with lowercase. The Epson and the Centronix, but then Epson dropped the MX and introduced the FX, also the RX as a cheaper model. The 80 stood for 80 chars at 10 CPI, there was a larger version which printed 100 chars. This was fairly clear, as one was obviously a cheaper version of the other and lacked some of the features. The 80 cols. or chars. were just right for A4 upright, the 100 cols were for A4 sideways.

Now there are FX, LX, LQ and EX, some are listed as 85, others 86. Just recently we have found some with 800 as a suffix. The problem is to know which is what, even the price no longer gives a guide. I have no official knowledge, the dealers I asked seemed to know even less. I gather that the FX-85 is a slightly improved version of the FX-80, the 800 signifies a bigger change.

The LQ-800/1000 have 24 pins in the head to give a higher resolution and to allow a wider range of typefaces. The results can match that of a daisy wheel, but they cost more than a daisy wheel. They work with most word processors, but may not work at all with software that uses Graphics mode, as with Sideways and Dotwriter. Some

software now incorporates an LQ driver, but this just means that the program works, not that it uses the full capability of the printer. The results that I saw from Dotwriter were less attractive than from a cheaper printer.

The LX appears to be a replacement for the RX, the FX a replacement for the MX, but both are significantly better. The LX offers a sheet feeder as standard, but charges for a tractor feed. This makes it especially suitable to the cheap word processor market. As I decided against both I can tell no more.

The latest printer to appear from Epson is the EX-800, which is an Express or high speed printer. It is boasts a speed of 300 cps, which as everyone knows does not mean it prints 300 chars in a second. My guess is that it is probably three times as fast as a standard MX, and twice as fast as a FX. This is dependant on the type of work being printed, it seems even faster on short rows.

It can print a reasonable NLQ, but this requires two passes and slows the printer down. NLQ is not the same as double strike on the MX, as each pass can be different according to the requirements of each character. Double Strike seemed to thicken up the face and lost sharpness, NLQ is almost up to Daisy Wheel, but not quite.

As with many of the new printers, it is possible to print with two faces, Sans Serif is rather like the IBM typewriter, Roman is similar to the newspaper type. Both can be printed in Pica (10 cpi), or Elite (12 cpi), and can be italicized. There is also a rather neat Proportional, which is not really a font but an alternative to Monospace. Proportional is nice for text and especially for the Sans Serif face, but quite useless for tables, because the alignment gets lost.

The type can be enlarged and condensed, which works with both Elite and Pica, so Elite Condensed is 60% of the normal 12 cpi (20 cpi), this allows 160 characters on a row. This can be very useful and previously only available on my daisy wheel.

The EX can have a colour board fitted as an extra, but the 8K buffer is standard, as is both serial and parallel interfaces. However for me the biggest advantage is the new backmounted tractor. Those that use tractor paper will appreciate that the normal front tractor will only print on the second sheet, after printing it is necessary to waste another piece, just to get one sheet out. The tractor also got in the way of single sheets or rolls. Some of the tractors were mounted to give better access to single sheets, but this was often at the expensive of their performance. The backmounted tractor gets round this and even autoloads into the bargain.

The leading edge is placed on the sprockets, and the ball pulled back. This turns on the drive, which pushes the paper under the platen and up under the printhead. It is pushed about half an inch too far, but this allows the ball to push it back onto the plattern, in so doing, triggers the motor to rewind to the top of the page. I could manage without the autoloader, but I like the way that the printed sheet ends up under the ball, which serves as a cutter and a measure. If a single sheet is torn off, the printer is ready to print the next without waste.

Single sheets are inserted down a separate path, which is also used for roll paper. The plate which separates the incoming tractor paper from the output side, is easily removable and can be stood upright to help the insertion of single sheets. It has a movable guide to help maintain the left margin.

Having sung the praises of Proportional type, it is a fact that many Word Processors make a pigs ear of printing justified left and right margins, many cannot do it at all if the type is not Monospaced. The EX-800 does not need a word processor, and can print Justified Proportional type with paged output and indented print codes. It also has a useful feature, which allows many of the controls to be set by pressing the front panel. Unlike the MX range, it is not necessary to use Basic to send Control codes. NLQ, Condensed, etc., can be selected by pressing the appropriate button. The buttons are clearly marked and light up when selected. Thus it is possible to see the ones that have been selected. As these buttons countermand any software setting, they can be useful in difficult situations.

The EX-800 has got features which are not required, but means that it can be attached to almost any device. Its 8K buffer can be used for a special character set, but that loses the normal text buffer. A range of alternative buffers are also available. The old MX had a TRS-80 mode which printed model I graphics. This is no longer available and in place there is an IBM mode. Such is the fate of EX market leaders, I guess there will be few tears. This printer works well with both the Model 4 and especially the Model 100.

On the negative side the EX-800 is not cheap, but it is not as dear as the MX when it first came out, with inflation and the rise in the YEN, that cannot be too bad. It is heavy and takes up more desk space, but as it tugs the paper with every line feed this may not be a bad thing. The ribbons are also expensive, this may be due to the fact that only genuine Epson ribbons are available. As this printer is going to be very popular in the business world, the alternative suppliers will soon catch up, bulk buying bringing the price down.

The above two articles were contributed by:- Derek Trayler,
88 Grosvenor Drive, Hornchurch, Essex. RM11 1PW. 040-24-47661
Thank you Derek, also for another two articles held over.

ADVERTS

See an article by Eric Brandes, page 14, he would like an offer for his Model I/III NEWSRIPT, which comes complete with manuals.

LOCAL CLUB NEWS

BOURNEMOUTH

Meets First and Third WEDNESDAY at Kinson Community Centre at 7.30pm.
Ring Carl Rabe on 0202 730617

CHELMSFORD

Meets first WEDNESDAY of each month at 7.30pm. Contact Richard Creak,
Woodcote, 59D Little Baddow Road, Danbury, Chelmsford, CM3 4NT
(0245) 413725

MILTON KEYNES

Meets alternate Sundays, October to March. Contact Brian Pain on (0908)
564271

SUDBURY

Meets second Wednesday at 3a Gainsborough Street. Contact John
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SWINDON WEEKEND

The next meeting is scheduled for October 16th-18th - make a note,
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Contact David Washford on 0373 72739.

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Editor.