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Contributions should be submitted either on diskette in TI-Writer compatible files, or in a form which is as legible as possible. Art work should fit within an A4 area and should not contain colour. Very high contrast line drawings are preferred, and these may be produced by arrangement with the publisher.

OXON TI USERS 1985

Sole proprietor Peter G. Q. Brooks

I n d e x t o a r t i c l e s

P a g e

EDITORIAL.....3

Aaagh! Printer Saga 99...100. TI Disks. Hi There! £ v \$.
Adventure. Author! Author! Bird talk. IUG News.
Cheep Throat. Show Ahoy! TI EXCHANGE module offer.
News & Views. Extract of Letters.

BULLETIN BOARD.....11

CONTACTS.....12

Lots of folks to get in touch with

ENHANCED BASIC HAS BEEN HELD OVER UNTIL NEXT ISSUE...SORRY.....

SYD'S SNYPPETS.....13

OTIUer SYD MICHEL with a few notes

DAVID BROWN.....15

David's back, and he is beginning to feel just as I do -
wary of making promises!

LETTERS.....17

A little something for Forth Fans from TONY RALPH

CLOSE FILE.....19

TI-LINES is a bit of a shambles this issue (situation normal)
and I can't say that it's going to get better...

E D I T O R I A L

AAAAAGH!!!!

Ooh, that's better. Sorry about that - it's the effect that February has been having on me. As if it wasn't bad enough coping with the task of producing three issues in the time allocated for one, I suffered one trauma after another.

The snow and ice didn't help. My trusty faithful Honda Super Dream (I say that just in case it's listening) suffered iced carbs (painful) and gave up the ghost, thereby forcing me to fall back on Public Transport. Whatever they may say about the National Bus Company - or is it Oxford South Midland? - well, anyway, they do me proud with a door to door service to my hospital. Except I always arrived half an hour late. And I couldn't get over to Berinsfield, where OTIUser CHARLES LACEY has thrown open his photocopyer to enable me to produce TI-LINES as cheap as possible (3.5p per A4 side), thus thwarting my attempts to catch up and put the last issue out within a fortnight of its cover date.

Never mind, I'll get there.

~~~~~

PRINTER SAGA PART 99  
-----

On it goes. The Smith Corona duly arrived, and after a few days trying to get out and obtain the necessary cable and connectors, then another day trying to get a soldering iron in order to put it all together, and I finally sat back and watched the TP-1 go through its paces. The smart OTIUser will have noticed that there is a distinct absence of TP-1 type output in this issue, and that is because I had forgotten one rather important thing.

In order to faithfully reproduce all the little characters in the standard ASCII character set you need an ASCII daisywheel. The TP-1 does not come with an ASCII daisywheel, so I will have to order one.

When I manage to get hold of the brochure of the QUME daisywheel, with which the TP-1 is compatible, that is. If it isn't one thing, it's another. To underline that point, my existing RS232 lead fell foul of the dreaded Gremlins, and decided to disconnect one of its wires. I spent half an hour switching the computer on and off, wondering why I kept getting garbage on the printer (OKI Microline 82A), before it dawned on me that the lead might be to blame. What a life!

If you think that I am perhaps playing things up a little, for effect, then think about this: as I look at my wristwatch, it says 4.56.

That's A.M., by the way...  
~~~~~

A few days after taking delivery of my TP-1, and having finally helped my motorcycle back to good health, I was on my way out to put the dear old thing through an MoT when I was accosted by the driver of a TNT van. "Mr Brooks?" says he. "That's me," says I. "Got a little present for you, then" says he, and hands me a large box. Having become wary with age and bitter experience, I stop and open the box before blindly signing the paperwork.

It is an expensive NLO (Near Letter Quality) dot matrix printer, and the form clearly says CHEQUE RECEIVED, and it is clearly my address - and correctly written, too.

At first, I thought that the supplier of the TP-1 had boobed, but on further examination I found that the origin of the peripheral was a firm whose name was totally unfamiliar. I told the driver that he would have to take the thing back - there was obviously some mistake - whereupon he told me that he COULDN'T take it back - the firm is divided into two sections: delivery and collection - and I would have to sign for it. I suppose that I could have refused, but I did harbour a sneaking desire to add £550-quid's worth of printer to my collection.

I then spent an hour on the phone talking to five different people at the erring firm, none of whom had the slightest idea about the damned thing. Eventually I arranged to sit at home the following day (luckily a Saturday) and wait for someone in another branch to give me ring and arrange to pick the thing up.

At this point it finally came home to me that I was financially liable for the printer should anything happen to it, and I began to debate about the possibility of charging the daft company storage at 5% per day...£27.50 a day seemed quite a good idea at the time.

So I trundled off to MoT and then the hospital, calculating how much I would make if they left the thing with me for a year. When I returned much later in the day, I went to check the printer. Both eyebrows did a credible impersonation of an InterCity 125 and scuttled up into the relatively barren area just above my forehead. GONE!

I lurched into the living room, where I encountered one of my fellow inmates (then unemployed and now back in his native Scotland working as a food-poisoner..er..chef) wearing a large plastic bag on his large plastic head - having Post Office Red streaks put into his black hair by an itinerant hairdresser - and was about to fall down when he told me that someone had called for the machine earlier that afternoon. He, canny lad, had obtained a signature from them and then taken the vehicle registration number of their van - after he had handed over the printer.

Since then I have heard nothing.

This sort of thing goes on all the time, you know...

~~~~~

ALL YOU EVER WANTED TO KNOW ABOUT TI DISKS AND DIDN'T KNOW BETTER....

---

I have recently purchased the Disk Fixer and a Widgeit from OTIUser GARY HARDING, with the intention of learning lots and lots about the TI disk system. With the expert guidance of RICHARD BLANDEN and Dr JOHN RICE (who currently holds the record for talking on the phone to me: 4 hours) I hope to bare all in future issues of TI-LINES. Thanks to Richard, who has provided me with some routines to access a disk using the hitherto undocumented subprograms resident on the TI Disk Controller, all owners of the disk system will be able to rescue blitzed disks, remove all proprietary protection, and generally infringe copyright left, right, and centre should they feel so inclined. Disk Fixer has opened up a whole new can of worms, as if I wasn't worm-ridden enough as it is...

Since I returned from the coast in the New Year I think that I have probably learned as much in two months as in the previous two years, such has been the explosion of information with which I have had to cope. Now you're going to have to cope with it as well, heh, heh, heh!

Until I bought Disk Fixer, I had no need of a Widgeit (which enables you to plug up to three cartridges into it and avoid wearing and tearing the GROM port). Now I don't know how I ever did without it. Daft, innit?

---

HELLO FOLKS

---

Still they come. A warm welcome to recently-joined OTIUsers MICHAEL ADKINS, BRIAN ABRAMS, JERRY BIX, JOHN BINGHAM, RICHARD OWEN, HOWARD GREENBERG, ALAN DAVEY, and JAMES STRINGFELLOW. TI-LINES has been specially designed so that even if you find nothing of interest in it, you can put something of interest on it - fish and chips, a pot plant, those cups whose contents will insist on slopping and leaving dirty rings on all your tables...

---

£ PARITY WITH THE \$ ?

---

While the current storm rages over the £ = \$ struggle, no-one seems to have noticed that TI have passed beyond that point. In the States, to get TI to overhaul your 4A (which they will do at the drop of a cassette lead) you pay \$23. In the UK, you pay £46. Are TI psychic and do they know something that the economists don't ?

On a slightly more serious note, I have come across several instances recently where puzzled owners have been forking out the said £46 for TI to sort out their 4As. In one instance (a OTIU member) I managed to save someone £46 by accidentally pinpointing the fault before the machine was sent to Bedford.

Having been quoted the aforementioned sum by TI to solve the mystery of a distinct lack of program transfer between cassette recorder and TI, one DTI'er rang me to see if there was an alternative. Having been the victim of broken cassette leads on several occasions in the past, I suggested that he check them first before parting with £46. The leads turned out to be at fault, and exit one satisfied customer. However, I wonder if TI would have paid back the £46 had they received the computer and rectified a non-existent fault.

~~~~~

ADVENTURE ADDICT

Recently I obtained a TI Adventure module and just about all the Adventure cassettes. I wasn't really all that impressed by the text-only games, the more so since I visited a Spectrum (and QL) owning friend of mine who demonstrated a fast-action graphics Adventure on his machine. I spent two and a half intense hours of sheer pleasure, steering a realistic cartoon figure through a maze of rooms in a castle, coping with the fact that he kept changing into a werewolf every time night fell. The graphics layout was highly imaginative and well within the capabilities of the TI, so all we need to do now is persuade someone to write the game in TMS 9900 Assembly Language for us...

Fat chance.

It is a 3D graphics display - which really means isometric perspective - and it is the first game which I can honestly say I found gripping. You can keep your Invaders and Parsec, your Munchman and Pole Position, your Return To Pirate Isle and The Count. The daft thing is that while I enjoyed myself immensely I cannot for the life of me remember the name of the game...

~~~~~

### WRITE AWAY RIGHT AWAY

-----

Just in case it has escaped your attention, I am still pushing ahead with the Booklets Project, and May's PERSONAL COMPUTING TODAY should carry my letter detailing my intentions and appealing for authors. You are cordially invited to write 25,000 words this minute and send the thing in for consideration. No kidding.

~~~~~

A LITTLE BIRD TELLS ME

A little bird has told me of a number of projects in hand at this moment which could spell disaster for those selling 32K RAM for £100 or so. Friends of the little bird are beavering away and have almost cracked the problem of providing cheap Sinclair-type RAMPacks for the TI. They also intend to produce an RS232 which doesn't cost an arm and a leg (the new editor of HCW contacted me recently to see about buying an RS232 to connect the office's Epson to a 4A. When I told him what an RS232 costs these days he suffered minor respiratory failure) and an intriguing board which will hold a number of goodies in ROM - like TI-Writer, MiniMemory, Extended BASIC, Editor/Assembler, Multiplan (a decently fast version), etc., etc. I am all ears.

~~~~~



## USA UPDATE

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OTIUser JOHN RICE provided the following information after having rung the INTERNATIONAL 99/4 USER GROUP (BETHANY, USA):

1. ENTHUSIAST '99 The most recent issue produced was Vol 2 No 3, (May/June 1984)
2. They had hoped to produce another issue for Nov/Dec 1984, but it had not been possible
3. An update for the IUG SOFTWARE CATALOGUE was mailed (surface) in December 1984 and this included all outstanding adverts they had received
4. They have a few Scott Foresman modules plus Donkey Kong in stock, but no TI modules

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## ANOTHER LITTLE BIRD TELLS ME... ("CHEEP" THROAT)

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I had a very, very interesting phone call this evening (February 28th) from an anonymous individual - he didn't offer his name and I didn't ask for it. I have no reason to believe that he was not truthful - indeed, his unsolicited testimony only serves to confirm what two other people told me some time ago.

Former TIHOME members (or those who possess issues of its newsletter, Tidings) may remember that one of my Babbles mentioned the rumour that TI had some 250,000 consoles unsold and looking for homes. I had written to TI suggesting that they donate the consoles to either schools or organisations working to help the disabled.

I was told that there were NO such quantities of consoles in the UK, and what few there were in the States were NTSC and therefore unsuitable for use over here. The spare consoles, I was told, were for maintenance and warranty repairs, in any case.

However, Mole One had told me that the 250,000 figure was definite and that they had been seen. Mole Two had seen skips full of consoles down at Bedford, and had assured me that useful parts were being stripped from the consoles and the remainder was being burned. I was also told that some of this work was being done in Spain as well.

All this was taking place in late 1983, early 1984.

Enter Mole Three (Cheep Throat). A close friend of his was employed during the Summer of 1984 down at Bedford by TI. He spent his entire time along with others shovelling brand new consoles (ungutted) with, in some cases, equally brand new Speech Synthesisers, into a crusher.

Recently I was told by several individuals that TI claim to have barely enough hardware to perform repairs/replacements under warranty, and certainly no hardware for sale. I'm not bloody surprised. All the saleable stuff is probably being sold as hi-tech fertiliser by now.

I understand from the popular computing press that TI lost a sizeable sum through the failure of the 4A. Cheep Throat tells me that the inside story is that the real figure is possibly ten times that quoted in the mags - large enough at any rate for it to threaten to close down TI's micro-specialising division altogether. I had heard strong rumours from Yole Two that ECD (the European Consumer Division) had come close to being shut down, and this was borne out by other information concerning the enforced extended holiday that ECD employees took during the bad patch.

Further evidence of a complete shambles at large are cropping up in the form of certain TI modules, which appear to have been programmed by a six year old. Could it be that TI USA are not releasing the GPL manual because they don't want their customers to find out just what sort of a bodge job some of the products are ?

From a company which decides that TMS 9900 Assembly Language is far too difficult for ordinary consumers to cope with, and which blames the same consumer for the failure of its product ("customer resistance to price", remember ?), I am beginning to expect anything. Somebody, somewhere, belongs in a padded room for the decisions which have been taken.

I wonder if Mr Green would have approved ?

~~~~~  
SHOW II

Yippee! Another TI Users Get-together has been set up by CLIVE and AUDREY SCALLY of TI-99/4A EXCHANGE.

DATE: SUNDAY APRIL 28th.

VENUE: CORN EXCHANGE BUILDING, ROYAL PAVILION, BRIGHTON

If I have correctly remembered the details, start time is 10.30 am, and finishing will be at 5 pm (we must all be out by 6). Check with Clive or Audrey on 0273 503968 after 7.30 pm. I understand that hot meals will be available for about £1.30 a throw.

The intention is to have a series of informal discussion groups throughout the day, so in the words of that nauseating individual from ITV: Come On Down!

I think that your OTIU membership number should be enough to get you in free (and if it doesn't, I'll pay your entrance fee). The enclosed bit of sellotape and card should do the trick. I look forward to seeing anyone.

PS. If you saw me at Manchester, you'll find that I have lost even more hair - the beard fell off the other evening!

TI-99/4A EXCHANGE : MODULE OFFER

AUDREY SCALLY (see above) wrote to me to tell me of a special offer on new TI modules for OTIUsers. Quote your OTIU number when ordering and save yourself some money:

INDOOR SOCCER	£11
MUNCHMAN	£ 8
AMAZING	£ 8
INVADERS	£ 9
HUNT THE WUMPUS	£ 8
ALIEN ADDITION	£ 8
TOMBSTONE CITY	£ 8

All these prices include post and packing and are £1 cheaper than the prices due to be advertised later in March. Send your orders to:

TI-99/4A EXCHANGE
40 BARRHILL AVENUE
PATCHAM
BRIGHTON
BN1 8UF

NEWS & VIEWS

PERSONAL COMPUTER WORLD offers some more insights into the way the rest of the world is proceeding without TI.

Five years ago I paid over £1000 for a 99/4 console and a specially-modified TV to accept the NTSC signals. Now FUJITSU have announced a 16 bit briefcase computer which weighs 2.7 kg. It has a full 80 column by 25 row LCD screen, and runs under an Intel 8086 cpu with 464K RAM. (That's 14.5 lots of 32K RAM, or almost £1600-worth on the TI!).

The highlight of the machine (you mean 464K isn't a highlight ?) is its graphic capability: the LCD screen can display 640 x 200 dots.

Its price ? Fujitsu hope to set it at around £1000...

Hitachi-Maxwell has developed a 5.25 inch floppy which can store as much as 19 Mbytes (about 216 TI single-sided floopies). They coat the surface of the disk with a special combination of metal powders, and use a particular type of metal in the reading head. Ouch.

I mentioned in an earlier issue that TI had originally developed a video disk controller for use with the PIONEER laser disk system. Well, now MSX users will have the benefit of Pioneer's unit to play interactive videogames. Once Pioneer manage to overcome some snags involved in converting the system from NTSC to UK PAL, it will appear over here.

FROM YOUR LETTERS

JERRY BIX wrote to me recently to notify me of one or two things that he had for sale, and mentioned a few things which he thought it might be nice to have. I present them here as a challenge for those who are looking for something to do with the machine, remembering that I often found difficulty in thinking of new things to program or experiment with (in the good old days when I had time to do such things!), and all it needed was for someone to point me in the right direction, light the blue touch paper, and retire.

For example, it would be rather nice to be able to link the TI to an DIGITAL to ANALOGUE converter (which could be accessed directly through perhaps Extended BASIC and its PEEK and LOAD, rather than through the expensive alternative - the RS232 card/box). One could then make a drawing machine, enabling plotting of single pixels to produce either a screen dump or a much finer hi-res image. I know that such a system is very feasible if you have a thousand greasy oncres to hand, but how about a couple of hundred? A former TI-owning friend of mine who is also more than something of an inventor (his product appeared on the TV program TOMORROW'S WORLD in the days when it was a useful addition to BBC1, so he's no dunce) once reckoned that he could produce a very, VERY hi-res plotter capable of drawing true circles, directed by the TI, and for less than a hundred sheets or so of the folding stuff (for those readers not familiar with the description, we are talking about £1 notes here!).

What about Dungeon & Dragon type Adventure programs running under Extended BASIC and using cassette files so that owners could swap scenarios? Perhaps even being able to add to each data file, and thus making a sort of "chain" Adventure? I once considered doing such a thing with the additional CALLs resident on the PRK and Statistics modules, but never got round to it. Anybody fancy their chances?

STEPHEN SHAW (Stainless Software, and contributor to TI EXCHANGE's newsletter TI*MES) wrote to pass on a couple of pieces of information.

Firstly, a response to ALLEN BURT's intention to find a way of using TRANSLITERATE in the TI-Writer Editor (TI-LINES V1.10): the equivalent of Transliterate is ReplaceString - as Stephen says, you can replace every occurrence of say " i " (i.e., lower case "i" flanked by spaces) by say ESC 4 (switch italics on, Epson MX80 series).

Secondly, Stephen has experienced a transient error which appeared to involve a "sticking" bit in a byte, where the effect was to garble the listing. What appeared was:

```
290 KAY DR*18203C0808380838 :: DELETE CHAR, 91, KAY STEP :: etc.,
```

What was originally SAVED to tape was:

```
290 KEY$="18243C0808380838" :: CALL CHAR(95, KEY$) :: etc.
```

The problem seems to have cleared up by itself, but it is very curious.

Thirdly, Stephen wrote one letter using a program^{*} designed to produce a 28 column printout of listings. The effect was four columns of text on an A4 page. Because the program (which Stainless is selling for £12 on disk) was not being used for its intended purpose, there were odd instances when it didn't quite manage neat formatting to 28 columns, but it looks quite good. It wouldn't really help with the production of TI-LINES, though, because as I have found to my cost in the past, reduction photocopying plays havoc with anything other than standard sized typefaces.

SYD MICHEL and TONY RALPH also wrote to me, and their contributions appear elsewhere in this issue.

But now, in the interests of brevity (cough, cough) I will close so that I can perhaps get this issue printed, copied, and posted before April...

~~~~~

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B U L L E T I N   B O A R D  
-----

JERRY BIX (see CONTACTS) has a SPEECH EDITOR module for sale for £15. He would like to buy a TERMINAL EMULATOR II as well as an Expansion System, and is looking for a MINIMEMORY module to help get him started programming in machine code.

~~~~~

** 2021 addition: the program was CO-LIST by Tony McGovern of Funlweb Farm.*

Two pages of Odds & Ends from OTIUser SYD MICHEL

March 1985

It's 3 a.m., you have been at the computer now for five hours. Typing in, then correcting the compulsory printing errors. You have a headache and eyestrain and accidentally you type OLD CS1. "Oh, bother" says you, (or words to that effect). "Ah, but didn't I read somewhere that you can type 'E' to exit and still find the program intact?". So you press 'E' and attempt to find your program.

After throwing the console through the window and your faithful book of Tips after it, all you can do is to warn others:

"IT DOESN'T WORK IN EXTENDED BASIC!!!"

Has anyone got the machine code game for MiniMemory called SNEAKIES ?

This is a fast action arcade game and has an option for keyboard or joystick control. Unfortunately the joystick required is number 2. If you only have joystick number 1, this is what you do:

- 1) Load the game using Easy Bug as described in the instructions.
- 2) Still using Easy Bug, type M76FA then press ENTER.
- 3) The location will be shown to contain)02. Change this to)01 then press ENTER.
- 4) Now press the period (full stop) key and make the same change to M7F14.

Sneakies will now run using joystick number 2. (Don't forget to SAVE the changed version of the program. PB)

A while ago I wrote a Disassembler in TI BASIC. Part of the program needed to compare two hex numbers without converting them to decimal. I had the two numbers in string variables - A\$ and B\$. I think that it is common knowledge that these two comparisons are valid:

IF A\$ = B\$ THEN ...

IF A\$ (>) B\$ THEN ...

It may not be such common knowledge that these are also valid:

IF A\$ > B\$ THEN ...

IF A\$ < B\$ THEN ...

{Not forgetting A\$ (= B\$ and A\$)= B\$. PB}

There are many ways of saving memory when writing a long program. But without a doubt the best way to save memory is to avoid keeping redundant data in your program.

Wouldn't it be a good idea for a computer to carry out a program instruction, then erase it from memory and load the next instruction in its place. {Wouldn't that make the TI even slower than it is? PB}

Using files in TI BASIC this is possible to a certain extent. For example, when defining all your characters and/or Sprites (bearing in mind that Sprites are only available in TI BASIC with either MiniMemory or Editor/Assembler modules. PB).

The redefinition of characters at the start of a program frequently uses in excess of 1K of memory. If I didn't like the resident character set (and who does?) and decided to use my own typefaces, I could redefine the lot without using any memory (well, hardly any).

First, you design your characters, create the hex definitions, and store them all in a file (cassette or disk - or even MiniMemory!). Then add the following lines to the start of your program:

```
NN      OPEN &1: "CS1", INPUT, FIXED  (or whatever)
NN+10   FOR CHAR = 33 TO 127
NN+20   INPUT &1:DEFN$
NN+30   CALL CHAR(CHAR, DEFN$)
NN+40   NEXT CHAR
NN+50   CLOSE &1
```

{Will this RUN? PB}

An added advantage is that you only have to create the file once, and then access it in all your programs.

D A V I D B R O W N

Hello again. Never again am I promising to put a certain article into next month's TI-LINES. Every time I promise something, for some reason I am unable to submit anything for publication let alone the promised article! Still, I have just about finished sorting through all my computer stuff and I should be able to have something every month from now on. (Until I run out of fresh ideas that is). Anyway, this month, I will bring you what was promised for LAST month. This was my way of producing complicated graphic displays starting off on a sheet of graph paper and finishing up with the fully completed program. Here we go.....

Step 1

Draw out a grid of the screen area you are planning to use so that your diagram will show every pixel on the screen. On a sheet of A4 graph paper with 2mm squares (John Menzies stationary section) you can fill 17x11 screen locations on your grid. That's 11,968 pixels!!..... I think.

Step 2

Ignore all the squares and draw out the screen display that you want to show.

Step 3

Go over all the lines that you have drawn, colouring every 2mm square which represents your pixels on the screen in, and when you have finished, you will have a fully blown-up screen display that you will eventually transfer to the computer.

Step 4

In each square that you have a character drawn in, give it an ASCII number and character code (which you'll have to work out).

Step 6

Go through each location on the chart, find it on the grid diagram (steps 1-4) and work out its hexadecimal code and fill it in using the character code space provided on the table.

Step 7

Go through each of the character codes and if there are any the same, give them the same ASCII code. e.g. if both characters 48 and 72 have the same character code "1020408008040201" then make character 72 number 48. This will save you some typing, time, and probably most important of all, a few bytes of the TI's tiny memory.

Step 8

Put all the values into the program. You can use a similar program to the one that appeared two months back or one like the program on the next page which produces a perspective view. I hope that you will find the above tips useful to you when you make up your own programs like these. If you don't, you know what to do work out your own procedure and send it to me for publication.

.....
FASCINATING FACT NUMBER 273: Did you know that ASCII stands for American Standard Code of Information Interchange, the code structure used internally in most home computers to represent letters, numbers and special characters.
.....

On the next page is a similar program to the 3-D cube program. This time it is a perspective view. If you try different colour combinations or look at it from different angles, it's hard to tell whether it is going in or out. Anyway, key in the program and find out for yourself. If you have the Extended Basic module you can make a sprite go through it and it really looks like you are looking into a tunnel, or a deep pit or whatever else you think of.

```

100 CALL CLEAR
110 CALL SCREEN(16)
120 FOR I 1 TO 8
130 CALL COLOR(I,6,1)
140 NEXT I
150 CALL CHAR(33,"8040201008040201")
160 CALL CHAR(34,"0102040880402010")
170 CALL CHAR(35,"8040201F1F204080")
180 CALL CHAR(36,"080402F8F8040201")
190 CALL CHAR(37,"000000FFFF")
200 CALL CHAR(38,"00000000000000FF")
210 CALL CHAR(39,"FF")
220 CALL CHAR(40,"0101010101010101")
230 CALL CHAR(41,"8080808080808080")
240 CALL HCHAR(6,9,33)
250 CALL HCHAR(7,10,33)
260 CALL HCHAR(8,11,33)
270 CALL HCHAR(9,12,33)
280 CALL HCHAR(10,13,33)
290 CALL HCHAR(12,21,33)
300 CALL HCHAR(13,22,33)
310 CALL HCHAR(14,23,33)
320 CALL HCHAR(15,24,33)
330 CALL HCHAR(16,25,33)
340 CALL HCHAR(6,25,34)
350 CALL HCHAR(7,24,34)
360 CALL HCHAR(8,23,34)
370 CALL HCHAR(9,22,34)
380 CALL HCHAR(10,21,34)
390 CALL HCHAR(12,13,34)
400 CALL HCHAR(13,12,34)
410 CALL HCHAR(14,11,34)
420 CALL HCHAR(15,10,34)
430 CALL HCHAR(16,9,34)
440 CALL HCHAR(11,14,35)
450 CALL HCHAR(11,20,36)
460 CALL HCHAR(11,15,37,5)
470 CALL HCHAR(10,14,38,7)
480 CALL HCHAR(9,13,38,9)
490 CALL HCHAR(8,12,38,11)
500 CALL HCHAR(7,11,38,13)
510 CALL HCHAR(6,10,38,15)
520 CALL HCHAR(12,14,39,7)
530 CALL HCHAR(13,13,39,9)
540 CALL HCHAR(14,12,39,11)
550 CALL HCHAR(15,11,39,13)
560 CALL HCHAR(16,10,39,15)
570 CALL VCHAR(7,9,40,9)
580 CALL VCHAR(8,10,40,7)
590 CALL VCHAR(9,11,40,5)
600 CALL VCHAR(10,12,40,3)
610 CALL VCHAR(11,13,40)
620 CALL VCHAR(11,21,41)
630 CALL VCHAR(10,22,41,3)
640 CALL VCHAR(9,23,41,5)
650 CALL VCHAR(8,24,41,7)
660 CALL VCHAR(7,25,41,9)
670 GOTO 670

```

Different colour schemes can produce different effects. Some good ones are white on black, red on black, blue on black, red on white, black on white, blue on white, white on red, yellow on black etc.

If anyone decides that they have something that they would like to have published, send it in to me and if it is published, I will send you a free computer game that will run in Extended Basic and a small badge (courtesy of Pete Brooks).

My address is David Brown
59, Appleford Drive,
Abingdon,
Oxon OX14 2BX.

That's all for this month. I'm not really sure what will be in next month, it may be a continuation of the short series on graphics or it may be something entirely different. What I am certain of is that there will be something next month.

David Brown

L E T T E R S

This letter from DTIUser TONY RALPH not only gladdens the heart of a bald Editor in his old age, but also gives the first FORTH from a member.

Dear Peter

Just a short note to comfort you with the fact that somebody is reading TI-LINES (not as thoroughly as I might, but reading it nevertheless!) see GIBBER, GIBBER V1.10 January 1985

FORTH

According to the information I have, you should not copy the TI-Forth diskette with Disk Manager for anything other than single sided versions as apparently Screen 3 (the Booting screen) is transferred from sectors 12 to 15 to sectors 367 to 370, which is on t'other side of the disk. (STEPHEN SHAW also warned me about this. PB) Screen 3 is left blank with unhappy results.

I have only just started on FORTH, but with help from NEIL LAWSON down at PARCO ELECTRICS and by banging my head rythmically against the wall at appropriate moments I now have a back-up disk set up with a binary image (?) version of the system - minus -64SUPPORT, -ASSEMBLER, -FLOAT, and -CRU, but plus a one screen program to initialise program diskettes complete with the error message screens written onto the disk.

To help a bit more, I have three FORTH words written on a very modified Screen 3. These are:

- : FREE SP@ HERE - . ; (gives the free memory size available)
- : PAGE CLS 0 0 GOTOXY ; (a 'clear and home cursor'... which assumes -SYNONYMS has been loaded)

These I filched from information that Neil sent me; however, (sound of trumpets) this last one is my very own invention!

- : COLOUR 7 VWTR ; (by putting a suitable decimal number on the stack in front of the word, e.g.: 27 COLOUR you get a screen and writing colour change... in this case black letters on a yellow screen. Well, I like it anyway!)

The number to enter into the VWTR register number 7 ('cos that's what you are doing) is derived from the hex range of colours - 0 transparent, 1 black, ... E grey, F white. For example, white letters on a blue background is >F5 (F = white, 5 = light blue) and in decimal F5 = 245 so 245 COLOUR gives the said white letters on a light blue background. You can of course change into hex numbering using BASE HEX and do it that way.

From the above you can see that I think that FORTH is pretty good. The cost of BRODIE's 'Starting Forth' is damned expensive though; I had to pay £22.45 for my copy (I hope that I wasn't done!).

Your note in an earlier TI-LINES mentioned correspondence with CIN-DAY in the USA. I would be interested in hearing more about that. In fact, it could be fun writing to them. Perhaps you could put my name forward.

{ED YORK, can I leave it to you/one of your members to contact Tony ?}

Let us know about the cheap diskettes mentioned a while ago. I seem to be using them up at a rate of knots, what with all the back-up copies, etc.

{The people to contact are:

C/WP COMPUTERS
WILLOW HOUSE
WILLOW PLACE
LONDON
SW1P 1JH

Tel: 01 828 9000

SS/SD 40 track are £11 for ten (CONTOUR), while DS/DD 40 track are £17 for ten (CONTOUR). These prices include VAT. Post is £2 total.

You can ring through your order on either Visa or Access credit cards if you wish. They also do a nice line in lockable boxes and they sell a range of other items. Alternatively I can supply single disks (or two, three, twenty, thirty etc.) at £1.50 per disk including postage. PB}

Best Wishes,



{Look out for a short article on power supplies from Tony in April. PB}

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C L O S E F I L E  
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TIHCUC RUMOURS  
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One TIHCUC member recently rang me to ask about the state of TIHCUC. He had read in the latest issue of TI NEWS (which I have not yet seen) that no further subscription renewals are going to be accepted, which he takes to mean that TIHCUC is folding. If that is true, then apart from the fact that it is not surprising when one considers the speed with which the new management alienated all the original Tidings authors, it means that some 5,000 to 7,000 former members are going to be looking for somewhere to go. If I had no other commitments I might have seriously considered expanding OTIU and going "public", but at 60 members I'm finding it uphill work to get everything done on time. As I write now, I still owe reviews, articles, more articles, letters, more letters, even more letters, and visits, to more people than I care to remember.

Things are not helped by the continuous arrival of letters passed on by PAUL DICKS concerning the TIHOME SOFTWARE COLLECTION. If these were all sensible letters, life would still be tolerable. However, most of them begin:

"Dear Friends,

Please send me interesting information about the 99/4A"

or:

"Dear TIHOME,

Please send me free samples of programs, hardware, and badges which you have"

These constitute the major part of my post, and are the principal reason for my writing this CLOSE FILE at 3.30 a.m. on the 5th of March; and I still haven't finished writing the major article in TI-LINES yet!"

What a life. Now, if anyone wants to help out, here is how you do it.

You send me three or four A4 pages of well-written, clearly-typed copy every month so that I don't have to write so much myself. Easy when you know how, isn't it ?

THUMBS DOWN - AS USUAL  
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To add insult to injury, PERSONAL COMPUTING TODAY have followed HOME COMPUTING WEEKLY in deciding not to publish any articles on the 99/4A. Like HCW, PCT now have a new editor, and when I spoke to her on the phone concerning another matter I quizzed her about the fruitfulness of sending in lots of big TI articles. She told me not to bother. It seems that PCT will only be publishing articles on "popular" machines in future - which means any machine which is at its peak, sales-wise, - and which therefore excludes the 4A. Surprise, surprise.

## TIHCUC CONFIRMED

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While putting together this issue of TI-LINES I received my copy of the TIHCUC newsletter which confirmed the rumour mentioned above. They haven't explicitly said "We Are Closing Down", but they have stopped taking any further subscriptions and won't be renewing ex-TIHOMERS' subscriptions - and they were the ones promised 2 and a bit years' worth when TIHOME merged into TIHCUC - so the writing is on the wall.

It is possible that a solution could be found, and I hope to have the outline for it ready for APRIL 28th at the User Conference. In any event, the proposed solution will be aired in TI-LINES, as many OTIUsers are former TIHOMERS and shortly-to-be former TIHCUCers.

## I GIVE UP

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The time has been rushing by, and what with one thing and another I have been unable to work on TI-LINES at all. The result is that I am in real danger of fouling things up well and truly, so I have decided to hold over until the next issue (or later) all the things which I had lined up for this issue. Pressure of work at my hospital has meant that my part-time activities have had to take a definite back seat. This is likely to continue until further notice, so I hope that OTIUsers will bear with me. Despite throwing over a large number of projects which would have benefited 4A owners everywhere, I cannot make enough time in which to work on even the simplest things. The TIHOME Software Collection has been a big drain on my resources, and unless I can sort something out with respect to that project I may have to call it a day. There are only so many hours that I can work before flopping down in a heap, and I have already exceeded my quota for this decade. I can only offer my apologies all round, and endeavour not to do a Craig Miller by "losing" a few issues.

Good programming,

Peter Brooks