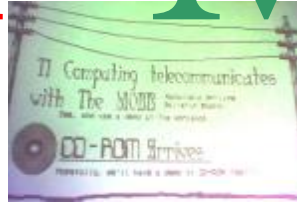


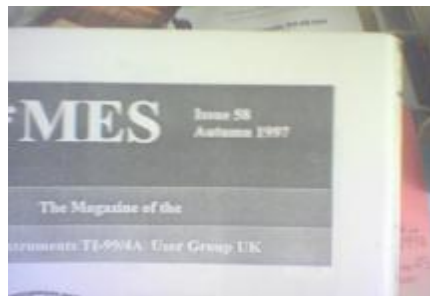
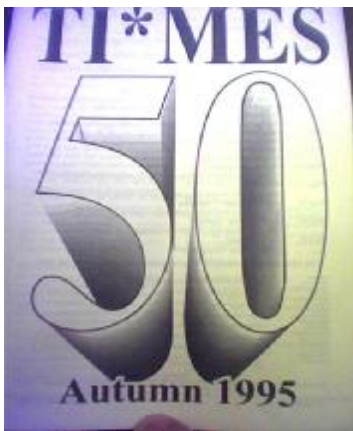
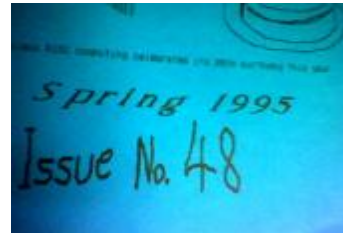
TI*MES



ISSUE 85 Summer



2004



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From the Chairmans Chair – By Trevor Stevens

Well the AGM has come and gone and some changes have been made to the group. However before I go onto that, I have some sad news. John Murphy's wife, Gladys died around about 17th July 2004. John and his wife have attended the meetings and workshops regularly for as long as I can remember. She will be sadly missed even though she was not a TI'er, she was a TI supporter in more ways than one. On behalf of the Group and its members we offer John our condolences.

For some lighter subjects.....

AGM

The AGM was held at the Trading Post Farnsfield Nottinghamshire on Saturday 19th of June. After initial discussions and chats the meeting was opened at about 2.30pm.

In the meeting, the website and layout were discussed. Due to the discussion the website will have a new website address (domain all of its own) and email.

The adjustments were that the site should have a entry page to allow for

- 1) java driven presentation
- 2) plain text
- 3) plain pictures and text with no frames

As a result the group now owns the web address of www.ti99ug.co.uk this can be accessed at this time only with java inclusions. The plain picture and text areas will follow shortly. Emails have been set up so if you want to contact the group the email addresses are:

- 1) chairman@ti99ug.co.uk
- 2) magazine@ti99ug.co.uk
- 3) information@ti99ug.co.uk
- 4) disklibrary@ti99ug.co.uk
- 5) treasurer@ti99ug.co.uk

We suggest the main contact be made through the information email address. information@ti99ug.co.uk

The website has been completely rebuilt and has several pages of interest, all dedicated to the TI. There some new links for you to explore and sites to visit.

Believe it or not, there are some new sites on the internet that you may not have visited. Give it a try....

Your website if you have not seen the front page looks like this :---



Onto other stuff!!!

At the AGM the editing and magazine now falls to Richard Twyning and myself. We first of all have had to sort out the time line for the magazines which appear to have gone astray over the past few years.

Richard and I will endeavour to bring you some interesting articles which you may find interesting. You will also not that the magazine has some colour in it for the first time, this due to the fact that Megatech Computer Systems have offered to do limited colour prints of certain pages. So watch this space.

We also hope to bring you some more listings so you can type them in. So if you have any articles ***PLEASE, PLEASE***, send them to Richard or myself by snail mail or by the new group email. Formats on email should be ***rich text format*** or RTF. The snail mail addresses are in the front of the Magazine and the emails are repeated above.

Looking at the group as a whole, one must realise that the group is gradually getting smaller. However we estimate that there is about five more years left depending on out going funds.

The BBS was discussed at the AGM. Francesco Lama has taken on the task of the BBS and setting it up on a TI again however this time with a SCSI controller and SCSI hard drive to run the system. Francesco will obviously report on what he has done. The group has submitted the BBS software we bought from Tim Tesch to Francesco to thing will sprout soon.

Tunnels of Doom remake!

I have been looking at the Internet for new stories and the like and came across the rewrite of the TI Game "Tunnels of Doom". It appears to be rewritten for the PC and other platforms. Here is a little extract from the person who is doing the rewrite:----

Hi everyone, I'm Howard, the guy doing the remake.

I just thought I'd clear up something about the game. It's being written in Java, which means you'll be able to play it on any system that supports Java. Maybe even your mobile phone. J

Some secondary features (like sound) may not be present on every single platform, since Java requires native bindings on each, but overall the game is mostly using standard, core Java classes, so everyone who can run Java 1.4 or later should be able to run it. (And don't buy that "Java is too slow" nonsense - the game is plenty fast on my four-year-old PC, and a lot faster than on a TI.)

Also, the game will use a modular Quest-pack approach, so new quests can be added later. (I might whip up a couple myself, if exhaustion doesn't set in first.) And there will probably be a beta test period, so those rough spots which I don't quite convert right can be ironed out with the help of devoted ToD fans.

Thanks for all your interest and support. I hope to deliver a game you find enjoyable, and worthy of the ToD name.

Howard Kistler

This should be a real little favourite with some folk.

Richard Twyning maybe going one step further and getting the TI on his mobile telephone which will run ALL the original games. He has just got the Symbian code for VB (Visual Basic). This can be used to get the emulator going for the TI on any Symbian mobile such as a Nokia 6600.

Interesting stuff from the internet... (interwide tinkle net!)

I also came across this on the internet see what you think?

Well, I just received a package today in the mail from Michael Brothers of Funware fame. Inside were prototypes for many released and unreleased games, and in addition many boxed released titles! Below is a listing of all that I got from him and plan on making available to the TI community through emulation:

Boxed Funware Cartridges:

- Schnoz-Ola*
- St. Nick*
- Driving Demon*
- Ambulance*
- Video Vegas*
- Henhouse*
- Rabbit Trail*

Prototypes:

- Ant Colony*
- Shanghai*
- Ambulance*
- Rabbit Trail*
- Cave Creatures*

Source Code Only:

- Lobster Bay*

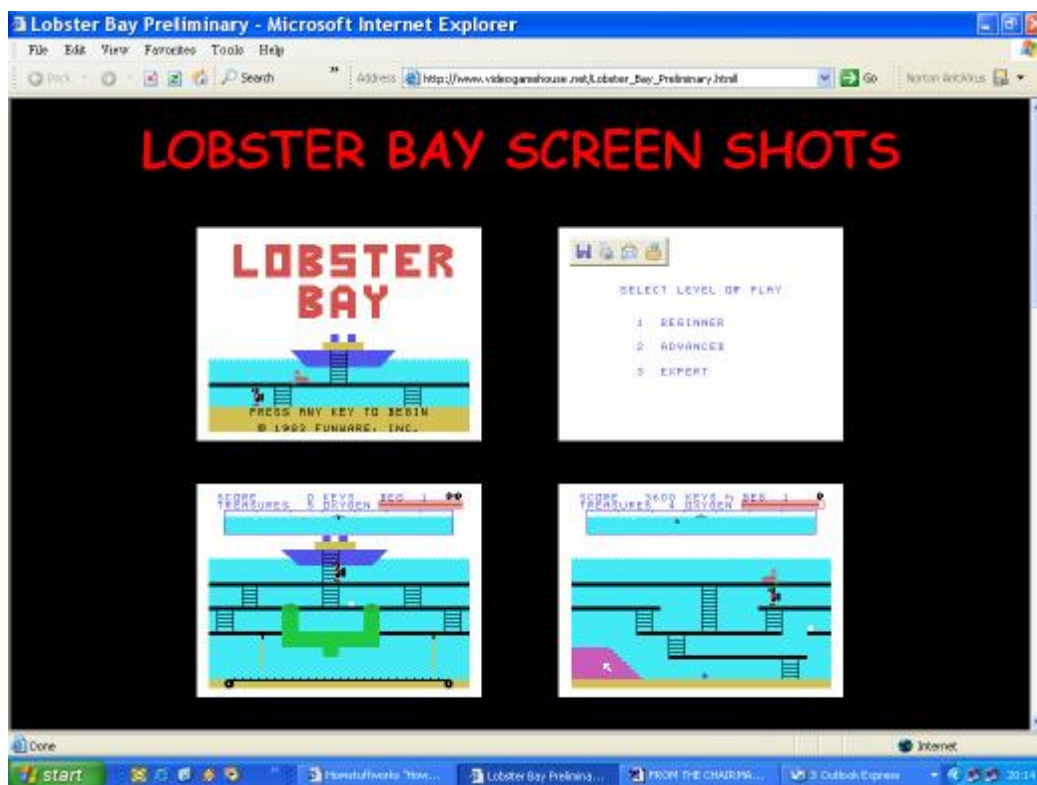
Let me just say right here and now that Lobster Bay is one great game! It is complete and very fun to play. It takes place underwater where you are a scuba diver trying to gather up treasures that are scattered on this platform underwater. This game has about 7 screens per level, making it a much bigger game than the normal one-screener that Funware put out previously. There is a map above you that shows your location and where you are so you can guide your way through the ocean. It's amazing, and I should be able to get it dumped for emulation sometime this week. Also, the game Ant Colony is a new one too that I've never seen. It resembles The Attack

where ants come after you and you have to spray them and their "boxes" The boxes count down as in The Attack, but in Ant Colony the goal is to exterminate these boxes. All in all, there are some really neat gems here.

Just for those who want to see the screen shots of Lobster Bay here is a url http://www.videogamehouse.net/Lobster_Bay_Preliminary.html

The game is reported to be going onto the whtech site in the near future, so you will be able to run it too.

I have also got a shot for those that don't have internet access.



Well that's about it for another time.

Let's be having some of YOUR articles

From
Mr Chairman Trevor Stevens

TI's Are Forever – By Richard Twynning



Dear TI'ers,

Apologies if this newsletter and article seem late. It's the first one since Trevor and I have reacquired the role of "joint editors!"

I've had a lot on my plate recently and I know now what people used to talk about when they said they had difficulty finding time once they were married!

I've got little side projects on the go such as writing Visual BASIC databases, and I've also got Symbian OPL programs and source code for sale on the internet (www.handago.com). I also have overtime from work which I can fortunately do at home on my laptop. This weekend though I really must sit down and get my TI article written, so here I am ;-)

Well, here we are, the 21st century is in full swing, and the TI-99/4A is still a part of it. There's another international TI-Treff this Autumn in Germany although I don't know the exact details at the time of writing.

I enjoyed the trip to Vienna with Trev, although the Treff itself was a little disappointing :- (We were warned about their organisational skills before we went!

It's doubtful that I'll be attending the Treff this year and I think Trevor is going away the week before and will also be unable to attend.

We're certainly hoping to attend next year's Treff and we know it will be much better organized as it's hopefully still going to be organized by Berry Harmsen in Amsterdam!

Language Translation

I recently emailed Berry Harmsen as I'd not heard anything from him in a while. I'd seen a section on The Gadget Show on channel 5 about internet language translators, and they showed Altavista Babel Fish. It's named after the alien fish from "Hitch Hiker's Guide to the Galaxy" that you're supposed to shove in your ear and it enables you to understand and language that you hear!

I thought it would be nice to try and send Berry an email that was actually in Dutch!

It did take me a while, because it would only handle paragraphs of 150 words, but it seemed to work and produce an email that looked to me like reasonable Dutch!

I was very pleased to read Berry's reply as he'd done the same thing! He used a couple of internet translators to see which the best was!

My original Message to Berry...

*Berry, hoe is u? Vergeef om het even welke fouten in deze tekst,
I'm gebruikend een online vertaler om het om te zetten!*

*I'd gehoord niet van u in een tijdje en gewild of was u O.K. zien?
It's onze AGM op Zaterdag, I'm die vrij zich waarverheugt op.*

*Iemand vroeg over Treff in Duitsland, maar I couldn't herinnert verblijfplaats het was.
I don't zich denken of Trevor is aanwezig. We're zich verheugt op niettemin komst aan Amsterdam.
Nog gaat dat door?*

*Hebt u nog om het even welk van onze bulletins ontvangen?
Ik denk die Trevor en ik zal het uitgeven na deze vergadering overnemen.
Paul Saunders doesn't schijnt het hoofd te bieden en hij drukte nooit mijn beelden in het
laatste tijdschrift!*

*Ik wilde controleren dat alles O.K. is. Hoop om u spoedig te zien.
Zou u de kunnen bijwonen workshop van de Herfst als u overvloed van bericht hebt?*

*Vriendelijke groeten,
Richard Twyning.*

Here's his reply...

Original text

*Mijn allerbeste hobby vriend, Ik heb je berichtje ontvangen en me vermaakt over de kennis van jouw
computer van de nederlandse taal. Het was verfrissend en toch leuk. Ik was helaas verhinderd voor
de algemene ledenvergadering van de gebruikersgroep.
Ik heb dit telefonisch bericht aan Trevor. Ik heb van hem begrepen, dat jij in vervolg het blad Times zal
gaan maken. Ik zal mijn best doen om hierbij een bijdrage te leveren. Of dit kan met uit het nederlands
vertaalde artikelen van de TIGG moet blijken uit de kwaliteit van dit stukje tekst.
Groeten uit Holland.
Berry?*

This is the English version according to FreeTranslation.com

*My very best hobby friend, I have receive your message and amuses me over the knowledge of your
computer of the dutch language. It was refreshing and really nicely. I had been prevented
unfortunately for the general members assembly of the users group. I have this telephone message at
Trevor. I understood of him, that you in the leaf of TIM continue will go make. I want to do my best
round hereby a contribution to levern. Or this can must appeared with from the dutch translated
articles of the TIGG from the quality of this stiff text.
Greetings from Holland.
?Berry?*

This is what Altavista.com Babel Fish made of it...

*My very best hobby friend, I you have received berichtje and me amused concerning the knowledge of
your computer of the Dutch language. It was refreshing and nevertheless nice. I had been*

*unfortunately prevented for the general member meeting of the user group. I have telephonically reported this to Trevor. I have understood of him that you in continuation the booklet will will make Times. I will do my best for a contribution at levern. If this is possible?with from Dutch translated Article of the TIGG must become clear from the quality of this bit text.
To greet from the Netherlands.*

Berry

I think the Altavista translator certainly does the better job!

Back to the 21st century and how we can keep the TI up to date. One thing that keeps the TI up to date is to be able to connect it to modern hardware. We've done better than any other computer of our generation so far. The BBC was sold on the strength of having lots of ports, but it was created in a rush without the genius of the greatest microprocessor manufacturers ever! It did have hard disks, but they had to replace an existing floppy drive numbers, and it was a bodge because the machine didn't have a device independent operating system like we do!

Our system has been the most expanded machine of it's generation. There's the SuperSketch drawing tablet that plugs in as a cartridge onto the cartridge port. The cartridge contains the drawing software and the tablet allows you to trace pictures onto the screen. I've got one of these, but I was always annoyed that it would only save pictures onto cassette :- (It kept me going though until I bought a copy of Graphx!

We've got floppy disk controllers, the Myarc Hard and Floppy Disk Controller Card, and recently the SCSI card. I say recently, but it was 1993 when I first ordered the SCSI card, and it was nearly a decade later when I eventually got it working!

There are rumours of two IDE controllers for the TI and even USB, but these haven't made it to the mainstream yet, and myself or anyone I know certainly haven't seen them being demonstrated.

We need to ask if there is anything else that could provide an interface to the TI?

Bluetooth® ?

Bluetooth is a replacement for wires. It's a radio interface that's just designed to connect local devices via radio rather than mess about with wires. One area where I could do with this is on my communicator. I've got a headset with a wire that's too long and it gets caught on things and pulled out of the connector on my phone. There's quite a craze at the moment in Bluetooth headsets. I've seen a lot of people driving and wearing them, and I'll certainly get one next year ready for upgrading my communicator!

There are a lot of mobile phones coming out now with Bluetooth, but there is Bluetooth Audio and Bluetooth Data and of course they need to support Bluetooth Audio to be able to work with a headset!

There's also Bluetooth serial port which can be used to send serial data via Bluetooth. Most modern mobile phones, especially ones that have the Symbian EPOC operating system have modems that can be connected to a PC and if the phone also has Bluetooth, then this can be done via "Bluetooth Serial Port,"

There are also GPS (Global Positioning System) receivers that use Bluetooth to pass their information to a PC or a PDA (Personal Digital Assistant).

Bluetooth Serial Port Adaptor

It would be good to experiment connecting the TI to these devices via Bluetooth. How long would it take to design the hardware? How long would it take to write the DSR (Device Service Routine)?



FEATURES

- Size: 30 x 60mm
- Class 2 Bluetooth Device
- Based on CSR BC02 Single Chip
- Receiver Sensitivity -82dBm (raw BER 0.1% with any compliant transmitter)
- Bluetooth speed up to 720Kbps
- 2 LEDs to indicate power and Bluetooth activity
- RS232 Interface
- 5-24V External Power Supply needed
- Built as a Data Terminal Equipment (DTE). Optional Data Communication Equipment (DCE) available.
- Plug and Play Device

BlueLapis

SMART Modular Technologies' "BlueLapis" is a Class 2 Serial Port Adaptor is fully compliant with Bluetooth specification 1.1. Based on CSR's (BC02) silicon solution with a Hitachi (SH7034B) controller, this module features 8Mbit of flash memory, a Texas Instruments UART controller and an Intersil RS232 transceiver chip. "BlueLapis" also includes the iBStack (Embedded Bluetooth Protocol Stack) from Impulsoft, which allows existing products to be Bluetooth enabled without any change to the product itself.

Designed to address the "Embedded Bluetooth" Serial Cable replacement Market where the "Host System" does not have sufficient processing resource available to run a bluetooth protocol stack. "BlueLapis" utilizes a board-mounted antenna which enables the device to achieve receive sensitivity of greater than -82dBm and power output of 2.0dBm (typical) at the antenna port.

The target markets include such areas as Medical Monitoring, Metering, Cable Replacement for P.O.S systems & Other Custom applications.

SMART Modular Technologies, Inc. is a wholly owned operating company within Solectron Corporation's (NYSE: SLR) Technology Solutions Business Unit. SMART, a leading independent manufacturer of memory and communication sub-systems offers more than 500 products to premier OEMs in the computer, networking and telecommunications industries. Through its relationship to Solectron, SMART offers customers competitive outsourcing advantages, such as access to advanced manufacturing technologies, shortened product time-to-market, reduced total cost of ownership and more effective asset utilization.

SMART Modular Technologies Communications Products Division (CPD) has extensive experience & focus on leading-edge, client-side personal communication sub-systems for wireless and wired Personal Area, Local Area and Wide-Area Networks.

www.smartm.com



A long time probably!
Shall we just not bother?
Yea, sounds good to me!
Let's just buy hardware that's
already been developed!

Yeah, there seem to be one or two devices already available, and you will have already seen one of them on the previous page. On one end they have a serial port, and on the other end is a Bluetooth chip!

Specifications

This would enable us to talk to certain Bluetooth devices with the TI!

We could read Bluetooth GPS's or use a mobile phone modem to make or receive data calls, or even send or receive SMS messages.

General Specifications

- Bluetooth Specification 1.1 compliant
- Power Requirement: 5-24V external power supply
- RS232 Interface
- Built as Data Terminal Equipment (DTE) with male 9pin dsub. Optional Data Communication Equipment (DCE) available.

Software

- No software installation needed
- Software upgrade through RS-232 serial port
- Set-Up: Plug and Play

Radio

- Frequency Range: 2.402 – 2.480GHz
- Transmit Power (Tx): 2.0dBm (typical)
- Receiver Sensitivity (Rx): -82dBm @ 0.1% BER
- Range: Up to 30M

Antenna

- Internal Antenna
- Polarization: Linear, Vertical
- VSWR < 2.0 : 1
- Peak Gain: 0dBi

Temperature

- Operating Temperature: -10°C to +70°C

You can access the device with any terminal program such as Telco, Fast-Term, Omega, whatever. Using a Bluetooth modem would be straightforward as it's just like accessing any other modem that's connected via a wire, and as I said, Bluetooth is meant to eliminate the use of wires!

If you are connecting to a GPS then the GPS will just send out a continuous stream of position and time information and satellite position information. These would just display on the screen in your terminal as a series of encoded strings. Obviously if you wanted anything more meaningful then you'd need to write software to access the serial port and interpret the strings and provide some sort of display.

You could display a current chart showing the GPS satellites that are currently in range, but obviously it would be a silly idea to try and write Satellite navigation software for the TI!!

The following page shows a block diagram taken from the PDF file describing the Bluetooth serial converter. You will notice that I made a slight modification and added a TI console to the diagram! I've also included contact details for the company that supplies it.

At the time of writing I've got no information on prices etc.

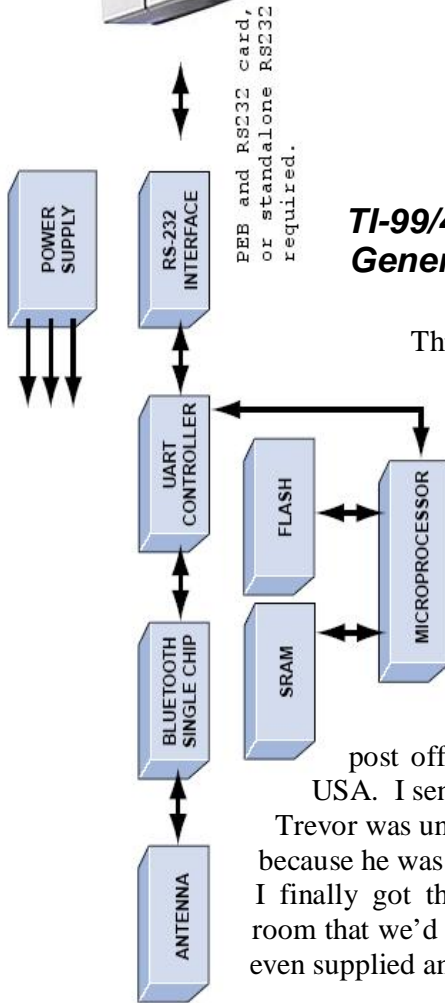
I might try and research prices and possibly other Bluetooth Serial converters for future articles! **J**

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TI-99/4A User Group U.K. Annual General Meeting 2004.

This year was quite a strange AGM! I think it's the first AGM in TI history where we didn't have any TI hardware actually running!

We organised it at the White Post pub between Rainworth and Farnsfield on the A614 in Nottinghamshire.

The pub landlord was quite worried as I turned up at 9:25 and they said we had told them 9am!

Beforehand I had to go to Rainworth post office to post a parcel to Ron Reuter in the USA. I sent him ten ROMOX cartridges!

Trevor was unable to go to the pub and open proceedings because he was inundated with PC orders at the shop! I finally got there and set myself up in the conference room that we'd booked. It was quite a nice room and they even supplied an overhead projector!

I took my laptop and CD collection and external hard disk and decided to do some long overdue sorting of my collection and do some necessary burning of installation sets that were on my hard disk.

Block Diagram

I was sat there on my own until around 12:20 I think! I was saved when Francesco and his wife Claire arrived, not long followed by Ian James.

Until then I had been sat on my lonesome sorting my CD's and pausing briefly to set out the Agenda's etc. around the board table!

I also got bored with a wrapper from a CD case, I used it in place of an acetate and used it to project a large TI sign with the overhead projector!

Trevor said he could only spend a short time at the event, but would be there for the meeting. He arrived some time after 1pm, but went again as there weren't many people there! He came back later, for the meeting though.

John Murphy arrived around 1pm too I think. John brought with him the only TI hardware that we had at the meeting. He brought boxes of cartridges and disks and a couple of consoles. He wanted to get rid of the lot and the consoles were going to go in the bin! I couldn't let that happen, so I claimed them.

The Meeting

Trevor opened the actual meeting at 15:30.

Comments from Mr. Chairman (Trevor Stevens).

See Trevors article at beginning of mag.

Comments from General Secretary/Treasurer (Richard Twyning)

I commented on the renewal posting that I did. I wanted to track down all the members that we still had valid addresses for. We were also unsure about the method of posting that Paul Saunders was using to send the magazines.

As you should all know, hopefully, I wrote a letter and sent it out with a renewal form. The response wasn't as good as I had hoped. I don't know if it's because people have lost confidence in the group because of the disappearance of newsletters, or they might have thought the group had folded and they haven't bothered to update their addresses.

I always quote the phrase, "one of our David Caine's is missing!" It wasn't until I tried phoning him once that I was talking to a complete stranger who didn't know who I was! He had moved and not let us know his new address. Luckily he phoned me to find out what was happening and I got his new address!

Apologies from absent members

I read out the apologies for Ashley Tilling, Eamon Doran, Eddy Carter, Phil Lancaster, and our man in station K (Kazakhstan) Mark Wills! As always, John Murphy gave the apology from Trevor Taberner who is no longer able to travel a great distance.

Taking over as Treasurer

I reported on how earlier in the year Trevor and I transferred the group accounts into a treasurer's account in the NatWest. It's simplified things a lot and we have full control over our finances now. Trevor does his business banking with NatWest and therefore he keeps the paying in book to put in members cheques etc. and I look after the cheque book.

Concerns over newsletter problems

I made a brief comment over my concerns with the newsletter, but we raised this later during our group discussion.

BBS

I had been having some thoughts about new ways to get the BBS back online and presented my ideas and again we discussed this later.

Web site

I was concerned about the website that it needed updating and simplifying for a wider range of web browsers. We covered this in our discussion, but I will omit it as Trevor will be covering it in his article.

Comment from TI*MES Editor (Paul Saunders)

Unfortunately Paul was unable to attend the event.

Comment from Module/Cassette Librarian (Francesco Lama)

At the workshop in March, Francesco had kindly taken a lot of equipment that Ross Bennett brought to the event to dispose of. Francesco reported that Derek Buchanan had been to collect it and also bought two modules from the module library, otherwise, I think the activity of the module library was fairly quiet, although Francesco did take some cartridges that John Murphy brought to the meeting.

Group Discussion

The main topic of discussion was the TI*MES newsletter. It had become very erratic in recent months. Late issues and many members reporting that they had not received them at all!

Francesco Lama was missing newsletter 77 onwards.

Steven Shaw has not received anything since issue 72!

Phil Lancaster hasn't had 77 (summer 03) and onwards.

John Murphy did receive issue 77, but nothing since!

I think that those in attendance strongly believed that a change of editor was required to breathe fresh life into it again and bring things back on track. I will apologise that the current newsletter you are reading may be slightly behind schedule, but I'm determined to get things back on track for next quarter and have plenty of notification of upcoming events etc.

Bulletin Board.

I presented my ideas on how to get the BBS back on line. The main thing was line rental and we had long had the extra BBS line removed from Trevor's place. Trevor had kindly offered that we could share his fax line, and I had devised a scheme, and a Visual BASIC program that would allow the sharing and it did work quite well. One idea was to incorporate this into

a custom written BBS program, but as time was limited, this would take ages and I wanted a solution as quick as possible!

I therefore came up with the idea that we could still have a Visual BASIC program handling the sharing, but that it could pass the data through to an off-the-shelf BBS program once the call is connected. It would be emulated in such a way that the BBS software would still think it was talking directly to a modem.

The other idea which would be the most time consuming would be to write a BBS program for my communicator. It is a multitasking operating system and would therefore have no problem running BBS software in the background. I also have a dedicated data number which could be used to receive BBS calls.

The only complication is that the development kit for the communicator is in C++ which I haven't done a lot of, and Symbian OS C++ is notoriously difficult to learn!

One option I hadn't considered was to go back to using a TI and a dedicated phone line!

Francesco has kindly stepped in and offered to run the BBS in his attic as he has a spare line that is used very infrequently. He was going to go back to Trevor's place after the meeting and pick up the S&T BBS software.

At the time of writing I'm unsure of the status of getting it up and running again, but I have just emailed Francesco about it and will publish any information I have if it arrives in time.

The Internet

We also discussed the group's web page. My comments were that it certainly needed updating, but that it was over complicated. I know there are a lot of benefits to new web based technology and software, but in my opinion a web page should be nothing but html files, image files (gif's or jpeg's), and maybe simple java applets!

We achieved quite a result. I won't say a lot as Trevor will be covering it in his article, but we have purchased a new domain name and we agreed that the web site should offer the choice of a text only page, a very simple html only page, and the current complex page that uses frames and java etc.

Committee Re-elections

Chairman. Trevor agreed to continue as Group Chairman and all voted in favour.

General Secretary/Treasurer. I agreed to continue as General Secretary and also my new role as Treasurer and all voted in favour.

TI*MES Editor. Unfortunately Paul Saunders could not attend the event and could not express a wish or protest to continue but those in attendance agreed that a change might benefit the magazine and Trevor and I offered to take on the role as joint newsletter editors.

Module and Cassette Librarian. Francesco Lama said that he was happy to continue as module and cassette librarian, however, he also agreed to take on the role of disk librarian and will at some point take possession of the entire collection of group floppy disks from Richard Speed. Richard's ~~ex~~-wife has unfortunately destroyed the CD's of the data transferred so far, but we are assured that the TI floppies are currently secure in a hidden location!

Any other matters

I don't believe or now remember that there were any other matters to discuss as I think we had covered everything in the group discussion and I think the meeting ended sometime after 4pm when we descended upon the goodies that John Murphy had brought to the meeting and we divided them up. I remember now that the equipment was given by Terence J. Leach and on behalf of the group I gave John a cheque for £50

Richard T's Closing Comments...

Well, that's about it for now. I've run out of time this quarter for something else I was going to write about. However, Trevor hinted at it earlier and I will moisten you and get you all wet (ooer missis!) by saying "Pocket TI!!!"

Here's a picture of my communicator showing the image I use as the new boot up screen!



That's all from me now!!!!

THE END

BUT...

**RICHARD TWYNING WILL RETURN
IN
FOR YOUR TI's ONLY.**

Richard Twyning's MicroMart Article

I wrote this article last year to coincide with the MicroMart Retro Computer show which we attended at the NEC Birmingham and it was actually published in MicroMart!.... (There are also some pictures on the group web site J)

Introduction

Guest columnist and General Secretary of the TI User Group U.K. Richard Twyning discusses what's happening in the world of the TI-99/4A and compatible machines.

I became a TI owner in the summer of 1982 and the biggest selling point for me was that it was 16-bit rather than 8-bit, but like many people, including Texas Instruments themselves I didn't realise the true potential of the machine!

Outsiders will have the image of the 99/4A being a slow 16K machine and this is only due to TI BASIC being very slow, which ironically shows the true speed of the machine and its TMS9900 processor. The BASIC interpreter itself is interpreted! Written, like many TI cartridges, in a language called GPL (Graphics Programming Language) allowing TI to develop them on a mainframe computer running the same instruction set. TI even had their own unique ROMs called GROMs that have a built in self-incrementing program counter!

Luckily at the time I was in the position to buy all new hardware for the machine, TI disk controller, 32K expansion, RS232 card, Speech Synthesizer, and even an MBX (Milton Bradley (MB Games) Expansion), which gives the machine voice recognition and analogue joysticks.

Typically TI's expertise in military hardware meant that they over-engineered the 99/4 and 99/4A giving us what they call a device independent operating system, or true plug and play since 1978! Turning on the console causes it to scan all of the CRU (Communications Register Unit) addresses for attached hardware. This takes a fraction of a second before the title screen is displayed! It seems very comical watching a Window\$ machine "searching for new hardware" and grinding the machines hard disk for several minutes!

Device Independence for us means that new devices integrate seamlessly into software developed years ago through TI's standard system of device and file names. A valid device string would be "RS232/3.BA=19200" to open serial port 3 at 19200bps, or "DSK1.TI-WRITER" for a file on a floppy disk. Everything however, accepts a device and/or filename. Even in TI BASIC it's possible to save a program directly to the serial port! However, there must be another TI connected to the serial port that's trying to load a program, or some other program that can handle the file transfer protocol of the TI's saving routine!

This device independence means that we have not been short of hardware! In the early 80's a third party company called MYARC made a hard disk controller offering 5MB of storage which emulated the PC IO bus and used a PC hard disk interface card!

They also made high density floppy controllers allowing four 720K disks to be controlled and finally in the late 80's they made a Hard and Floppy Disk Controller card that allows the 4A to drive four 1.44Meg 3.5" floppies and three ST506/ST412 hard disks (which many people mistakenly call MFM drives. It was only the data encoding method that was either RLL or MFM!) The hard disk capacities could be up to 134 Megabytes each, which was massive by the standards of the time!

Around the same time MYARC produced a new computer with a faster processor (TMS9995) called the Geneve 9640 which has half a meg of RAM, expandable to 16Meg. It fits on a single TI sized card and fits into a single slot of the TI Peripheral Expansion Box.

It has a much better graphics chip, the 9938 rather than 9918A or 9929 of the 99/4A, but this highlights another advanced feature of the 4A. It was advertised as a 16K machine, but really it's a 32K machine! The VDP chip addresses its own 16K RAM. It merely receives

graphics instructions from the main CPU which means it's possible to fit a 9938 to the 99/4A and give it resolutions up to 512 * 424 and a 24-bit colour palette! The 4A and Geneve can also use spare pages of the 192K VDP RAM for extra storage!

The TI world finally came of age around 1993 with the announcement of the first SCSI controller from a US group. Since then the main German group produce their own SCSI cards which now have full software to handle CD-ROM drives as well as the usual SCSI hard disks and ZIP drives etc.

There have also been two IDE cards, one of them designed by a European now living in Canada by the name of Thiery Nospickel who now has a working prototype of the first USB interface for the TI!

This autumn is the 20th anniversary of TI's withdrawal from the home computer market. I think we have certainly used our time, and the machine that TI gave us wisely!

Richard Twynning, TI-99/4A User Group U.K. General Secretary.

Bruce Harrison sends his regards

Bruce Harrison who is in regular contact with John Murphy has asked that he pass on his regards and good wishes to all at TI-99/4A User Group U.K.

Email membership terms and conditions! J

At this point I would like to give a warning to those who have subscribed with email membership. You have expressed this preference because you want your TI*MES magazine to be delivered by a more reliable medium than the Royal Mail! However, as you must realise, PC file formats these days are bloated beyond belief and the current Microsoft Word file for this issue is 17Megabytes! As yet, until this issue is complete we are not aware how small this will compress as a .PDF file, but it may still be a considerable size.



Receiving large attachments these days is no big deal, as Yahoo.co.uk offer a free email service which gives you a maximum in-box of 100Megabytes!



If you specify an email address for your email membership then you **MUST MAKE SURE** that it's of **sufficient size** to be able to receive these attachments.

It's not all doom and gloom though! I have been pondering that it must be easy enough to just save the magazine in HTML format and then anyone can view it in a standard web browser. We'll have to give it a try and give you our results in the next issue.

J



If they don't agree that TI are No.1, then we'll bomb the **stards!

Texas Instruments BOLT-117 Laser Guided Bomb



The BOLT-117 (BOmb, Laser Terminal-117) was the world's first laser guided bomb (LGB). It consisted of a standard 750-pound bomb case with a KMU-342 laser guidance and control kit.

The Army began research into laser guidance systems in 1962 and by 1967 the Air Force had conducted a competitive evaluation leading to full development of the BOLT-117. Although its 1968 combat evaluation was considered highly successful, it was decided to discontinue use of the BOLT-117 in favor of a 2,000-pound LGB called the GBU-10. The larger bomb had proven twice as accurate and had far more explosive power. While production of the BOLT-117 was limited, its impact on airpower was revolutionary. Laser guidance kits turned standard "dumb" ordnance into "smart bombs," yielding a 100-fold increase in effectiveness compared with free-fall, unguided bombs.

[USAF Museum](#)
[Weapons](#)
[Guided Bomb](#)
[Units](#)

◀ [GBU-15](#)

Texas Instruments GBU-27 Laser Guided Bomb



The GBU-27 is a 2,200 pound laser-guided bomb designed specifically for use by the [F-117](#) Stealth Fighter. It is a highly accurate, hard-structure munition compatible with the F-117's advanced target acquisition/designator system. The GBU-27 uses a BLU-109 improved performance 2,000 pound bomb developed in 1985 under the project name HAVE VOID. The BLU-109 was designed for use against hardened structures and features a high-strength forged steel case and a new delayed-action tail fuze. It carries 550 pounds of high explosives and

can penetrate more than six feet of reinforced concrete before exploding.

The GRU-27 uses a modified Paveway II guidance control unit which provides "terminal trajectory shaping" for optimum impact angle against various target structures. For example, it will hit an aircraft shelter with a vertical impact, but make a horizontal approach to a bridge support. A Paveway II tail assembly with folding wings completes the bomb.

The F-117 can carry two GBU-27s in two weapons bays and is reportedly capable of hitting a one square meter target from an altitude of 25,000 feet. The GBU-27 was used extensively during Desert Storm, with a claimed hit probability of over 95 percent. The weapon on display was received from the F-117 System Program Office at Wright-Patterson AFB, Ohio, in September 1991.

A little listing from the website (www.ti99ug.co.uk)

(HAVE YOU GOT ANY LISTINGS TO PUT IN THE MAG? If so, send them in as a text file J)

```
100 ! (C) 86/97 C.ZIEPKE
A S T R O I D S *
101 !
102 ! IT IS FREWARE NOW !
103 ! FEEL FREE TO SPREAD IT
104 ! IF YOU LIKE IT, SEND
105 ! ME AN EMAIL, A POST-
106 ! CARD OR SOMETHING ELSE
107 !
108 ! cziepke@ki.comcity.de
109 !   Carsten Ziepke
110 !   WESTRING 268
111 !   D-24116 KIEL
112 !   GERMANY
113 !
114 ! YOU NEED:
115 ! TI99/4A
116 ! TI EXTENDED BASIC
117 ! TI JOYSTICK #1
118 ! 32KRam or more :- )
119 !
140 !
150 CALL CLEAR
160 CALL PEEK(8194,A,B,C,D)::WW=A+B+C+D::IF WW=511 AND WW-
63=448 THEN 500
170 CALL CLEAR::CALL SCREEN(5)::FOR I=0 TO 14::CALL
COLOR(I,16,5)::NEXT I::DISPLAY AT(10,8) BEEP:"!PLEASE WAIT!"
180 DISPLAY AT(12,4):"READING ASSEMBLER-DATA !"
190 ADR=9456::CALL PEEK(8198,A99)::IF A99<>170 THEN CALL INIT
```



```

200 READ A::IF A<>-1 THEN CALL LOAD(ADR,A)::ADR=ADR+1::GOTO
200
210 FOR I=9782 TO 9902 STEP 4::READ A,B,C,D::CALL
LOAD(I,A,B,C,D)::NEXT I
220 CALL LOAD(8194,38,178,63,232)
230 CALL
LOAD(16360,67,78,67,65,76,76,37,194,79,70,70,32,32,32,38,170,7
9,78,32,32,32,32,38,158)
240 DATA
000,000,000,000,000,000,000,000,000,000,000,000,000,000,00
0
250 DATA
203,020,203,053,203,078,203,231,204,071,204,150,204,228,205,02
9
260 DATA
205,075,205,096,004,192,004,032,032,012,004,032,032,024,018,18
4
270 DATA
192,160,131,074,128,194,027,003,192,130,019,001,004,091,002,00
0
280 DATA
030,000,004,032,007,242,004,193,192,002,010,032,002,032,002,25
2
290 DATA
004,032,032,040,009,129,193,065,005,128,004,032,032,040,009,12
9
300 DATA
193,129,192,003,010,032,002,032,002,252,003,000,000,002,003,00
0
310 DATA
000,000,004,032,032,040,009,129,193,193,005,128,004,032,032,04
0
320 DATA
009,129,194,001,128,194,019,015,161,201,129,071,017,012,097,20
1
330 DATA
097,201,129,071,021,008,162,009,129,136,017,005,098,009,098,00
9
340 DATA
129,136,021,001,004,091,129,003,019,004,005,131,002,032,000,00
3
350 DATA
016,220,004,195,004,091,004,192,002,098,064,000,200,002,131,07
4
360 DATA
004,224,131,076,004,224,131,078,004,224,131,080,004,032,032,00
8
370 DATA
004,091,002,224,036,244,002,001,000,003,002,003,000,255,006,16
0

```

```

380 DATA
037,020,194,066,002,002,000,001,002,004,000,028,003,000,000,00
2
390 DATA
003,000,000,000,192,194,005,131,006,160,037,054,192,195,022,00
4
400 DATA
005,130,129,002,022,243,004,194,002,001,000,001,006,160,037,16
6
410 DATA
005,129,192,131,006,160,037,166,004,192,216,000,131,124,002,22
4
420 DATA 131,224,004,096,000,112,-1
430 DATA 2,224,38,22,2,12,0,36,2,4,6,0,48,196,4,204,31,4,22,7
440 DATA 31,5,22,12,31,6,22,17,31,7,22,22,16,28,2,0,7,129,2,1
450 DATA
230,240,4,32,32,32,16,21,2,0,7,129,2,1,25,15,4,32,32,32
460 DATA 16,14,2,0,7,128,2,1,25,15,4,32,32,32,16,7,2,0,7,128
470 DATA 2,1,230,240,4,32,32,32,16,0,3,0,0,2,3,0,0,0,2,224
480 DATA
131,224,4,91,2,1,38,54,200,1,131,196,4,96,0,112,4,224,131,196
490 DATA 4,96,0,112
500 CALL CLEAR::CALL SCREEN(5)::FOR I=0 TO 14::CALL
COLOR(I,16,5)::NEXT I::CALL MAGNIFY(3)
510 !
520 ! Eigengeschwindigkeit
530 !
540 GE=22::CALL LOAD(9822,255-GE)::CALL LOAD(9836,GE)::CALL
LOAD(9850,GE)::CALL LOAD(9864,255-GE)
550 DISPLAY AT(4,7):"A S T R O I D S"::CALL
CHAR(64,"3C4299A1A199423C")::DISPLAY AT(20,3):"@ 1986 BY
CARSTEN ZIEPKE"
560 CALL
CHAR(96,"000000071E3F6DFF7721000000000000000000E078FCB6FFEE84"
&RPT$("0",12))
570 CALL
CHAR(100,"0000000000033E746FF7DEFB5F6D3F3930785CFCACB4B6EEFEDC
BE74FCF8F080")
580 CALL CHAR(104,"1C7ECBFF6A7DDFE77E18"&RPT$("0",44))
590 CALL
CHAR(108,"040C0E1F1F173F7F7FFE2B3F3F1C08000A0E5C7EF47CECBEF4E0
F0A0E0F0F000")
600 CALL
CHAR(112,"0001070B2F7D3F5E643B3F7E173F1F05E0E078F4FCBE4FF5FABE
FEB8F8E00000")
610 A$="PRESS ANY KEY TO BEGIN"::FOR I=1 TO LEN(A$)::CALL
HCHAR(10,I+5,ASC(SEG$(A$,I,1))):CALL
SOUND(1,110,30,110,30,40000,30,-4,0)::NEXT I
620 CALL KEY(1,K,S)::CALL KEY(2,L,D)::IF S+D=0 THEN 620
630 RANDOMIZE::CALL CLEAR::PU,LEV=0

```

```
640 TI=0::LEV=LEV+1::DISPLAY AT(1,1):"SCORE:";PU::DISPLAY
AT(24,1):"LEVEL:";LEV
650 CALL LOAD(-31806,64)::FOR I=2 TO 17::CALL
SPRITE(#I,INT(RND*4)*4+100,15,96,128,INT(RND*LEV*12)-
LEV*6,INT(RND*LEV*12)-LEV*6)::NEXT I
660 CALL LOAD(-31806,0)::CALL SPRITE(#1,96,2,1,128,0,0)::CALL
LINK("ON")
670 TI=TI+1::PU=PU+LEV::DISPLAY AT(1,7):PU::IF TI=150 THEN 690
680 CALL LINK("CNCALL",XX,YY,12)::IF XX=1 THEN 710 ELSE 670
690 CALL LINK("OFF")::CALL DELSPRITE(ALL)::FOR I=300 TO 2000
STEP 50::CALL SOUND(-100,110,30,110,30,I,30,-8,0)::NEXT I
700 PU=PU+(LEV*250)::GOTO 640
710 CALL LINK("OFF")::CALL DELSPRITE(ALL)::DISPLAY
AT(10,10):"GAME OVER"::DISPLAY AT(20,4):"PRESS ANY KEY TO
BEGIN"
720 GOTO 620
```

