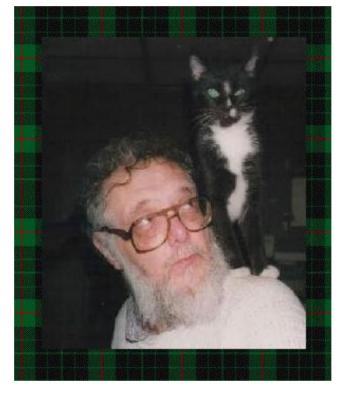


This issue is dedicated to... Bruce Harrison



Bruce and his beloved "rotten cat!" Picture taken by Dolores P. Werths

1940 - 2007



Supporting the **TI-99/4** and *I*(4)(A), the MYARC GENEVE 9640, Michael Becker SGCPU card, And any other compatible machine.

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We regret to inform you of the sad loss to the TI community of Bruce Harrison.

Hal Shanafield put out an email on the TI List Server to say that Bruce had passed away in his sleep on Friday 9th November.

Bruce was one of the people who made the TI community what it is today. The hundreds of programs he wrote will serve as his memorial.

Bruce was born on the 9th of January 1940 at the Episcopal Hospital in Philadelphia.

He was half Scottish and half English. His mother's maiden name was Mary Douglas Gunn (of the Glasgow branch of that clan) and his father was William Harrison, from Yorkshire. The Tartan above is the Gunn family Tartan from Bruce's web site.

He started school at the age of 6 in first grade at the Wissahickon School (now a parking lot). Then he transferred to the Thomas Mifflin School in East Falls at the start of the sixth grade until the eighth grade.

He graduated in June 1957, and thanks to the Russians and Sputnik, he was able to get into a special arrangement with the U.S. Navy, under which he went to college during the regular school semesters and worked for the Navy at the Philadelphia Naval Shipyard during the summers. The summer of 1957 was his first regular work experience as a Student Trainee Engineer. His specialty was electronics, which involved him being exposed to Radar, Sonar, etc. The Navy paid tuition and books for the first and the last year of undergraduate study, and paid a modest salary during the work periods. It took six years, and he graduated from Pennsylvania State University in June of 1963. Bachelor of Science in Electrical Engineering (Electronics option).

During the years at Penn State, Bruce did service in various roles at the Student Operated radio station, WDFM. (250 watts, 91.1 MHz, State College, PA) Served as Board Operator, Disk Jockey, Production Manager, and news reader!

In 1965, Bruce changed jobs. He left the Philadelphia Navy Yard for an outfit that was part of the Navy's Bureau of Ships in Washington, D.C. He stayed there through half a dozen name changes and it ended up being called the "Space and Naval Warfare Systems Command".

He worked on many kinds of electronic systems, including Radar, IFF, Air Traffic Control, computer driven displays, closed circuit television systems, etc.

In 1989, he left that organization and joined an outfit called Defense Communications Agency, where his work took place quite literally in a vault, complete with a combination locked door! He could never mention the names of the projects he worked on in that vault. Even the names of places he travelled to as part of that job are kept secret. "Travel to a classified site and perform classified tests" was printed on the Travel Orders. Only those in the vault knew where he went and what he did!

Bruce retired in 1991, having logged 33 years of Civil Service time. Toward the end of his time at the Defense Communications Agency, he was engineering the installation of some display devices for the National Military Command Centre, down in the bowels of the Pentagon!

Unbelievably Bruce never did anything involving the writing of software until 1983 when the boss he was working for in the Navy talked him into getting a TI-99/4A.

Bruce wrote... "He felt (correctly) that people in the electronics engineering business should become 'computer literate' and that the TI, being inexpensive and readily available (bought mine at Sears) would be a suitable means for his employees to get their hands on a real computer. At first, it was Murder! Having just the console with Extended Basic and a cassette recorder for 'mass storage' made doing even the simplest program an unendurable chore."

Eventually Bruce obtained the rest of a minimal useful system, including in the P-Box one SS/SD disk drive, 32K memory, RS-232 card, and a Star Micronics Delta 10 printer. He could now load programs in seconds instead of minutes. Listings could be printed on paper and studied carefully.

He hit a brick wall with Extended BASIC. There were lots of things he wanted to do but couldn't, so he promptly went out and got himself Editor/Assembler and taught himself to program in assembly language with the help of John Molesworth's book.

Bruce said himself that his adventure into Assembly language was interesting, "sometimes fun, sometimes downright maddening, but many programs were created, and many are still being used by owners of the TI-99/4A all over the place."

"I've purposely skipped stuff like marriages and divorces, but I do have a daughter, a grandson, a partner of the female persuasion, and her two sons Jean-Guy and Marcel Barbeau. Oh, I forgot the cat! She allows us to share this house with her. We're tolerated as long as we feed her and change the litter box on a regular schedule. If anyone cares to know, the words "Assembly Guru" were first applied not by me, but by Bill Gaskill in reference to some program of mine that he liked."

Unfortunately in recent times, since Autumn 2000, much of Bruce's life revolved around illness. A heart attack and some other complications left him having great difficulty walking and doing other ordinary things that he once could do. Since then, with his physical disabilities, he concentrated more effort into helping others with their web pages, and he finally did some writing that he'd been wanting to do for some years. Eight spy novels of Bruce's now occupy space on the internet.

"Not many people read them, but that's okay, as the main satisfaction comes from the process of creating them. Of course if somebody wanted to make a blockbuster movie out of one of my "Nick MacGruder" stories, I suppose I could find some use for the royalties!"

In the middle of 2004, things got a bit better, after receiving a fathers day gift of a camera and taking up the hobby of photography again. Bruce could get around without his canes, and can stay alert for a bit longer at a time. He had the joy of taking pictures again, and thanks to the scanner sitting beside his computer, he could share his pictures via the internet.

Bruce had been in ill health for the past year, Lory said, and had stopped taking his medication for diabetes, and then restarted it without being examined by his doctor.

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Bruce and Hal Shanfield held a lively debate online on an almost daily basis, on a wide range of topics, often at loggereads, always in a friendly fashion.

"In addition to being an outstanding programmer in many languages, Bruce was a master photographer and a prolific author. His Nick Magruder spy novels were works with an authentic ring to them, as befits someone who worked for the government for many years in classified positions. We are all the poorer for his passing."

--Hal Shanafield

Catalog of Bruce Harrison's programs.

General Purpose Programs

MIDI-Master - Control MIDI devices with your 99/4A!!!

MIDI Play-In - A program that permits the user to attach his MIDI keyboard to the TI in both directions. Music played on the keyboard gets stored in the TI's memory, then can be played back, saved to disk, or used to create SNF source files for MIDI-Master.

Harrison's Word Processor - An Assembly program for those who absolutely CAN'T STAND TI-Writer or any of its "clones". This one takes a completely different approach, modelled on the "professional" word processors of its day. No, it's no threat to the folks who make Word Perfect, but then it doesn't require a six-week course to use it, either. It's all been designed to make the job of creating documents easy, making them easy to read on-screen, while providing a wide range of options for printing.

Font Designer - A program for those who have either 24-pin or Bubble-Jet printers. Allows the user to create and download custom fonts to the printer. Disk includes several ready-made fonts that can be used as-is to "dress up" text printed by your TI.

Word Search - A program that takes lists of words supplied from D/V 80 text files and arranges them randomly into a matrix in eight directions. The result can be printed immediately or saved to an output D/V 80 file and printed later. A good number of ready-made word lists are included.

Easy Data - A disk of Extended Basic with embedded Assembly routines. This disk is designed to allow somebody with minimal knowledge of Extended Basic and absolutely no knowledge of Assembly to create and maintain small data bases of his own. Very quick and effective sorting by any two fields is done by an assembly sort that is embedded in the program.

TI-Artist Print - This program prints black and white TI-Artist pictures. Unlike TI Artist, this program prints the pictures full size on 8 1/2 by 11 paper and in correct aspect ratio. Thus circles on screen are circular on the paper, squares are square, etc.

TI-Artist Color Print - For use with either 24-pin or Bubble Jet color printers. Like the black and white printing program, this preserves aspect ratio on the printout.

Drawing Program - A "poor man's" drawing program. Includes the ability to draw straight lines, circles, and combinations of these elements. Allows use of font files for adding alphanumeric data, annotations, etc.

Assembly Poker - A very fast and colorful five-card draw poker game between you and your TI-99/4A.

Metronome - For musicians. Use the TI's sound to provide a steady and accurate pacing for your practice session. Timing selectable in Beats Per Minute.

Load Master V.2.2 - A collaboration with Mickey Cendrowski. This greatly improved version uses Assembly support routines to speed up operation and add more capabilities.

Speed Read - A program to improve your reading speed by displaying D/V 80 files of your choice at selected words per minute rates. You choose your own pace, then try to keep up with the computer.

Code Breakers - Solve cryptograms right there on your TI-99/4A screen. Includes several modes of operation, including a two-player challenge mode

Utility Programs

Extended Basic Utilities - Volumes 1 and 2 are available. These are small enhancement routines to provide better and/or faster performance in Extended Basic programs.

MIDI Toolbox - A whole series of Assembly programs for performing operations on the D/V 80 source files that are destined for use by MIDI-Master. These include a file combiner, a transposer, and even a measuring tool to determine whether an SNF file will fit in memory when compiled by MIDI-Master.

Supporting the **TI-99/4** and Ale A, the MYARC GENEVE 9640, Michael Becker SGCPU card, And any other compatible machine.

File Converter - A very special little program to take downloaded text files that are in D/F 128 format and convert them into D/V 80 files for editing.

ScsiCat - Special cataloging program for users with SCSI hard drives. Also works for regular floppy disks and Horizon Ramdisks.

Randoms - A utility disk for Extended Basic programmers and others who want very quick and very nicely randomized numbers.

ASM Sound - Utilities for Assembly programmers to make it easier and quicker to incorporate sound list music of effects into their programs.

C99 Sound - Similar set of routines for handling sound lists, but designed for use within programs written in C99.

Sound List Maker - A means to make sound lists more easily from sheet music. Allows the user to write in a quasi-musical notation and have the Assembler translate into Hex for you.

C99 Utilities - A collection of handy-dandy Assembly modules to make the life of the C99 programmer a bit easier.

Bit Map Modules - Another little tool for the harried Assembly programmer who's trying to "turn the corner" into the Bit Map modes of operation. This disk has four object modules that can be incorporated into your own programs to provide easy transitions into and out of half bit map and full bit map modes, PLUS automatic motion for sprites in both of those modes. (Impossible!)

Reformat - Takes D/V 80 files of the type made with TI-Writer and formats them into different column widths, right justifies if desired, and so on.

Sandwich - Two small pieces of Assembly that can be used with an E/A object file to convert that into a stand-alone E/A Option 5 program file, with or without having the original source.

Instance Editor - Permits creating and editing instance files for use with TI-Artist, etc.

Password - For those with Horizon Ramdisks. Keep the kids out of your TI by having a secret password required to get the Ramdisk menu to appear.

Software for Asgard Memory System.

AMS Slide Show - Shows TI-Artist pictures in sequence.

AMS Video Titler - Uses TI-Artist or Harrison type pictures with special wipes for creating title sequences to put on VCR productions.

AMS File Transfer - Takes large text files via RS-232 from another computer (PC) and produces editable D/V 80 files on the TI.

AMS MIDI-Master - Vastly improved version from original. Uses AMS to allow much larger musical works to be played by your TI. MIDI Play-In - Allows you to play music on the MIDI keyboard and have that music "recorded" in the AMS memory, played back, stored on disk, and used to create SNF source files for MIDI-Master.

The sad loss of another TI'er Harold Mayo

NOV 2007: The TI Community mourns the passing of "Diehard" 99er Harold Mayo on Wednesday November 7th, and noted Assembly Language programmer and long-time MICROpendium columnist Bruce Harrison on Friday November 9th.

Harold was the owner and Sysop of the Orphanage BBS in Sperry, OK, and was very proud of the fact that the Orphanage was a "100% TI/Geneve board". He was nominated for the Jim Peterson Memorial Award in 2000 in the Community Service category for his continued support via the Orphanage BBS. Harold crowed about his loyalty to the TI/Geneve platform in a letter to MICROpendium that appeared in the September 1991 issue, where he adopted the 'diehard' moniker for himself. Throughout his support of the TI Community, Harold enjoyed tossing clever little barbs at the non-TI world with postings in his messages like,

"... For sale: Hourglass for timing Windows.".

Ever the loyal Sysop, in February 2001 Harold posted a tribute to the demise of the Chicago TI User Group BBS, which was arguably the first or second TI BBS in existence.

From: harold.mayo Date: Thu Feb 22, 2001 5:32pm Subject: Board demise! "To all that may be interested. On February 28th, the flag at THE ORPHANAGE BBS will be lowered to half staff in mourning for the demise of THE CHICAGO BBS. It will remain at half staff for the month of March. Also, the doors of THE ORPHANAGE BBS will be closed for 24 hours starting at mid night February 28th. This will be for a period of 24 hours, at which time, on March 2nd, 2001, it will resume operations. Thanks to Ernest Pergrem for his valiant efforts to provide a home in the Chicago area, and surrounding areas, for the users of TI / GENEVE equipment.

Via: THE ORPHANAGE BBS in beautiful downtown Sperry, OK. The oldest 100% TI/GENEVE BBS using S&T software. Est: 1985! Harold Mayo, Sysop!"

Harold Mayo, the epitome of a "TI Guy", will be missed by his many friends.

Bill Gaskill remembers Bruce Harrison

Bruce Harrison, of Hyattsville, MD was a self-taught TMS9900 assembly language programmer who holds the record I think for the longest running column in MICROpendium for his "The Art of Assembly" series which ran from May 1991 until MICROpendium ceased publication with the May/June 1999 issue. Bruce was the recipient of John Birdwell Award in 1996, given each year for Service to the TI Community. Along

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the way he also found the time to create and release assembly language coded products, many of which I suspect are still in use today. Among the many, many programs that Bruce wrote for the TI/Geneve, he seemed proudest of the assembly language music he was able to create by partnering with Dolores P. Werths. Borrowing from an August 1989 Microreview, Bruce wrote, "*our music and instruments are not for novelty, rather to create as closely as possible the original settings intended by the composer*". Beginning in 1989 the Harrison/Werths team produced and released various disks of what is generally considered 'classical' music, the likes of which cannot be explained. It must be heard. Ones that come to mind or that I had noted in Timeline99 include II Pastor Fido, Bits & Pieces Potpourri, 17th & 18th Century Lute Music, and "Pop" Classics. There are more.

I came to know Bruce Harrison through the purchase of his Harrison Word Processor, which I still own and use today. Through a series of telephone conversations and letters back and forth, Bruce also created Golf Score Analyzer for me, and then released it as a commercial product in September 1990. I continue to use GSA to this day. With input from Harry Wilhelm on structure and 'how-to', Bruce also created an XB Compiler that Charlie Good MICROreviewed in September 1994.

Other creations that Bruce Harrison brought to the TI Community include Code Breakers (Nov91), Easy Data (Mar92), KwikDump (Jun92), MIDI Play In (Nov98), SCSICAT (Sep97), Smart Connect (Sep91), Stor Mor (Sep92) and TI Bingo (Nov98). I know there are more...

I visited Bruce Harrison's website today, (<u>http://members.aol.com/rottencat1/homepage.html</u>) because I remembered that he maintained an "In Memory Of" page there, which chronicled the passing of 99ers before him. Suspecting that the website will not be retained, in my humble opinion it is only fitting that the TI99ers On-Line User Group <u>http://www.ti99ers.org/</u> keep that page `alive' as it were.

I choose not to mourn the passing of Bruce Harrison as much as I will celebrate having known him, talked to him, exchanged ideas with him about his products, and I will celebrate the fact that I enjoy my TI-99/4A more today because of him. I think he would have liked that.

Bill Gaskill

Disclaimer

The views expressed in the articles in this magazine are those of the individual author, and not necessarily the view of the magazine or the group.

Email membership terms and conditions! J

At this point we 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 Microsoft Word file of a newsletter could be as big as 18 Megabytes!!!

PDF files do compress the file size down, but they 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 UNLIMITED storage!!!!



If you specify an email address for your email membership then you <u>MUST MAKE SURE</u> that the email account has <u>sufficient capacity</u> to be able to receive these attachments!!!

It's not all doom and gloom though! Trevor and I have been pondering converting the magazine to HTML format and putting it on the web site so that people could read it online. Trevor already has the web code to allow us to make it password protected from non-signed-up visitors! We also need

to make sure that it only uses bog-standard HTML and GIF or JPEG images so that it is available to a wider audience. Trevor has the habit of automatically using loads of flash and applets on his websites, but I think we need to make things a bit simpler so it can be accessed by a wider range of web browsers. **J**

Important Information

Membership Renewals

If you have access to the interweb you are able to pay your group membership directly from the user group website using your PayPal account.

For those who aren't in the know, PayPal is a web site that allows you to send and receive money internationally. It's excellent, and has recently been purchased by a little company called **ebay!**

The group's web address is **www.ti99ug.co.uk** then just click the "**join TI user group**" button!

While still on the subject of the website, don't forget the TI picture book where you can see photos from TI events. Check back regularly for updates.

The website now has a passworded zone where you can read or download previous and current issues of TI*MES magazine.







The Skype Page

Welcome to a new regular page in the magazine. Trevor and I did have our Skype contact details on the committee members page, however I've decided to add a separate page to try and promote Skype since it's free and will enable us to keep in touch with TI'ers around the world much more easily!

Hopefully having this dedicated page will raise the profile of Skype and encourage more members to use it. If we have enough we could have big online conference which is what we've talked about doing in the past.

Name	Skype Username
Richard Twyning	richardtwyning
	richardtwyningmobile
Trevor Stevens	trevorstevensmegatech
Mark Wills	markrobertwills
Berry Harmsen	berry.harmsen
Tom wills	twills44

I'm deliberately keeping this page sparse as it's your job to fill it by contacting us on Skype and letting us have your username! Also, read the small print below!!!

I don't think Skype will work on Windows 98, but it's available for most other things including Pocket PC's running Windows Mobile. If you've got an older PC then you might want to consider installing Linux, because there's a version of SKYPE available for it!

Please pay careful attention to the usernames as some of them may contain full stops between forename and surname and they won't work unless they are entered correctly!!!

From the Chairman's Chair By Trevor Stevens

Well here we are at East Midlands Airport. We decided to go earlier this year to make sure that we passed through security. Had a nice coffee and two beers before checking in. We discussed the new TI chip set called Da vinci, or the TMS DM355 which is the new media chip. This chip can process so fast that it can detect if some thing changes within the blink of an eye.

Ah Richard has just brought me another beer...

Well the time has now come to go through security. Easy was the word. Not the chaos as at Stantead last year.

We are now sat down in the air side area and looking out for our flight. There we are they have called our flight though a bit late.

Turning off the phone for a bit.

Schiphol airport. Just landed. After a long march collected our bags. However Richard and I had time to talk TI along the way. After collecting our bags, which were off first we headed for a large red an white chequered cube in the main railway station attached to the airport. This cube is a meeting place. We found Berry Harmsen sitting down waiting for us.

The trains are really good. After changing trains at Weesp (wasp) we got to Hilversum. The hotel is called the tulip. The hotel in spite of being three star was very nicely appointed.

We decided to go out with Berry to see Amsterdam and get some dinner.

We visited a whole in the wall chip shop and had frikerdellan and chips. Lovely it was. We then had a tour of the 'bars' including a lap top bar. Being tired we then set off back to the Tulip Hotel.

Next day was the main arrival day. Richard and I had taken a laptop, this allowed for the first time free internet access. We were able lots of info down that was needed for the treff. One of the main attractions on the internet was the films and adverts of the New generation of TI chips and what they can do. This included the TMS DM355 which was given as being the all singing and dancing chip. For example it can be installed into a camera. It will check for the exact light focus and colour then wait until everyone has their eyes open

before taking the photo. It can also be used as a driving aid by detecting a hazard up to 300ft in front and automatically slow you down. Take a look on YouTube the streams are on there. Just type Texas Instruments. Back to the show... I saw for the first time in the flesh

a TI99/8 it was fully expanded with a hexbus disk drive and printer. (See picture right.)

I had a prod round and found that the unit was only one of 8 units which managed to escape. Also at the show was another TI stranger a hand built computer called a Cortex which was in need of repair. The unit was built entirely of TI components. We did manage to get a





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video signal out of it but no screen image. It looked like chip failure somewhere on the board. Also at the show were numerous TI99/4a units in various guises of expansion.



Friday had the mass visit Amsterdam. We toured some of the night sights and ended up having a meal at local bar. We returned at about midnight. Richard and I had a good night drink then off to bed.

Saturday... The main day. Richard and I (Richard did the most work) had prepared a power point presentation on my laptop. We gave a talk about the future expansion of the TI. This went off very well. You can see this talk in article format in this issue of TI*MES.

There were other talks, one of which was the new updates to Fred Kaal's TIdir program which is used in conjunction with the CF7+ shown last issue. The program allows you to program a flash card on a PC (see picture – right) for use in the CF7+. I hope to bring you a review in the near future.

There is still one CF7+ for sale so if anyone wants one

give me a ring or email. I have one and find it brilliant. This means that I am truly mobile without the PEB or Disks. (Not as mobile as this article written on my phone).

Our wives Sue and Gill arrived in the afternoon in the middle of our presentation. Just in time to do a bit of drinking.

Saturday evening saw the traditional TI evening sit down meal and presentations. Thierry Nouspikel got an outstanding contribution award. Richard took the award on his behalf, as Thierry was unable to attend.

After the normal speeches and the like the group retired to the bar area and some back to their TI's.

Sunday came and as usual was a short day and pack up.

After mid day it was off to Amsterdam for a boat ride and dinner.

Monday was go home day. We flew out to East Midlands airport which ended our Treff for another year. Well that's it for another magazine, so till next time...

Fctn Quit.



On Her MajesTI's Secret Service – By Richard Twyning



Dear Tl'er,

Hope you enjoyed the summer issue. I don't know if you realized that I extended it to 28 pages. Firstly because I had to fit in the letter from Clive Scally, and secondly, because I can!

On the day of beginning my article, it is in fact still only the 2nd of July. I'm sat at work waiting for data from Tesco, so I thought I would take the opportunity to do something more useful while I'm waiting and begin writing my Autumn article.

This year is the 60th anniversary of the alien crash at Corona, New Mexico. You'll recognize it better when I say the Roswell UFO crash, but Roswell was the air force base that investigated and covered up the event. The ranch where the crash actually took place was 30 miles away in Corona. It happened in the early hours of 2nd July 1947.

I will remember this day as being the one where we got the first really usable Pocket TI. The chap that I wrote about in the last issue who upgraded DOSbox into pDOSbox 2.0 has kept his word! He's de-cracked it for us so it no longer expires. I've copied it to my phone and migrated over to it. It is a LOT SLOWER than running V9T9 on a proper PC, but it's free and I don't mind slow. I always say. "doing something slowly is still quicker than not being able to do it at all!" There's currently no other way of taking an expanded TI system on a plane, or to the top of a Scottish mountain! I always like to use that phrase!

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With Windows Mobile 5.0 or 6.0 you can use Terminal Services Client to log into any Windows PC that supports Remote Desktop Protocol. I could sit on the top of a Scottish mountain and operate my PC at home! A miniature desktop appears on my phone screen and I can use the touch screen in place of the Windows mouse. The NOKIA Communicator won't do that without messy third-party software.

I'm looking forward to the Treff, although by the time this article goes into print, it will be over for another year! There's a German user that attends regularly and it's been amusing for the last few years as I would attend and would have upgraded my Communicator and he would also have upgraded to the same model. I remember in Vienna we both had a 92IO and in VenIo we both had a 9500. It was Christmas when I rejected the 9500 and Vodafone kindly replaced it with the VI640 as they call it, but it's actually a QTEK9000. Orange call it the SPV M5000.

I've never really spoken to the chap or shared communicator software, although Trevor and I did almost become room mates with him at the fiasco that was better known as the Vienna Treff in 2003! It seemed that Kurt Radowisch who organized it was intent on double booking everything! He tried to double book the rooms, and he double booked the venue because the hall turned into an evil opium den when half of it was taken over by smoking card players! At night there was some nasty entertainment for their benefit. Certainly not for our benefit as it kept us awake until the early hours!

This year I'm interested to know if this German chap has upgraded again as there's a new communicator available. The E90. It's the most powerful mobile phone that NOKIA have ever released, and there's a review on the internet that says web browsing is much better than on Windows Mobile Pocket PC's even though the screen has less pixels. It's actually 800 x 352, whereas WM Pocket PC's are VGA resolution 640 x 480. It does say in the same review that it was nearly impossible to highlight text on a web page and copy it! That would really wind me up nowadays! There's certainly nothing wrong with web browsing with Opera Mobile and since Pocket PC's have a touch screen, it's easy to highlight anything and copy and paste it! NOKIA Communicators certainly lose on that one!

The old communicator also had FAX, but it's been removed in the E90. Windows Mobile doesn't have FAX as standard, but in the new E90 there's actually a hardware limitation that means it will NEVER support FAX, whereas for Pocket PC there is a company that are planning a new version of fax software that WILL support the internal modem on newer Pocket PC phones such as mine and Trevor's! One Nil to Pocket PC's!

The biggest things against going back to using communicators for me was that they were really nasty to program. I only ever wrote software in OPL which was a cross between BASIC and PASCAL. It was very slow and you had very limited access to hardware

resources.

The development kit gave you the capability of programming in C++ or Java, but the Java was too difficult to get to compile, and C++ was just too difficult to program!

It would take a lot of persuasion to make me give up nice straightforward development in C#. At first I didn't like the idea of C# because I thought it was just Microsoft throwing their toys out of the pram and trying to replace Java, but actually they're doing the world a service for once and it actually replaces C++!!

For me, I can't see any reason for C++. C always did a good job when I wrote programs with it. It was always straightforward and I could never see the point for C++.

C is procedural, the same as BASIC. Execution of the program starts at the top and works its way to the bottom, unless it hits a loop or calls a subroutine.

Here's a loop in both BASIC and C...

10 IF BREAKOUT = 1 GOTO 100 while(BREAKOUT != 1)
15 ! Additional code goes here
20 GOTO 10 {
100 REM code after loop here.
}
/* additional code goes here */
}

This highlights the difference between BASIC and C. In BASIC, the only thing you have to play with to create loops is GOTO. You might have heard that GOTO is evil and you shouldn't use it! This is rubbish! If it's the only thing you've got, then it's excellent! After all, we all use GOTO every day! The processors that run our computers and mobile phones all have to use GOTO. There's currently no processor that doesn't use GOTO. There's a jump instruction that jumps to a certain address and there are other instructions that only perform a jump on certain conditions. Two numbers are compared, which might set bits in the status register, such as the equal bit. Then a "jump if equal" or JEQ will branch to a specified address if the equals bit is set.

This operates very much like the BASIC code above.

You will see that the C code tries to isolate you from the GOTO.

Today you might have heard about object oriented programming or "OO".

Originally I rebelled against it, probably because my first exposure to it was C++ in the NOKIA Development Kit. C++ was a bit of a bodge job and I can't believe it's still lingering around!

Java was an attempt by Sun Microsystems to make a portable Object Oriented language that would run on any machine. In a way it's very much like a modern day P-Code.

P-Code is an intermediate instruction set, and as we all should know there was a P-Code card available for the TI. When a program written in UCSD PASCAL was compiled, it wasn't compiled into TMS9900 or any other machine code that would run on a real processor. It was compiled into P-Code. This was interpreted by the P-Code card. Something like that anyway! It never really took off like Java has.

Java is an updated version of P-Code. Each compiler on different machines compiles the same virtual code. Each system then has it's own virtual machine that runs the code. This is the JVM, Java Virtual Machine.

There are different versions of Java depending on the size of the machine it's running on. The last time I was playing with it, it was on version 2.

For PC's with Window\$ and Linux there's J2SE which means Java 2 Standard Edition. For mobile devices there's J2ME, which means Java 2 Micro Edition. This is the same thing as MIDP, Micro Device Profile. The small compiled program that run on J2ME are called Midlets.

There's also J2EE, Enterprise Edition which does a bit more than J2SE, but nothing worth worrying about!

There are also Java programs that can be embedded into web pages to do some quite complicated things. These obviously have a level of security so that they can't access files on your computer so that a dodgy website can't put anything on your machine!

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For a while there was also something called Personal Java which was based on Java I.8 and not 2. This was for mobile devices more powerful than a mobile phone. This was the version of Java for which NOKIA supplied a development kit for the 92IO Communicator, although the 92IO did also have a J2ME virtual machine available. The virtual machine for J2ME is actually called a KVM. The K means that the programs it runs are very small and only a few "K" in size!

A few years ago on the TI list server some people were complaining about Java, saying that it was "creeping" into more and more web pages and slowing the internet down. This wasn't true! It was actually the increasing use of flash that was slowing the web pages down because of the longer download time. This problem went away with the arrival of broadband.

At the time however, I was using Java in my job and I knew how good a language it was. What I was thinking was that if a mobile phone could run a KVM to execute Midlets, then why couldn't a TI?!?

Then we would have access to a large library of J2ME applications and games on the TI!

Back to the difference in Object Oriented Programming...

OO uses classes which can extend from other classes. A class is just a piece of code that defines an object. I won't frighten you with C++. Here's some C#...

```
namespace TestProgram
{
    public class TestClass
    {
        public string Title = "";
        public void SetName(string text)
        {
            Title = text;
        }
    }
}
```

In another routine in the "TestProgram" project you can use the following code to create an object from the above class.

TestClass TestObject = new TestClass();

TestClass becomes a variable type when you use it to create an object. TestObject is the name of the variable that contains the new object.

Each object created like this has a public variable called Title and a function called SetName.

The title of the object can be changed in two ways.

TestObject.Title = "Fred";

0г...

TestObject.SetName("Fred");

You can see that the advantage of using objects is that you can add new functions and variables to the TestClass code and every object that's created from it will automatically get the new features!

You can also extend existing classes to make new ones. The new class will get all the functions of the existing class (the base class). In C# all classes extend from the System.object class and add more and more features to it.

The advantage for us in these development kits is that it does make it easier to create software for Windows and for mobile devices that can help the TI community.

The first type of software that would spring to mind would be a TI emulator. The advantage of object oriented programming and classes is that an object is self contained and contains code that enables the object to look after itself.

In a TI emulator a single simple processing class can be extended to form the TMS9929, TMS9900, or even the TMS9901. Each of these devices can be extended from the same, much simpler base class.

The writing of software on other machines for the benefit of the TI is part of my article a bit later on, and the subject of my talk at the 2007 Treff!

Now here's something that could be revolutionary for the way we use our TI's!

New Connections for the TI and GENEVE

Quite a few issues ago I wrote about the possibility of using Bluetooth on the TI. I think it generated some interest in mainland Europe as I was asked for a copy of my article and permission to use it in other magazines.



I don't know if anyone experimented with it, but at the time Bluetooth to Serial converters were more expensive, around £70 each I think, and I couldn't justify it at the time as the project wasn't so urgent.

Bluetooth was designed as a way of eliminating wires when connecting devices in close proximity.

The most noticeable elimination of wires by using Bluetooth is the use of Bluetooth Headsets...



You see more and more people using Bluetooth headsets in their cars so they can answer their phones and talk whilst driving. This is obviously using Bluetooth to transmit audio data, which highlights the fact that Bluetooth has many profiles depending on the type of data that is being transmitted. Until I was researching my talk and this article, I didn't realize how many there were!



Serial Port Profile (SPP)

SPP defines how to set-up virtual serial ports and connect two *Bluetooth* enabled devices. SPP is based on the ETSI TSO7.IO specification and uses the RFCOMM protocol to provide serial-port emulation. SPP provides a wireless replacement for existing RS-232 based serial communications applications and control signals. SPP provides the basis for the DUN, FAX, HSP and LAN profiles. This profile supports a data rate of up to I28 kbit/sec. SPP is dependent on GAP.

And...

RFCOMM

The RFCOMM protocol emulates the serial cable line settings and status of an RS-232 serial port and is used for providing serial data transfer. RFCOMM connects to the lower layers of the *Bluetooth* protocol stack through the L2CAP layer. By providing serial-port emulation. RFCOMM supports legacy serial-port applications while also supporting the OBEX protocol among others. RFCOMM is a subset of the ETSI TS 07.10 standard, along with some *Bluetooth*-specific adaptations.



I recently stumbled across two companies selling Bluetooth to Serial converters for

and one of them now is only **£29.99!!!**

I will dig out some details for those interested.

The converters are manufactured by LM Technologies in Birmingham. They have 9-pin D-Type connectors, but we can easily make a gender bender to adapt them to 25-way. 2.2. RS232 Interface 2.2.1. Pin-out



Pin	Signal	Direction	Description	
2	TxD	Output	Transmitted data	
3	RxD	Input	Received data	
5	GND	N/A	Signal ground	
7	CTS	Input	Clear to send (Remarks)	
8	RTS	Output	Request to send (Remarks)	
9	Voc	Input	Power supply	

Remarks: The default hardware configuration is for using CTS/RTS. If you want to use DSR/DTR, please contact us.

2.3. Factory Settings

The factory settings of COM port are as follows:

- Baud rate: 19200bps
- Data bit: 8

222 Signals

- Parity: none
- Stop bit: 1
- Flow control: H/W or none

Others: Please refer to section 4.3 AT Command Set.



Bluetooth

4.1 HyperTerminal Settings

Bits per second: 19200 bps (baud rate)

4.Usage

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Out of the box they come set at 19200 baud, so they will have to be plugged into another machine to have their baud rate default set to something that the TI will handle safely.

I do remember I used to get IOO% reliable text and file transfers with TELCO up to 4800 baud.

They can be switched down to 4800 baud with built-in AT commands. Once they have been switched I'm sure the new baud rate will stay as a permanent default.

The first advantage to having access to Bluetooth on the TI is that there is an easy supply of MODEMs that will work with it. Most modern mobile phones have a built-in MODEM, and software that allows you to set the phone into "MODEM" mode and work as a modem for another machine through the use of AT commands.

In our case you can set your mobile phone into MODEM mode and specify that the connection is ονεγ Bluetooth. The made Bluetooth to Serial converter is paired with the mobile phone (through the USE of AT commands). Then, the phone will have its own set of AT commands and works just like any modem connected to the TL

You can also use the adapter to connect directly to a laptop or PDA that has Bluetooth. It's is getting more and more difficult to

4.3. AT Command Set

Data bit: 8

Stop bit: 1 Flow control: H/W

Parity: None

The following is the AT command set for the local adaptor in the command mode (that is, the local adaptor is in the disconnection state). All the commands and parameters are case insensitive.

You can reprogram the default settings on the adaptor using HyperTerminal.

	Command	Description This command is used to specify whether the adaptor echoes characters received from the UART back to the DTE/DCE.		
[E			
	E0	Command characters received from the UART are not echoed back to the DTE/DCE.		
	E1 (default)	Command characters received from the UART are echoed back to the		
	E?	Inquire the current setting.		
•	4	This command is used to specify whether the adaptor can be discovered or connected by remote devices.		
	но	The adaptor enters the undiscoverable mode. If a pair has been made, the original connecton can be resumed. But other remote master device cannot discover this adaptor.		
	H1 (default)	The adaptor enters the discoverable mode.		
	H?	Inquire the current setting.		
[_	This command is used to specify the baud rate of COM port.		
Γ	LO	4800bps		
	L1	9600bps		
	L2 (default)	19200bps		

get hold of laptops that have serial ports. You have to pay quite a lot of money for a brand-new laptop these days that has serial ports! Therefore having Bluetooth for the TI might be the only solution soon!

What's the new connection?

The new connection that prompted the title of this article however, opens up our connection possibilities beyond anything we could have imagined before!!!

I am proposing to connect the TI via Bluetooth to a server. This is no ordinary server however!

The specifications of the server I'm talking about are as follows... 600MHz ARM Processor, Linux Operating System, 40 Gig hard disk.

You might think that servers are very large machines, and you might think that 40Gig doesn't sound like a lot of storage these days. This is a very special server I'm talking about though!

On the right is a computer generated image of what it looks like...

It's called BluOnyx, and if you can't get any sense of scale from the above image, it's only 6 * 9 cm and up to I.5cm thick if you go for the 40Gig option. You might also notice that it has an SD slot and beside it is a USB port. The capacity of SD cards is currently up to 8 Gig for the new SD HC (High Capacity) standard!

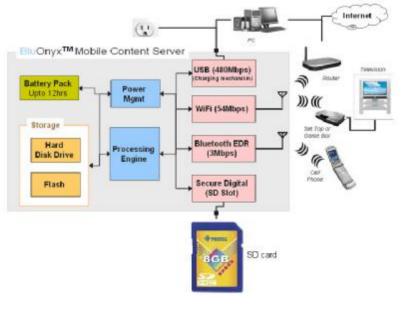
So what is it?!?!? It was originally created by a company called Agere who have now been taken over by LSI Corporation. LSI are makers of chipsets and hard disk storage solutions. The BluOnyx is certainly an excellent solution to problems that many people don't realize they have!

> I know I've got a problem! LSI call the BluOnyx a "Mobile Content Server" and it is designed to take the control of your important everyday data away from the PC and make it more accessible whilst you are on the move.

> I have a flash memory stick and a portable hard disk, but I do have the problem that I would like the data on these to be accessible directly to my mobile phone whilst I'm out and about. This currently isn't possible. I need access to a PC or laptop to copy the data onto my phone!

The BluOnyx does away with all that. Flash sticks are more convenient than portable hard disks because they are very compact. Just covertly pull it out of your pocket and put it into the USB port of a machine and you're away!

Portable hard disks are much less convenient because you always have at least one wire to contend with. I've recently bought a Western Digital IGOGig Passport drive. These drives are powered from the USB port directly, so they eliminate the need to mess









about with a power supply. However, there is still wire involved, so they are much less convenient and much less covert than flash memory sticks.

The disadvantage of memory sticks though, is that they have a very poor capacity compared to hard disks.

If only there was something in between? Well, thanks to LSI, there will be the BluOnyx!

It still is a portable hard disk that has a USB connection to a PC. However, it's not forced to operate via USB. It charges via USB and will last for up to I2 hours when fully charged.

If you want to covertly use it on a PC you can use a Bluetooth dongle rather than a flash memory stick which can be plugged into a USB port.

This biggest advantage of BluOnyx is that it will work with virtually any mobile phone. It uses a phone, PC or PDA as a display. Somehow it "pushes" a Java app to the phone and then you can navigate the file system of the BluOnyx using the Java app. This means that it will work on phones up to five years old! On a PC you will be able to do the same via a web page interface in the same way you view a network router's settings via a web page. It doesn't matter where you are and whether you have access to a PC or not, you will always have access to your data on the BluOnyx.

The good stuff doesn't just end there either! It also has Wi-Fi internet built in. LSI also say that the BluOnyx can provide wireless internet access over Bluetooth to phones that don't have Wi-Fi built in!

This is the possibility that really got me thinking! Like all new products that interest me, I couldn't make do with the information that was available across the web. A lot of the articles about the BluOnyx on various web sites was very much out of date, and I set myself a personal mission to collect as much information about it as I could.

Originally I managed to make contact with someone from Agere who was working on the product, but he seemed to stop responding all of a sudden. Later on I found out that the reason was that Agere had been taken over by LSI.

Luckily I had persevered and had another attempt at obtaining information.

I managed to find the same person again and that was Fadi Afa Al-Reface. Here's his first email...

From: Fadi Afa Al-Refaee Date: 05 / 07 / 2007 - 20:47

Hello Richard,

I apologize for the late reply.

You and I did exchange emails some months ago.

As of now, we are holding off release of any product info and development kits outside of the few customers we have engaged with.

We would like to guage feedback before we proceed forward with expanding our alpha application development customer base.

We hope that you will be patient with us.

I look forward to providing you with more news when we bring the program to a mome mature stage.

Feel free to contact me should you have additional questions outside this scope.

Cheers, Fadi Afa Al-Refaee

He made the mistake of inviting me to ask questions! From this moment there's no chance of him getting rid of me until I get a BluOnyx and a user manual in my hand!

From: Fadi Afa Al-Refaee Date: 06/07/2007 Subject: Re: BluOnyx

Hi Richard,

Thank you so much for your patience.

The answers are below. I have given you what I can at this point.

Ask other questions and I will see about giving you some more as it becomes possible.

Hope it helped!

Cheers, Fadi

----Original Message-----

From: Richard Twyning **Sent:** Thursday, July 05, 2007 II:43 PM **To:** Afa Al-Reface, Fadi (Fadi) **Subject:** Re: BluOnyx

Many thanks for your reply. I apologize for making a nuisance of myself, but I am so excited about this product and some details still seem quite vague.

Please tell me as much as you're allowed without giving away any secrets.

Hopefully I can initially ask a few things.

I. Will there be a released version with an SD slot AND at least 40Gig hard disk? Answer: YES **2**. Will the operating system on the device be advanced enough to execute third party software on startup, which could be called up in some sort of batch file? Answer: Not sure about batch file, but the rest, the answer is YES!

3. Will it be possible to develop third-party software in something like Microsoft C# or C++ using Visual Studio?

Answer: ANSI C - a compiler for C# or C++ may not be available - in fact I would suggest programming using web scripts and HTML, including CSS, AJAX, etc...

4. Will third party software have full control over writing files on both the SD card and hard disk? And can it interact with any PDA that might be connected to the BluOnyx via Bluetooth or WiFi? Answer: Not SD slot. HDD yes - if the PDA allows such interaction yes. We can't fully control what they will allow.

For the TI Community this question is the most important...

5. For old obsolete computers would there be sufficient documentation on the BluOnyx communication protocols to allow someone to develop software that communicated with the BluOnyx using serial data via an RS232 to Bluetooth adapter and serial port profile?

Answer: Yes

That's all I can think of for the moment. Any answers are eagerly awaited and greatly appreciated.

Many thanks for replying to me. Hope to hear from you soon.

Kind regards, Richard Twyning

Fadi did answer some quite major questions, but he did make a second mistake of saying "ask other questions", so I did!!!

From: Fadi Afa Al-Refaee

Hello Richard,

I hope I haven't been too late in my response.

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I appreciate your follow up questions. I would like to share what I can with you, but please recognize that in sharing details before a product is released, it can take away from its competitive capability in the market place. I am limited by what I would like to give you in this regard.

For the moment, here's what I can respond with. See below.

Good luck always!

Cheers,

Fadi

From: Richard Twyning **Sent:** Friday, July 13, 2007 3:59 AM **To:** Afa Al-Reface, Fadi (Fadi) **Subject:** Re: BluOnyx How are you?

Many thanks for your previous answers, they were extremely helpful. I emailed you some more on the 9th, but not sure if the message reached you.

Here they are again in a more compact form...

Will the ANSI C compiler for developing applications be supplied with the BluOnyx? NO (I'm sure we'll get hold of one somehow!)

Are there any specific API functions that you can release information about? Not at this time.

Does the SD slot just work to back up SD cards, so that when an SD card is inserted it copies everything to the hard drive?

This is user configurable and can be changed through a PC, web and other interface (API).

If you are accessing the BluOnyx from a Windows Mobile Pocket PC will the BluOnyx appear as a separate disk under file explorer?

Yes (Don't worry they also have drivers for NOKIA S60 3rd Edition too! J)

Lastly, since the BluOnyx has no display, will there be a standard interface where it's possible to see data from running programs and directory information of the hard drive and SD card? The interface will be the display of the destination device. The API will provide some of this info as well.

Will third party programs have their own display area?

Yes - shared on the same screen as the destination (pairing) device.

I can see how this will work on a more powerful Pocket PC that has a full web browser and WiFi, but how will this work in the case of a less powerful mobile phone such as an old NOKIA 6600 which uses the Series 60 front end?

This is part of the competitive capability of the BluOnyx - I am unable to share this with you at this time.

I received a reply from Thomas Foerste who said that exciting things would be announced for the BluOnyx very soon.

We will make some announcements in Sep about the product.

Many thanks.

Kind regards, Richard Twyning

Following this message I emailed him back and told him some of the projects I have in mind for the BluOnyx. I think he was suitably excited, as I'm sure you will be. Here's his response...

Date:Fri, 13 Jul 2007 11:31:10 -0400From:Afa Al-Refaee, FadiTo:Richard Twyning

Richard,

Thank you very much for your correspondence.

This kind of user feedback is the kind we salivate at. It is a resounding message from some prospective users who see the vision of the BluOnyx, and we respect that you are able to see and imagine these scenarios.

Thanks again for the feedback and I promise I will be in touch in Sep. You have my word!

Cheers,

Fadi

Fadi is certainly a man of his word, but unfortunately hasn't contacted me in September as it wasn't long before I received this email from him...

Date: 14 Aug 2007 16:41 From: Afa Al-Refaee, Fadi To: Richard Twyning

Hello Richard,

I am contacting you early.

We have decided to adjust the development of the BluOnyx program and have made some shifts in schedule.

Due to the dynamics of this change, we will be publishing a new schedule to the public in November.

As such, I will not be able to share more with you in the Sep time frame due to confidentiality reasons.

I hope you will be patient with us during this time.

I will be in touch again in Nov

Cheers,

Fadi.

So, what are my big ideas you might ask?!?

I think I've already given you a clue to one of the ideas since the BluOnyx is a powerful server.

It's a 600MHz ARM machine running Linux with a 40Gig hard disk. Not many years ago you would have been happy if this was your main desktop machine!

The BluOnyx can quite happily connect wirelessly to the internet and then process any information it receives and then transmit this to another device over Bluetooth. I aimed my questioning to make sure all of my ideas were feasible!

The first idea has two parts to it really. Both of which require NO CODE WRITING FOR THE TI WHATSOEVER!



The first one is simply to create a program on the BluOnyx that can download web pages and transmit the text via Bluetooth to a connected device. In our case, the connected device will be a TI or GENEVE using TELCO and a Bluetooth to Serial converter!

The other idea is to have an email program on the BluOnyx which can download all of your

messages whenever the BluOnyx finds a suitable wireless connection. Then, when you connect to your BluOnyx with your TI you can use a text based interface from TELCO to read your messages!

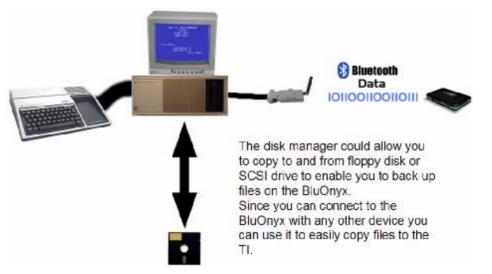
The internet finally reaches the TI and since the BluOnyx liberates your data from being based on a PC, you don't have to buy a PC to be able to use proper internet email! If you do need to do any file management or administration that the TI can't handle, or hasn't been written for, then you're able to use your mobile phone to do this. Chances are everyone who's reading this and likely to purchase a BluOnyx has already got a mobile phone capable of connecting to it!



The second idea is a bit more involved and will involve the writing of code on the TI.

I made sure I asked Fadi if there was full documentation for the communication protocol, which he said there was.

My second idea is to add BluOnyx functionality to



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existing TI SCSI and Floppy disk managers. Either Mark Wills or Fred Kaal can hopefully shine their expertise on this problem!

The system should be able to catalog files on the BluOnyx and allow files to be copied to and from it. Because we're talking about a serial protocol to interrogate the BluOnyx and not a direct filing system, the TI should have access to the entire 40 Gigabutes!

I think it will be too complicated to write a DSR that could add OLD and SAVE capability to the system. I don't know how we would do this on a TI other than maybe writing functions in any spare space on an Horizon RAM disk DSR.

This would be more doable on a GENEVE. The disk manager that can copy to and from the BlyOnux should work on both systems.

The only thing I haven't discussed yet is the price of the BluOnux. According to all the articles on the

internet, prices will start at £50, presumably for a version that only has an SD slot. Everything I've read so far claims a top price of £150. This will be for the full version that has an SD card reader and 40 Gigabyte hard disk.

= 40,000,000 bytes \div 256 bytes per sector. 40 Gigabytes = 156250 sectors ÷ 720 sectors

= 217 double sided single density TI floppy disks

Here's a report on the 22nd international TI Treffen in Hilversum, Netherlands.

After the problems we had last year, we decided not to take any chances this year, and even though we were only flying from East Midlands airport, we arranged for Trevor to pick me up at IO am.

We had quite a wait at the airport, but at least we were on the right side of airport security!

The flight was a bit bumpy and one of my least enjoyable take offs, but we had a spare seat between us and had plenty of leg room and the flight was over really quickly.

Berry Harmsen met us at the airport at the very prominent meeting point and already had train tickets already waiting for us to speed up our journey to Hilversum.

It was amusing when we arrived at Hilversum. You walk off the end of the platform and there's a barrier that stops you when there's a train coming, and after that goes up you emerge in the middle of the level crossina.

If you hadn't already realized you were in Holland, you can be reminded now as there's a bike shop right near the station that stays open until I:00am!!!

The walk to the hotel on this first night seemed a lot longer with the luggage! Berry negotiated with the receptionist and Trevor and I were showed to our room. We'd decided to share for a couple of nights to keep the cost down.



The Tulip Inn is the very first hotel I've stayed in that's had IOO% free wi-fi in the room! In fact I think it's the first hotel I've stayed that's had free wi-fi anywhere!

The last hotel I remember staying at that had wi-fi was the Hilton in Dundee and there you had to pay so much for 24 hours and you got a little BT Openworld scratch card. It worked with my phone though, so that's the main thing.

I must say that at the Tulip neither of our phones could connect to wi-fi in the room. Their antennas weren't big enough. Trevor took his laptop and a USB-Wifi dongle. The long USB lead meant he could dangle it anywhere and effectively extend the aerial, so we were able to download things and test things and make sure everything was set up before my presentation on Saturday.

I was a bit nervous about it, but I think that was outweighed by the excitement of potentially drumming up support for the idea.

On Friday night we went into Amsterdam for a meal. Gerhard Eichberger was on usual form, confusing the waitress! He ordered two main courses! "Does he really mean that?" She had to ask us? "Oh yes, he does!" When it arrived he made light work on inhaling it all!

My talk went really well and everyone seemed really enthusiastic about it. Soon afterwards Gill and Sue arrived and Gill and I were able to move into our new room.

They went shopping in the afternoon and Trevor and I carried on TI'ing until it was time to get ready for the Treff dinner.

The dinner also went really well. I'll have to locate the photos and get them published on either the web site or in TI*MES. Thierry Nouspikel was given an Edgar Mauk Award but I'm afraid we've not had time to pass it on to him just yet!

On the Sunday in the morning our ladies went for walkies I think, leaving us to mingle again in the meeting room! We had a good look around the TI-99/8 that Jens-Eike Hartwig had brought. It's a real shame for the world that TI didn't stick with it for longer and get a better marketing man. It is an excellent machine.

In the afternoon we went into Amsterdam and got the wrong train at first and had a bit of a mystery tour. It was the changing at Weesp that threw us a bit!

I know we had a meal in Amsterdam, but I can't remember whereabouts or what we had! I certainly do remember our excellent boat ride into the harbour and back into the canals.

Monday morning was an early start. Our flight was quite early which meant we were back home quite early and able to unwind before starting work the next day.

Apologies that this issue is quite late. I'm producing this back to back with the Christmas issue which should hopefully be ready to send out together!

THE END BUT... RICHARD TWYNING WILL RETURN

Francesco Lama - Media Librarian

Many thanks to Francesco for supplying us with a new updated module library listing.

MODULE LIBRARY (Updated 8th October)

TITLE	QTY IN STOCK	PRICE (POUNDS)
32k SUPERSPACE (MODIFIED ROMOX)	1	25.00
ADDITION & SUBTRACTION 1 ADVENTURE + PIRATE TAPE (OTHERS ADVENTURE MODULE ONLY ALPINER A-MAZING	3 TOO) 5	5.00 3.50 8.00
BEGINNING GRAMMARBLASTO		
CAR WARS CHISHOLM TRAIL CONNECT FOUR		3.50
DISK MANAGER DISK MANAGER 2 DIVISION 1		4.50
EDITOR ASSEMBLER + MANUALS & DI EXTENDED BASIC STILL IN ORIG. E EXTENDED BASIC + MANUAL EXTENDED BASIC MODULE	BOX 1	25.00 22.50
HOUSEHOLD BUDGET MANAGEMENT HUNT THE WUMPUS HUSTLE (EA VERSION ONLY)		4.00
INDOOR SOCCER		4.00
JAWBREAKER 2		4.00
MINI MEMORY + LINE BY LINE ASS. MINI MEMORY AS ABOVE + MINI WRI MULTIPLAN + SOFTWARE + MANUAL . MULTIPLICATION 1 MUNCHMAN MUSIC MAKER	TER 2	18.00 30.00 3.00 3.50
PARSEC PERSONAL RECORD KEEPING PERSONAL REPORT GENERATOR PHYSICAL FITNESS PROTECTOR (NOT MK 2 CONSOLES) . PROTYPER		3.50 5.50 4.00 5.00
SHAMUS (NOT MK 2 CONSOLES) SPEECH EDITOR SUPER DEMON ATTACK SUPER EXTENDED BASIC	1 1	3.50 3.00

Supporting the **TI-99/4** and Alan, the MYARC GENEVE 9640, Michael Becker SGCPU card, And any other compatible machine.

MODULE LIBRARY continued...

TERMINAL EMULATOR 2 6	
THE ATTACK 1	
TI INVADERS 1	4.00
TI LOGO + FOLDER & MANUAL 1	15.00
TI WRITER MODULE	
TOMBSTONE CITY	4.00
VIDEO GAMES 1 1	3.50
YAHTZEE	3.00



Texas Instruments TI-99/4 A User Group U.K.

TI Workshop Saturday 1st March 2008.

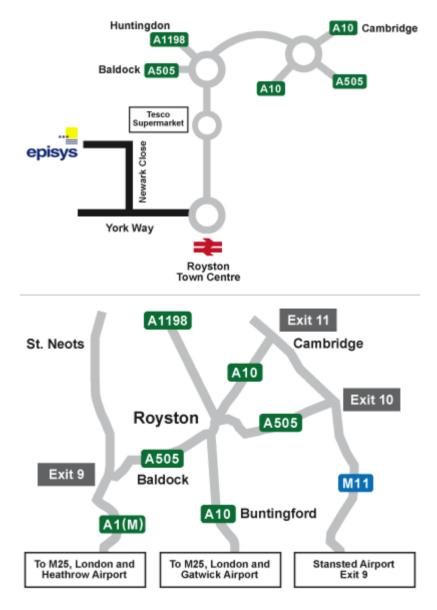
Episys Ltd, Newark Close, Royston, Hertfordshire, SG8 5HL, UK

This venue has been kindly lent to us by group member Derek Buchanan who is CEO of Episys Ltd.

Travel details to the workshop

Royston station is the nearest mainline stop to Episys with a frequent connection to London Kings Cross and Cambridge.

The Episys UK office is about a fifteen minute walk from the station. If you wish to walk, exit the station via either platform and turn left onto the main road. Continue along until the 2nd roundabout where you should turn left into York Way. Turn right into Newark Close and take the first left turn and you will see the Episys building ahead of you.



Supporting the **TI-99/4** and Ale, the MYARC GENEVE 9640, Michael Becker SGCPU card, And any other compatible machine.

An unsung Tl'er

Rodgers deCordova

Rodgers deCordova owned Joy Electronics, Inc in Dallas, Texas from 1981 until 2005. From 1985-2005, he sold and supported the 99/4a to literally, the world. He sold all kinds of merchandise to the U.S., Canada and countries as far away as Costa Rica, U.K., Malta, Bolivia and other parts of the globe. He was also a frequent visitor to the North Dallas TI User Group.

Even though he didn't make much money doing this, he believed in the 99/4a and would help anyone find the items that they needed and would tirelessly support his customers all on his own nickel via a 1-800 number.

Around 1991, Rodgers saved an huge Canada-TI inventory from meeting a date with the landfill. Although he wasn't sure if he could sell this immense supply of 99/4a items, he couldn't see all these items being buried in a Canadian dump.

Rodgers finally retired in 2005 and has liquidated his 99/4a inventory. There have been many people that have played a role in the TI 99/4a story, but one of the unsung heroes is F. Rodgers deCordova, the owner of Joy Electronics, Inc in Dallas, Texas.

Article written October 22, 2005



F. Rodgers and Joy deCordova (10/15/2005). Joy Electronics Inc. was named after Joy deCordova.

In the next issue of TI*MES...

Look forward to your Christmas issue of TI*MES. We are going to have lots of programs to type in to keep you going over the winter months. And when we say lots, we do mean lots.

The details of the TI Workshop will also be included as a separate flyer so you can easily bring it along to the workshop! There will be no excuses to miss it!

We hope you have enjoyed this issue?

J

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