SHIFT838 Newsletter

This newsletter is dedicated to the ongoing support for the Texas Instruments 99/4a and Myarc Geneve 9640 user community and is published by SHIFT838.

I have been in contact with Ralph Rees which was the President and Newsletter editor for the Phoenix Users Group. Ralph has given me permission to take articles he has provided and publish in this newsletter for fellow TI'ers to enjoy. Some may have seen these before but I am sure a majority of us have not and it will be a wealth of new information to some of us.   The amount of information that Ralph has sent me is quite a bit so I will be adding one article to the newsletter every month.

Thanks to all that have subscribed!

Interviews

I had a suggestion from a subscriber to get an interview with Jim (Ksarul) as a few people inquired that they would be interested in hearing from him and the type of collection he has. This is a very interesting read and I am happy to be able to provide this to the readers as I am sure that Jim was happy to participate.

Jim (Ksarul)

1.   When did you first get into the TI and what helped make your decision to go with the TI and then later the Geneve?

I bought my first TI in late 1981 as an early Christmas present to myself. I paid $399 for it through the military Exchange mail order catalog. I bought a copy of one of my favorite games, TI Invaders, and a set of Joysticks at the same time. I also ordered TI Extended BASIC, but that was during the period of time where it was a very hard module to get, as they had just found the bug in V100 and there were a lot of backorders while waiting for the V110 modules. I think I finally received mine in April or May of 1982. I had been playing with other peoples' computers for a couple of years before I settled on the TI. I tried the TRS-80, Altair, Apple II, Atari 400, and several CP/M machines before one of my friends bought a 99/4A. We learned to program BASIC on it together in the summer of 1981. I really liked the machine then, partly because of the keyboard and partly because of the implementation of Invaders—and I've never regretted choosing it. I bought my first Geneve in 1987 (part of the Tenex pre-order), and worked my way through all of the strange bugs contained in the earliest editions of MDOS and ABASIC. When the opportunity to buy out the source code from Myarc came along, I was one of the first contributors to the project. I did a lot of interesting work with that Geneve— including typing in the entire text of the TI GPL Handbook, as my copy was just good enough to read but not good enough to copy again and a lot of people wanted one.

2.   How many different TI and/or Geneve systems do you have and what is their configurations? (I know some TI'ers are very interested in hearing about your collection.)

I probably have a lot more systems than most. I have one Geneve set up in a TI PEB with a BwG Floppy controller, a Rave Speech Adapter, a Horizon MEMEX card, an HRD 1000, and a Myarc HFDC. I have a second Geneve set up in a Rave PE2 box

as my spare machine, but it isn't set up at the moment. I have a number of TI-99/4As set up as well. My boys have one in our living room that is set up with a Speech Synthesizer and a Myarc MPES 50 Expansion system. I have a full SNUG system set up in my computer room that I haven't been able to use lately because I've got it blocked from direct access as a result of setting up an EPROM-burning station in front of it for the various cartridge projects. I also have a standard 99/4A set up with a Mechatronic GRAM Karte, TI RS-232, Berlin Speech Adapter, p-Code card, Myarc 80-track Floppy Controller and a TI 32K card. Next to it, I have a TI-99/8 set up with a PEB containing an Armadillo Interface, 512K Memory Expansion, TI RS-232, and a Myarc Floppy Controller.

I have another 20-30 consoles, including four or five 99/4s of various types (including the motherboard from a 99/4 prototype); another 99/8 (I have one of each of the two motherboard types); and more strange PEB cards than most people have heard of. They include the TI IEEE-488 card, the TI DSDD controller card, the TI 128K memory card for the 99/4A (and one of a different type for the 99/8), the TI EPROM card, a TI FORTI card, a DataBioTics Grand RAM (I have to repair some battery damage on that one yet), an Asgard AMS, a SW99ers SAMS, a couple more SAMS boards that I built, several Horizon RAM Disks of various sizes, an ICS 32K card (as well as similar cards from CorComp, Myarc, Atronic, and TI), a Wiesbaden RS-232 Card (along with similar CorComp and Myarc cards), a Myarc personality card, a WHT SCSI card, a Nouspikel IDE card, and a SNUG ASCSI (in addition to the full set of SNUG cards in my SNUG system).

I also have a lot of sidecar things, as hinted at by the system using the Myarc MPES 50. I have the TI 32K, RS-232, SSSD Disk Controller, Thermal Printer, TI GSIM (the first GRAM device for the TI), TI EGROM Boxes of several types (GROM simulators using ROMS), Hex-Bus Interfaces and a nearly complete set of Hex-Bus peripherals (only missing the Hex-Bus Display Adapter), Atronic RS-232 and 32K sidecars, a Mechatronics 80-Column Card, Tachyon 32K, Doryt 32K, ICS 32K, Boxcar RS-232, CorComp 9900, CorComp 32K, CorComp Clock, Percom Data TX99, and a few others (from Italy and elsewhere in Europe).

3.   What are a couple of your major accomplishments surrounding the TI and/or Geneve you have accomplished and/or been a part of?

Being part of the MDOS buyout was probably my personal favorite accomplishment, as that made survival of the Geneve possible. Other than that, my favorite recent accomplishment is the project to create the UberGROM cartridge boards in concert with Jon Guidry and Tursi. We bounced ideas off of each other for months as we refined the requirements on that one—and the software Tursi designed to make all of it work is fantastic. I've gotten good at doing hardware layouts, but it is the software that makes it live. The 512K cartridge boards were a direct descendent of the UberGROM, as I realized that I could use the same circuit I designed for the ROM side of that board as a standalone board—and then I extended it again to make the 2048K boards. I don't think any of these projects would have taken off half as well as they did without the valuable work of one individual: Tony Knerr. He built several images for the UberGROM, the 512K board, and the 2048K board to give valid use cases for all of them. None of us works in a vacuum anymore—and the teams that build the newest hardware/software for our TI machines exist in many cases because of the comfortable environment presented by the AtariAge forum.

4.   What are a few of the pieces of hardware you have that you think you could not live without for the TI/Geneve and why?

I definitely need the Hard Disk controllers, as none of the RAM Disks available to us have the huge amount of storage space they provide (yet—as some thoughts burbling about between Tim Tesch and I may actually get us to a 20MB RAM Disk). My other major needs are GRAM devices to simulate cartridges that I haven't been able to find yet and 80-Column cards for expanded display capability.

5.   What are a few of the rare hardware items you have for the TI/Geneve ?

I pretty much answered this one already up above. Probably the rarest items I have are an Armadillo Interface with the space to add 64K of memory on it (filling a hole

that would otherwise exist in the 99/8s memory map) and the RS-232 card with a 99/8 DSR. The other truly interesting items are a pair of cards by Foundation Computing: an 80-Column card (pretty much text only, as it is for monochrome monitors) and a CP/M card (that actually used a CP/M work alike called RP/M). Several folks have one of the CP/M cards, but I've never seen another of the 80-column cards (and I don't have the manual for mine).

6.   What are some of the rare software titles you have in your collection?

I have a nearly complete set of the Scott Foresman School Management Applications in their original binders (my set contains all but two of the released cartridges). I even have an additional pre-production prototype of one of them. I also have an Arcturus Module from Exceltek, a pre-production prototype of the Crossfire module, LOGO in several languages—Italian, Dutch, German, and Spanish, and an original GROM for the SMU Circuit Analysis I module.

7.   Anything new you care to share that you are currently working on?

I'm working on a lot of things at the moment. Some of them are closer to final than others—and some may never see the light of day if insurmountable bugs crop up. Two projects are nearly ready for final test right now though: a PEB splitter board that plugs into the side of the 99/4A and gives two separate expansion paths. This can be used several ways: you can put a PEB and one of the CF7+/NANO PEB devices on one leg and a PEB on the other (although only one can be turned on at any given moment in time), or you can connect a pair of Flex Cable Interfaces to it and run two PEBs simultaneously. This is a good solution for those who've run out of slots in their primary PEB, and as long as each device in the PEBs is using a unique CRU address, there will be no conflicts.

The other item getting close to a solution is a remake of the Australian Quest RAM Disk. It isn't all that big—512K, but that is big enough to do a lot of things, especially if you put more than one of them into the PEB. On other projects that are still having issues, I've been trying to get Thierry Nouspikel's HyperAMS boards to work. We're still trying to work out the remaining issues on that one though.

8.   With the various hardware and software that has come out in the last few years, In your opinion, where do you see the TI and Geneve development heading in the next 5 to 10 years for software and/or hardware?

Software will be where the majority of totally new development will occur, at least in my mind, as the programmers find ways to exploit the huge spaces available with the new cartridge boards. There will probably be some refinements of what is out there hardware-wise (like the interesting Quad Forth processor board Mark Wills has been playing with), but I see a lot of action there to redo things that aren't available anymore just so we can keep our systems going. The market is too small for many new PEB boards, as there will be so few sold that almost no software will be developed for them. The SAMS is a good case in point—an excellent memory expansion that has stayed just shy of the critical mass it needs to allow a lot of developers to target software to it. Rich Gilbertson has done a great job making RXB AMS-aware, as has Mark Wills in his Turbo Forth, but there are still only a very small number of programs available that use AMS memory. I do plan to make sure it remains available so that more people can incorporate AMS memory cards in their systems (and hopefully jump-start future software development there).

PC Terminal Software

As a lot of us do not have legacy TI or Geneve systems and use emulators or some, like me may just be lazy at times and do not want to boot their systems up. I wanted to give a list of PC terminal software that users can use to contact BBS' like Heatwave, The Hidden Reef and The Keep as well as other bbs' that are accessible via Telnet and/or modem in order to keep their TI/Geneve experience alive.

ZOC Terminal by EmTec

ZOC installs of Windows or MAC systems and has more options than one can use. This program supports terminal display for ANSI, TTY, VT100, Wyse and Xterm, just to name a few. The supported transfer protocols include XModem, YModem and ZModem(even though the TI/Geneve does not support ZModem), Kermit, Sealink and SCP protocols.

The program has various areas you can configure font, colors, layout and terminal configuration as well as AutoMacros or HOTKEYS to be mapped to a specific key press.

Various connection methods are supported, such as Telnet, Serial/Modem, Serial/Direct, Rlogin, Named Pipe, Secure Shell and Windows Modems.

For a registered copy of the software it will run between $80 to $100 USD, but the evaluation period never expires! It can be downloaded from http://www.emtec.com/zoc/

SyncTERM

SyncTERM runs as a self-containable program (no install) on a many different operating systems. Support for X/Y/ZModem file transfers, ANSI, Commodore 64 PETSCII, ATASCII (Atari ASCII) and IBM low and high ASCII graphics. Multiple screen modes such as 80x25, 80x28, 80x50 and many more.

The program also supports various connect methods such as Shell, Telnet, Rlogin, SSH, RAW, modem, and direct serial connections.

This program definitely gives the user a retro feel and experience when calling other BBS'.

The latest version can be downloaded from http://syncterm.bbsdev.net/

NetRunner

NetRunner is a telnet client originally developed in the late 90s in sync with the release of Windows XP. It was intended to be a console telnet client which stayed true to ANSI-BBS emulation and the old school feel of DOS terminals. Some features include batch upload/download ZModem and ZModem 8K, multiple phone book, mTelnet and SyncTerm phone book importers, original MSDOS and Amiga fonts with font switching, full screen mode, basic scripting language, mouse support, and more.

This piece of software I really like as it definitely gives you the look and feel of the older communications programs that were available for the PC. The only drawback is that currently this does not support XModem. I have been in contact with the developers to try to add an external protocol feature.

Hardware

Complete Hardware write-up on the Geneve 2 coming in April edition! As written by the designer! Stay tuned!

Coding

CALL LOADS & PEEKS

The following LOADS and PEEKS were originally from CompuServe's TI Forum.

If you need to work with quite a bit of data or would like to change programs, but save the data after you press CALL QUIT then you can set up the 24K of High-Memory in the PEB as a single data file called "EXPMEM2", you open this file just as you would a disk file with one exception - you must PRECEED the OPEN statement with a CALL LOAD to the location -24574 as follows:

    For INT/VAR files - 24
    For DIS/VAR files - 16
    For INT/FIX files - 8
    For DIS/FIX files - 0

Here's an example:

If you want to open up the Expansion Memory for Display, Variable 80 files this is what you'd do:

    100 CALL INIT
    110 CALL LOAD(-24574,16)
    120 OPEN #1:"EXPMEM2",RELATIVE,UPDATE,DISPLAY,VARIABLE 80

Then continue on as you normally would.

If you want to store both data and assembly language routines at the same time do this:

    100 CALL INIT
    110 CALL LOAD(-24574,-16)
    120 OPEN #1:"EXPMEM2"
    130 CALL LOAD ("DSK1.ASSM1")
    140 CALL LOAD ("DSK2.ASSM2")
    150 CALL LINK ("START")
    160 REM CONTINUE REST OF PROGRAM

In the above example the 24 K of high-memory was saved for use as a DATA file (DIS/VAR 80 format) then the assembly routines were loaded. The computer will look for the best place to put the routines and will adjust the printer accordingly. After the routines are loaded, a LINK statement starts the first routine and off we go.

If that's not enough for you, you can also use the MINI-MEMORY for 4K more of storage of assembly routines! Now that's 16K of program space, 12K of assembly routine space!

Below are a few PEEKS/POKES/LOADS that are handy:

Perform a CALL INIT first

Address	Value	Description
8194		First free address in low memory
8196		Last free address in low memory
-28672	P	P=0 Speech not attached, P=96 or P=255 then Speech is attached
-31806	0	Normal operation

	16	Disables FCTN=
	32	Disables Sound
	48	Disables Sound and Quit Key
	64	Disables Auto Sprite Motion
	80	Disables Sprites and Quit Key
	96	Disables Sprites and Sound
	128	Disables All three
-31860	4	Goes from XB to console Basic (Need NEW)
	8	Auto Run of DSK1.LOAD
-31868	0,0	Turns off 32k Memory expansion
	255,231	Turns on 32k Memory expansion
-31873	3 to 30	Screen column to start at with a 'PRINT'
-32729	0	RUN "DSK1.LOAD"
-32730	32	Reset to title screen

These are by no means a full list and I have quite a few more. If you want the full list that I have please contact me.

Resources

Contact information
To contact me please feel free to visit my website and click on the 'Contact' tab.

http://shift838.wix.com/shift838

A CHAT application has been added to the site for active live chat.

Newsletter Topics
If you would like to participate in the writing of this newsletter or provide any topics for this newsletter please contact me via my web site.

Sites

There are a few of sites that I think should get their own list below. These are for the TI Hall of Fame and TI-99ers Unsung website. Please visit these below sites as both have great information.

http://www.ti99hof.org/index.html

http://www.ti99ers.org/unsung/

Also the below site has a list of all the TI-99ers that have passed.

http://ti99ers.org/modules/Inspire/remember.htm

Below resources are just a handful of sites that support the TI-99/4A and/or Geneve 9640 computers. It is in no way a full list. This section will be included in all future newsletters. If there is a site that you think should be mentioned then please contact me.

Web sites / FTP Sites

http://www.99er.net

http://www.ninerpedia.org/

ftp://ftp.whtech.com

http://shift838.wix.com/shift838

http://www.ti99-geek.nl/

http://www.mainbyte.com

http://www.atariage.com

http://www.harmlesslion.com

http://www.ti99iuc.it

http://www.turboforth.net

http://www.ninerpedia.org/

Yahoo List Groups:

https://groups.yahoo.com/neo/groups/TI99-4A/info

https://groups.yahoo.com/neo/groups/TI994A/info

https://groups.yahoo.com/neo/groups/Geneve9640/info

https://groups.yahoo.com/neo/groups/turboforth/info

Active BBS'

HeatWave BBS

Access: Dial-Up and Telnet
System: Geneve 9640
Software: S&T BBS Software
Location: Arizona
Content: TI and Geneve file libraries, message bases, door games and e-mail.
Telnet to: www.heatwavebbs.com port 9640   Dialup : 602-955-4491 @ 8-N-1

The Hidden Reef

Access: Dial-Up
System: TI-99/4a Modified
Software: S&T BBS Software
Location: New York
Content: TI and Geneve file libraries, message bases, door games and e-mail.

The Keep

Access: HTTP and Telnet
System: Pentium 4 running Windows 2000
Software: Worldgroup BBS Software (up to 256 user connections)

Location: Tigard, Oregon
Content: TI and Geneve file libraries, message bases, door games, multi-user and multiplayer games and e-mail.
Telnet : www.thekeep.net port 23   Web browser to http://www.thekeep.net

The Keep has TI File libraries, Message bases, e-mail, door games, multi-user and multiplayer games. The keep also has a modem line connected for anyone that would like to contact The Hidden Reef BBS from the internet through The Keep.

Simply telnet to www.thekeep.net on port 23, login to The KEEP and then type /**GO DIALOUT** at the main menu, then D1 to dial out to The Hidden Reef. It's that simple.

Vendors

SHIFT838 – Provides used TI equipment as acquired. Check with me often. A lot of the items need rehoming from other TI Users.

Arcade Shopper – Provides old and new TI equipment, upgrades and new runs of PCBs at www.arcadeshopper.com

Repair Centers

Richard Bell
Repairs available on limited basis, please contact Richard at swim4home@verizon.net for wait-time before sending any repairs

Tim
Myarc-related hardware repairs on a limited, as-available basis. Contact Tim at insane_m@hotmail.com for wait times or to request service.