



SHIFT838 Newsletter

JULY 14, 2016

VOLUME 2, NO 3

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

Welcome to Volume 2 Issue #3 of the SHIFT838 Newsletter!

If you have not subscribed to the newsletter yet please go to the below link to subscribe. This is the first newsletter edition that I have sent out via the new site, hosted by 99er.net!

If you have not yet subscribed to the newsletter, follow the links below to register:

For the Italian version: <http://www.ti99iuc.it/web/go?TE27BR>

For the English version: <http://shift838.99er.net>

I have been working with **Ciro Barile** so that the newsletter can be released at the same time in Italian for the Italian TI users. If you have not visited his site please do so at <http://www.ti99iuc.it> .Ciro also created some of the graphics used in my PDF newsletters!

In this issue I wanted to cover a couple of new pieces of hardware, one is for the TI of course but the other is more of a possibility for TI'ers that may not have the space to be able to use a real TI, that is if I can find someone to get the cores created for this machine for both the TI-99/4A and possibly the Geneve II.

Owen Brand (Opry99er) had a great idea to start taking TI Article submissions from fellow TI'ers that are TI/Geneve related to publish in the newsletters. So, starting next newsletter edition I would like to start publishing these articles. Owen already has an idea for one, so that gives us something to look forward to. If you have an idea for an article please contact me privately.

I am also thinking of putting a contest together to help promote my FuSiON BBS (connection information under the '**Active BBS**' section) in order to get it more active. Something fairly simple, maybe just a bumper sticker to the winner. Maybe a drawing of all the active users for the month and winner gets a bumper sticker. Not sure what it would say yet. I am open to suggestions. For the bumper sticker as well as other contest and promotional ideas.

Monthly Highlights

- *Internet Browsing, E-Mail, TI-CHAT and more with Stuarts Internet Browser 9.1 :*

http://www.stuartconner.me.uk/ti/ti.htm#internet_web_browser

- *Using 'tcpser' to get your TI online and XFER files by SHIFT838*

<http://atariage.com/forums/topic/252626-using-tcpser-to-your-ti-online-and-xfer-files-by-shift838/?hl=%2Braspberry>

- *Python Script to emulate a Lantronix UDS10 device for use with Stuart's Internet Browser*

<http://atariage.com/forums/topic/231274-stuarts-ti-994a-internet-web-browser/page-14#entry3526258>

TI STARTER Hardware

FLASHROM99 Cartridge

Developed by *Ralph Benzinger*



First a couple of links right off the bat. The development thread is at the below link:

<http://atariage.com/forums/topic/250540-flash-rom-cart/?view=findpost&p=3543976&hl=%2Bflashrom>

There is another thread that has quite a few binary image files for use with the FLASHROM99 cartridge:

<http://atariage.com/forums/topic/253095-flashrom-99-image-repository-6282016/>

Also there are a couple of blogs that have some very useful information:

<http://atariage.com/forums/blog/567/entry-13032-the-amazing-new-flashrom-99-cartridge-updated-7122016/>

<http://atariage.com/forums/blog/567/entry-13152-a-new-3d-printed-case-for-the-flashrom-99-updated-7122016/>

The **FLASHROM99** cartridge was developed by *Ralph Benzinger* and is a multi-cartridge that uses an SD card to store binary cartridge files with multi-bank switching. This cartridge allows loading of ROM files from RPK archives or non-inverted cartridge images. Sorry, but no GROM based cartridges of course allowed.

The cartridge comes equipped with a 32k RAM chip and the images are limited to this size. A simple selection menu is displayed to allow the user to select between the cartridge files located on the SD Card. There are not a lot of components to this cartridge but the functionality is superb.

Once the cartridge file has been selected then the ATMEGA 8515 chip will read the data from the SD Card and load it into the SRAM chip. The cartridge will stay loaded into the SRAM while the TI is powered up, even after reset. In order to clear the SRAM you must press the tactile switch (RESET button) mounted on the cartridge board or power the console off.

I am very happy with my unit and I recommend this cartridge to users as it is very easy to assemble and load files. Format the SD card on your PC and copy the non-inverted cartridge files to the SD card. Yes, it's that simple, but please remember there is a maximum amount of files that can be on the SD card, which is 171 files (9 pages of 19 entries per page). This is still a huge amount and you can of course pick and choose which files you want to use in order to customize your cartridge. If you find yourself needing more than 171 cartridges, then since the SD cards are reasonably priced you can just have multiple SD cards and they are very easy to switch out.

I ordered one of these as a DIY project from the Ralph and it took me about an hour to get it put together and most should not have an issue if they have some basic soldering skills and a good iron. A couple of words of caution. I put sockets on all the chips and it barely fits in the cartridge slot because of this. If you are planning to put a case around the cartridge then you may not want to socket the chips.

Also, when it comes to the SD card reader on the PCB, I found out that I got the housing too close to the tactile switch and it was grounding out. This was causing my FlashROM99 cart not to function. I recommend to put a small strip of electrical tape on the part of the SD card housing that is directly under the tactile switch to make sure this does not happen.

MiST FPGA System

Manufactured by Lotharek.pl



I obtained one of these units a few months ago and I was stoked once I got it running with some help from various people like **Paradroyd** from AtariAge. I was asked by more than a few TI'ers if I was going to do a review around this thing, so here it is...

No, this is not TI or Geneve related but there are quite a few computer cores out there for the MiST machine and I wanted to introduce it to the TI/Geneve community. One of my reasons is because I do think this little machine has the capability to be developed with to make a small footprint system for the TI and possible the new Geneve II, especially since the new Geneve II is based on FPGA hardware. Also many of us enjoy retro type computers and this machine can give us that feel for other cores such as Commodore Amiga, Atari and many others that some of us had years ago or wanted but never could afford multiple systems.

This unit is not badly priced and has an avid list of followers. The support around this device for new core development is quite good and encouraged.

The below image is actually of my MiST machine that I put a Laptop Skin on and I think it looks great. I am not the one who designed the skin, but I thought it look cool to be used.



The MiST itself has various cores that can be loaded onto the SD card (1GB minimum) to allow for not emulation but direct mapping with the current FPGA hardware as if it were original hardware that came with the system you are running and therefore reacts exactly as the original hardware did.

The system comes equipped with a FPGA Cyclone III processor, 32 megabytes of SDRAM, ARM IO controller, 4 port USB hub, DB9 Joystick connectors, VGA output, Stereo Audio and the SD card reader.

Hardware required to use the system most of us already have laying around, such as: USB keyboard, Mouse, VGA display and PC speakers. The system is powered by

a standard micro-USB cable that most of us already have for an old phone or some other type of device.

If you do not have USB joysticks you like, it will even accept Atari compatible 9 pin joysticks. I can see me building an arcade style ATARI compatible joystick soon!

The system if it has been coded to do so will even accept hard disk support via a file image in order to have mass storage. I have the hard disk running for both the Amiga and Atari ST cores that I run.

The Mist also comes equipped standard with two Atari joystick ports and four USB ports. There is an option to add a MIDI interface board to be used with the Atari core in order to control MIDI interfaces. The section of this board can also be used with the Commodore Amiga to break out the RS232 Serial interface with only 3 wires and port over to a Raspberry Pi in order to use the Pi as a modem (using tcpser) if you want to dial out to telnet BBS' from the MiST. With this configuration one can connect at 115,000 bps.

So far the only cores many of us have been able to get a RS232 serial mapping with is the Amiga by the method mentioned above and the Atari ST core using a standard USB Serial port (max speed is 9600) for the Atari. I and a few people like myself have been able to get a network USB adapter to work with the Atari ST core, but the software to interface with the network adapter is a bit slow currently.

I have been in contact with a couple of MiST developers on the MiST forums that have made cores for this device in order to try to convince them to create a TI-99/4A and a Geneve II core for this device. I am told that the TI-99/4A core should be no problem, but the Geneve II is actually based on two FPGA's and may be a bit harder to do; if at all. Hopefully we will have an answer soon.

The MiST machine can run many different cores and they seem to be growing in number of the last few years. It has even a handful of ROM images from actual video games like Moon Patrol that it will run.

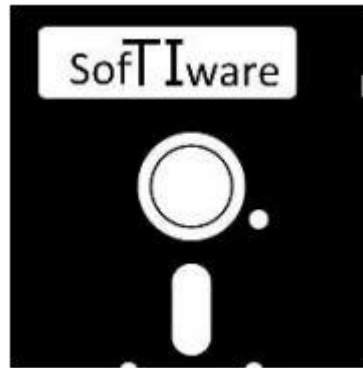
I mainly use mine because I always wanted to learn the Atari 8 Bit and ST models as well as the Commodore Amiga. The small footprint with the ability to map serial ports really sold me more than an actual software emulator.

My 9 year old enjoys playing games like Galaga '88 and X-Type on it. It's pretty cool to be able to sit it next to my Retro-Pie machine hooked into my 55 inch LED TV for a game night with the family and sometimes a Retro Game party with friends.

This unit is not badly priced and has an avid list of followers. Some of us even had some of the machines that the MiST already runs in our homes years ago.

I purchased my unit from Lotharek and if you would like more information please go to:

<http://lotharek.pl/product.php?pid=96>



Stuart's Internet Browser

(by Stuart Conner)

It's been a while since I last posted about this piece of software and I wanted to inform every one of the new areas that can be used with the browser.

TI'ers everywhere now have the ability to obtain a new e-mail address, participate in TI-CHAT and play a few online games. All with the TI-99/4A.

There is also a way a user can still use this software without a Lantronix UDS serial device. Stuart has coded a small script in Python that will emulate a Lantronix device. It requires a simple serial cable to connect from the TI to the PC or Linux type device. The PC or Linux computer will listen for request made from the TI and basically acts as a '**Proxy**' server to make the request and send back the results to the TI.

The script was originally written for a Windows PC with Python, but I have made a small adaption to get it to work on a Linux workstation. For detailed information please see the link under the '**Monthly Highlights**' section.

Tex Turbo & The Big Bug Battles + Marvin Escape



Finally the DSAPSC delights us with a new game developed for the TI-99/4A. Turbo Tex and the Big Bug Battles presents itself in the style of Dr. Mario and it is truly remarkable!

This will be available starting July 22 through the DSAPSC store <http://www.dsapsc.com/store.html> for North American purchases. Ciro over at the Italian users group has graciously offered to be the European distributor <http://www.ti99iuc.it/web/index.php>

Ciro designed the manual, cover art and label and as you can see he did a fantastic job! The game released on cartridge and accompanied by the manual instructions will actually also be accompanied by another beautiful game: Marvin Escape (Programmed in 2013)

Official Link:

<http://atariage.com/forums/topic/254320-new-game-announcement-tex-turbo-and-the-big-bug-battles/>

Highlighted User System



For 2016 I want to highlight a system for every newsletter. Once a system has been submitted the TI'er does not have to submit again. To submit your system for consideration please send me a PM on AtariAge or direct email with a subject of '**Submission for TI Highlighted System**'.

The system does not have to be a completely decked out or an expanded system. It's really about the story of how the fellow TI'er came into the TI fold and why they like the machine so much. I want to include a personal story from each TI'er chosen to help the rest of us learn a bit about them.

This editions chosen system is Airshack's TI-99/4A system.



His system consist of:

- TI-99/4A with F18A modification
- TI-99/4 Peripheral Expansion Box
- 32k RAM card
- TI Floppy Disk Controller with 80 track modification
- 1 x DS/SD 40 track disk drive
- 1 x Lotharek HXC REV C External Floppy Drive Emulator (setup as DSK1 & DSK2)
- CorComp RS232 card
- Cassette Data Record

Speech Synthesizer

His cartridge of choice is the XB 2.7

Airshack is currently building a 1 megabyte SAMS card.

Below is Airshack's rollercoaster ride from a TI'er in the early days and then '**Defecting**' (as he puts it; I like that!) to other systems then coming back full circle back to the TI. A very interesting read.

"At age 16 I purchased a TI-99/4 (not 4A) back in 1980 at a Dillard's-like (Sanger Harris) department store in Texas. I paid \$500 or so USD. I had to sell off my darkroom equipment to buy the computer. My paper route money was used to buy hat photo gear. It was an instant commitment as I was trading one hobby to finance the next.

I self-learned BASIC and used to bring my TI-99/4 into school to demonstrate color graphics to the fun started Commodore Pet trained class. I had a few games published by Christian Software in Oklahoma – a mail order house.

This led to a degree in Computer Science Engineering at UT – Arlington. I sold the TI to defect to the Apple][+ in 1982 because it was cheaper than buying a PEB and required cards.

After college I spent a year coding for the U.S. Air Force Anti-Satellite Weapon (ASAT) for LTV Aerospace in Grand Prairie, TX. I left my computer career for a chance to fly with the USAF. I flew T-38 Talon, EC-135 Looking Glass, and KC-135 Stratotankers for a total of 21 years.

I defected to the PC camp during my USAF career out of compatibility necessity. Defected back to Apple in 2006 for the shiny new Intel machines.

I am presently flying B-737s for Southwest Airlines in Phoenix, AZ.

Defect back to the TI out of curiosity after googling and seeing the F18A VGA upgrade.

Met up with **Sparkdrummer** (Ralph Rees) in Phoenix whom hooked me up with a PEB. Curiosity has me knees deep into a new hobby. Recently rediscovering the TI with all the accessories I wished I had as a kid. Excited to learn and play with all the things I've missed over the past 34 years."

Calling All GAMERS!

**GAME OVER YOU GOT A
HIGH SCORE
ENTER YOUR INITIALS**

Owen Brand (**Opry99er**) has started a TI Gaming competition on AtariAge where a TI-99/4A game is chosen every month and TI'ers can compete to see who can get the highest score. At the months end the person with the highest scores receives some type of prize.

If you want to read the message thread in its entirety and possibly participate in the friendly competition then click below:

<http://atariage.com/forums/topic/241547-official-ti-994a-hi-score-competition/page-1>

Please join me in congratulating the last few month's winners.

February Game : T.I. Invaders | Winner : **Count9929A**

March Game: Slymoids | Winner : **Count9929A**

April Game : Donkey Kong | Winner : **Marc Hull**

May Game : Guardian | Winner : **Daniel Jugle**

June Game : Spot Shot | Winner : **Marc Hull**

This month's game competition is **Barrage!**

I remember playing this game for hours on end as a kid.



I finally got a winner of my **Super-Secret SHIFT838 Message** of the below encrypted code:

8512884887367952358485128176963277283584940881763696

The winner is **Lee Stewart**, he figured it out with my hint from the last newsletter edition. Using my encryption program in Volume 1 Issue #2. The encryption multiplier was 112 and the message decoded reads:

"LONG LIVE TI!"

Congratulations to Lee!

Now an all new brain T.I. aser:

You must replace a letter in each step from the below word to produce the direct opposite word in the last step and every word produced in each step must have the same number of characters (4 in this case).

The word is "**COLD**"

You have 4 steps to produce the opposite word.

If you figure it out send me an email at shift838@att.net with the solution. If I do not receive a solution from anyone by the time I publish the next newsletter I will publish it then.

Sorry, no prizes, but the first one to figure it out gets bragging rights and will be mentioned in the next edition of the newsletter along with how they figured it out.

I also am still waiting for someone to find my Easter egg in my adventure, '**The Stafford Predicament**' that is used with the Adventure module. This adventure game can be downloaded off the FTP site or my BBS.



Resources

Contact information

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

<http://shift838.99er.net>

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/>

Floppy Days

Randall Kindig's Floppy Days: A great resource for PODCASTERS to listen about information about old computer systems!

These are the links available for '**Floppy Days Podcast**' covering the TI-99/4A that have been done over the last few months.

Episode #49 : <http://floppydays.libsyn.com/webpage/2015/11>

Episode #50: <http://floppydays.libsyn.com/webpage/2015/12>

Episode #51: <http://floppydays.libsyn.com/webpage/2016/01>

Episode #52: <http://floppydays.libsyn.com/webpage/2016/02>

Episode #56: <http://floppydays.libsyn.com/webpage/2016/03>

The main web site to Floppy Days:

<http://floppydays.libsyn.com/>

Remembrance

Also the below site has a list of all the TI-99ers that have passed. Please be sure to check them out.

<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.whitech.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'

FuSiON BBS

Access: Telnet

System: Emulated Geneve 9640 via MESS

Software: FuSiON BBS Software powered by S&T Assembly code

Location: Texas

Content: TI and Geneve file libraries, message bases. Full ANSI support, Text 40 and 80 Column modes and BBS E-mail.

Telnet to: **fusionbbs.ddns.net** port **9640**

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**

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.

Dialup : **718-448-9402 @ 8-N-1**

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 rehomeing 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.