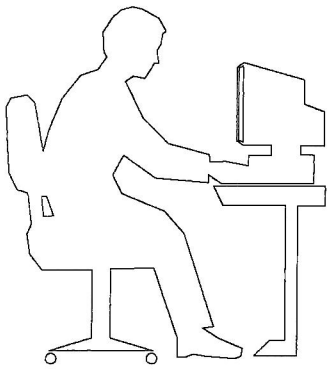
TEXAS INSTRUMENTS BRISBANE USER GROUP (TIBUG)



BUGBYTES

March/April 1999

Editor's Note

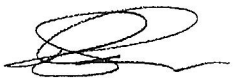
Dennis Remmer
dennis@dstc.com

Hi everyone. Amazingly enough I've managed to put together another newsletter! They seem to be getting more sporadic - I hope you don't mind.

Lots of different stuff this issue - bits and pieces from the net and beyond. Glad to hear that your experimentations with V9T9 are working. In a future meeting (perhaps the next one) I'll show how to connect your TI to your PC to transfer files and disks to and from the PC environment.

This month's meeting will be on Wednesday night 7:30pm, 3rd March at Garry Christensen's, 18 Zammit St, Deception Bay.

Best Regards...



Letter to the Editor

Some correspondence from Melbourne! Reproduced here a little late, but better late than never...

From Bob Bishop
bish@alphalink.com.au

Hello Dennis, How are you, Here/s Wishing You A Merry Xmas and a Happy New Year. To all the members of TI Bug from all of us that is left of Melb Ti group (5 of us) but we still meet once a month in a hall with our old Ti/s even though we all have pc/s.

We have just paid the rent for our next 12 hall meetings. After that it is in the lap of the gods. I am 76 years old and the others are trying to catch up to me!

Well Bob, we appreciate your kind words, and wish you a happy and healthy 1999!

Techo Talk from the Net

Miscellaneous

ED: Some interesting talk from the TI 99 Internet mailing list on TMS9995 hardware issues.

(From Jeff Brown - kludge@magma.ca)

Speaking of making a move from one processor to another, that brings up something else I was going to ask, if I can remember enough to have my question make sense. It's getting close to a year ago now since I did any asm programming, but I know that Intel family CPUs (8086, 8080 too?) loaded bytes into memory in one order (low byte first, or low byte last) and Motorola did things the exact oppisite way. To get to the point, is the 9900 CPU (and 9995) any closer to any one type of CPU than another if someone were going to make a transition? I'm going to have to find some time to work on my programming again...if I can pick it up easy enough, maybe I'll try my hand at programming the TI.

The TI is closer to the big-endian (68k and most if not all of the new RISC processors...) model than the little-endian. The reason for the byte-swap can be found in examining a little assembler instruction by the name of ADC on the Intel chips.

When working with big numbers, old 8bit processors had to perform many successive addition operations, each time ensuring that the carry was added. All you do, is perform the first ADD op, then do a bunch of ADC's (add with carry) for the rest. Doesn't the 6502 have something like this?

CONTENTS

The 9900/9995 do not have an ADC-alike instruction. Manipulating larger numbers requires a couple more instructions.

Assume R0 points to the source operand and R1 points to the dest. Then you could add 2 32 bit numbers like this:

```
     A    *R0+,*R1+
     JNC  nc1
     INC  *R1
nc1  A    *R0+,*R1+
```

This form is functionally equivalent to a little-endian structure. (Works well with very large numbers... just loop it). Mind you, here you'll find the words are in reverse order, not the bytes.

In most cases, however, I opt for a big-endian alike format. This doesn't work well with numbers larger than 32bit given you can't use post-increment forms. The reason for using big-endian modes is for use with the DIV (divide 32bit by 16bit and returns 16bit quotient and remainder).

ex. Assume R0/R1 form the 32bit source and R2/R3 form the dest, add them, then divide by 16bit value in R4 with quotient in R2.

```
      A     R1,R3
      JNC   nc_1
      INC   R2
nc_1  A     R0,R2
      DIV   R4,R2
```

The 68k also lacks instructions like ADC and SBC, though these can be emulated like with the TI. Then again, it has native 32bit integers so you won't need to bother unless you're playing with 64bit values.

All this to say that with the 9900/9995 and 68k you can choose whichever model you wish for performing arithmetic on big numbers, though the cpus themselves use a big-endian format.

Also note that unlike the Intel chips, opcodes on 9900/9995 and 68k are sized in integral amounts of 16bit words. They are ALWAYS on even boundaries. Intel chips are based around 8bit opcode extensions thus it is not uncommon for the EIP (extended instruction pointer) to be on an odd boundary.

The 68000 is what I would concider a more powerful CPU, more comparable to a 386 than to a 16 bit processor.

It's a fully 32bit processor... The 68030 is probably what comes closest to the 386 (memory management unit, and external math coprocessor). The 68040 resembles a 486 (internal floating point unit)... and the 68060 likens to Pentium class machines (superscalar).

You know the old Sega ran on a 68k. This partially explains why Sonic the Hedgehog could run rings (literally) around Super Mario Bros. 'course, internally they're *very* different cpu's, the 68k's being significantly more efficient (hence a per-Mhz comparison is meaningless). Then again, as with all things, what's more popular, is cheaper, and what's cheaper is more popular! We will never see a 450Mhz 68060, but I'll bet it would run pretty darn fast!

...you are going to program applications on the TI because you have to understand the provided architecture and "library funktions" (especially GPLLNK and DSRLNK are the hell).

You'll find the load on DSRLNK is diminished somewhat by writing a custom version which uses some form of "filehandle" to track information... essentially a "smart" DSRLNK. The last one I wrote also cached the CRU base, entry point and certain other critical information on a per-file basis for a slight speedup (noticeable with RAMdisks...)

Then again, replacing the DSRLNK mechanism entirely would solve all of our problems.

I wrote a routine that used vectors to simultaneously run four different programs (of course, programmed into that source!) which used BLWP/RTWP I believe. I'll look it up (it's one thing that probably still exists in my asm directory on my HFDC).

Multitasking on the TI is quite simple in that you need only store the PC, WP and ST and restore them later. This assumes that you aren't using any static vectors, or that these vectors are protected by either opting for cooperative multitasking or implementing sufficient protection for pre-emptive multitasking.

Anyhow, as a result of these limits, you cannot multitask most, if not all programs on the TI. Then there's also the limit imposed by the VDP in that you cannot read the current address being accessed... but that's not a factor of the 9900.

'Course on the 68k, you don't have to worry about trashing someone else's registers. A simple movem.l instruction will save the entire program register context. The PC will already be on the stack as a result of the interrupt exception. Assuming the video architecture is smarter than the 9918, you can do most anything.

Cleveland Area WWW

Harry Hoffman
harryhoffy@stratos.net

Hi All,

I want to get the word out about our Web Page newsletter and info for the Ohio TI-99 MUG'99.

The Cleveland Area TI-99/4A User Groups newsletter can now be seen at our Web page at:

http://members.stratos.net/harryhoffy/newsletter/

TIMUG'99 Information:

http://members.stratos.net/harryhoffy/newsletter/timug99.htm

TIMUG'99 Map & Directions:

http://members.stratos.net/harryhoffy/newsletter/timugmap.htm

1999 JIM PETERSON ACHIEVEMENT AWARD NOMINATIONS:

http://members.stratos.net/harryhoffy/newsletter/jpawrd99.htm

You will find our newsletter, including the officer list, TI MUG'99 info with a map of the area and motels. We are in the construction stage and my friend Craig tells me that is a never ending one:-)

Please send Email to let us know how you liked our page. Exchange groups can let me know if they are going this way to offset the cost of snail mail. There are hyper links to some of our officers, with more links to other TI sites to follow!

Ring Network for TI's?

Howard Nager et al
hnager@earthlink.net

Hey all - i just thought I'd revive this thread...it dates back to thanksgiving. i was just wondering if anybody had done any further thinking on the subject. thanks, Howard

Further to Howard's (and others') queries about linking TI to outside peripherals, (and in Howard's case, creating a mini TI LAN setup)... here are a few thoughts about providing serial transfers between multiple machines.

Okay... we've all read about JoyTalk. The idea of setting up proper bi-directional RS232 via the joystick port alone, while promising, seems to be stymied by the lack of I/O pins, speed, and the need for quite a bit of external hardware.

Sooo... how 'bout using parts of the cassette port? The READ and WRITE lines are out since they use analog components and are capacitor decoupled. The only signals we can send/receive must be AC, which is pretty useless for our DC serial applications.

Okay, we're still left with 2 cassette motor control lines. These are IDEAL for external communications. They're fully isolated via a pair of optocouplers. But, they're output only.

Sooo... for input, let's use some of these joystick lines. We can read as many as 5 conditions simultaneously... we can even trigger interrupts on these conditions (remember the LOAD Interrupt modificaton, and the ROM Interrupt workaround??? I TOLD you guys they'd have other applications relating to IRQ, timing, etc...)

So we connect the strobe line and an input pin of the joystick port of one machine, to a cassette motor gate. Voila! Instant communications. It can even be bidirectional if you do the reverse with the other machine.

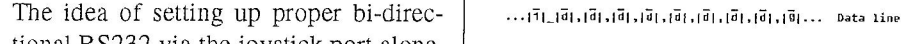
The only worry here is the transmission protocol. We have 2 possible TX lines... assuming we only use both of them:

(Synchronous protocol) --> using both motor lines

Remarks:

- provides a start bit and time to synchronize
- stop bit position is sufficient for recovery
- no need for both clocks to operate at same frequency
- could stall... need for timeouts in case someone pulls the plug

(Asynchronous protocol) --> using only 1 motor line



Remarks:

- requires perfect clock synchronization (easily achieved via 9901 timing).

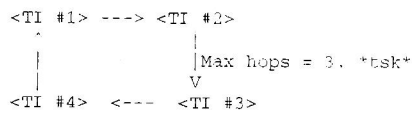
Anyhow... both methods will work, of course. But which is better? I'm leaning towards the synchronous transfer model since it is the least difficult to implement on the receiver side. With the async protocol we could presumably use the spare motor gate to provide handshaking. 'course this somewhat defeats the purpose... and since we are using interrupts for reception, we're not afraid of missing data. Mind you, buffer overflows could be an issue.

As for transfer rates... (assuming ROM interrupt mode here), we need a minimum of about 300us between start bit and the first data bit. Subsequence bits can be received almost instantaneously (maybe I should create a multi-byte transfer mode to take advantage of this streaming....). After the stop bit, we need at least 50us to clean up and let the application program do something useful so we don't stall things with excessive interrupts.

....start bit (1), 300us, [data bit, 5us] * 8, stop bit (0), 50us...

That's a cycle time of 390us, granting up a max speed of 2500 bps. It's slow, but pretty kewl! We could shave some timing cycles off... say by sending the first data bit as start bit, but that might be dangerous.

Howard's application requires him to network a series of TI's together. This can easily be accomplished by a Ring network, each packet being bounced along the chain until it arrives at the destination or winds up in the bit bucket.



For this to work, we NEED either a forgiving synchronous transfer protocol, or an asynchronous mode with handshaking since packets could be arriving while we're transmitting data. With the sync protocol we can pause, read the incoming data, and resume where we left off, with async, we need to pause the reception, complete the transmission, then permit reception.

Comments? It's not RS232, or 10Base-T, but it could work!

I'll let you know of my findings tomorrow... I've got to make sure the cassette port is TTL compatible.

PC99 News

Mike Wright, CADD Electronics
mjmw@ix.netcom.com

(ED: Mike's responses to some postings on the TI mailing list)

Is development on PC99 continuing or has development stopped? I don't really know what else they could add to it (speech? 80-columns? AMS?)...

Development on PC99 has not stopped. CaDD is looking at developing a 32-bit Windows version. A prototype of this was shown at the UK fair in Nottingham, and at the Chicago Faire. With this scheme you can run multiple ver-

sions of PC99 simultaneously. (This was demonstrated).

a) Speech. We would like to do this but either don't have the doc to do it, or can't get stuff to work on the Sound Blaster. We have offered to purchase the code from someone who can do this to incorporate this into PC99.

b) 80 columns. This is not being looked at at the present time.

c) AMS. This is inlcuded in PC99 Stage 5, the current product.

Is there a utility to transfer V9t9 format modules to PC99 format? I'm aware of the licensing issues but just don't want to pay for modules that I already have. I'm taking my cue here from other emulators. It's generally legal to make backups of all software you have, even a ROM or cartridge, and even if you use it in an emulator. Since I have the modules in "real life" and then have them in v9t9 format as well...

2. Converting modules. The PC99 module format follows the format developed my Millers Graphics for the Gram Kracker, and extended by CaDD for The Gramulator. Therefore, this includes the MB modules that do not require the MBX Expansion Box. In other words, if you did a dump of a module on a TI, you can use that dump on PC99. If you have modules in another format, you will need to compare that format with the standard format. If you need a converter, it should not be that difficult to write.

Is the "virtual disk" format the same? I have a large collection of dumped disks that work with v9t9 and want to know if they'll work with PC99, do the need dumped to a new format, or is there a converter?

3. Two utilities are supplied with PC99 to convert disks: they are vf2pc99 and vd2pc99 to convert the two disk types we have encountered. PC99 uses the exact TI disk layout (Myarc layout for DSDD), which means you can interchange PC99 disks directly with TI disks and vice versa.

If you have any other questions, please ask.

Seeing the Light!

Anonymous

(ED: Those who've subscribed to Internet mailing lists will appreciate the following...)

"How many mail list subscribers does it take to change a light bulb? "

Answer: 1,378

1 to change the light bulb and to post to the mail list that the light bulb has been changed

14 to share similar experiences of changing light bulbs and how the light bulb could have been changed differently

7 to caution about the dangers of changing light bulbs

27 to point out spelling/grammar errors in posts about changing light bulbs

53 to flame the spell checkers

41 to correct spelling in the spelling/grammar flames

156 to write to the list administrator complaining about the light bulb discussion and its inappropriateness to this mail list

109 to post that this list is not about light bulbs and to please take this email exchange to another list

203 to demand that cross posting to other lists about changing light bulbs be stopped

111 to defend the posting to this list saying that we all use light bulbs and therefore the posts *are* relevant to this mail list

3 to post about links they found from the URLs that are relevant to this list which makes light bulbs relevant to this list

306 to debate which method of changing light bulbs is superior, where to buy the best light bulbs, what brand of light bulbs work best for this technique, and what brands are faulty

27 to post URLs where one can see examples of different light bulbs

14 to post that the URLs were posted incorrectly, and to post corrected URLs

33 to concatenate all posts to date, then quote them including all headers and footers, and then add "Me Too."

12 to post to the list that they are un-subscribing because they cannot handle the light bulb controversy

19 to quote the "Me Too's" to say, "Me Three."

4 to suggest that posters request the light bulb FAQ

48 to propose new change.lite.bulb newsgroup

47 to say there is already an alt.light.bulb newsgroup

143 to ask if anyone ever did change the light bulb

And of course a group to say the light bulb has to really want to change, and the HMO to say the light bulb had a pre-existing condition."

PHP2300: The rarest TI99 Peripheral?

(ED: Some net talk about a very rare TI device that someone found... I'll see if I can get some piccies...)

From: Greg Troutman
mor@crl.com

I checked the FAQ and couldn't find any mention of this. I picked it up at a local flea market over the weekend. It's the same size/shape/appearance of a sidecar Memory Expansion box. It's got four connectors on back:

- a BNC connector labeled "Video In"
- a 5-pin DIN labeled "Computer"
- an RCA jack labeled "Audio In"

- another 5-pin DIN labeled "Monitor/ RF Mod"

Can anyone tell me anything about what this does and how to correctly use it?

From: The Shaw Family
shawwebnospam@btinternet.com

The TI99 Sidecar "Video Controller", Part No. PHP2300. Incredibly rare and - if you can find someone who wants it - valuable!... but NOT useable.

The video link was for old (eg 1978) video recorders with a remote connected by CABLE. You could control the vcr using BASIC extra commands in your Basic program (added to Basic by the controller- TI did this!).

TI produced a marketing videotape with Bill Cosby way back when for retailers to use. He kept asking passers by to press a key and when they did the tape moved on and they could -by pressing an appropriate key- see a demo of some TI program. After the tape had fast forwarded to the section.

A very early cd rom type device! And a definite museum piece.

From: byatesiii@my-dejanews.com

Sure. You've found perhaps the rarest peripheral ever made for the 99/4A. It is a Video Controller, that allows you to use the 99/4A to edit Video Tapes, to include Title Sequences, etc. Very rare find. I've never even seen a picture of one. I don't even think TI released them. They demoed them at a computer show... I would think you would need a 5-pin DIN connecter between the 99/4A video output to the "Computer" hookup, then hookup your standard monitor or RF cable between the VC and your monitor, and connectors from your Video and Audio on your source (VCR, DVD, etc)... I would love one of these...

Remembering Parsec

Michael Zapf
zapf@vsb.informatik.uni-frankfurt.de

Remembering Parsec... two friends of mine once (around 1985) came to me for a Parsec game. We changed players when one of us lost a ship. After one hour of gameplay, we discussed that one of us was to crash our ships so often that the number of ships decreased on the display. The other two were to fight at their best.

Some hours later we finally decided to give up. We had far more than 20 ships, and the score counter ran over twice, if I recall correctly. After the 20th level or so was done, the difficulty remained somewhat constant, giving us a deadly boredom.

The score was around 2.7 million points; it took four or five hours (a whole afternoon). We should have done something different at the age of 15, I guess.

Parsec was never played by us again (why try to top a highscore of 2.7 million?). It was one of the best games for the TI, and it was the moment when I concluded that my TI should be used for programming, not gameplay. At home we also had some other computers (the great rival with the number and later the one with five letters whose monitor I'm still using with my Geneve) that simply had the better games.

However, every year at December 24 I turn on my TI (Geneve), switch to TI BASIC and start the game "Space Defense" - traditionally. It's a game that appeared in a German TI magazine in 1984. This game is so large that I had to delete the REMs and do a CALL FILES to get it going. You have to defend six space stations against aliens, and while traveling from one station to the other, you have a "subjective" view that reminds me of Wing Commander on the PC. During the travel aliens appear in front of you, and you have to move them into your crosshair and blow them away.

Strange. It's simple TI BASIC and it's really exciting. Do you have a BASIC game favorite?

SCSI News

Don O'Neil
don@whtech.com

Hello all... As you may already know, Michael Becker has completed the daughter boards to upgrade the E and F boards to rock solid functionality. MANY MANY Thanks to Michael, and others who helped. Due to the distance, and import taxes, I will be handling all upgrades for users, as well as publishing information in a kit for you to do it yourself if you are handy with a soldering iron.

HOWEVER, At this time, I will not accept any board back for upgrade until I have received my demo boards back from Michael after he does an installation for me. I need to know how to do the installation first! ;) If you are in need of the upgrade, or know of someone who is, have them contact me and let me know how many cards they/you have, their address, phone number, email, etc... and I will contact everyone when the boards have arrived here from Germany and we are ready to begin upgrades. I doubt that this will occur before the new year with the holidays approaching us rapidly.

You can call, mail, fax or email your information to:

Don O'Neil
Western Horizon Technologies
3297 Woody Lane
San Jose, Ca 95132

1-800-767-5665 US
1-408-934-0352 Intl
1-408-934-9682 fax

I am in and out of my office all day long and very hard to reach during business hours, so PLEASE leave a message if you get my voicemail.

All upgrades will be completed FREE of charge by myself (you pay shipping to us, we pay return USPS Priority shipping). A donation of $10 or more dollars sent to Michael Beckr is suggested and would be helpful to Michael Becker and the German Users Group who thankfully headed up this retrofit project for the WHT SCSI Cards. Thanks again Michael!!

Wierd Fun

c_a_t@juno.com

Check out the following exercise, guaranteed to freak you out. There's no trick or surprise. Just follow these instructions, & answer the questions one at a time and as quickly as you can. As quickly as you can but don't advance until you've done each of them... OK!:

What is:

1+5

2+4

3+3

4+2

5+1

Now repeat saying the number 6 to yourself as fast as you can for 10 seconds.

QUICK!!!

THINK OF A VEGETABLE!

Got one? Remember it... Read on...

You're thinking of a carrot, right?

If not, you're among the 2% of the population whose mind is warped enough to think of something else.

98% of people will answer with "carrot" when given this exercise. Freaky, huh?

Geneve-32K Upgrade

Tim Tesch

ttesch@juno.com

A few people have asked how to modify their Geneve with the extra 32K SRAM, to give them extra memory and let them use MDOS 2.50 and above. So... here we go...

Requirements:

- Soldering iron, 15-20watt max.
- Solder, use rosin core NOT organic core
- 8" piece of wire-wrap wire.
- (1) 32Kx8 SRAM (Hitachi 62256 compatible)

DISCLAIMER: If you are not comfortable modifying your equipment, DO NOT PERFORM THIS UPDATE! I will NOT replace blown gate-arrays or 9901s for free! Enough said.

STEP 1:

Carefully remove 32K chip from Geneve, noting the ORIENTATION. The square/half-circle should be facing the back of the card (joystick/mouse/video connectors.) If you are not sure, use a Sharpie or piece of tape to keep track of the position.

Use a small, wide-blade, flathead screwdriver. Apply gentle pressure to the TOP of the memory chip with your thumb, while gently "prying" between the memory and its socket. DO NOT PRY ONE SIDE COMPLETELY. Doing so will bend the pins on the opposite side. Pry the chip a bit at a time, switching from one side to the other until the chip is free.

>> This chip is located to the left of the battery, directly below the 12volt regulator. If you do not recognize thischip - STOP! Send in your card :)-

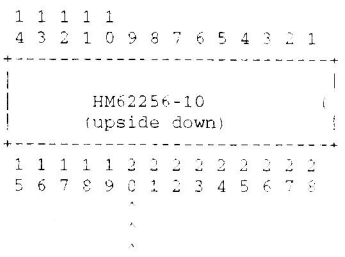
STEP 2:

Stack the new 32K chip on top of the existing memory.

Place the new chip on top of the old chip. The square/half-circles MUST lay "on top" of one another.

BEND pin #20 enough so that it does not contact the pin underneath. You may do so using a small-blade screwdriver.

Here is a visual representation:



* DO NOT SOLDER THIS PIN TO ITS NEIGHBOR BELOW *

Solder the pins from the top chip to the bottom chip. Use enough solder to make the connection; too much solder can lead to shorts between adjacent pins. Of course, pin 20 should not be soldered... yet :)

STEP 3:

Insert stacked chips into socket. chip should be inserted as shown above, half-moon to the right.

Make sure pin #20 clears the EPROM so that you can solder the wire to it as shown in step #4.

STEP 4:

Solder wire to memory.

Strip and tin one end of the wire. Solder to pin #20, taking care not to short it with (a) any adjoining pins or (b) the EPROM directly below.

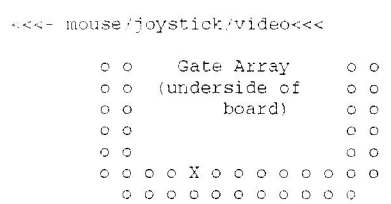
Take the wire and bring it to the underside of the board. You can go around the "top" or "bottom". DO NOT GO THROUGH THE HOLES NEAR THE EDGE CONNECTOR! While tempting, you run the risk of stripping wire and shorting something. Worst-case, you short the wire with +16 volts! This would not be a good thing.

STEP 5:

Solder wire to underside of Geneve - GATE ARRAY.

This step MUST be done carefully and exactly. If you make a mistake, you risk blowing out your gate array. This chip will cost you about $45.00 to replace.

Strip the wire, exposing no more than 1/8". We will solder the wire to the gate array as follows:



"X" marks the spot. Carefully solder the wire to this pin. Make sure that you do NOT short any of the three surrounding pins. In case you wish to count, it is the FIFTH pin from the left, TOP row.

STEP 6:

Test the geneve

Replace clamshell and put into your pEB/Case. Turn on the power and see what happens :) If all went well, you should boot without any problem. Once booted, type CHKDSK at any valid disk. You should see:

589824 bytes of total memory.

STEP 7:

Pat yourself on the back - you've successfully modified your geneve! Go try MDOS 6.00.

We're all Doomed!

Anonymous

In case you needed further proof that the human race is doomed, here are some actual label instructions on consumer goods:

- On Sears hair dryer: Do not use while sleeping.
- On a bag of Fritos: You could be a winner! No purchase necessary. Details inside.
- On a bar of Dial soap: Directions: Use like regular soap.
- Some Swanson frozen dinners: Serving suggestion: Defrost.
- On a hotel-provided shower cap in a box: Fits one head.
- On Tesco's Tiramisu desert: Do not turn upside down. (Printed on the bottom of the box.)
- On Marks & Spencer Bread Pudding: Product will be hot after heating
- On packaging for a Rowenta Iron: Do not iron clothes on body
- On Boot's Children's Cough Medicine; Do not drive car or operate machinery
- On Nytol (a sleep aid): Warning: may cause drowsiness
- On a Korean kitchen knife: Warning: keep out of children
- On a string of Chinese-made Christmas lights: For indoor or outdoor use only.
- On a Japanese food processor: Not to be used for the other use
- On Sainsbury's Peanuts: Warning: contains nuts
- On an American Airlines packet of nuts: Instructions: open packet, eat nuts.
- On a Swedish chainsaw: Do not attempt to stop chain with your hands

Chicago Faire Report

Charles Good

cgood@im3.com

Report of the November 14, 1998 Chicago International TI Faire by Charles Good

I have been attending the annual Chicago Faire for many years. It is always nice to actually talk to TI personalities that you normally only read about, and it is nice to see the new stuff that continues to appear for our ancient but favorite computer. This year was no exception. There was interesting new hardware and software.

The Faire is "International" because european user groups are usually represented. This year Berry Harmsen was there representing the TI Club Errorfree (Germany) and the TI Gebruikersgroep (Netherlands). He had a free disk of mostly new software from these groups that he gave to those attending the Faire. Contrary to pre Faire publicity, this disk is copyable. Berry also had a european made SCSI card which he ran on a 99/4A system. Attached to the SCSI card was a zip drive set as SCS7. He used this system to demonstrate the new european software. Unlike my early production Western Horizon SCSI card, the european card had connectors for both an internal SCSI cable and an external SCSI cable (some sort of D connector). The external zip drive was attached to the external connector of the SCSI card.

The most interesting piece of software Berry demonstrated was a 40 column disk manager that is fully compatible with floppy disks, with MFM hard drives controlled by Myarc's HFDC, and with SCSI hard drives. When you catalog the root directory of a hard drive the listing shows all the sub directories at the end of the list. If you click on a subdirectory you get a listing of that subdirectory and at the top of the list you are given the opportunity to go back to the previous (next highest) directory. You can move up and down the entire directory structure. This disk manager lets you execute copy move rename and protect files, and you can view files in ascii and hex. I have reviewed a number of 40 column disk managers in my Micropendium column, and this seems to be the best such product to date. All 99/4A users with hard drives should check out this disk manager.

Bruce Harrison demonstrated his new TI BINGO software. It prints out bingo cards, up to 4 on a single 8.5x11 inch sheet of paper. It then speaks the bingo letter number combinations and puts the called combinations on screen for later reference. You can run an entire large scale bingo operation with this software. It is fun. Bruce also demonstrated the non AMS version of his MIDI Play In software. He convinced a member of the public to play a short piece on a keyboard and then the 99/4A played it back. The non AMS version stores up to 2400 notes. This is actually quite a bit of

music. The AMS version stores 2400 notes in each block of 6 AMS memory pages.

Lew King demonstrated how a 99/4A using Term 80 software can access the internet, read the text of web pages, and read email. The trick is to get an internet access provider to provide a unix shell account. The available Chicago internet access provider could only provide a PPP connection, which we found won't work with Term 80. Lew ended up having to telephone long distance to a known unix shell provider.

Mike Wright showed the latest development trend for PC99, a prototype Windows 95/98 version of PC99. This is a native windows 32 bit program that

can make use of the various fancy features that windows provides. At the top of the PC99 window one of the options is "cartridge". Click on this, and a window opens up that allows you to select the cartridge you want to run with PC99. Another option is "size". Click on this and you get your choice of three different PC99 window sizes. Another option is "disk". When this is made operational you can click on it and from a window load any PC99 "disk" into your various PC99 disk drives. Mike demonstrated multiple PC99 programs running on screen simultaneously, each in its own window and each running a different cartridge. This prototype is not yet ready for prime time. It is version 0.1 and was not released. Mike makes no promises when, if ever, the windows version of PC99 will be available to the public. Now for the bad news. Mike said that development of 80 column 99/4A emulation has been suspended because the programmers can't figure out how to fully emulate the actions of the 9939/ 9958 video chip.

Bud Mills was the best known TI vendor present. In response to a direct question from me Bud said that he still supports his products and still repairs them. People are welcome to send him their Horizon ramdisks, Pgram cards, memex cards for repair or upgrade. He said that his fees, payable after the repair is completed, would average $35 plus return shipping. He claims that, except for a couple of cards found in a corner of his home shortly before the show, all cards sent to him for repair have been returned to their owners. If you have questions about this, Bud's email address is budmills@stax.net and his phone number is 419-385-5946.Bud had some Pgrams for sale at his table.

At the informal after the faire dinner at a nearby resturant Hal Shannafield, faire organizer, presented the 1998 John Birdwell Memorial Award for Excellence in Computing. This award is financed by shareware fees sent in by users of the late John Birdwell's DSKU (Disk Utilities) disk manager. This year's recipient was Bud Mills!!!

Fit for Duty!

Anonymous

The British Military writes OFR's (officer fitness reports). The form used for Royal Navy and Marines fitness reports is the S206. The following are actual excerpts taken from people's "206's"....

- His men would follow him anywhere, but only out of curiosity.
- I would not breed from this Officer.
- This Officer is really not so much of a has-been, but more of a definitely won't-be.
- When she opens her mouth, it seems that this is only to change whichever foot was previously in there.
- He has carried out each and every one of his duties to his entire satisfaction.
- He would be out of his depth in a car park puddle.
- Technically sound, but socially impossible.
- This Officer reminds me very much of a gyroscope - always spinning around at a frantic pace, but not really going anywhere.
- This young lady has delusions of adequacy.
- When he joined my ship, this Officer was something of a granny; since then he has aged considerably.
- This Medical Officer has used my ship to carry his genitals from port to port, and my officers to carry him from bar to bar.
- Since my last report he has reached rock bottom, and has started to dig.
- She sets low personal standards and then consistently fails to achieve them.
- He has the wisdom of youth, and the energy of old age.
- This Officer should go far - and the sooner he starts, the better.
- In my opinion this pilot should not be authorized to fly below 250 feet.
- The only ship I would recommend this man for is citizenship.
- Works well when under constant supervision and cornered like a rat in a trap.
- This man is depriving a village somewhere of an idiot.

Dear Bank Manager

From the Sydney Morning Herald

Author unknown

This letter is an extract from the Sydney Morning Herald

BANK ON MY ACCOUNT, OLD CHAP

My dear Bank Manager, I am writing to thank you for bouncing the cheque with which I endeavored to pay my plumber last month. By my calculations some three nano-seconds must have elapsed between his presenting the cheque, and the arrival in my account of the funds needed to honour it.

I refer, of course, to the automatic monthly deposit of my entire salary, an arrangement which, I admit, has only been in place for eight years. You are to

be commended for seizing that brief window of opportunity, and also for debiting my account by way of penalty for the inconvenience I caused your bank. My thankfulness springs from the manner in which this incident has caused me to re-think my errant financial ways. You have set me on the path of fiscal righteousness. No more will our relationship be blighted by these unpleasant incidents, for I am restructuring my affairs in 1999, taking as my model the procedures, attitudes and conduct of your very own bank. I can think of no greater compliment, and I know you will be excited and proud to hear it. To this end, please be advised about the following changes.

First, I have noticed that whereas I personally attend to your telephone calls and letters, when I try to contact you I am confronted by the impersonal, ever-changing, pre-recorded, faceless entity which your bank has become. From now on I, like you, choose only to deal with a flesh and blood person. My mortgage and loan repayments will, therefore and hereafter, no longer be automatic, but will arrive at your bank by personal cheque, addressed personally and confidentially to an employee of your branch, whom you must nominate. You will be aware that it is an offence under the Postal Act for any other person to open such an envelope.

Please find attached an Application for Contact Status which I require your chosen employee to complete. I am sorry it runs to eight pages, but in order that I know as much about him or her as your bank knows about me, there is no alternative. Please note that all copies of his/her medical history must be countersigned by a Justice of the Peace, and that the mandatory details of his/her financial situation (income, debts, assets and liabilities) must be accompanied by documented proof.

In due course I will issue your employee with a PIN number which he/she must quote in all dealings with me. I regret that it cannot be shorter than 28 digits but, again, I have modeled it on the number of button presses required to access my account balance on your phonebank service. As they say, imitation is the sincerest form of flattery.

Let me level the playing field even further by introducing you to my new telephone system, which you will notice, is very much like yours. My Authorised Contact at your bank, the only person with whom I will have any dealings, may call me at any time and be answered by an automated voice. By pressing the buttons on the phone, he/she will be guided through an extensive set of menus:

1) to make an appointment to see me,

2) to query a missing repayment,

3) to make a general complaint or inquiry, and so on.

The contact will then be put on hold, pending the attention of my automated answering service. While this may on occasion involve a lengthy wait, uplifting music will play for the duration. This month I have chosen to refrain from The Best of Woody Guthrie: "Oh the banks are made of marble With a guard at every door And the vaults are filled with silver That the miners sweated for!" After twenty minutes of that, our mutual contact will probably know it off by heart.

On a more serious note, we come to the matter of cost. As your bank has often pointed out, the ongoing drive for greater efficiency comes at a cost - a cost which you have always been quick to pass on to me. Let me repay your kindness by passing some costs back. First, there is the matter of advertising material you send me. This I will read for a fee of $20 per A4 page. Inquiries from your nominated contact will be billed at $5 per minute of my time spent in response. Any debits to my account, as, for example, in the matter of the penalty for the dishonoured cheque, will be passed back to you.

My new phone number service runs at 75 cents per minute (even Woody Guthrie doesn't come free), so keep your inquiries brief and to the point. Regrettably, but again following your example, I must also levy an establishment fee to cover the setting up of this new arrangement.

May I wish you a happy, if ever-so-slightly less prosperous, New Year.

And finally...

Jesus and Satan were having an argument as to who was the better programmer. This went on for a few hours until they agreed to hold a contest with God as the judge. They sat at their computers and began.

They typed furiously for several hours, lines of code streaming up on the screen.

Seconds before the end of the competition, a bolt of lightning struck, taking out the electricity. Moments later, the power was restored, and God announced that the contest was over. He asked Satan to show what he had come up with. Satan was visibly upset, and cried, "I have nothing! I lost it all when the power went out."

"Very well, then," God said, "Let us see if Jesus did any better."

Jesus entered a command, and the screen came to life in vivid display, the voices of an angelic choir poured forth from the speakers.

Satan was astonished. He stuttered, "But how?! I lost everything, yet Jesus' program is intact! How did he do it?"

God chuckled, "Jesus saves!"

TI Brisbane User Group

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Contributions to TIBUG are invited from both members and non-members. Articles for inclusion in the succeeding bi-monthly newsletter are required at least two weeks before the monthly meeting and may be included in that newsletter at the discretion of the Editor.

Most original articles by members of TIBUG in this newsletter are on available on disk and are available to other User Groups on request.

Submissions of articles, reviews, comments and letters from members is encouraged, however the Editor asks that those submitting keep the following in mind:

Submissions should be about the TI Community in particular, computers in general, or of sufficient general interest. The preferred media is computer file, preferably in ASCII (Text) or Microsoft-Word compatible format, submitted on MacIntosh or IBM-compatible floppy disk or via Electronic Mail to the Editor. Handwritten submissions are acceptable but please remember that they have to be retyped. Other submissions, such as typed, printed or photocopied are welcome but must of reproducible quality.

Submissions are best sent directly to the Editor:

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