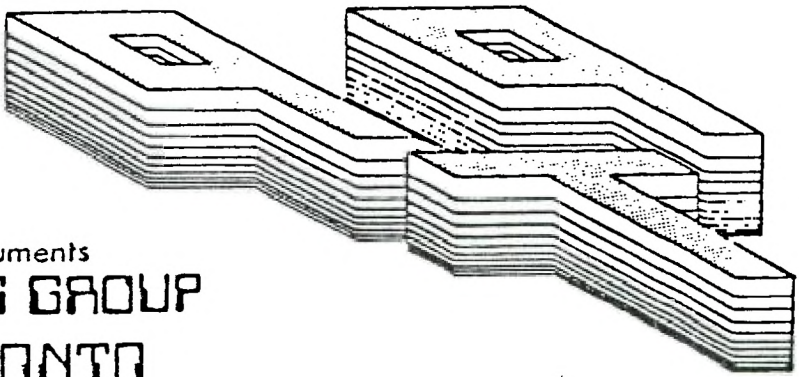


NINE T NINE
JULY 86
/W



Texas Instruments
USERS GROUP
TORONTO

FOR THE TI-99/4A COMPUTER

JUNE/JULY 1986

NINE T NINE USERS GROUP
29 INGLESIDE DR.
DOWNSVIEW, ONTARIO
M3K 1V2



Edmonton, AB
Box 11983
Edmonton, AL T5J 3L1

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All memberships are household memberships. An newsletter subscription is only for those who do not wish to attend meetings, but wish to receive our newsletter and have access to our library. You are welcome to visit one of our general meetings before joining the group. If you wish more information contact our president in writing at the club address on the front cover or call and leave a message with his answering machine.

NEXT MEETING

The meetings are held on the last Tuesday of each month. The next meeting will be held on Tuesday, August 26, 1986 at the York Woods Public Library in Downsview, starting at 7:30 pm. The library is at 1785 Finch Ave W just west of Keele St. The entrance to the library is on Finch Avenue.

COMMERCIAL ADVERTISING

Any business wishing to reach our membership may advertise in our newsletter. The rates are as follows. (width by height):

FULL PAGE	(6" x 7 1/2")	\$40.00
HALF PAGE	(6" x 3 1/2")	\$20.00
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Please have your ads camera ready and paid for in advance. For more information contact the editor.

Don't forget, that any member wishing to place ads, may do so free of charge as long as they are not involved in a commercial enterprise.

NEWSLETTER ARTICLES

Members are encouraged to contribute to the newsletter in the form of articles, mini programs, helpful tips, jokes, cartoons and questions. Any article may be submitted in any form by mail or modem. We welcome the reprinting of any article appearing in this newsletter providing credit is given to the author and ETC. If more information is required, call the editor.

DISCLAIMER

Opinions expressed in this newsletter are those of the writers and are not necessarily those of the 979 USERS' GROUP. 979 cannot assume liability for errors or omissions in articles, programs or advertisements.

X-10 POWERHOUSE INTERFACE

by Randy Rossetto

I just received the X-10 Powerhouse Interface and all the other stuff that goes with it last week and in a very short time I was controlling two lights and a fan in my house.

The X-10 POWERHOUSE Computer Interface is an off white colour about 7x5x2 inches high and plugs into a 120 volt wall outlet and with the supplied interface cable (25 in. long) plugs into the joystick port of the TI-99/4A.

Along with it one needs the software to programme the interface which was done by Corcomp and put on a Command Module. This is called the 99 Home Sentry. No expansion system is required to make the system work. A programming guide is included and anyone good at programming should be able to write a disk based programme that accesses the interface through the RS-232 port.

The interface has a 9 volt battery that will provide approximatley 100 hours back up for the interace clock and the stored data. The interface must be connected to the computer for programming and once programmed can be disconnected and will send comands to the X-10 modules under its contol.

The interface maintains a 2 time clock, stores timed events to control lights and appliances in the home, stores the graphics data required by the computer display the icons with programming is done and transmits X-10 control signals onto existing house wiring control lights and appliances connected to X-10 modules.

The interface has 2K x 8 RAM in which graphics data is stored as Icon numbers.

Also required to complete this system are the X-10 modules, which act as the receivers of the control signal. They are available as: a wall switch module, a lamp module, an appliance module and a wall receptacle module. Others are available but these are the only ones I have seen available locally. You plug the module in a receptacle and plug the light or appliance into ther module or you replace the wall switch or duplex receptacle with the required module.

All devices have an adjustment to set your house code so that two users very close to each other do not interfere with each others operation. (Have you ever used your wireless intercom and talked to the guy next door (or even down the street couple of houses) with the same intercom! Codes can be from A

Once the house code is set on the modules and the system initialized to the 99 Home Sentry Menu there are 5 items to select from:

1. Set Time Mode
2. Set House Code Mode
3. Install Mode
4. Operate Mode
5. Exit Program

Special function commands are available -FCTN 9-screen goes back to main menu
-FCTN 5-Install or Operate Mode-pressed once it will delete any data entered since the last time data saved and return you to current mode
-pressed again will take you back to select room screen for the mode in operation
-FCTN 1-will delete an appliance in the install mode or timed event in the operate mode
-FCTN UP/DOWN-will page through each of the rooms only when the "select room location" message is displayed.

Once the time is set and the house code is set select INSTALL MODE and a room menu is displayed and the space bar is used to move the pointer to the proper room and accepted by pressing ENTER. Then select 1-9 locations within the room. Next, select the appliance you desire and then you can assign the appliance the house code and the unit code for your application. If the information is correct pressing Y at the

prompt save this data to the interface. This must be done for every appliance in each room that you wish to have under control of the X-10 system.

The OPERATE MODE has the same room select menu and after selection the next screen will show each appliance that was selected for that particular room in the Install Mode, then after selecting the location you select the mode desired:

1. ON
2. DIM
3. OFF
4. NORMAL
5. SECURITY
6. TODAY
7. TOMORROW
8. REVIEW

ON allows you to set the appliance immediately On.

DIM allows you to immediately set the brightness level of the selected light. A brightness indicator at the lower right is incremented by the Space Bar and the Enter key is pressed to send the control signal to the X-10 lamp module or wall switch.

OFF sets the appliance immediately Off.

NORMAL allows you to set for each selected day of the week, the exact On/Off times for each selected appliance with more than one on/off sequence if desired.

When the days of the week appear at the upper right of the screen pressing Y selects the day while pressing N skips the day with a mark installed below the days selected. Then the On and Off times can be selected.

SECURITY mode is exactly the same as the Normal mode, however the X-10 Interface Unit will cause each On/Off time selected to actually vary at random within one hour of the time you had previously selected.

TODAY allows you to set for Today only. At 12 midnight the commands are cleared from the interface memory. Exact times are set as in the Normal mode.

TOMORROW is for setting for Tomorrow only similar to Today, with commands cleared at 12 midnight tomorrow.

REVIEW MODE allows you to review All On/Off, Brightness levels for any appliance in any room location by pressing the Space Bar. Fctn 1 will allow you to delete any selections at this time also.

I have 3 modules which were purchased locally for various lights and appliances and it takes less time to set up than to read this article.

One thing that I would recommend is the MINI CONTROLLER which will control all the modules on

the system after initial set on the X-10 Interface. controller can be plugged in any outlet and even moved another house nearby (11' across the street which I tried and it worked) to manually control your system.

The X-10 Powerhouse Interface and 99 Home Sentry with interface cable costs \$79.95 and the Mini Controller was \$8.95 a special if purchased at the same time from Texcomp (they are also available from Tenex) plus shipping. Because they plug into an electrical outlet they are considered appliances by our good friends at Canada Customs and are hit with 11.4% duty and 12% FST. The module list a \$25.00 locally except for the wall receptacle module which is \$35.00. The Mini Controller locally is \$35.00 and the X-10 Powerhouse Computer Interface alone (no cable or software) \$100.00 locally.

EDITOR.

PLEASE NOTE THAT A SHORTAGE OF ARTICLES, LEFT US SHORT OF A NEWSLETTER LAST MONTH. PLEASE MAKE AN EFFORT. STEVE AND RANDY SAVED THE DAY THIS TIME.

FAST-TERM CUE CARD

CONTROL	FUNCTION	ADM3:
1. BAUD RATE	B. LOG FILE	CTRL G BELL
2. PRINT SPOOLER	J. LF AND CR	CTRL H BACKSPACE
3. PARITY	K. TIME CLOCK ON/OFF	CTRL J LINEFEED
4. MODEM PORT	L. SHIFT SCREEN LEFT	CTRL K UP 1 LINE
5. PRINTER PARITY	N. NAME SEND/TE2 XFER	CTRL L FWD 1 SPACE
6. PRINTER PORT	Y. CLEAR THE LOG	-----
7. PRINTER BAUD	1. DELETE ()7F)	
8.	2. SENDS CTRL-T	FCTN SHIFT D HALF/1
9.	3. SENDS CTRL-N	FCTN SHIFT P DUMP S
0. 40/80 TOGGLE	4. BREAK TONE	FREEZE
X. XMODEM MODE	5. SHIFT SCREEN RIGHT	-----
0. 40/80 TOGGLE	6. SENDS CTRL-E	SCAN BUFFER: FCTN (
X. X MODEM MODE	7. TEXT COLOUR	SPACE-BAR (OR S) TH
	8. SCREEN COLOUR	-----
	". " TOGGLE LOG ON/OFF	CTRL ". " '=' R C MC
	". " SEND DISK FILE	ROW (R-32) AND COI

RECEIVE ASCII FILE		TX ASCII I
FCTN B "DSK?.FILENAME"		FCTN N"DSK?
FCTN. START/STOP TOGGLE		FCTN, STAR
FCTN B CLOSE/WRITE AND RENAME FILE		SELECT ? I
FCTN Y CLEAR MEMORY		SELECT CRI
		FCTN 4 STO

TE2 SEND	RECEIVE	XMODEM
FCTN SHIFT T (TE2 PROTOCOLS)		FCTN N"DSK?
FCTN SHIFT T (ASCII MODE)	FCTN N"DSK?.FILENAME"	NOTIFY OTH
FCTN N"DSK?.FILENAME"	FCTN 4 ABORT XFER	FCTN SHIF
FCTN. SEND		(SCN OPTIC
FCTN 4 ABORT		FCTN 4 ABC

This table was taken from TINS newsletter of Oct/85
 this group is in Dartmouth N.S.

By Steve Mickelson.

CTRL Z CLEAR
CTRL 8 HOME
CTRL N no inv
CTRL O invers
ENTER C/R

FULL DUPLEX
SCREEN, AFTER
ING

(FREEZE)
HEN UNFREEZE

MOVES CURSOR TO
COLUMN (C-32)

FILE

? FILENAME
T
LINE -BY-LINE
F (FCTN J)
PS XFER

1. FILENAME"
ER TO START

T
NS)
RT

Tibdits THAT'S Tidbits BACKWARDS!!

Consummers Distributing at 1860 Eglinton Ave. E. at Victoria Park Ave. (Golden Mile Plaza) has a limited number of the TI Solid State Cartridge cases that hold 12 Command Modules each and are stackable, for \$6.99 each. The original price was over \$20.00!!

I've got 2 of them, if you want some get their before Bernie does, ha ha!!

Ryte Data does exist in the Village of Haliburton and is exactly 220 km from my house!!

El cheapo disks are available from your local Woolco store for \$9.99 a box of ten (ss/dd). These are their regular price as per Steve M.

TI RF Modulators are available downtown at SURPLUS SURPLUS, 333 QUEEN ST. W. for \$4.95 each (new).

Their is, underway, a group of people who have experimented with the compatability of the Maxi-Mem and the Gram Kraker. More to follow as information becomes available. Perhaps those involved will write up an article as to the pros and cons of this venture.

Protecting Your TI, Electronically Speaking

(c)1986 By Steve Mickelson,
TI-6780(Source);76545,
1255(Compuserve)

When you look at the hardware that Texas Instruments (TM) engineered in the TI-99/4A Computer and Peripheral Expansion Box, it is hard to imagine it as being at all vulnerable, especially if sitting safely on its desk. However, one aspect of the system is very often taken for granted, with little or no concern, until it is zapped by an electrical power surge or a command module fails.

It is possible to get some protection, at reasonable cost and effort. Though the system has some electronic protection, these can fail if zapped often enough. Let's talk about how these damaging electrical charges enter the system.

If you've read any of the TI literature, you'll be familiar with the warnings and recommendations regarding static voltages. You may be surprised to know that charges up to 10,000 volts may not create the well known snap of static and visible spark. However such a charge, though unfelt by your hand, may be enough to weaken sensitive electronic components. You could be regularly zapping your system, so that one day a component fails, seemingly of its own accord! A potential can

be introduced into the system via phone lines; are you in the habit of shutting your system down at the first indication of a thunderstorm? And how about the ground connections between such components as the printer, modem and even TV set or monitor? Consideration must be made to other aspects of our system such as third party components, kits, and accessories made for the TI, which may have components more sensitive to static discharges or electrical surges than the original TI and its family of peripherals. Connecting new devices while not making sure that they are properly wired to the right ground wire could make for potential (no pun intended) problems. Let's explore some of the solutions for the problems discussed above. First, make sure that your system is connected to a properly grounded line. If the power cord to the AC line has a ground terminal, then make sure the line is grounded and properly wired. Such stores as Canadian Tire, Radio Shack, and many hardware stores sell a simple, inexpensive line tester which plugs into the electrical outlet. Green light emitting diodes glow to show a good outlet, while a red one shows a fault. Such a fault should be corrected by qualified personnel or an electrician, the voltages in the outlet can be dangerous

Also, you should make sure that the outlet is not on the same circuit as such heavy motors as is found in washers, dryers and refrigerators. Although such equipment usually have their own built-in protection, the switching on or off can put what is called electrical spikes in the line which could enter your system. The above-mentioned stores also sell surge protectors which help to trap and ground out dangerous line spikes. Such protection is minimal and it is recommended you replace such a device every two or three years as the spikes they absorb could eventually make the device fail. Power bars which contain even more AC line protection are sold by most Canadian Tire and Radio Shack stores. They help to isolate the power line, but also to reduce interference between the various components plugged into it. Typical provision is made for six to eight devices plugged into it. A monitor, printer, or other device may have a ground terminal, usually a screw with a star-shaped washer located on a bare metal place under or behind the peripheral. This terminal "labelled ground" can be hardwired to the Peripheral Expansion Box, a good spot is to the ground screw which secures the Peripheral Control Card (in slot #1) to the Box's chassis. Or the ground may be in the form of a green or green/yellow cable, which comes from the equipment, and when new, is

labelled as ground. If your peripherals have provision for such grounds then use it. Anti-static sprays are helpful, if you get static from the carpet or floor of the room where the computer is located, as are static bars and mats. The static bar is a bar upon which you rest your hands as you type. The mat is usually placed under your computer. Both of these are hardwired to a ground such as the ground screw of an electrical outlet or cold water pipe. I would think that the bar is preferred as it must be touched before touching the keyboard, whereas the mat being under the keyboard seems to make the static charge go through the console before grounding it and may do more harm than good!

If you own a home you could isolate the electrical line, even dedicate it, i.e. the AC line is dedicated to the computer system, with nothing else on the line. A recent addition to my home, along with an upgrade to a 200 AMP service made such a line possible for me, (though I don't recommend upgrading your service just to get an isolated circuit). Also, I had the regular AC outlet replaced with a Ground Fault Interrupter type outlet. Such a device is usually required when installing an outlet in such potentially hazardous locations as bathrooms, near swimming pools or hot tubs, or any area which might be subject to

moisture or dampness, which we know doesn't mix well with electricity. Such devices detect a line short in voltages so small that they trip their own internal circuit breaker before a lethal voltage can threaten anyone using electrical equipment plugged into the G.F.I. The G.F.I. I used has tripped three times; twice during thunder storms, and once from an old TV set that I used to use for a monitor and which had a nasty habit of snapping off by itself. Also, such devices as burgler alarms and power line interfaces should be considered not only for their usefulness as interfacing your TI to the "outside world", but also for the potential danger they pose as a possible route for spikes to creep into your system. Remember a CSA or UL approval, does not necessarily mean that it won't harm your computer, only people. Here common sense should prevail, if you want a burgler alarm, buy one; it'll probably be easier to hook up and operate and won't threaten your system. For most purposes, a good power bar is worth the extra bucks, if only for the peace of mind. Many of the other extras such as grounding mats, dedicated AC outlets, G.F.I., etc. are merely icing for the cake. I think, that such extras are a lot like fire insurance, you don't want anything to happen and there are no guarantees, but if you can afford the extra protection, then why not have it? Finally, some of the new hardware for the P-Box, such as the half-height double sided disk drives and the quiet biscuit-type cooling fans

have a provision for connecting a ground wire, either a tab type terminal or a hole for a ground screw. These usually have the label "GND" or three parallel lines, which look like an inverted pyramid. You can connect an additional ground to this point. They are provided for a purpose, and I'd advise the little extra time and expense to connect them, unless you want to replace an expensive piece of hardware because the main ground wire became loose or disconnected and a static charge had no where to go! The same applies to the additional ground pins on the RS-232 lines to printer, modem other peripheral devices. Connect all the ground lines, even if only one or two will suffice for the job. There are, commercially available, modem and RS-232 static discharge connectors which connect between your external device and the card. How well they work and whether they have a DOC(FCC in the US), approval I don't know. So in conclusion, static is a real threat to your valuable computer hardware, as is lightning and electrical power surges. The basic protection provided by such devices, as discussed above, is well worth the money invested. The price is usually only a fraction of the total value of the equipment being protected. So, if you can afford the cost and hassel of finding out what was damaged and where to repair or replace it, (let alone the hassel of not having your TI), then disregard this article, otherwise consider protecting, electronically-speaking, your investment.

Steve's Tid Bits #1

(C)1986 by Steve Mickelson

This is the first, hopefully not last, in a series of regular newsletter articles about news regarding the TI-99/4A and compatible computers. I will try to keep readers up to date as far as what's happening to TI, including news about software, hardware and other items related to our computer. So much for introductions, so what's new? Available from Tenex are River Rescue, Submarine Commander, and Computer War. The last of the three is modelled after the movie, War Games. I recall a review on this game, but never did see the promised TI version. The price for all three is \$29.95(US) +shipping, tax duty. I hope to order them and review them in an up-coming issue of the newsletter. My monthly scanning of the local newstands has, sadly, seen the abandoning of TI support by Family Computing. Though Scholastic Inc., owner of Scholastic Software produced only one or two examples of commercial software, the magazine's "type and run" programs showed some imagination. The dropping of TI from the July issue though somewhat predictable from the reduction in reviews and programs is a loss to the readers, as many of the better game and utilities were originally written for the TI and then translated for the other computers. I hope that the software writers seek out such outstanding publications as

MICROpendium for future submissions. The Source is now in the process of replacing TISWAP, Texnet and PARTI with an all-inclusive special interest group called, what else, TISIG. I don't mean to brag, but I submitted a suggestion to STC last year regarding lumping all of these TI-related areas of interest into one area of the SOURCE. Their reply was that it was a great idea. I must admit that they improved on the suggestion by reducing the rates of the SIG's, having not only TE II, but XMODEM, KERMIT, and line by line downloads. Though I found that the TE II download still had a bug in it and wouldn't work. Luckily TISWAP is still up and running for freeware software downloads. This new revamping of the old Texnet is long overdue and much welcomed. The new GENEVE 9640 is now expected to be available in August or September, (this year, I think). The unit is now a 640K RAM computer, so as to keep pace with the AMIGA and ATARI ST. Luckily though the RAM included has risen from 128K to the 640K, the expected price has not. Though it seems more of a computing card than a console with the computer inside. The expected price is still around the \$500.00(US) mark. The HCM Journal has come out as a hefty \$75.00 disk-based magazine

Steve's Tid Bits #1

(C)1986 by Steve Mickelson

Remember this replaces the old Home Computer Magazine, which replaced 99er Home Computer Magazine, etc. You must have received and returned a subscription request card to HCM Journal, to have the remainder of your HCM subscription credited

towards a Journal subscription. No word of the HCM Journal arriving to any Canadian users. Though I have some more Tid Bits, they will have to wait for another Newsletter, due to space and deadlines.

U

COMMENTS ON STEVE'S STATIC ARTICLE

1. Having a dedicated outlet can still be a problem if other high starting current drawing devices are on the same leg (ie. 120 volt side of the 240 volt panel that is common in all residential services).

2. Voltage dosen't kill. current does. GFI devices are normally calibrated to trip at 5 ma current draw since 20 ma is the upper level at which a/c current will start to induce muscle spasms.

By Randy Rossetto

EDITOR'S CONSOLE

Most of the Articles in this issue have been printed out by two column printing . Gary Bowser worked on the program ond is knocking the bugs out of it. Perhaps, by printing the next newsletter we may have the problems solved. Andy Parkinson and Wes Shunk also have been very helpful. Keep those articles coming.

BUGPAGE by

M O DOWD

Disk Label Maker in last Months newsletter had some errors in it . they were really typing errors.

The heading should read Disk Label Maker (Not Dis Label). Line 220 should be diskname\$ not (disname\$). Change line 260 to Open #1:"PIO". Number 270 was missing, insert 270 For P=1 to N-1.