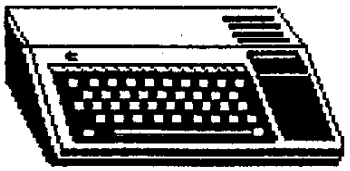
OSHAWA TI
99/4A
COMPUTER
USERS GROUP

OSHTI

NOV 1990



80 Column -9958

OPA-Bowser

The Oct OSHTI meeting was devoted to OPA's (Oasis Pensive Educators) NEW 80 column card. Gary Bowser the CEO of OPA and computer wizard was the keynote speaker at this meeting. Not only did we have our usual good attendance, but we were honoured by 5 members of the Kawartha Club - Phil, Glen, Dick, Bob etc. Thanks for joining us. We also video taped the demonstration. Although we taped an hour and a half, some editing will be done (some of those GIFs will have to go, along with comments about my truck). I hope to have the video ready before the Christmas meeting.

Gary brought along the proto type model of the new 80 column card already installed in his TI 99/4A console. This is what makes the OPA card, called TIM for short unique; it installs directly into the TI console and takes up very little space. It is only 4 x 3" and about a half inch high. It is plugged into the 9918A socket after the 9918A VDP (video proceessor) is removed. A cut is made in the metal shield of the mother board and the card is socketted and one solder connection is made to the 9901 chip on the opposite side of the board. The 25 pin (RS232 type) female connector makes 'new port' when a small piece of the plastic is removed from the TI console. This sits flush and is ready for the monitor cable to be installed.

The monitor cable will have to be constructed using 6 wires from the monitor and an RS232 male connector(25 in). Gary will supply the details for your monitor. The types of monitors needed are analog RGB. While an Amiga (Phillips) monitor can be used, Gary mentioned that he knows of other compatible ones including the MAGNOVOX 12" (640 x 200 pixel) and the GOLDSTAR 14.5" (640 x 480) made in the US or TAIWAN (not Korea). The Commodore 1080 and S type as well as the more expensive 20A will work too. Some monitors will NOT work, so Gary recommends the above. Gary hopes to bundle the card with an inexpensive monitor if he can find a supplier. A number of us raised this as a concern since most of us don't have RGB monitor.

However, Gary also mentioned that an external composite converter would be availabe for about $30 for those who don't want to go the RGB route.

Well, what are some of the facts about OPA's TIM card ?

- -192 K VDP standard memory
- -9958 VDP chip
- -19268 colours for screen
- -only 1 specialized chip
- -32 sprites(8 on a line)
- -improved synch. lock

-25 page documentation
-disk of 80 col. programs

The improved synch.lock will enable devices such as digitizers and 'GEN LOCKS' to be developed easily and cheaply. Only a few more support chips will be needed; a composite to RGB converted and a high speed switch in a phase lock loop.

Gary has also used a video isolation circuit like DIJIT to protect the video processing circuit. The 25 pin port allows Gary to bring out 4 synch.,vertical, horizontal and composite lines. Having all of the lines at the port will aid greatly in the development of digitizers and frame grabbers. Two devices that are NOT supported are the mouse and light pen. This is not really a problem since the ASGARD mouse is being developed and this uses the RS232 card anyway. Few programs support the MECHATRONICS 9938 mouse anyway.

Other enhancements include the way in which the video processor handles commads. You can now use internal commands like 'draw line' or 'draw box' or 'fill' in ANY MODE even TEXT MODE. You are NOT LIMITED to HI RES modes. This opens up more graphics to older programs in XBASIC. Gary also added a WAIT SLOW-DOWN LINE; the current video chip can be too slow for the CPU; the wait slow-down line enables the hardware to control the delay and cuts the programmers work down (he/she won't have to put in delay loops).

COMPATIBILITY is excellent ! Gary has NOT found a program that does not work; even though some skeptics (Barry Boone) said that the 9958 wouldn't work.

However, TI BASIC will NOT function at the moment. TI BASIC has a problem in that 3 values were set wrong! The unused bits were set to 1 instead of 0. Gary thinks that this can be corrected for the 9958.

Gary will also be writing GIF VIEWER program for the TIM. This viewer will be able to support the 18000+ colours for the 9958. This will make it able to support the display of AMIGA IFF files which have 4000+ colours. GIFs are also limited to 256 colours.

Software that supports the 80 coloumn card is listed below:

-FUNNELWEB
DISKREVIEW
EDITORS
-MACFLIX- professional
-X-HI (Alexander Hulpke)
-X-80 BASIC
-DM-1000 (80col.vsn.)
-SECTOR 1 (sector editor)
-BOOT MENU 80 (J.Johnson)
-TREK DISK (game)
-TELCO (communications)
-GIFF MANIA (texaments)
-Y.A.P.P. (Asgard paint)

What is the cost of TIM ?

Only $150 US or Canadian. Gary will look at group discounts as well.

At the moment, TIM is the only 80 column card ready for the TI market. Gary has now received the proper timing crystals and is ready to go into production.

I know that the TIM will be on my Christmas list this year.

OASIS PENSIVE ABACUTORS
432 Jarvis St.
TORONTO, ONT. M4Y 2H3
(416) 960-0925

GENIAL TRAVeLER Vol.3 HERE!

Barry Traver has released his first disk of Volume 3. Again he apologizes for the long delay between Vol.2 and 3 and as usual has included an extra disk to smooth over any complaints of lateness. I don't think that Barry has to do this, but I thank him for the excellent additional disk of games.

Barry has included a detailed description of his last year and it is well worth the reading. It puts life into perspective... grief and sorrow are part of everyone's life.

Volume 3 has some unique programs included. There are two utilities which go with THE MISSING LINK (Texaments) use TI Artist instances in the MISSING LINK and the other allows you to use KWIK FONT (Tom Freeman's program) to write and edit TML fonts.

Barry has written a printer utility which goes with the popular calendar scheduler, REMIND ME. This is especially good for those who haven't got a lot of appointments on their monthly calendar.

Jim Reiss's program ARCHIE which will help all TIers clear their disk of multi-file EA5 programmes. This is a faireware program so it will no doubt see wide distribution.

There is lots of documentation for each program on the TRAVER disks. This makes the utilties and programs adaptable and understandable by others whether ardent haokers or casual programmers.

Even though the disks come out sporatically, they are always a welcome addition to the TI 99/4A enthusiast.

Tom

BOWMANVILLE COMPUTER EXHIBITION

Thanks to Keith, Guy, Bob and Bernie or their time and effort at the Bowmanville COMPUTER EXHIBITION on Nov. 4th. Even though the weather was miserable the show proved to be a great success for our club.

Not only did we have a very nice table (good location and close to the coffee) but we were selected by a local newspaper photographer for his photo-layout and article. See the accompanying picture and article.

We did make contact with a number of TI users who were unaware of our existance and spread the word to others who will be contacting friends. Guy produced a FREE calendar (1991 or course) and a two page blurb on the club. I will be including these with the out of town mailings. Maybe this will give other groups some ideas as well. Guy was able to get the printing of these done using a LASER printer, so they are even sharper than our dot printers.

The follow up of our contacts is something we can all help with. Hint, hint.

It was apparent at this exhibition that we are definitely in a recession. It seems a lot of people were looking but few buying.

This exhibition was mainly for vendors and clubs. There was little used equipment or super bargains to be had.

We did get a low-down on some good RGB monitors and we will be following this up.

Tom.

PROGRAMS FOR the MISSING LINK:

For those TIers who have purchased the MISSING LINK by Wilhelm thru texaments there are more support programs available...FREE!

The last two issues of MICROpendium have had a program using the MISSING LINK environment. One was a rewrite of a STOCK and BONDS type program whil e the other is useful for including TI Artist pictures in a written TI Writer document.

There are also some utilities mentioned in the article on the GENIAL TRAVelER in this newsletter.

I think the MISSING LINK has already generated a few useful programs, hopefully mine will be done by Christmas as well.

Tom Jakabfy

TML: tiny BUG

In case you don't subscribe to MICROpendium, yet, there was a BUG in the first few issues of the MISSING LINK LOADER program (TML). Here is the correction.

Type in 'OLD DSK1.TML' and press enter. Look at line 210. If there is an 'IP$' in this line change it to 'A$' and save this back to disk with the same name.

Of course, you will be changing your BACKED-UP DISK COPY, right ?

MICROpendium Oct. 1990 p.26.

Please consider subscribing to MICROpendium, this is the last of the magazines to support the TI 99/4A. A subscription card was in the Oct. OSHTI newsletter for ease of use. Remember you can use VISA or MASTERCARD too.

LEARNING SOMETHING new-MENU 8.14 + TASS

I am always open to learning something new, but a lot of times this can be unexpected.

The night before our demonstration for the COMPUTER EXHIBITION in Bowmanville I was getting things ready and trying out something new. Well, you can guess what happened. My TI went into never-never land and refused to work !

Here is the scenerio. I had loaded in a bunch of TI Artist pictures into my Horizon Ram disk (DSK8.) for use with TASS SLIDE SHOW.

TASS slide show does NOT load from the HORIZON MENU 8.14. So I loaded it from XBASIC with MENU turned off.

Everything was going along fine until I started the file access. It would NOT get the files from DSK8. In fact it locked-up at this point. When I went back to the start and tried to boot -up XBASIC, even that wouldn't work. I couldn't get to the title screen. Turning the computer on and off did no good. NO STARTUP TITLE screen.

At his time I usually curse and immediately point at my ZENO board (an add-on which I soldered into the console). Since I didn't want to take the console apart and see if it was a hardware problem, I left the problem and took a hot shower. Ah, yes, I forgot to say that I was also going to a dance with my wife that night as well.

I often remember what my 'old' chemistry prof told me, "I get my best ideas in the shower". Well I guess it worked for me too. I thought over what had happened and

reached a second conclusion. Maybe the software had done something to my HORIZON Ram disk Operating system rather than to my ZENO card.

I went back to the computer and did a few tests. First, the Ram disk could not be by-passed by pressing he shift key on start up. Hum.

Secondly, I pulled the card RAM DISK at CRU 1000, the boot area. When I turned on the machine everything worked fine. Of course, I couldn't access the HORIZON calls but everything was normal. The culprit was a rewrite on the HORIZON system (MENU 8.14) to be exact. I had to reconfigure the BOOT (CRU > 1000) ram disk and recopy my programs to the ram disk again.

By the way, if you use TASS SLIDE SHOW, DO NOT use a ram disk greater than DSK7. It works fine for 1 to 5 as far as I have tested. But it doesn't work for 8!

The slide show works nicer off the ram disk since there is no physical move- ment of a drive.

Hope I haven't bored you here, but maybe you may learn something and pass it on too.

Tom Jakabfy

NEWS from here & there:

Phil Townsend reports in the Nov. KAWARTHA 99er NEWS that TRITON NO LONGER deals with TI 99/4A software or hardware. However, all is not lost. They sold out to a firm called:

T.M. DIRECT PRODUCT MARKETING INC.

You can reach them by phone 1 800 336 9966 in the US or CANADA.

Phil also reports that TEXAS INSTRUMENTS of Lubbock Texas still maintains a user group list. The address is:

TEXAS INSTRUMENTS
P.O. BOX 53
LUBBOCK TEXAS
79408
PHONE:
1 806 747 1882

Phil (I still don't believe it) reports that he has modified his console. Arggh ! but no LEDs unfortunately.

Phil drilled a series of holes in the plastic under the cartridge slot. This will allow heat to escape from the power supply. The power supply on the TI as we all know gets very warm. It is also suspected of causing LOCK-UPS when the XBASIC cartridge is being used. In fact there has been verification of this in recent editions of the BC 99er's NEWS. A reprint of the HUG(Houston User Grp.) newsletter article indicates that the lock up problem can be directly attributed to the extra heat generated when the XBASIC cartridge is used. Several suggestions on harware modifications for the power supply are made. When I read these suggestions it made me ask myself why they put the power supply in the computer in the first place. I can't see why you couldn't use an external power supply to run the console anyway. In fact the new RAVE PE(BOX)II has all of the TI power in the box with no need for this power supply.

Come to think of it, if the PEBox has the correct voltages maybe someone could run a wire(s) out of it to run the console (AKA mother board). Of course, RAVE offers the ultimate solution. We will have to see if RAVE is still building the more powerful PEBox that they began offering in March of this year.

OTHER COMPUTER NEWSLETTERS

Recently, I picked up a newsletter from another computer group to see what they do; they are NOT a TI group so I thought I would get some 'new' (or rather, different) ideas. Well, here is a short excerpt from the TPUG (Toronto Pet User Group) Newsletter dated 'WINTER 89/90'.

" My apologies!! What can I say? This newsletter is long overdue. I won't bother you readers with all the details, but procrastination (reporters and editors) certainly plays a strong part- a condition we fight every day in our attemps to perform with volunteers what used to be done with a paid (sigh..) staff."

"Time will tell how we work it all out, but rest assured we realize that you, the member, have clearly indicated the need for a newsletter on a regular basis- we hear and we shall respond!"

The TPUG newsletter was printed on 8.5 x 14" paper and folded to make a booklet of 12 pages of 8.5 x 7". They used a laser printer, so it was very clear. There were only 3 graphics used, so there was a lot of print. This is quite a change from the heady days when TPUG put out a glossy magazine-type edition every 2 months.

Another thing that caught my eye was with reference to a "continuing growth of new users of the old PET series. I can offer material for these venerable usables."

Doesn't this sound familiar. A group supporting a computer that was discontinued ?

These were the first computers I worked on in the early 80's- NO COLOUR, NO SPRITES, WEIRD GRAPHICS, NO TRUE LOWER/UPPER CASE on the keyboard, and NO JOYSTICK. It makes you wonder why there would be an interest...COST ! They can be had for next to nothing. So if you think the TI is dead, I would guess that it will live for a long time considering the situation with the PET above.

The other thing that I noted in reading the newsletter was the ever present articles by Jim Butterfield. Don't they get anyone else to write articles ? Well this does happen with newsletters, doesn't it.....

Tom Jakabfy

MAIL: Newsletters

I am amazed that we receive the LA Topics newsletter within 5 days of mailing and it takes the KAWARTHA newsletter from Peterborough, only 70 km away over 8 days to get here. I guess some fly with the EAGLES and others with the TURKEYS.

I can never tell when the BC newsletter is sent, it seems they don't have any postal stamps for dates out there.

North Bay Newsletter was the winner this month, it got here in 2 days from 300 kms.

The slowest mail continues to be from New York state to Canada. Funny, cuz it's the closest US state to me. The EAR newsletter took 10 days from post mark to me. And it had an AIR MAIL sticker on it.

No matter how long it takes every month brings many newsletters from hither and thither or was it heather and feather. Oh well, keep up the good work editors.

P.S. In Nov. the KAWARTHA newsletter got here in 1 day! I guess they've made some improvements, Phil.

A FOOL AND HIS MONEY
are some party!
Has anyone seen the CAT?

While we are talking about Ed Machonis, author of many TINY-GRAM programmes, I have read about his Chinese Fortune Cookie programme in a number of newsletters.

Here are some of the ones I've seen.

Has anyone seen the cat ?

HELP ! I'm a prisoner in a Fortune cookie factory

Don't tip the waiter,
He owns the joint.

A journey of a thousand miles begins with the release of a hand brake.

A fool and his money are soon party !

Condemned man order last meal,
Get STIR FRIED !

and one for Keith of OSHTI,

He who goes forth with a fifth on the fourth, May not go forth on the fifth !

MOVING YOUR BASIC GROM:

Bob Young was reading thru some of the newsletters and ran across an article which sounded interesting. Someone 'piggy-backed' the BASIC GROM chips on the motherboard and then used the sockets left to add other GROM chips like EDITOR ASSEMBLER,etc. Sounds interesting for those of us that are adventure-some.

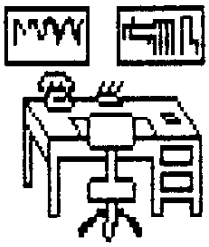
Bob thought that it came out of one of the TORONTO 9T9er newsletters. Maybe someone can dig it up in the future and give a fuller report.

Brievity this month:

Although I like to have a very original newsletter, because of time-lines and extra problems (illness) there will be some reprints from other newsletters. I tried to select some of the more interesting items.

What we really need is for YOU to write something. Use FUNNELWEB or TI WRITER or whatever. Don't worry about the length or the formatting etc. JUST ...

DO IT !

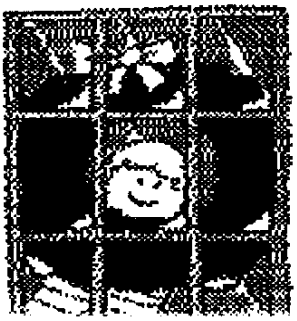


FURTHER INTEREST ITEMS:

Kawartha 99ers will be having Bob Boone at their next meeting (Wed.Dec.12) anyone who is interested in going please indicate at the next OSHTI meeting (Mon.Nov.19).

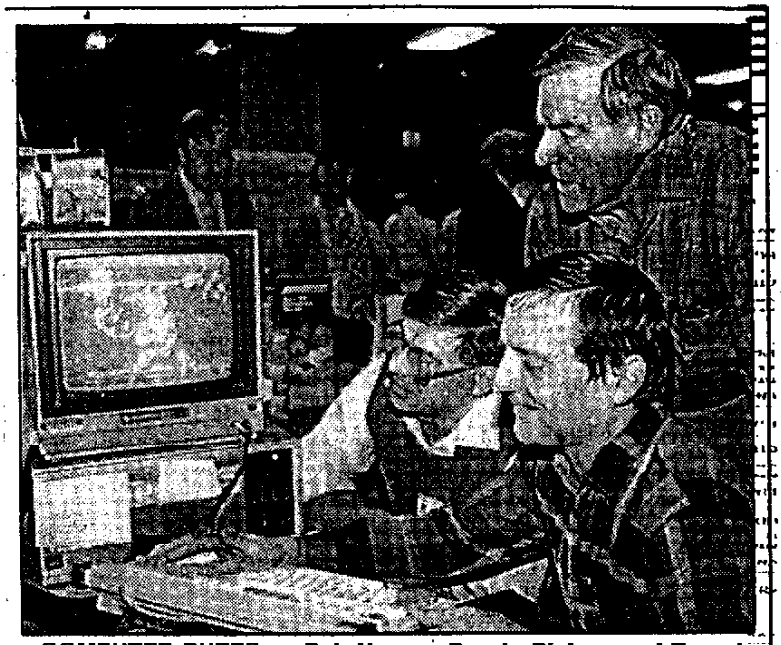
I have picked up several used cartridges and a console and cassette player. We also have a number of people with used equipment who wish to sell it. Now is a good time to pick up some 'new' stuff before the Christmas rush.

Cullen Gardens has invited us for Christmas dinner. They are offering a group rate on Tours. They also sent their MENU in case you want to see what's available to eat.



TIME TO
BE GETTING
READY
FOR
CHRISTMAS !

Tom



COMPUTER BUFFS — Bob Young, Bernie Bishop and Tom Jakabfy try one of the exhibits at the Ontario Computer Exhibition on Sunday. The three are mebers of the Oshawa Texas Instruments Home Computer User Club.

(Oshawa Times photo)

Computer show draws 1,000

By John McClyment
Oshawa Times staff

It was a computer buyer's dream.

More than 50 computer retailers and six local computer clubs were strutting their stuff at the Bowmanville Recreation Complex Sunday.

The Ontario Computer Exhibition attracted more than 1,000 potential buyers and computer buffs.

Everything from software to screens to printers to computer courses and games was displayed.

Show producer Jim Creighton said his company organizes the one-day show in centres across the province.

He said interest in home computers continues to grow in the '90s as both families and small businesses find more ways to use them.

Creighton said families use computers for games, teaching and record-keeping.

And he said even the smaller businesses find computers a good way to improve worker efficiency.

Gerry Eckel of Ajax said he came to the show because he wants to buy a computer for home use.

Eckel was a first-time buyer trying to find out more before he took the financial plunge for a computer.

"I'm starting to get a better idea of what direction I want to go," said Eckel after looking over the exhibits. "Buying a computer the first time is tougher than buying a car."

Derek Gillette of Oshawa was also on hand to look for a home computer.

Gillette said he found the show a good chance to look through an almost intimidating range of computer equipment.

But he said Sunday's computer show was especially good for Durham residents.

"It's about time we had one in this region," said Gillette.

Members of the Oshawa Texas Instruments Home Computer User Club were on hand to explain their organization's goals.

Even though Texas Instruments stopped making home computers in 1983, club members said there is still a lot of information to share.

"People still have these computers and we are trying to show they can still be used and improved upon," said Tom Jakabfy, a member of the club's executive.

Screen Preview Released

Screen Preview is the kind of program that once you've tried you'll wonder how you ever did without!

A replacement for your TI-Writer (or compatible) Formatter, as the name suggests this program formats your document to the screen in a "greeked" format (the text is displayed as dots on a representation of the page). You can then check centering, margins, justification and so forth before printing it, or if you find errors make changes directly in your formatted text!

Screen Preview is great for both the novice trying to learn to use the Formatter, as well as the expert user that simply wants to see a document before printing it. Easy to use and well documented, this program will save you mounds of paper, and hours of frustration. Written by Joe Delekto.

Requires a TI-99/4A or Myarc Geneve 9640, 32K, a disk system, a printer, and one of the following: *TI-Writer, BA-Writer, Funnelweb, My-Word, QS-Writer, RAG-Writer, Wordwriter* or any *TI-Writer* compatible. Suggested retail $12.95.

Shipping:

U.S. add $2.00/order
Canada add $2.50/order
Airmail add $4.00/order

Send orders to:

Asgard Software
P.O. Box 10306
Rockville, MD 20849

TI-994A Refresher Chart

LOADING A PROGRAM

LOAD PROGRAM INTO MEMORY	OPTIONS — IF ERROR OCCURS	
	REPEAT THE LOADING	EXIT THE LOADING
OLD CS1	R	E

SAVING/VERIFYING PROGRAMS

SAVE PROGRAM ON CASSETTE #1	SAVE PROGRAM ON CASSETTE #2	VERIFY SAVED PROGRAM (YES)
SAVE CS1	SAVE CS2	Y

CHANGING COLORS

CHANGE FOREGROUND AND BACKGROUND COLORS	CHANGE SCREEN COLOR
CALL COLOR (+ CHAR/COLOR CODE#)	CALL COLOR COLOR CODE

COLOR CODES

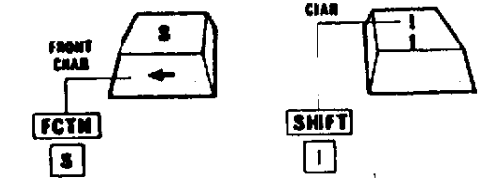
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TRANSPARENT	BLACK	MEDIUM GREEN	LIGHT GREEN	DARK BLUE	LIGHT BLUE	DARK RED	CYAN	MEDIUM RED	LIGHT RED	DARK YELLOW	LIGHT YELLOW	DARK GREEN	MAGENTA	GRAY	WHITE

EDITING COMMANDS

BEFORE YOU PRESS ENTER			AFTER YOU PRESS ENTER, HOLD DOWN FCTN KEY AND THEN PRESS DESIRED KEY									
DELETE A CHAR	INSERT A CHAR	ERASE THE LINE YOU ARE TYPING	ENTER EDIT MODE	CURSOR LEFT ←	CURSOR RIGHT →	DELETE A CHAR	INSERT A CHAR	ERASE THE LINE BEING DISPLAYED (EXCEPT LINE NO.)	ACCEPT CHANGES AND DISPLAY: NEXT LOWER-NUMBERED LINE FOR EDITING	ACCEPT CHANGES AND DISPLAY: NEXT HIGHER-NUMBERED LINE FOR EDITING	EXIT EDIT MODE AND: IGNORE CHANGES MADE	EXIT EDIT MODE AND: ACCEPT CHANGES MADE
FCTN 1	FCTN 2	FCTN 3	EDIT ENTER DESIRED LINE NO.	FCTN S	FCTN D	FCTN 1	FCTN 2	FCTN 3	FCTN E	FCTN X	FCTN 4	ENTER

USING KEYS W/ TWO CHARACTERS

EXAMPLE:



RUNNING A PROGRAM

RUN A PROGRAM	STOP PROGRAM (BREAK)	CONTINUE PROGRAM (AFTER BREAK)	LIST PROGRAM
RUN ENTER	FCTN 4	CON ENTER	LIST ENTER

MISC. COMMANDS

LOCK KEYS INTO UPPER CASE	QUIT/RETURN TO MASTER SCREEN (LOSE ALL DATA)	CLEAR THE SCREEN
ALPHA LOCK	FCTN =	CALL CLEAR ENTER

OSHTI NOV 90 -9-

NEXT

OSHTI MEETING

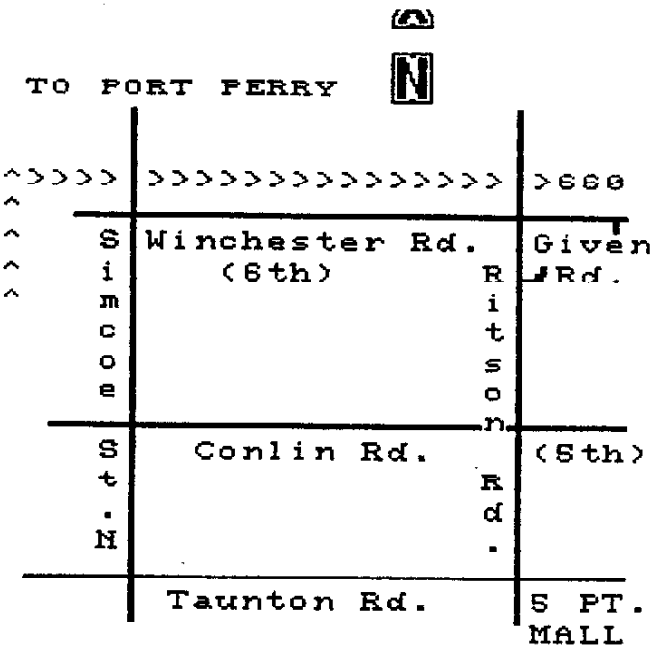
MONDAY NOV.19

7:30 PM
Tom's Place : See map >>> >>>>^

-ITEMS FOR SALE

-DEMO : 9T9er D.O.M.

-DEC. MEETING AND BEYOND...



- O - S - H - A - W - A -

OSHAWA TEXAS INSTRUMENTS HOME COMPUTER USERS' GROUP

CHAIRMAN:	RAY BLODGETT (579-1767)
VICE CHAIRMAN:	JOHN EASTHAM (728-9994)
TREASURER:	GUY LAFONTAINE (576-5910)
LIBRARY/SEC.:	DOUG BURLEIGH (579-5109)
NEWSLETTER EDITOR:	TOM JAKABFY (725-7298)
MEMBER-AT-LARGE:	----------

MEETING TIMES:

The OSHAWA TI USERS' GROUP (OSHTI) meets between the hours of 7:30 and 10:30 pm Location to be named in the newsletter.

MEMBERSHIP FEES:

The OSHTI membership is $15 per family per year.
Members receive ten(10) newsletters per year.(Jan.-Jun. Sep.-Dec.).
Members also have the use of the club library (CASSETTE + DISK).
VISITORS to club meetings are WELCOME.
Copying charges for disks-of-the-Month are $1(your disk) or $2(our disk).

MAILING ADDRESS:

OSHTI
c/o Tom Jakabfy
660 Given Rd.
OSHAWA,Ont.
L1G 8L7

The OSHTI Users' Group is a Non-profit organization dedicated to encouraging the continued use of the TI/994A for education, entertainment and data management. The club also supports the MYARC 9640 or GENEVE(TI compatible) computer.

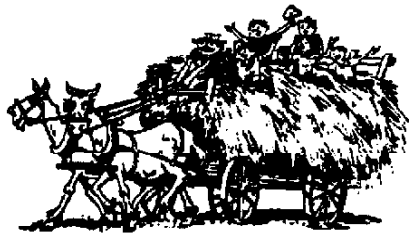
ATTENTION:

COMPUTER ENTHUSIASTS AND TI/994A COMPUTER OWNERS
THE T199/4A STILL LIVES !

THE OSHAWA TI99/4A COMPUTER CLUB IS STILL GOING AND WILL CONTINUE TO RUN AS LONG AS THERE IS STILL INTEREST...and there is. The club meets ONCE A MONTH at the home of one of the executive in the Oshawa/Whitby area from 7:30 to 11:00pm. The following dates have been established until the end of 1990:

Monday NOV. 19th, Monday DEC. 17th

The club offers members have the benefit of a monthly newsletter and programme, periodical and text libraries. As well the club can provide ideas on programming, software and hardware availability and the current information on the NEW T.I. COMPATIBLE COMPUTER the GENEVE MYARC 9460. The club has also made contact with other clubs in Toronto, Peterborough and other Ontario communities. OSHTI exchanges Newsletters with clubs in theUnited States, England and other international locals. These contacts allow the channeling of current information back to you. Are you thinking of BUYING A NEW COMPUTER? THEN, YOU MUST FIND OUT HOW THE TI99/4A HAS BEEN EXPANDED AND CONTINUES TO BE EXPANDED. The TI 99/4A can be expanded from a simple console and cassette player to a system which rivals even the Amiga...yes, I said the Amiga. HERE are some of the possible expansions that can be done to the TI 99/4A:



GET ON THE TI BANDWAGON

80 COLUMN SCREEN (with up to 19000 colours using the 9958);
MORE MEMORY VIA RAM DISKS (past 256K)
HARD DISK DRIVES
TRACK BALLS AND MOUSE ATTACHMENTS
MODEMS
IBM PC/XT KEYBOARD
GENEVE 9640 COMPATIBLE COMPUTER 256K.

This latter expansion gives you 640K of RAM, better colours and improved resolution over the Amiga computer. But what about SOFTWARE, you may ask. Well, IT'S STILL being produced...now by the THIRD PARTY industries. There are excellent graphics programmes, word processors, spreadsheets and games being produced for your TI 99/4A home computer. And to add to this there are STILL the ORIGINAL T.I. software cartridge packages available. There is NEW TYPE of SOFTWARE being produced for the TI 99/4A... is called SHAREWARE. This software for the TI 99/4A is very inexpensive compared to what some of the original T.I. modules once cost. Shareware is software that is distributed free and if you become a regular user then you are expected to send the requested registration fee. This fee will usually provde you with a manual and the most current version of the software. This software will dry up if people do not support the developers. This new T.I. software is EVEN BETTER and MORE POWERFUL than any that T.I. put out.

Here is a sample list:

FUNNELWEB(WORD PROCESSING & ENVIRONMENT)
TELCO (telecommunications),
TI BASE(data base similar to DBASE)
ARCHIVER(prog.cruncher for telecommunicating, storage)
SPELL-IT! (spell checker)
PAGE PRO (WYSIWYG page maker)
MULTI-PLAN (spread sheet by MICROSOFT)

Have you heard any of the computers come up with a better VOICE SYNTHESIZER than T.I. did seven years ago ? None of them are accessed as easily as the TI 99/4A. If you are interested in TELECOMMUNICATIONS then the T.I. is very active in SIGS (Special Interest Groups) on all the major data networks . . . COMPUSERVE, GEnie, and DELPHI. There are lots of new programmes to download from these services. As well as T.I. BASIC and T.I. Extended BASIC the following languages are available for programming:

LOGO, FORTH, PASCAL, FORTRAN, MODULA 2, LISP, PILOT, ASSEMBLY, NEW EXTENDED BASIC, THE MISSING LINK (HI RES XBASIC).

Why are there still many users out there using a machine that was abandoned by its maker four years ago? The TI 99/4A was one of the best built computers. To FIND OUT more about the current status of TI 99/4A hardware and software become a MEMBER of the Oshawa TI Users Group.

COME OUT AND JOIN US... bring a friend, children, wife . . .

Mailing Address: Oshawa T.I. 99/4A Computer User Group
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L1G 8L7

Be Part of the Fun