

99'ER ONLINE

NEWSLETTER OF THE
EDMONTON 99'ERS COMPUTER USER'S SOCIETY
MARCH 1984 EDITION

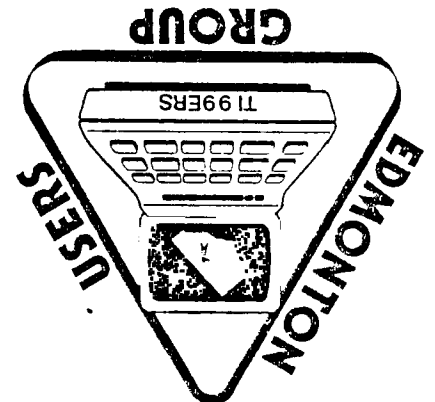
99'ER ONLINE

99'ER ONLINE is a monthly publication of The Edmonton 99'ers Computer User's Society. The clubs mailing address is P.O. Box 11983, Edmonton, Alberta T5J 3L1

NEWSLETTER STAFF

Everything but typing: PAUL HELWIG

Typing: SUSAN LIVINGSTON



EDMONTON 99'ERS COMP. USER SOCIETY
P.O. BOX 11983, EDMONTON
ALBERTA, T5J 3L1

NOTES FROM THE SECRETARY, SUSAN LIVINGSTON

Seeing as how our executive has been slightly disorganized we haven't been making regular announcements pertaining to what we have been doing at our executive meetings. First of all we should formerly introduce our executive, your President is Bill Cannon, Paul Helwig is the Vice President, Evan Smith is Treasurer, and myself Susan Livingston as Secretary.

The executive has decided on a few things, one being the way the book library will be run. The book library has a Twenty Dollar (\$20.00) user's fee, which is refundable at anytime the member requests, providing that the member is in good standing with the library (i.e. no overdue or lost books). Should you lose a book, we feel it would be fair to put your \$20.00 user's fee towards the purchase of either the same book or another to replace it.

We are also selling advertising in the newsletter. The price has been set at Five dollars (\$5.00) for a quarter of a page. If you know of any business that would like to advertise in our newsletter please let them know about us. By selling advertising in the newsletter it will be a great way to help with the costs involved with producing the newsletter.

Committees are another area. If anyone is at all interested in getting more involved with the group we have several jobs that need to be done, such as running the Library, someone who could pick up the mail for the club, there are lots of newsletters from other clubs that need to be sorted and organized and the list goes on. If you are willing to help just let us know, we'll find something for you to do. We desperately need your help. (That is why the newsletter is late getting out.)

The executive usually meets a week or so before the general meeting, so in the future we will be making regular reports as to what we have discussed. If anyone has anything you feel we should discuss or have overlooked please let us know, this is your club after all.

Susan Livingston.

LIBRARY INVENTORY

Here is a list of the books and magazines that we currently have in our library. These books will be available at the meetings.

BOOKS

Home Computers Glossary & Guide	Small Computer Systems Handbook
A Simple Guide To Home Computers	Understand Comp. Through Common Sense
Running Press Glossary of Comp. Terms	Computers & How They Work
Home Comp. A Simple & Informative Guide	Executive Computing
Personal Computing	Electronic Computers
The User's Guide to Texas Instruments	Forth Manual & Diskette Public Domain
The Basic Handbook	

MAGAZINES

99'er Magazine Vol.1 No.1	99'er Magazine Vol.1 No.2
99'er Magazine Vol.1 No.3	99'er Magazine Vol.1 No.4
99'er Magazine Vol.1 No.5	99'er Magazine Vol.1 No.6
99'er Magazine Nov. 1982	99'er Magazine Dec. 1982
99'er Magazine Jan. 1983	99'er Magazine Feb. 1983
99'er Magazine April 1983	99'er Magazine July/Aug. 1983
Enthusiast 99 Sept. 1983 Vol.1 No.3	Personal Computing Nov. 1983
Hobby Computer Handbook Fall Edition	

Bob Burley has come up with a list of stores that are currently carrying Texas Instruments hardware and software. If you know of any other stores that still carry T.I. products please let us know as they are becoming few and far between.

The Games Gang	9872-63 Ave.	435-4636	Chuck
L-Tech	14648-134 Ave.	451-4558	Lloyd
Phone Exchange	Kingsway Garden Mall	428-3252	George
K-Mart	Meadowlark Mall	486-1850	
Toy City	West Edmonton Mall	481-4193	Manager
Woodwards:	Edmonton Centre	424-0151	
	Westmount	455-3131	
ask for calculators	Northwood	476-3311	
	Southgate	435-0511	
Simpson Sears:	Kingsway Garden Mall	479-8431	
	Bonnie Doon	468-6611	
ask for T.V.'s & Stereos	Heritage Mall	438-3555	
	West Edmonton Mall	481-1450	
Eatons:	Jasper Ave.	424-0181	
	Londonderry	478-3431	
ask for cameras	Heritage Mall	438-3444	
	West Edmonton Mall	481-3650	
Consumers Distributors:	13204-118 Ave.	453-2295	
	11452-Jasper Ave.	488-2395	
	Meadowlark Mall	489-1207	
	5328-Calgary Trail	436-1346	
	10005-50 Street	465-2425	
	12745-50 Street	478-6421	
	Kingsway Garden Mall	477-7610	

Edmonton BBS's

Here is a list of Bulletin Boards that are currently in operation here in Edmonton, compiled by Bob Burley.

PLEASE PAY ATTENTION TO THE HOURS OF OPERATION!

ANTITHESYSTEM	464-4172	9:00 p.m.-4:00 p.m.
CAMELOT	439-5802	Fri. Sat. Sun. 6:00 p.m.-12:00 p.m.
CMD MICRO	488-7119	Mon.-Wed. 5:00 p.m.-10:00 a.m.
		Thurs.-Fri. 8:00 p.m.-10:00 a.m.
		Sat. 4:00 p.m.-10:00 a.m. on Monday
COMMODORE BBS	466-7656	9:00 p.m.-6:00 a.m., 24 HRS. Weekends
COMPUTRON	482-6854	24 HOURS
CONEXIONS	463-1949	24 HOURS
EDMONTON RCP/M	454-6093	24 HOURS
I.B.M. NAPCUG (Leduc)	986-4025	6:00 p.m.-2:00 a.m., 24 HRS. Weekends
K.C. BBS	483-1935	Not sure of hours.
MEADOWLARK RCP/M	484-5981	6:00 p.m.-10:00 a.m.
NORTHERN ALBERTA COCO	474-0147	24 HOURS
RIDGEMONT REMOTE BBS	461-2567	SPORADIC
STADIUM RCP/M	479-3450	24 HOURS
WESTWORLD	471-2827	24 HOURS
PERCY WILKINS BBS	483-9472	6:00 p.m.-2:00 a.m., no auto answer ask for Percy
TRS 80-III MESSAGE & SOFTWARE BBS	425-9543	24 HOURS

Telecommunications and your T.I.
 What you will need.
 By Evan Smith

This article originally appeared in the VICTORIA 99'er Newsletter, MAY 1983.

I - Introduction

How would you like to expand your TI into a whole new world of information and communications? This world consists of other home computer users, in some cases professional users, and you have the potential to join it. There are bulletin boards, information services and electronic catalogs just a phone call away, if you have the right equipment.

In this article, I will discuss the equipment needed for telecommunications and some of the costs of this equipment. You will find that you have several options available to you so if you decide to get into the world of telecommunications, make sure you consider all the factors carefully before you make any purchases.

II - RS 232

An RS 232 is a device that allows your computer to communicate with various standard peripherals including the TI acoustic modem and the new TI impact printer. It allows you to attach items made by producers other than TI such as graphics tablets, plotters and terminals.

There are several RS 232's available for the TI-99/4A, some of them made by TI and some made by third parties. The TI RS 232's are the old RS 232 peripheral box (which you would have to buy used now, if you don't happen to find it sitting on the back shelf of some store), the RS 232 interface card for the Peripheral Expansion System (PES), which comes with two serial ports and one parallel port for approximately two hundred dollars (\$200) Canadian and requires the four hundred dollar (\$400) Peripheral Expansion Box to run. There are a number of third party RS232's available now, as a quick look through the September, 1983 issue of the Home Computer magazine will show. It would be extremely difficult to recommend any one of them, since I have not seen any independently written information on any of them, nor have I heard of anyone who owns one of these models. They do, however, tend to be advertised cheaper than the TI version and should be quite compatible.

III - Modems

Of all the components of your telecommunication system, you have the widest selection to choose from when you choose your modem. Since the RS 232 that TI uses is not quite standard, so you may have to reconfigure the pin configuration on your cable. The major difference between types of modems is how they hook up to the telephone system. A common, and for years the cheapest, type of modem is the Acoustic Modem. An Acoustic Modem is connected to the telecommunications network by placing the handset of a standard bell telephone into a set of acoustic couplers. When I say a standard bell telephone I mean

the type with the two circular ends on its independent handset. The actual acoustic couplers are a speaker and a microphone, much like those found in the handset, but in the reverse order. Acoustic modems tend to be notorious for their inaccuracy, as they tend to transmit and receive garbage in the form of static.

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A much more reliable type of modem is a Direct Connect Modem. There are two types of these: one, a relatively new type in this area, is the modular modem. This type of modem connects between the handset of your phone and the dialing part of the phone. The modular modem can be found cheaper than the acoustic modem, but will require some rewiring of the phones commonly found in Alberta, unless you just happen to have a modular phone. That is the type of phone where the handset unplugs from the rest of the phone. You could decide to buy one from Edmonton Telephones. Other than the inconvenience of actually connecting it to the telephone, a Modular Direct Connect Modem works very well and can be considered a good buy in my books.

The more traditional type of Direct Connect modem, and the more expensive one, plugs right into your wall plug of your telephone line, with the telephone plugging right into it. Again you might experience difficulties if you have an older telephone system that does not have a modular wall plug, but this too can be overcome with some rewiring. This type of modem tends to be the type that can come with some impressive optional features, such as automatic dialing and answering, signal filtering, and other features that make your life easier. This type of modem also has the reputation of being extremely accurate, but costly.

Modem prices are dropping all the time, so you should shop around and see where you can get the best deal. You should be able to pick up a relatively good modem for just about \$100.

IV - Software

In order for your computer to understand the communication it receives and to send out information in a way that other systems will understand it, you will need some software. The available software includes the Terminal Emulator II (TE-II), and some copies of the Terminal Emulator I command modules. These command modules were produced by TI for use with their RS 232's and their acoustic modem. The TE-II is commonly available software from TI now, with the TE-I virtually extinct. The TE-II has a number of useful functions built in (when they work!), which include: file transfers to and from your computer, screen dumps to external devices, wrap control (either wraps the lines, or uses a window for the rest of the line), a four page buffer, and control of the Solid State Speech Synthesizer (either to speak out the contents of the screen, or for use from TI Basic)

The main problem with using the TE-II is that, if you get a 1200 baud modem, or use the Hexbus system, the TE-II will not run them. This means that you will have to write your own software or get somebody else to write it for you, as there is no third party software available for the TI for telecommunications (as far as I know). This software will probably be written in assembly language which means you will have to have either the Assembler Editor, Extended Basic with the Memory Expansion System, or the Mini Memory Command Module. This will, however, permit you to use a 1200 baud modem or the Hexbus System. It will also allow you to customize your software for your own needs, such as making your TI seem like another type of terminal to the system you are communicating with (this will allow you to use full screen editing on some systems where you could not have if the system thought that you were using a TI). By the way the TE-II would cost you about \$70 in Canada.

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V Conclusions

Although the telecommunication world is a nice one to get into, it may cost you a bit to get started. If you plan to expand your system, you will eventually need the RS 232 anyway, and the additional cost for the software the modem are well worth the advantages of joining this new world of communications.

In a future article, I will tell you something about the telecommunications world and why it is worth your time and money.

NOTES:

- 1) 99'er HOMECOMPUTER magazine is a trademark of Emerald Valley Publishing Co., P.O.Box 5537, Eugene, Oregon 97405
- 2) This article can be reproduced in whole or in part if credit is given to the author, and the Victoria 99'er Newsletter.
- 3) Prices may vary, depending upon the dealer, or time period.

IMPORTANT NOTICE TO BUSINESS GROUP MEMBERS.

The next meeting of the Edmonton 99'er Computer Users' Society Business Group is on Tuesday, March 27th, 1984, at 7:30 P.M. The meeting will be held at 6332 Fulton Drive, this meeting is hosted by Bud Liversidge, and you can phone him at 466-2300, If you have any difficulty in finding his place.

All members of the Edmonton 99'er Computer Users' Society, are welcome to attend, upon phoning the Business Group Coordinator, Evan Smith, at 478-4551, between 5:30 P.M. and 9:00 P.M.

EXTENED BASIC SUB-GROUP MEETINGS

Good News !!!! Tom Hall our Extended Basic group leader, has found a permanent location to hold the groups meetings, this location is confirmed only for this school term. If you would like to attend this sub-group meeting please phone Tom in advance so he will know you are coming. Tom's number is 420-6028, call between 6:00 and 9:00.

McNally Composite High School
8440-105 avenue.
Room 221
7:30 - 10:00 pm
First Tuesday of each month

St. Albert 99er's

For all of the 99er's who live in the fair city of St. Albert take note !, you no long have to drive all of the way into Edmonton to learn about your T.I.

Please feel free to contact Bob Chapman at 459-0817 between 6:00 and 9:00 to find out more information.

W.D.Cutts School
149 LaRose Drive, St.Albert
Drama Room
8:00 - 10:00 pm
Wednesday, March 21, 1984
Topic - Data Handling, and Basic Programming

T.I. Cares (we hope)

Here are some phone numbers that may come in very handy at some time in the near future, although the numbers always seem to be busy. Also please note that these are not toll free numbers and T.I. will not accept the charges.

Texas Instruments (403) 245-1034
1111-8 street S.W.
Calgary, Alberta. T2R 1A8

Texas Instruments (416) 884-9181
41 Shelley Road
Richmond Hill, Ontario. L4C 5G4

Texas Instruments (806) 741-2663
P.O. Box 53
Lubbock, Texas. 79408

Inside the TI 99/4A Home Computer by MC

Despite my warranty not being expired yet, I got brave and curious and took apart my TI 99/4A. I had a few surprises, which I now share.... There are three boards inside, including the keyboard. The other two are the power board and the main board. The little cartridge port up top is not a separate board but simple an L - shaped extension for a connector (36-pin, .1") on the main board. The keyboard is a simple SPST job. It runs into a connector on the main board. (Which I forgot to plug back in when reassembling the beast, causing me to think twice about things....for 5 seconds until I realized why the keyboard did not respond.) The power board accepts something like about 9vac and 30vac from the transformer cable, and produces four wires bearing ground, +5, -5, and +12 volts, which run to the main board. The board is near the front and presumably the +5 regulator is what causes the warm spot under the cartridge slot.

So far, one can see that the above two boards would be handy if one wanted to replace the main board by a homebrew board....

The main board is about 30 cm by 10 cm and is entirely enclosed in a sheet metal box. It is easily removed once the keyboard is unplugged and a few screws undone. The sheet metal box opens quite easily after removing 2 clamps and some bolts. A trickier part is that the heat sink on what is obviously the 9819 video chip is also bolted to the sheet metal box, and must be CAREFULLY undone.

So after undoing this one's attention is immediately drawn to that chip. It has an 8mm by about 75mm (i.e. 1/4 inch by 3 inch) block of aluminum on, it and lots of heat paste, it is also socketed and the thing must draw a lot of current. Just beside it is a 9901, a 48 pin chip which has the impressive name of Programmable Systems Interface.

The next noticeable chip, I was surprised to see, is a biggie with 90 pins, labelled 9900. I thought these had been replaced in the 99/4A by a newer member of the 99xx family. There was indeed another 99xx chip, but obviously the venerable 9900 is indeed the CPU. Above the video area, one finds eight Mostek 4116 memory chips. Above them are a lot of resistors and some diodes near the keyboard input plug. So it looks like (just as in ZX81s) keyboard scanning is done by the CPU.

I next noticed lots of little metal fences separating the various areas of the board. It is, from this, the shielding box, and the heavy ground planes, a high frequency board. Indeed there is a 10 MHz crystal beside the CPU. The final areas of interest are the sound area, containing the socketed SN76494 sound chip, and three other socketed sixteen-pin chips which I am not sure about, but which are labelled CD2155, CD2156, and CD2157, and are perhaps

con't...

analogue. Some WIRES ran across the board to this area so I suspect that the sond chip was recently upgraded. The cassette port is in this area too, with discrete components and three small IC's one of which was a timer.

The "solid state software" is on three 6810 ROM's, which are near the CPU at the front of the board. Two other chips whose function I do not know are a Signectics C2E012 beside the CPU and the TIM9904 in front of it.

So there you have it. I think that even if one chucks the main board, one has \$99.00 worth of box, keyboard, and power supply.

TI FORTH

For all of you user's with 32K memory, Disk drive and the Editor/Assembler take note !!!!, TI has not let us down. Februarys CARE PACKAGE contained a Forth system diskette and manual for release as public domain!!!

The manual is for reference only and assumes previous knowledge, much the same as the editor/assembler manual. It is advised that you pick-up a copy of "STARTING FORTH" by Leo Brodie. The TI manual makes references and amendments to "STARTING FORTH" and will come in very handy for those just starting.

Ian McArthur is going to be reproducing the manual for us, but to date it is not complete. There may be a small fee for this service, but just enough to cover our costs, there will only be one printing so if you don't get one of these some member will gladly loan his out for coping.

It has been mentioned that many people who have had the opertunity to use FORTH swear by it and will not program in any other language. So much for Extended Basic and Assembly language!!

GROM SECRET FOUND

A english electronics firm, Thorn EMI, claims to have discovered the design of TI's Graphics Read Only Memory (GROM).

The firm announced at the Summer Consumers' Electronic Show (CES), that they plan to produce software (presumably solid state modules) for the TI in the near future.

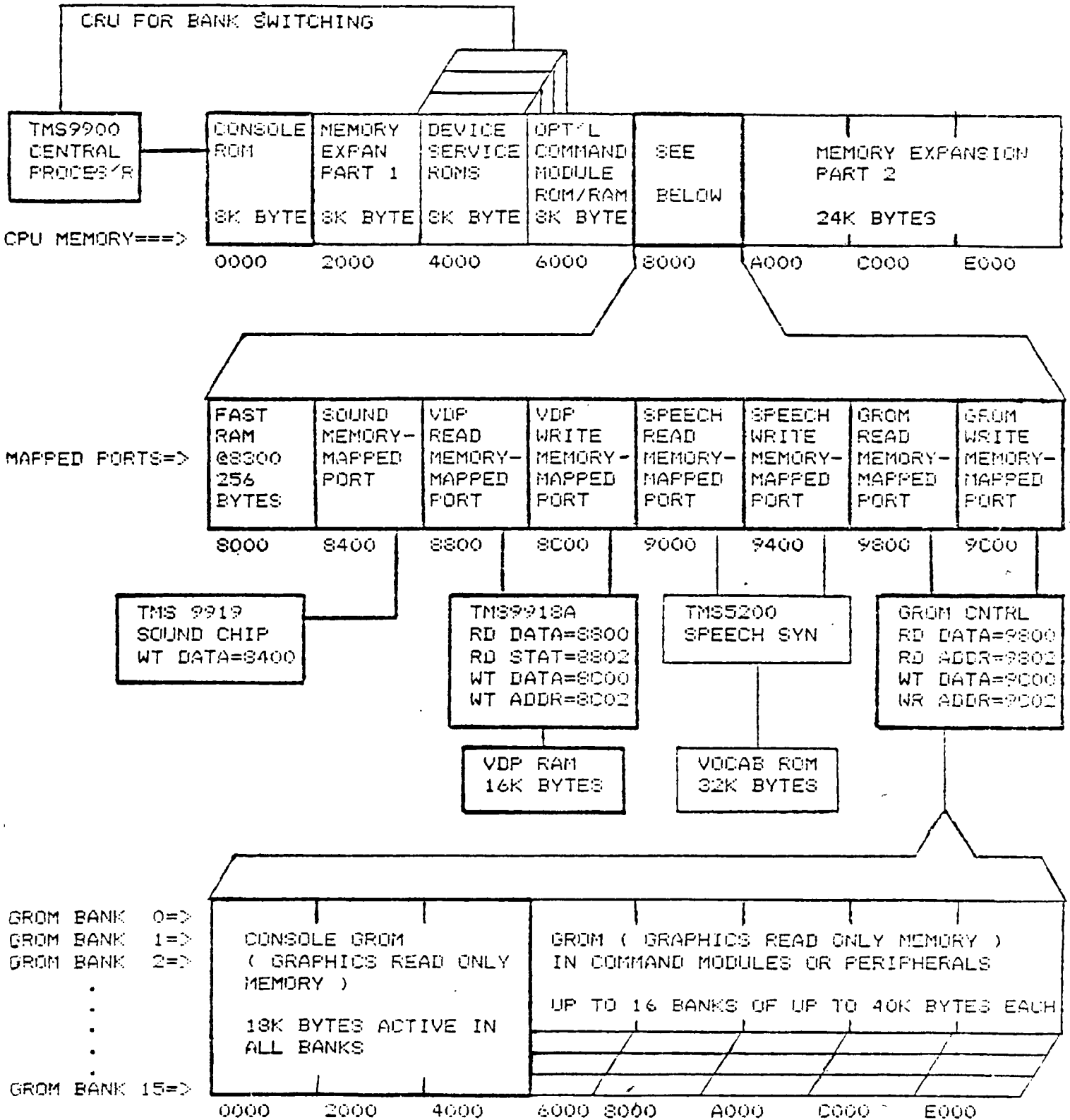
Thorn EMI has also stated that they plan to enter agreements with other firms to produce software for the TI 99/4A.

Memory Architecture Of The TI-99/4(A) Home Computer

For those of you who are interested in the internal workings of the TI-99/4(A), here is a diagram provided by Texas Instruments of the Memory Architecture of the TI-99/4(A) Home Computer.

As you may notice from the diagram, the TMS9900 Central Processing Unit will control up to 88 KBytes of memory directly. 32 KBytes of this is bank switched Read Only Memory (ROM), that is switched in blocks of 8KBytes of memory by the CRU. 2 KBytes of the 88 KB is used for operating memory mapped devices, such as the Video Display Processor, which controls its own 16 KBytes of VDP RAM (Random Access Memory), which is the memory used by the Console BASIC on the bare TI-99/4(A). This memory mapped area also allows access of up to 658 KBytes of Graphics Read Only Memory (GROM), unfortunately, the ordinary blokes like you and I can not really use this memory, as it requires special equipment to write to this memory, and its exact architecture is proprietary knowledge.

TI-99/4(A) MEMORY ARCHITECTURE



HEAVY LINES INDICATE FEATURES INCLUDED WITH CONSOLE

PROGRAM 5

```

100 REM FROM KERRY MARTIN OF THE
      L.A. 99'ER USERS GROUP
110 CALL CLEAR
120 CALL CHAR(94,"TEFFFCDFOFDFCFE")
130 CALL CHAR(95,"TEFFFFFFFFFFFFE")
140 CALL COLOR(8,11,1)
150 CALL CHAR(96,"000001818")
160 ROW=1
170 COL=1
180 CALL HCHAR(1,1,96,700)
190 CALL HCHAR(ROW,COL,95,1)
200 REM MAKE PACMAN MOVE
210 CALL KEY(3,KEY,STATUS)
220 IF STATUS THEN 240
230 GOTO 210
240 IF KEY=67 THEN 290
250 IF KEY=88 THEN 340
260 IF KEY=68 THEN 390
270 IF KEY=87 THEN 440
280 GOTO 210
290 REM MOVE PACMAN UP
300 CALL HCHAR(ROW,COL,32,1)
310 ROW=ROW-1
320 CALL HCHAR(ROW,COL,94,1)
330 GOTO 190
340 REM MOVE PACMAN DOWN
350 CALL HCHAR(ROW,COL,32,1)
360 ROW=ROW+1
370 CALL HCHAR(ROW,COL,94,1)
380 GOTO 190
390 REM MOVE PACMAN RIGHT
400 CALL HCHAR(ROW,COL,32,1)
410 COL=COL+1
420 CALL HCHAR(ROW,COL,94,1)
430 GOTO 190
440 REM MOVE PACMAN LEFT
450 CALL HCHAR(ROW,COL,32,1)
460 COL=COL-1
470 CALL HCHAR(ROW,COL,94,1)
480 GOTO 190

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100 REM BOB BURLEY. CLOCK
110 CALL CLEAR
120 FOR D=48 TO 49
130 FOR C=48 TO 57
140 FOR B=48 TO 57
150 FOR A=48 TO 57
160 FOR Y=48 TO 57
170 FOR X=48 TO 57
180 IF Y=54 THEN 380
190 IF (D=49)+(C=50)+(B=54)=-3 THEN 430
200 IF B=54 THEN 410
210 CALL SOUND(987.45,44000,10)
220 IF FLG=1 THEN 240
230 GOSUB 460
240 CALL HCHAR(10,20,X)
250 CALL HCHAR(10,19,Y)
260 CALL HCHAR(10,18,58)
270 CALL HCHAR(10,17,A)
280 CALL HCHAR(10,16,B)
290 CALL HCHAR(10,15,58)
300 CALL HCHAR(10,14,C)
310 CALL HCHAR(10,13,D)
320 NEXT X
330 NEXT Y
340 NEXT A
350 NEXT B
360 NEXT C
370 NEXT D
380 A=A+1
390 IF A=58 THEN 540
400 GOTO 160
410 C=C+1
420 GOTO 140
430 D=48
440 C=49
450 GOTO 140
460 INPUT "ENTER TIME ##:##:## ":A#
470 D=ASC(SEG$(A#,1,1))
480 C=ASC(SEG$(A#,2,1))
490 B=ASC(SEG$(A#,4,1))
500 A=ASC(SEG$(A#,5,1))
510 FLG=1
520 CALL CLEAR
530 RETURN
540 B=B+1
550 A=48
560 GOTO 160

```

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100 ' MUSIC FROM STRINGS. CREDITED TO TI SYDNEY HOME
110 ' COMPUTER USERS GROUP
120 DISPLAY AT(12,6)ERASE ALL:"MUSIC FROM STRINGS"
130 A$="1A1E1K1K1K1K1E1A1A1E6K1K1F1U1U1U1U1_1_1_U6P1_1X1U1U1U1U1P1K1K1K1E1E1E1E1E
1P1K1I1E1A1A1K1F1U1P1E1I5K"
140 FOR A=1 TO 98 STEP 2 :: CALL SOUND(VAL(SEG$(A$,A,1))*200,(ASC(SEG$(A$,A+1,1)
)-36)*10,0):: NEXT A
150 DIM B(28):: C=262 :: FOR D=0 TO 27 :: B(D)=INT(C*1.059463094^D):: NEXT D ::
B(28)=32000 :: B$="cKcKcMeJaKcMcOcOcPeOaMcKcMcKcJgK"
160 FOR F=1 TO LEN(B$)STEP 2 :: CALL SOUND((ASC(SEG$(B$,F,1))-95)*120,B(ASC(SEG$
(B$,F+1,1))-64)/5):: NEXT F :: GOTO 130

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100 REM "TI-99'ER VERSION OF RUSSIAN ROULETTE"
110 REM "BY M.J.WRIGHT"
120 CALL SCREEN(4)
130 CALL CLEAR
140 PRINT TAB(5);"THIS IS A GAME OF"
150 PRINT :TAB(5);"RUSSIAN ROULETTE"::::
160 PRINT TAB(4);"HERE IS A {REVOLVER}"::
170 PRINT " TYPE '1' AND PRESS ENTER"::" TO SPIN CHAMBER AND FULL"::TAB(9);"TRIG
GER."
180 PRINT :::TAB(4);"TYPE '2' TO GIVE UP"::::
190 PRINT "GO";
200 RANDOMIZE
210 N=0
220 INPUT I
230 DATA I
240 IF I<>2 THEN 300
250 CALL CLEAR
260 PRINT TAB(6);"CHICKEN!!!!!!":::::::::::
270 GOTO 520
280 GOTO 420
290 INPUT N
300 N=N+1
310 IF INT(RND*(1)*.833333)THEN 360
320 IF N>5 THEN 470
330 PRINT "-CLICK-"
340 PRINT
350 GOTO 220
360 CALL CLEAR
370 PRINT "BANG!!!!!!YOU'RE DEAD!"
380 CALL SCREEN(7)
390 PRINT "CONDOLENCES WILL BE SENT TO YOUR RELATIVES":::::::::::
400 FOR X=1 TO 500
410 NEXT X
420 CALL CLEAR
430 PRINT "***NEXT VICTIM***":::::::::::
440 FOR X=1 TO 500
450 NEXT X
460 GOTO 100
470 PRINT "YOU WIN!!!!!"
480 PRINT "LET SOMEONE ELSE BLOW THEIR BRAINS OUT":::::::::::
490 FOR X=1 TO 500
500 NEXT X
510 GOTO 110
520 END

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100 ! 3-D SPRITE DEMO, WRITTEN BY :JIM PETERSON, OWNER OF: TIGER CUB SOFTWARE.
110 ! 156 COLLINGWOOD AVE, COLUMBUS. OH 43213, 614-235-3545, CIN-DAY JAN./84 NEW
SLETTER.
120 CALL CLEAR :: CALL CHAR(36,RPT$("F",64),40,"FFB1B1B1B1B1B1FFB1B1B1B1B1B1B1FF
FF010101010101FF01010101010101FF")::: FOR A=2 TO 24 STEP 2
130 CALL SPRITE(#A,36,A/2+1+ABS(A>13),A*6,40+A*6):: CALL MAGNIFY(4):: NEXT A
140 B=8 :: C=48 :: CALL SPRITE(#1,40,2,B,C):: CALL MOTION(#1,0,15):: FOR D=1 TO
350 :: NEXT D :: CALL POSITION(#1,B,C)
150 FOR A=3 TO 23 STEP 2 :: CALL SPRITE(#A,40,2,B,C):: CALL DELSPRITE(#A-2):: CA
LL MOTION(#A,0,-15):: FOR D=1 TO 400-4*A :: NEXT D
160 CALL MOTION(#A,15,0):: FOR D=1 TO 39 :: NEXT D :: CALL MOTION(#A,0,15):: FOR
D=1 TO 400 :: NEXT D
170 CALL POSITION(#A,B,C):: NEXT A :: CALL DELSPRITE(#23):: GOTO 140

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***** BUY, SWAP & SELL *****

Tombstone City Command Module
\$25 call Peter Macek at 467-4007

There are still some club T-shirts left
please contact Paul at the meetings if
you are interested in these.

Wanted, Direct Connect modem. Phone Paul
at 468-1318 in the evening.

Wanted Genealogical Program please call
Shandro - Nick at 452-6897.

Adventure Series Games - Ghostown,
Strange Odyssey \$30 each or best offer.
Compact 40 computers (new with warranty)
2 available at \$299.00 each. Call Dan at
465-3476 from March 18th on. Please do
not call before this date. (out of town)

FREE ADS IN THIS COLUMN TO ALL MEMBERS
IN GOOD STANDING PLEASE CALL PAUL AT
468-1318 EVENINGS

If you have a change of address please
let Susan Livingston know at the meeting
or send a notice to our Post Office Box,
which is P.O.Box 11983, Postal Code
T5J 3L1. Thank you.

THE GAMES GANG

EDMONTON'S LARGEST
OF TI SOFTWARE

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-SHAMUS -DONKY KONG

-Q BERT -CENTIFEDE

-FROGGER

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435-4636

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About the Newsletter, I would like to thank some of the people who have helped in the formatting and compiling. Bob Burley has been very helpful by making up the lists of the stores and the bulletin boards. He has also supplied us with many very interesting and short programs. Evan Smith has written some very informative articles for us. I hope you find them interesting and useful. And who could forget Susan Livingston and Tom Hall the typists god bless them !, I'd still be on the title page.

The Editor, Paul

One Last word.

TI is closing up shop! Chuck of the GAMES GANG has been told that he MUST have all final orders in by MARCH 20. Well if you want that latest TI game you had better do it today or you might not find it. TI was rather amused when Chuck asked for \$50,000 credit line. Third Party here we come!!!

Club Meetings

Second Tuesday of each month
Staff Dining Lounge (in cafeteria)
Victoria Composite High School
7:30 p.m.

Please Attend!