Texas Instruments
USERS GROUP
TORONTO

FOR THE TI-99/4A COMPUTER
and compatibles

Home Computer Compendium

A New Magazine For TI99/4A Computer Users

It wants the sacrifice of a systems analyst, two lap-tops and a fax...

9T9 USERS GROUP

EXECUTIVE COMMITTEE

PRESIDENT Steve Mickelson 657-1494
VICE-PRESIDENT Neil Allen 255-2795
SECRETARY/MEMBERSHIPS Randy Rossetto 469-3468
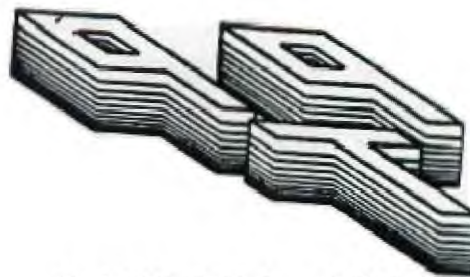TREASURER Peter Sandford 855-2107
OFFICER AT LARGE Cecil Chin 671-2052
LIBRARY DIRECTORS Gary Bowser 960-0925
Andy Parkinson 275-4427
Steve Findlay (416)727-6807

PAST-PRESIDENT Lloyd Lindsay 743-3868

NEWSLETTER EDITOR

Steve Mickelson 657-1494

MAILING ADDRESS

9T9 Users' Group
109-2356 Gerrard St.E.
Toronto,Ont.,M4E-2E2
Canada

MEMBERSHIP FEES

FULL MEMBERSHIP $30.00 / year
NEWSLETTER SUBSCRIPTION $20.00 / year
DISK-OF-THE-MONTH SUBSCRIPTION $30.00 / year additional

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 either our president, in writing, at the club address on the front cover or phone him or our membership director.

The meetings are usually held on the last Thursday of each month, unless stated otherwise. Consult this issue of Newsletter 9T9 for the date and time of the next meeting. Meetings are held at meeting room of Canada Remote Systems, 1331 Crestlawn Dr., Unit D, Mississauga,(Eglinton Ave./Dixie Road-Area), starting at 7:30 PM and ending at 10:30 PM. No meetings are held in the months of July and August. December's meeting usually takes place the second week of the month.

COMMERCIAL ADVERTISING

Any business wishing to reach our membership may advertise in our newsletter. The rates are as follows. (height by width):
FULL PAGE   (10" x 7") $50.00
HALF PAGE   (5" x 7") $25.00
QUARTER PAGE (2 1/2" x 7") $15.00
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 as long as they are not involved in a commercial enterprise.

NEWSLETTER ARTICLES

Newsletter 9T9 is published ten times a year by the 9T9 users group. Members are encouraged to contribute to the newsletter in the form of articles, mini programs, helpful tips, hardware modifications, 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 9T9. If more information is required, call the editor. The name 9T9, **Nine-T-Nine**, **Newsletter 9T9**, **Nine-T-Nine Users Group**, and **9-T-9 Users Group** are Copyright,(c), 1986, 1987, 1988, 1989 by the 9T9 Users Group, all rights reserved.

DISCLAIMER

9T9 Users Group is an independent, non-profit association of Texas Instruments TI-99/4A and Myarc 9640 users, and is not a part of Texas Instruments or Myarc Inc. Opinions expressed in this newsletter are those of the writers and are not necessarily those of the 9T9 USERS' GROUP. 9T9 cannot assume liability for errors or omissions in articles, programs or advertisements. Any hardware modification or project is presented for informational purposes, and the author, newletter editor, and/or 9T9 Users Group **cannot** be held liable for any damage to the user's equipment. All such projects are done at your **own** risk!

CLUB BBS

The 9T9 Users Group sponsors the TI Tower BBS, (416)921-2731, 300/1200/2400 BPS, 24 Hrs. Sysop: Gary Bowser.

TId Bits   #27

-By Steve Mickelson, President 9T9 Users Group
Compuserve 76545,1255; Delphi SMICKELSON; GEnie S.MICKELSON

Imagewise update

Barry Boone, who owns a Mechatronic 80-column card, has graciously offered to try to write an utility that'll either save files from my Imagewise digitizer in GIF format or convert the data into a GIF. As he is working on a GIF for the 99/4A with a 80-column card, I am very optimistic that he will do so.

With that, I'll be able to demo the digitizer to all and generate GIF's for fairware distribution through our club. Let's keep our fingers crossed!

New 9T9 columnist

We welcome to the Newsletter's writing staff,(we all get paid the same salary), Doug Beckett, who has promised that this will be the first in a series of articles which explore various hardware applications for our computer. Welcome aboard, Doug!

Ottawa TI Fest

I called Jane Laflamme last week, to enquire about April's TI Fest, and was told she was ill with a bad bout of bronchitis, and wasn't able to come to the phone. I then called Ottawa U.G. Newsletter Editor, Ruth O'Neil, to express my concern re: the lack of any press releases for the upcoming TI Fest on Compuserve, Delphi or GEnie. I was reassured that one would be uploaded to Delphi A.S.A.P., and posted on Compuserve, as well. I trust Jane is better! Here is the notice, which I posted on GEnie as well, FYI:

THE OTTAWA TI99/4A USERS' GROUP
IS PROUD TO ANNOUNCE
THE 4TH ANNUAL
CANADIAN TI-FEST

DATE: April 29,1989
TIME: 9:00 a.m. - 5:30 p.m.
PLACE: Merivale High School
1755 Merivale Rd.
Nepean, Ont.(Ottawa)
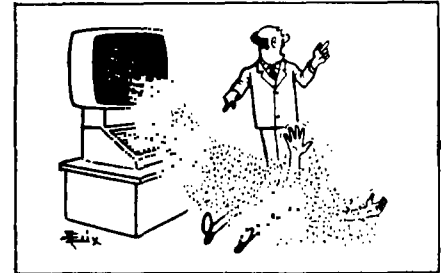
Official Accommodations are at the Talisman Motor, 1376 Carling Avenue, Ottawa, Ontario, K1Z 7L5, Phone (613)722-7601

Rooms are $68.00/night, single or double.(Remember that's in Canadian dollars!) When making reservations, PLEASE tell the motel staff that you are with the TI-Fest.

A hospitality suite will be available for our guests the evening of the 28th, and there will be a banquet on the night of the Fest.

To reserve a table for the show, order dinner tickets, or for any additional information contact:

Jane Laflamme
5480 Canotek Road, Unit 16
Gloucester, Ontario, K1J 9H6,
Canada

Phone:
(613)837-1719(home)
(613)745-2225(work)
(613)744-4784(fax)

Get the **Message.**

We are looking forward to welcoming TI and Geneve enthusiasts and vendors from all over! Come on out!

Geneve news

The rest of my TId Bits are reprints of Geneve items, questions, etc. I was at TI, last week, to drop by some 9T9 club fliers, and was informed by the Rep at the reception desk that she had recently read a magazine survey, (last fall), which placed the TI-99/ 4A as the third most popular system being purchased. Not bad for a 5-year orphan!

New Multifunction Card

(Editors note: You read it here first December '87 re: a MIDI+ card!)

Culled from my Conference log on CIS Tuesday night:

(1,Lou Phillips) FIRST I'LL MAKE A FEW GENERAL STATUS STATEMENTS so that the questions won't be asked repeatedly -- number one, a-basic will be given out at the TICOFF on Saturday in New Jersey -- It will have every function as described in the manual and have a few bugs that will be fixed with the new release of MDOS 1.15 -- Lastly, Pascal is still getting closer and perhaps with our next visit to Pecan we may be there.
--- ABasic is about 56k in length
--- as for MDOS 1.15, that will be about another 2 weeks, when we get some more feed back from A basic. Also, you will be able to download A-Basic
--- The plan is to release a version of AB and get feedback and make corrections to the problems with the screen manager of MDOS
--- The H version [of 1.15] is out to several people right for test, it seems to be as error free as 1.14 MDOS, but it lacks 2 features at this time, and that is why we have not made it available to all, - i.e. support for the low level GPL calls to the hard disk (needs to be debugged) and there is a bug in formatting to floppies. Give us a couple weeks extra to get the bugs out and tested
--- AB is an interpretor like GW Basic and Basica. We have done and will continue to do work on a "QUICK BASIC" like int/compiler
--- [latest HDFC] Eprom is HB (or H 11). You can get an upgrade from the Alabama office (205-854-5843).

OTHER PROJECTS -- have started on and will be finishing a version of"QUICK BASIC" for the 9640, GEME, and a CAD piece of software (an upgrade to MYART with 14 significant features). Also a new card which supports 5 new features including: speech (for the speech synth. card), MATH (hardware support), MIDI, expanded sound and memory expansion on board. As for the 512K cards, Paul C was to have finished that 2 weeks ago, but I believe he has run into a software snag.
--- expanded sound? Since we have a good relationship with Yamaha, we will be using a chip they are using in one of there keyboards. The chip can produce quite a wide range of tones and modulations (the latter of which the 4A can not do).
--- the board will be a PAY-AS-YOU-ADD type. ie it will only come with the plug-in for speech and software protection., the rest you plug in at a later time. For those 2 features it should be in the less than $50 range with one of our other pieces of software.

JERRY

FORUM>Reply, Add, Read, "?" or Exit> 9444 8-MAR-21:19: 9640 GENEVE RE: MYARC CO
(Re: Msg 9440) From: WALTHOWE To: ALL

To add to Jerry's notes on Lou Phillips' conference, just after Lou signed off, my phone rang and it was Lou. We spent the next two hours going through the ABASIC manual identifying improvements and changes that must be documented in a forthcoming addendum to the manual. It was a late night, and there will be some more to come, but ABASIC is in pretty good shape now. One nice new, undocumented feature is the ability to load or merge a program directly from d/v80 (text) as a runnable program. No conversion is necessary.

512K RAMdisk Update

For those Geneve users who have modified or are contemplating the modification to the Myarc memory card, listed in the January/89 issue of Newsletter 9T9,(pp 10-17), here is an update, from Delphi:

James S. McCulloch
9505 Drake Avenue
Evanston, IL 60203-1107
(24 Hr Modem (1200baud, No Parity):(312) (PC Pursuit-able!) 679-0128)
Chicago Connection (312-453-7831) #45
Compuserve #74766,500
Delphi JIMMCCULLOCH
GEnie J.MCCULLOCH1
29 January 1989

Paolo Bagnaresi
Via J.F. Kennedy n.17
20097 San Donato Milanese
ITALY
Dear Paolo,
    Thank you for your text file on converting the Myarc 512K memory card for use with the 9640! I'm a happy and contented Geneve user but had been lamenting the shrinkage of the DSK5 Ramdisk which the newer

versions of MDOS had brought. I had purchased a second-hand 512K Myarc memory card and was wondering just how to get it converted when along came your timely article. It took me several hours to do it but it works and I wanted to let you know that what you have done is a useful and helpful thing for us 9640 users.

My card was a "Version A" but did not have a solder pad associated with pin 4 (ready) on the 60 pin edge connector; in fact, it wasn't connected to anything else on the card. I soldered the wire from the diode (easily found in Radio Shack Stores in this country as part #276-1122 or #276-1620) directly onto the top part of the pin itself. As I said, it seems to be working well. If this represents a different version of the Myarc 512K memory card, then I forward this information to you for whatever it's worth.

Thanks for your help,

Sincerely,
Jim

Paolo Bagnaresi answered to this letter on February 11, 1989 and asked me to upload it to Delphi. Version A cards indeed lack the pad near pin 4 (READY) on the 60 pin edge connector. Wire from the diode must be soldered directly to this pin, making sure solder doesn't spread and doesn't cover more than 1/4th of pin length, otherwise you won't be able to properly insert the card into the female connector any longer. If you don't like the wire (leading to the diode) turning around the card edge, you can drill a small hole near pin 4 of the edge connector and slip the wire through it. P.B.

7503 12OCT88-0744 9640 GENEVE GIF2 From: LJHARPRING To: TI994A

Paul, I've been using your GIF2 program lately and had some problems. When I try to save a picture in MYART format, a bar of garbage is produced across the screen and then saved along with the picture. Is this a known bug, or is it just my copy of GIF2 doing this? Also, I've heard you were working on a new version of GIF2. Is this true? If so, how can I get a copy? By the way, did you get the donation I sent for GIF2?

Thanks, Larry Harpring

_*_
7512 12OCT88-2011 9640 GENEVE RE: GIF2 (Re: Msg 7503) From: TI994A To: LJHARPRING

- to eliminate that bar, put MDOS into 40 column mode before executing GIF2 --- known bug.

I am (relatively) done with the newest GIF decoder, with lots more whizbang features (always adding more)

It will NOT BE FAIRWARE, it is to be published Real Soon Now through Genial Computerware, with a retail price of $30.00 (I think) something needs to be worked out so that the (ahem) THIRTY-ONE people who have paid for GIF2 can get a price break (such as yourself... yes, I did receive your payment, thanks.)
- PaulC
_*_
7526 13OCT88-1958 9640 GENEVE GIF2 From: LJHARPRING To: TI994A

Paul, GIF2 MSAVE's correctly with MDOS V1.06, but not with MDOS V1.08. I started both in 40 column mode, displayed a picture, and returned to the GIF2 command line. Under V1.06, I was back in40 column, but under V1.08, I am placed in 80 column mode. Strange! Anyway I can MSAVE correctly with V1.06
- larry
_*_
7529 13OCT88-2039 9640 GENEVE RE: GIF2 (Re: Msg 7526) From: TI994A To: LJHARPRING

ok, that's a known bug in mdos 1.08...has been fixed in later (as yet unreleased) versions...
- PaulC

That's it for this month's TId Bits!

KEYBOARD CAPS LOCK FIX
AND OTHER ITEMS

By RANDY ROSSETTO, 9T9 Users Group

At the January meeting I demonstrated how to add the diode to eliminate the problem with the caps lock down/joystick up lockout and having to remember to undo this when using your joysticks.

In preparing for the demo I came accross five (5) different keyboards, each with a different tracing pattern or key colour combination.

This should not present a major problem since the fix is to put a small diode (ie, IN4148) between the alpha lock key and pin number 6 on the keyboard connector. Another small problem is that not all keyboards have the connector numbered; only 1 of 5 boards were numbered. Finding pin 6 is very easy, just hold the keyboard keys down, tracing up and the connector facing away from you. The connector should be to the right of centre and pin 6 will be the 6th pin from the right hand side of the connector. (Pin 1 will be over the 4/$ key and pin 15 will be over the 6/ key).

Now all you have to do is isolate the trace to the alpha lock key and break the trace in a convenient location using a sharp hobby knife and scrape away the protective coating to bare copper trace on either side of your break and carefully solder the diode acros the break. Make sure the band of the diode is pointed in the direction of the connector (pin 6). Remember to keep the heat to the trace at a minimum so as not to lift the trace off the board.

This procedure takes less time to do than to write or even talk about (it also takes more time to take the console apart than to add the diode!)

Once you do this mod to your keyboard you'll wonder why this wasn't done when you first heard of it.

For reference look at page 24 of the Feb/87 issue of MICROpendium (Mack McCormick's Techie Corner article) and various User Group newsletters that have passed on this little trick.

Like any projects of this nature, I nor the 9T9 User Group cannot be held responsible for any problems arising from the modifications undertaken by you or your agent.

A personal listing of TI Keyboards is herein listed:

MANUFACTURER--PART NUMBER--KEYS--FRAME
```
General Inst.  900181-401/C grey metal
TI (?) 1039019 black board
Stackpole 1039019-1 black board
Stackpole 1039019-1 grey board
Futuba-TI (?) 1039019-3 grey metal
(board=circuit board)
```

I'm fairly sure there are other keyboard versions out there!

```
                         ┌─┐ keyboard plug
 _____    470 ohm    :  :
 pin34:--/\/\/\--:7:------------matrix
      :          : : :          line
      :          : : :
 TMS  :          : : :        / alpha
 9901 :          : : :       /  lock
      :          : : :      /
      :   470 ohm: : :
 pin20:--/\/\/\--:6:--:<----:
 ------          : : diode
                 - 1N4148
```
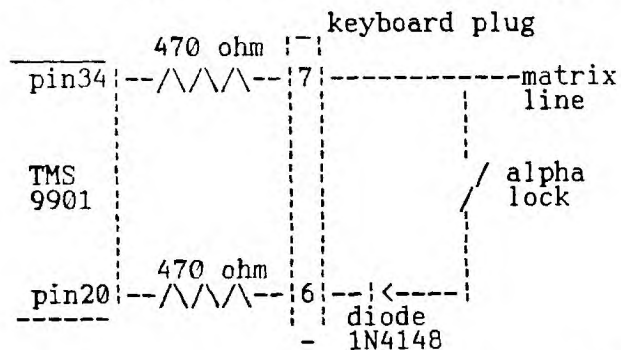
I've sent the following letter to MICROpendium:

"All right Mr. Ohm , we'll name the unit of resistance after you—now, what shall we use for the symbol?"

MICROpendium
P.O. Box 1343
Round Rock, TX 78680

Dear Editor,

I enjoyed the article on the PEB card extender in the Feb/89 issue so I thought that I would show you what I have been using for the last few years. A picture is enclosed.

Basically it is an extender/prototype card with 2 x 32 pins card edge at 0.1 inch spacing (pc clone style proto board) with an area for components and traces feeding through to another card edge to which I have soldered a 3 x 30 card edge socket and trimmed the opposite card edge to fit the connectors in the PEB. I have added another piece of perf board to locate and orientate this extender board firmly in the PEB. Also added was fuse clip's and LED's on each of the voltage lines (+16, +8 and -16vdc) to protect both the PEB and the card pluged into the extender. This extender is approximately 5.5 x 6.75 inches and places a card under test above the top of all other PEB cards for checking voltages and signal pulses, etc. The aproximate cost was about $25.00.

One note of caution, always double check the card you plug into the extender, THAT THE CARD IS FACING FORWARD, as it is quite easy to put a card in backwards!!!

Lastly, size your fuses on the low side and use fast acting fuses, the design limits per PEB card are 500 ma for the +8vdc, 250 ma for the +16vdc and 50 ma for the -16vdc buses.

            Sincerely,
            Randy Rossetto
            Secretary   9T9 USER GROUP
            109-2356 Gerrard Street East
            Toronto, Ontario,M4E 2E2, Canada

THINGS to do with your TI-99/4A Home Computer:

- DOORSTOP
- COFFEE/TEA WARMER
- BOOK END
- BOOT SCRAPER
- FRISSBEE
- CLAY PIGEON

- BUG KILLER(SMASHER)
- SERVING TRAY
- HOT DISH PROTECTOR

Some other THINGS to do with your TI system:

- drill extra holes for venting around the disk drive partition
- change the PEB fan for a quieter one
- upgrade the +12 and +5 VDC regulators for more amps
- fill up all the expansion slots with RAMDISKS, TRIPLE TECHS, PROTO BOARDS, etc.
- get rid of the I/O connector (firehose) with an I/O extension cable
-JUST HAVE FUN USING IT!!!

FOR SALE ----- SPRING CLEAN-UP

TANDON FULL HEIGHT DISK DRIVE GOOD WORKING CONDITION, MODEL TM100-2A, DSDD -$60.00

CASSETTE CABLES - DUAL $10.00
- SINGLE $ 7.00
MODULES - MUNCH MAN $ 5.00
TOMBSTONE CITY $ 5.00
BEGINNING GRAMMAR $ 5.00
HOUSEHOLD BUDGET MANAGEMENT $ 5.00

HORIZON RAMDISK ONE MEG BOARD READY FOR 32K RAM CHIPS - $160.00
32K CHIPS FOR ABOVE - $24.00 EACH
WITHOUT BOARD - $28.00 EACH

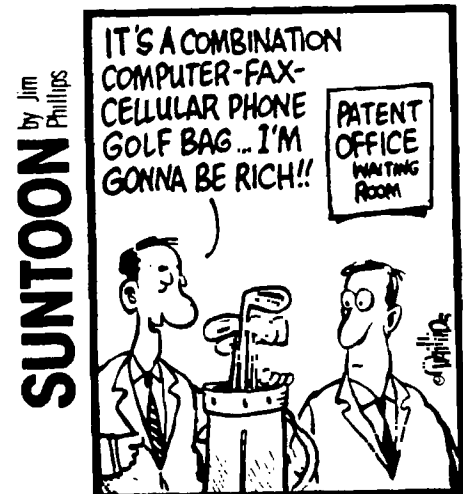HORIZON RAMDISK ONE MEG BOARD BUILT UP WITH ALL PARTS INSTALLED READY FOR SUPPORT CHIPS AND 32K RAMCHIPS -$120.00
SET OF SUPPORT CHIPS FOR ABOVE - $30.00

UPGRADE KIT FOR THE ORIGINAL 180K HORIZON RAM DISK TO 256K - $50.00
                    PE BOX EXTENDER CARD (FUSED) - $30.00
PIO PRINTER CABLES - $25.00
I/O PORT EXTENDERS - $25.00   CALL RANDY ROSSETTO - 469-3468
STATIC GROUNDING KITS - $3.00

LIST OF ADDRESS -magazines that have articles on the TI 99/4A.

MICROpendium,
P.O. BOX 1343,
ROUND ROCK, TX 78680

Monthly that covers the TI 99/4A Home
Computer since Feb/84. A must have for
all TI'ers. Monthly. $27.50/yr U.S.

THE SMART PROGRAMMER
BYTEMASTER COMPUTER SERVICES
171 MUSTANG STREET
SULPHUR, LA 70663

Newsletter type publication, covers
programming in X-basic, Multiplan, Forth
and Assembly. Monthly. $18.00/yr U.S.
Back issues available.

COMPUTER SHOPPER,
PATCH PUBLISHING CO., INC.,
407 S. WASHINGTON AVE.,
TITUSVILLE, FL 32796

Basically a want-adds tabloid with good
general computer articles with a byline
on TI. The prices in this mag will
turn you green with envy.

The TI-99/4A TRAVelER
c/o BRIAN A. TRAVER, EDITOR
835 GREEN VALLEY DRIVE,
PHILADELPHIA, PA 19128

A new idea, a magazine on disk, articles
and programs in each issue SS/SD .
$36.00 per year, bi-monthly with a few
extra disks, very well worth it for the
quality and quantity of software.

ASGARD NEWS
ASGARD PUBLISHING
P. O. BOX 10697
ROCKVILLE, MARYLAND 20850

Quarterly publication that covers the
TI-99/4A AND GENEVE COMPUTERS.
$12.00 US for 4 issues.

LIST OF HARWARE/SOFTWARE SUPPLIERS

TEXCOMP
P.O. BOX 33084
GRANADA HILLS, CA 91344
(818)-366-6631

TI dealer for many years has a good
supply of TI stuff.

24 HOUR ORDER LINE ONLY.

TENEX COMPUTER EXPRESS
P.O. BOX 6578
SOUTH BEND, IN 46660
(219)-259-7051

Their catalog is called "The everything
book for the TI 99/4A Home Computer".

1-800-348-2778 IN THE USA

TRITON PRODUCTS COMPANY
P.O. BOX 8123
SAN FRANCISCO, CA 94128
(800)-227-6900

Was the original company designated to
distribute TI products after ending
computer production.
NUMBER GOOD FROM CANADA

TEXAMENTS
53 CENTER STREET
PATCHOGUE, NEW YORK 11772
(516)-475-3480

Hardware-software distributor, main MYARC
distributor. Not bad.

MYARC, INC.
P.O. BOX 140
241 MADISONVILLE ROAD
BASKING RIDGE, NJ 07920
(201)-766-1701

Hardware manufacturer of PEB cards and
the new computer on a card for the PEB.
RS232, 32k,128k,512k memory expansion
DS/DD disk controller cards as well as a
personality card to control a hard disk.

{EDITORS NOTE: In January Myarc moved to a new location. You may still
reach Myarc through their mailing address P.O.Box 140, Basking Ridge,
N.J., 07920 Their two phone numbers have changed as follows:
(201)766-1700 is changed to (201)805-0006
(201)766-1701 is cahnged to (201)805-0007
Another listing(I think Jack Riley) is (205)854-5843. Use the first two
numbers to contact Lou Philips or for technical problems.-S.Mickelson}

CORCOMP INC.
2211-G WINSTON ROAD
ANAHEIM, CA 92806
(714)-956-4450

Manufacturers of RS232, 32K,256K,512K
memory, DS/DD disk controller, Triple-
Teck cards for the PEB as well as the
9900 Micro Expansion, Peripheral
Diagnostics Module and 99 Home Sentry.

RYTE DATA
MILLENIUM COMPUTERS
210 MOUNTAIN STREET
HALIBURTON, ONTARIO
K0M 1S0
(705)-457-2774

Hardware-software distributor of new stuff
from MECHATRONIC in W. Germany ie XbasicII
128k/512K RAM/GRAM CARD, MOUSE.
Publishes bi-monthly newsletter that is
good and informative.

{EDITOR'S NOTE: RE RYTE DATA - As a charter subsciber to R.D.News, I am
certain it is no longer publishing. The last issue I received was over a
year ago. Personally, I feel they did the same tecnique Home Computer of
re-calculating the issues due "based on their new rates" and shortened

the subscrption term, i.e. they cut subscribers short by several issues, even though they promised to fulfill their obligations. To my knowledge T.A.P.E.,1439 Solano Pl., Ontario, California,91764,USA,(714)989-9906, is the only North American dealer supporting Mechatronic hardware -Steve M.}

SOLID STATE HARDWARE
DEPT 169
2356 GERRARD ST. EAST
TORONTO, ONTARIO
M4E 2E2
(416)-288-9412

Will send a catalog on request.
Also runs a BBS at this number 10 pm to 7 am Mon to Friday and all weekend. Supports TI-99/4A and IBM clones.

{EDITOR'S NOTE: RE SOLID STATE HARDWARE - As with Ryte Data, the recent performance of this dealer leaves a lot to be desired. I was approached by one of the members of our club at our booth at last October's Compufest. It seems that he was still awaiting delivery on a couple of half-height drives, which he had ordered several month's previous. Another reference was John Van Weelie, who had a problem with an order for a 9640. Like Ryte Data, this firm may have had supplier problems, but it is the report from fellow members re customer relations, communications, and promptness to answer questions re orders or even the phone, that I would have to say that I could not recommend them, and say that you take your chances, and therefore neither I or the 9T9 Users Group can endorse or recommend either of them. -S.Mickelson}

NOVA COMPUTERWARE
52 AIRPORT ROAD
EDMONTON, ALBERTA
T5G 0W7
(403)-452-0372

New supplier advertised in November/85 MICROpendium, prices are quite high but they may have a good stock, send for catalog, which is free.

TIGERCUB SOFTWARE
156 COLLINGWOOD AVENUE
COLUMBUS, OHIO   43213
(614)-235-3545

130+ original entertainment, educational and programming utilitys in BASIC and XBASIC, 18 different full disk collections Catalog $1.00 refundable. Jim Peterson has produced over 40 newsletters called "Tips from the Tigercub" and has been know by many TI'ers for his software tips.

COMPUTER DOWNLOAD LIMITED
9 TALON STREET
NORTH BAY, ONTARIO
P1A 1N5
(705)-476-9391

Run by Bob Boone of the Ottawa UG. Send for further information on products, he often has a variety of hardware and software available (even modules). And will come to club meetings with his stock of hardware and software.

C.J.'S WHOLESALE
210 E. ESTHER STREET
ORLANDO. FLORIDA   32806
(407)-843-0717/282-2842

A wide variety of cassette software, send for a list, priced at $2.00 per cassette.

BUD MILLS SERVICES
166 DARTMOUTH DRIVE
TOLEDO. OHIO   43614

Horizon RAMDISK up to 1 meg of memory, P-GRAM CARD, 32/16 console memory addons.

DONALDSON SOFTWARE
521 LIEVRE STREET
BUCKINGHAM, QUEBEC
J8L 2C2

Programs on cassette, catalog $1.50, most cassettes $8.95 each.

L. L. CONNER ENTERPRISE
1521 FERRY STREET
LAFAYETTE, INDIANA   47904
(317)-742-8146/423-4879

Large supplier of TI software and hardware catalog listing available.

COMPETITION COMPUTER PROD.
2629 W. NATIONAL AVENUE
MILWAUKEE, WISCONSIN   53204
(414)-672-4010
1-800-662-9253 USA

A large selection of TI stuff, send for their TI CATALOG $1.00 (refundable).

DISK ONLY SOFTWARE
P.O. BOX 4170
ROCKVILLE, MD   20850
(301)-340-7179

Send for a catalog.

GREAT LAKES SOFTWARE
804 E. GRAND RIVER
HOWELL, MI 48843

Banner, graphics, cerificate and other creative software.

ASGARD SOFTWARE
P.O. BOX 10306
ROCKVILLE, MD 20850

10 page catalog of entertainment, graphics productivity and utilities.

RAVE 99
112 RAMBLING ROAD
VERNON, VT 06066
(203)-871-7824

Ramdisks, keyboard upgrades to PC type keyboards and speech synthesizer board to move speech into the PE box.

<u>STYLELABEL</u>

This program is one of many label programs written by Ed Machonis of the Qb-99er's. I have about 4 or 5 different label or tag programmes that would be very handy for anyone who has to do up labels. I will be putting these together on one disk in the near future ro demo at an uppcomming club meeting.

```
1 ! STYLE LABEL BE ED MACHONIS, QB 99ERS, BAYSIDE, N.Y.
2 E$=CHR$(27):: G$=E$&"@"&L$&"G"&E$&"W1" :: P$(1)=G$&E$&"E" :: P$(2)=G$&E$&"M" :
: P$(3)=G$&CHR$(15):: C(1)=16 :: C(2)=20 :: OPEN #1:"PIO.LF"
3 DISPLAY AT(3,1)ERASE ALL:"# OF CHARACTERS PER LINE:";;"1=EXP PICA-16";;;"2=EX
P ELITE-20";;"3=EXP COMP-28";;;"CHOICE? 3" :: ACCEPT AT(11,9)VALIDATE("123")SIZ
E(-1):W
4 C(3)=28 :: DISPLAY AT(1,1)ERASE ALL:"ENTER """"" TO CHANGE FONT" :: FOR J=1 TO
 5 :: DISPLAY AT(J*3,3):"ENTER LINE";J:L$(J):: ACCEPT AT(J*3+1,1)SIZE(-C(W)):L$(
J):: IF POS(L$(J),"'",1)THEN 3
5 NEXT J :: DISPLAY AT(20,1):"HOW MANY LABELS?" :: ACCEPT AT(20,18):Q :: FOR K=1
 TO Q :: FOR L=1 TO 6 :: PRINT #1:P$(W);" ";L$(L);CHR$(10):: NEXT L :: NEXT K ::
 GOTO 4
```

MORE TI SUPPLIERS:

By STEVE MICKELSON

Just when you've finished Randy's column and figured it's safe to order software or hardware for your computer, along comes some additions I'd like to make to his list. And the list goes on...

C.J.'s Wholesale
210 E.Esther St.
Orlando,FL,32806
(407)843-0717
(407)282-2842

Stocks mainly TI cassette software, also sells cassette and monitor cables.

CANARIA DATA INC.
264 Weber St. W.
Kitchener, Ont.,N5H 4A6
(519)578-3873

Sells Myarc 9640 and Myarc hardware, along with other hardware items. Produces a good laminated set of Overlay Strips for MY-Word,MY-Art,Multiplan,etc. for the 9640 Can repair P-Boxes and is designing a new P-Box and Myarc HDCC-1 Winchester Card

DATA*PORT
2846 Gottingen St.
Halifax, N.S.,B3K 3E1
(902)454-0232
Data(TEXLINK)455-2076

Sells Myarc products plus new and used TI peripherals, plus the Myarc HDCC-1 Winchester Card(Hard/Floppy controller)

LaFLAMME & WRIGLEY
WHOLESALE
5480 Canotek Rd.,Unit 16
Gloucester,Ont.,K1J 9H6
(613)745-2225

Sells new hardware, including Myarc cards RAVE keyboards, etc.

QUALITY 99 SOFTWARE
1884 Columbia Rd.,No.1021
Washington DC, 20009
(202)667-3574

Sells software like Spad XIII,Mk2; Data Base 99, and 99 FORTRAN

Free catalog #29M

MOTHER COMPUTER
SERVICES
17175 NW 41 Ave.,MIAMI
FL,33055

Strickly Myarc hardware.

GENIAL COMPUTERWARE
P.O. Box 183
Grafton,MA, 01519

Sells GRAM Packer,Graphics Expander, Genial Font Pack 1 & 2,Horizon RAM Disk EPROM,XB: Bug,XBasher

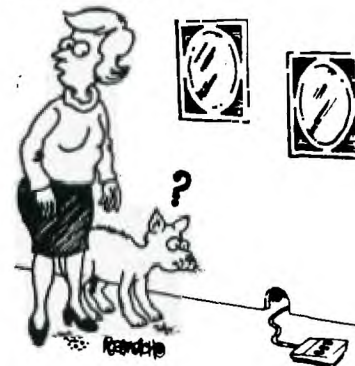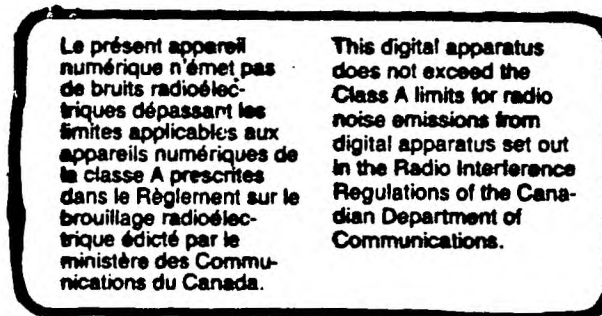|	
THE BACH COMPANY 760 San Antonio Rd. Palo Alto, CA, 94303 (415)424-0800 In USA Toll Free Nos. (800)227-8292 Nat'l (800)248-2224 Cailf.	Formerly TI-99/4A supplier, stocks the 4A cousins TI-74 BASICALC(TM), TI-95 PROCALC (TM) plus accessories for the above like Rì mem. cart., thermal printer,ROM software & cassette interface
BRAATZ COMPUTER SERVICES 719 E. Byrd St. Appleton,WI, 54911 (414)731-3478 (414)731-4320 after6PM,CST	TI-99/4A and TI Pro Hardware and Software. Catalog $2.00 US
TIGERCUB SOFTWARE 156 Collingwood Ave. WHITEHALL,OH, 43213	Large number of software programs. Catalog $1.00 US
McWARE P.O. Box 2784 Fairfax, VA, 22031	Books, software, etc. Catalog $2.00 US
GENEVE WORLD National Myarc User's Group 220 Northpoint,Ste.401 Houston, Texas (713)999-6737	Produces a bi-monthly newsletter exclusively for Myarc 9640 Computer. Growing software library available to subscribers.
9640 NEWS c/o Beery W. Miller 1561 Galveston Memphis, TN, 38114	Five disk-based magazine issues per year. Strictly for the Geneve. Subscription: $25 US for USA,$30/ foreign(surface); $38/ foreign(air mail)

There are a couple of others, which I don't have handy, R.L.Green and the
producer of the Maximem,(a GRAM Kracker-like device). Also, there is a more
extensive listing in the June/July 1988 issue of Newsletter 9T9.

For your information, the label shown here is required on all computer
equipment brought into Canada or manufactured after February 1, 1989.
Retroactive placement of these labels are not required on existing
equipment.
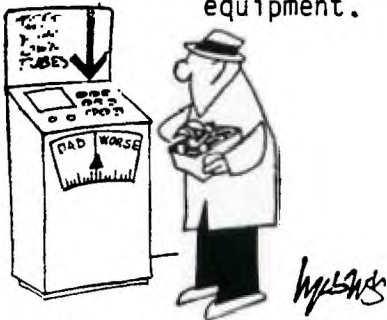
Remember drugstore tube testers? Cartoon-
ist Dave Harbaugh levels a well-deserved
pot shot (July, 1961 issue).

Le présent appareil
numérique n'émet pas
de bruits radioélec-
triques dépassant les
limites applicables aux
appareils numériques de
la classe A prescrites
dans le Règlement sur le
brouillage radioélec-
trique édicté par le
ministère des Commu-
nications du Canada.

This digital apparatus
does not exceed the
Class A limits for radio
noise emissions from
digital apparatus set out
in the Radio Interference
Regulations of the Cana-
dian Department of
Communications.

"Bill, come quick!"

REDUCED FOR QUICK SALE !
TI SYSTEM FOR SALE

1 Silver/Black console, 1 TI Peripheral Expansion Box, including: TI SS/SD Disk
Drive, TI Disk Controller Card, Corcomp 512K RAMdisk memory card,(includes 32K
memory expansion on the card) - this card has both AC power supply and battery
back-up as well as write-protect and CRU 1000/1400 remote switches-, Writer Ease
software loadable into the RAMdisk,(this is the word processor with built-in
spell checker), TI Writer cartridge, Disk Manager 2 cartridge, plus your choice
of hundreds of disks of programs,(just bring blank diskettes along). The above
includes   all necessary manuals. Package price $500. Contact Nicos at
690-6644,(Toronto).

FROM A USERS POINT OF VIEW

by Cecil G. Chin

Christmas was just around the corner. My list was complete except for my daughter Gabrielle. I was at a loss what to get her. I had already run the gamot of dresses, handbags, trips, watches, earrings. I was at my wits end what to give her, and then it hit me, she loves to play arcade games so, why not a computer? She could play games with it, do her school work on it. After all she was in grade 8 and there was a lot of homework. This would be the answer to her prayers as well as mine. The only knowledge I had of computers, was that it is able to do all kinds of things. The rest would have to take care of itself. So after shopping around I bought the TI. Luck was with me. The TI was on sale. Problem solved.

However, my daughter never really applied herself to the computer. After the novelty wore off, in about 14 days, it sat idly in her room. I got curious. I began to read the "how to" book and "voila" fascination turned to addiction. I could not drag myself away. Finally I went and bought myself one I also bought cassette recorder and a couple of cartridges. I began collecting basic and extended basic programs and even tried keying in various program listings from books and magazines. I soon became disgruntled with speed of loading and saving programs with cassette, and shopped around looking for a Peripheral Expansion System (PE Box) with disk drive.

Page 1

Next came the Extended Basic cartridge soon to be followed by the 32k memory expansion card, TI Wrtier, Editor/Assembler, Multi Plan cartridges and the speech syntheciser.

About this time I heard of and joined the TI-99 users group in Toronto. This was like a life line, I had asscess to the library, answeres and solutions to all my little problems. Soon I was able to do a little modification of programs to suit my own needs. This was now my favourite hobby and turned out to be useful in more ways than one. Apart from keeping me occupied it was a pleasure to use the computer and the various programs for personal and business letters, newsletters, bookkeeping, banking, name and address files, making signs, flyers, labels. As an educational tool it is second to none, I can learn and practice typing, and so can other members of my family.

As I reflect there are things I really love about the TI-99/4A. It is ready immediately, it is switched on. Should it lockup for whatever reason, all that is needed is to push a reset button, (if installed), or switch off and on and it is instantly ready.

To my knowledge the TI-99/4A is not a clone. There are many other computers that boast power, speed and enormous memory but with these, the DOS has to be loaded before the computer can by ready and after DOS is loaded, it cuts down the memory, in some cases to less than 20%. Running programs

written in Assembly language is as fast as most I have seen and even a little faster than some.

There are lots of hardware developed for the TI-99/4A since Teaxs Instrument stopped making it. My favourite is the Horizon Ramdisk which makes loading, saving and data processing extreamly fast. I was told by an individual who knows quite a lot about

Page 2

hardware and software that the operating system of the Horizon Ramdisk (ROS) could be modified so that the Ramdisk could be partitioned and a section used as CPU memory to run huge programs. I would dearly love to see this happen, can you imagine, running a program 60K or longer on the TI?

I guess what I am trying to say is I L-O-V-E my TI-99/4A.

Oldest floppy disk

This floppy disk, unearthed at the site of the ancient Sumerian city of Lagash, extends the history of personal computing back to the third millennium B.C. The person-

ALTHOUGH SOMEWHAT OUTDATED, this computer disk was once on the leading edge of technology.

al computer was previously thought to have been invented at about the time Columbus was busy discovering new lands, and only in widespread use since the gold-rush years made possible gold-plated connectors at a price affordable to even low-middle-income settlers. The inscription that appears on the protective clay sleeve reads, in part, "The program on this disk is protected by (illegible)...to the lions... beheaded...Copyright Microsoft Corp., 2900 B.C." **APR-1**

"While you were working on that device to control the house by phone, you forgot to pay the bill, so the company cut us off."

HARDCOPY

by Steve Findlay

Welcome to the continuing soap opera of what seems to be a never ending flow of user group newsletters. Once again, a rearrangement of the newsletter binders is required before a few of the them bust at the seams. The Ottawa User Group now requires a binder all it's own and so, binder #17 has now been created to hold the overflow newsletters from the Ottawa binder. See the new index at the next meeting.

I can't tell you the value of the contents of our exchange newsletters. Every month my excitement in the TI 99/4A is kept alive by the new releases of hard and software as well as the rumours of things to come. Our community is blessed by the number of genius' out there that will not let the TI die a quiet death. Looking at the list of orphaned computers that Randy handed out last meeting from the LA TopIcs newsletter, it's a wonder that the world of TI is still so vibrant.

I wish to apologize to all those people that own Geneve 9640 systems. In the past, I have had little or no interest in this computer upgrade card and so, have been skipping over articles relating to this system. In talking with Steve, our president, there are more than 1200 Geneve computers out there somewhere. If anyone would like to go through the newsletters and review the 9640 articles, please feel free to do so. The contribution to the content of our newsletter would be very much appreciated.

In a past column I stated that I typed in a large quantity of the programmes available in the newsletters. Unfortunately, in the last few months I have not had the time to do this. So, what I am going to do is take a month off from the newsletter column and take the opportunity to enjoy my computer instead of reading the binder newsletters over the month and then rushing to write the column. I'll be typin' at ya in May!

BINDER #1 (supplemental)

* A word counter Extended BASIC programme that will count the number of words in a Display Variable file. (Manasota – Nov 88)
* A TI BASIC programme called Retirement Income Analysis. (Manasota – Nov 88)

BINDER #2 (supplemental)

* A hardware modification article on how to convert a version 2.2 console to a regular console by changing the GROM 1 chip on the motherboard. Apparently this chip is still readily available from TI in the U.S. (Ogden – Jun 88)
* A review of the programme Picture_It that contains instructions on how to build a letterhead. (Ogden – Jun 88)
* A TI BASIC CAD programme using block graphics. (Ogden – Jun 88)
* A TI BASIC music programme called THE MAORI FAREWELL SONG. (Ogden – Oct 88)
* A good TI Base tutorial. (Ogden – Nov 88)
* A MultiPlan tutorial called TIMP Tips and Techniques.
(Montreal 99ers – Jan 89)

BINDER #3 (supplemental)

* The announcement of a new TI Expansion Box produced by Genial Computerware. It will retail for around $150 U.S. and some of the features will be: 6 slots, room for 1 full height disk drive, 150 watt power supply and a cooling fan. Slated for release in Oct. (BCS – Sep 88)
* Another annoucement of a new graphics programme by Graphic Xpress. It will feature a keyboard/joystick/trackball interface, 31 graphics commands, multicolour text mode and 4 autofill modes. Writtten in assembly language and it will be disk based. (BCS – Sep 88)
* Mention of a Gramulator upgrade for MBX cartridges which requires 4 additional chips and the installation of a switch. (BCS – Sep 88)
* An excellent article on bitmap mode on the TI 99/4A with an assembly demo programme. (BCS – Sep and Nov 88)
* A new TI oriented publication called Tid Bits. It is available for $6 U.S. per year for paper copies and $12 U.S. per year for disk copies. It is published bi-monthly by: Bruce Forbes (Editor), Route 2, Box 412, Sumerduck, VA 22742. I have sent in a subscription order and will let everyone know what I think of it. * An assembly language listing of a player routine for horizontal movement in games. (BCS – Oct 88)
* The mention of a new programme from Genial Computerware called TRIAD which combines a terminal emulator, disk mamnager and 40 column text editor all in one! Retails for $20 U.S. (BCS – Oct 88)
* A very good detailed TI specification book list. (BCS – Oct 88)
* Instructions on how to build a light pen using a Radio Shack photocell or write to: York Area 99ers Users Group, Box 7160, York, PA 17363.
(BCS – Nov 88)

* An annoucement of another programme by J. Peter Hoddie called Browse. He said that he released it at the last Chicago TI Fair. It's a utility that allows printing, viewing, combining and BROWSING of text files.
(BCS - Nov 88)
* The mention of a new adventure game for the Adventure cartridge. Something a little different where the treasures are put back instead of collected.
From Asgard Software. (BCS - Noc 88)
* A hardware construction project called the Poor Man's Analog to Digital Converter that includes an assembly language demo programme. Great for hardware hackers! (SNUG - Sep 88)

BINDER #5 (supplemental)

* A series of tutorials, by David Caron, on writing assembly language routines to expand XB's powers. (Ottawa - Oct/Nov/Dec 88 and Jan 89)
* An XB listing for a Wheel of Fortune game programme called Lucky Wheel. (Ottawa - Nov 88)
* For those people that are interested in the programming language of FORTH, the following was found in Ottawa's newsletter:
John H. Carver jr. has announced his intention of acting as a "clearing house" for FORTH programmers and asks that anyone "even remotely interested", write to him at RI 1, Box 125-2, Bringhurst, Indiana 46913. He also mentions the existence of the TI FORTH International Information Center which is located at 4122 Glenway St., Wauwatosa, Wisconsin 53222. They have a library of public domain FORTH applications and tutorials. This information was gleened from the Mid-South 99/4A Users Group Newsletter in Memphis, Tennessee. (Ottawa - Dec 88)

BINDER #7 (supplemental)

* A tutorial on using windows in MultiPlan. (Cin-Day - Sep 88)
* A review of a cassette high speed loader for consoles with 32K expansion. Allows the Saving or Loading of files up to 24K instead of the current restriction of 12K (the size of the available VDP RAM). (Cin-Day - Dec 88 and Jan 89)
* The mention of the possible release early this year of a hardware/software item called "KALEIDAWRITER" from the Adelaide Texas Instruments Computer Club in Australia. It allows the running of IBM/AMSTRAD, Commodore Amiga and MSX software from a direct monitor interface for a 40/80 column display. It also includes all GRAMKRACKER operations plus each Kaleidawriter module will allow memory expansion to 5 Megabytes! Let's keep our fingers crossed.
(Cin-Day - Jan 89)
* A photocopy of 9 keyboard function key strips. (Cin-Day - Jan 89)
* A keyboard map for keyboard scan return values in BASIC. Includes the function/control keys as well as upper/lowercase keys. (Cin-Day - Jan 89)
* A FunnelWeb Farm tutorial on subprogrammes called "XB Style With Subprograms". (San Antonio - Nov 86)

BINDER #9 (supplemental)

* A tip on fixing a small bug in TI Base 2.0 by the Author.
(West Penn - Jan 89)
* A hardware modification which adds 64K of bank switchable expansion memory on the 16 bit bus.
* A lightpen AND joystick (both joystick 1 and 2) adaptor project.
(West Penn - Jan 89)
* An Extended BASIC programme listing for those that own Display Master. The programme automatically builds a demo file for a disk of pictures.
(West Penn - Jan 89)
* An XB listing for a disk cataloging programme that lists to a 3 X 5 card in condensed print. (QB Monitor - Sep 88)
* An XB listing for a 3D title programme. (QB Monitor - Nov 88)
* Two articles on transforming power supplies from Radio Shack and surplus retailers to match the one in your console. (QB Monitor - Dec 88)
* An article on how to install the game programme Perfect Push on a Ramdisk.
(West Penn - Nov 88)
* A hardware modification to make 1 joystick selectable to either joystick 1 or joystick 2. (West Penn - Nov 88)
* An XB listing for a slot machine game programme. (West Penn - Nov 88)
* An article on how to convert Plato SSSD disk to DSDD multifile disks. (West Penn - Dec 88)
* A modification to MacFlix for newer printers capable of 80 dots per inch instead of the current 72 dots per inch. (West Penn - Dec 88)
* An inquiry by the West Penn U.G. on who would be interested in a new circuit board that would allow Extended BASIC chips, 32K RAM, battery backed clock, speech synthesizer and more to be installed on a single board inside the console. The Zenoboard has not been produced as yet and it would sell for approximately $15. If interested, contact: Eric Zeno, 414 Highland Rd., Pittsburg, PA 15235 (SASE or reimbursment for return postage only please!). * A review of the excellent Miller Graphics's Explorer. (Network - Sep 85)
* A tutorial on LOGO recursion. (QB Monitor - Sep 88)

BINDER #10 (supplemental)

* A good listing of best price sources for most TI hardware. (OSHTI - Jan 89)
* A hardware modification to add a CPU reset switch to the cartridge port
connector. (Kawartha - Dec 88)
* The mention of a new c99 fairware programme called Nuclear 99 V2.0. Write to:
MCpl S. E. Morrow, P.O. Box 1763, CFPO 5056, Belleville, Ontario P1A 2Z7
(Kawartha - Dec 88)
* A TI Writer Formatter update from R. A. Green (the author of the RAG
Assembler) has been announced. (Kawartha - Dec 88)

BINDER #11 (supplemental)

* An article on changing TI Writer and MultiPlan defaults.
(Will County - Oct 85)
* An article on combining Editor/Assembler, Disk Manager 2 and TI Writer into
the same cartridge. (Will County - Oct 85)
* A tip on changing the screen colours in Zork. The tip includes a listing of
an Extended BASIC programme that makes a change to the ZORK BOOT file.
(Will County - Jun 85)

BINDER #13 (supplemental)

* A TI Writer tip that suggests when using the Replace String function, you must
be in the mode the currently loaded document was created in. EG. if the
document was created in word wrap, the RS command will only work fully in word
wrap mode. (GTBTIUG - Nov 88)
* A very good article on televisions and monitors and why televisions are not
suited for 80 column displays by Tom Morrison. (Bits, Bytes and Pixels - Mar
88)
* An article on sector editing the hot keys programme, TI Keys, so that your own
custom macros will be available on booting. There is also a tip on using TI
keys within the FunnelWeb environment. (Bits, Bytes and Pixels - Summer 88)
* The mention of Dr. Guy-Stephan Romano withdrawing from the Amnion Helpline.
Dr. Romano has stated that the 4A software and hardware activity has dropped
off so much that continued support is unnecessary. (Bits, Bytes and Pixels -
Sep 88)
* An indepth review of the WriterEase word processor by Corcomp. (Bits, Bytes
and Pixels - Oct 88)
* A copy of the original New York Times story of the Texas Instruments pullout
from the home computer on Oct 29, 1983. (Bits, Bytes and Pixels - Dec 88)
* A detailed review of the new version of EZ-Keys, called EZ-Keys Plus. (Bits,
Bytes and Pixels - Jan 89)
* A great TI BASIC programme listing for cassette based system users that will
allow quick location of files on multifile cassettes. It's called CS1*FINDEX.
(Bits, Bytes and Pixels - Feb 89)
* The mention of a software bug in the Disk Manager 1000 included in FunnelWeb
versions 4.1X. The bug has to do with the sector by sector disk copy function.
The error always formats the destination disk as SSSD, even when copying DSSD or
DSDD disks. (Bits, Bytes and Pixels - Feb 89)
* A hardware project for a cartridge port expander similiar to a Naverone
Widget. It allows the software selection of up to 8 modules using the Review
Module Library menu entry that is present in the operating system GROM chips in
the console. (Ninety-Niners CO-OP - Mar 88)
* A professionally typeset decimal/octal/hexidecimal conversion chart. Great
for photocopying! (Ozark 99ers - Oct 88)
* An assembly language window routine listing. (Ozard 99ers - Nov 88)
* The mention of the fact that Control Data still sells and distributes Plato
lessons on disk. Write to: L. B. Lewytzkyj, Control Data Corporation, 8100
34th Ave S. HQB026, Minneapolis, MN 55440 for more information.
* An XB listing for a multi-window calulator. (Slaves - Aug 88)
* An XB listing for a speaking programme lister. (Slaves - Dec 88)

'TIL NEXT MONTH ... CALL LOAD(-31962,32)

****

FOR SALE
========

MYARC 9640/Geneve with 12 Function Keyboard.

Contact Steve at 1-727-6807

"He was so surprised that the computer he built actually worked that he keeled over!"

New Software In Our Library for February

By ANDY PARKINSON, 9T9 Users Group

Library disks cost $2.00 SSSD or $4.00 for 2 Sides, Disk of the Months or DOM's are $3.00 including disk. Save $1.00 by copying to your disks at the meeting.

TI WRITER ver2.0 European version requires the TI Module. OK for sending or
--------- reading files from Europe. Most languages featured. Not compatable
        with files from TI Writer vers 1. 32K and TI Writer Module required.
        SSSD

UNIVERSAL DISASSEMBLER Forth program loads from E/A #3 DSKx.UNIVERSAL. Help
--------- screens are part of the program. Disassembles memory or disk. 32K
        E/A Required TrIware SSSD

QUAD LISTER vers4.4 Catalog print utility in XB w/assy routines. Compatable
----------- with DISKU date and comments. Ideal flippy cataloger. Most
        printers featured with merge files. Full docs. XB w/32K and
        printer required. TrIware SSSD

ART2PICTURES FF/FB 2 disks of 14 each black white pictures suitable for Tass,
------------ TI Artist, Graphx, RLE, Picasso, and Joypaint Pal. 2 disks SSSD

BUDGET PRINT Prints files created with TI Module HOME BUDGET MANAGEMENT (Disk
------------ version on DOM 9T9-88/1) and prints the info to a pio printer in
        several catagories. This program is a must to get the most from
        the module. Written in TI Forth with an XB loader and Docs added.
        XB or EA with 32K and printer required. SSSD

DISK OF THE MONTH 9T9-89/2 FEBRUARY For disk comments use DISKU or Quad Lister
-------------------------------- Most programs need XB w/32K, and printer.

Appointment Calendar prints a month per page for planning.

Copy Cat is a sector copier that adds some graphics to copying.   Preformat disks.

Flip Checkers XB game of othello uses joysticks. One or two players.

Puzzle 15 is the standard scramble puzzle for one player. Program counts moves.

Screen Calendar with built-in screen dump offers small or full page dump to pio.

Soft Sell scrolling screen easy to modify to your message.

Space Journey is an educational TI module dump using GPL simulator method.
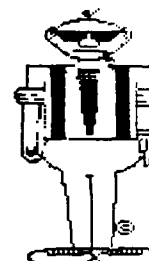
Time requires Corcomp Triple Tech card for setting time or dating with full docs.

Electronic Typewriter allows the TI to output to a pio printer a line at a time.

TAX TIME

1988 MULTIPLAN TEMPLATES FOR ONTARIO CANADA

T.O. USERS GROUP ©

USE YOUR TI99/4A TO DO YOUR 1988 INCOME TAXES
MULTIPLAN TEMPLATES FOR ONTARIO CANADA
INCLUDES TAXFORMS PAGES 1-5 SCHEDULES 1, 4, 7, 8
AND ONTARIO TAX CREDIT
FULL DOCS EXPLAIN USE EVEN IF YOU HAVE NEVER USED MULTIPLAN
WRITTEN FOR THE 9T9 TORONTO USERS GROUP BY MEMBER J SVOBODA
$2.00 FOR 9T9 MEMBERS $10.00 FOR NON-MEMBERS
SSSD MULTIPLAN REQUIRED WITH A PRINTER MOST USEFUL

this ad was prepared using ti writer, ti artist and picasso

FOR SALE
========

TI 99/4A CARTRIDGES...........$10.00 each

Car Wars	TI Extended BASIC	Hunt The Wumpus
TI Invaders	Personal Record Keeping	Indoor Soccer
Burgertime	Household Budget Management	Alpiner
ZeroZap	Home Financial Decisions	Munchman
Donkey Kong	Multiplication 1	Early Reading
Jungle Hunt	Alien Addition	Touch Typing Tutor
Tombstone City	Early Learning Fun	Teach Yourself Ex.
Parsec	Minus Mission	BASIC
Hopper	Addition and Subtraction 2	Number Magic

COMPUTER BOOKS

PROGRAMS FOR THE TI HOME COMPUTER $10.00

HARDWARE

TI 99/4A HOME COMPUTER with Speech Synthesizer, joysticks and manuals - $60.00
TI PROGRAM RECORDER -- $35.00

Call Dave Tong at 883-0715

CONSTRUCTION CORNER

—By DOUG BECKETT, 9T9 USERS GROUP

Since this is my first article I will do all the standard stuff and say:

1. My name is Doug Beckett.
2. I enjoy doing a little soldering. ie. hardware mods to the computer.
3. Input will be accepted, whether it be positive or negative.

Hopefully, each month I will present a different hardware modification. I will try to concentrate on little things for the 4A. Big things may come once I become more familiar with the computer's innermost secrets. I won't be giving articles on constructing RAMDISKS or putting your P-box, printer, and monitor inside the console, but things like a real time clock, supercart construction -- you know, stuff on that scale. My projects will not be my design, but I sure will tell you what I think of it. Well, on with my first project the aforementioned real time clock...

The real time clock that I built comes to us from John Willforth of Pennsylvania. In his article he says that the design is basically one half of MBP CARD by Gary Emmich and Tony Albanese of the Northern New Jersey Users Group. OK, enough of passing the buck on credit.
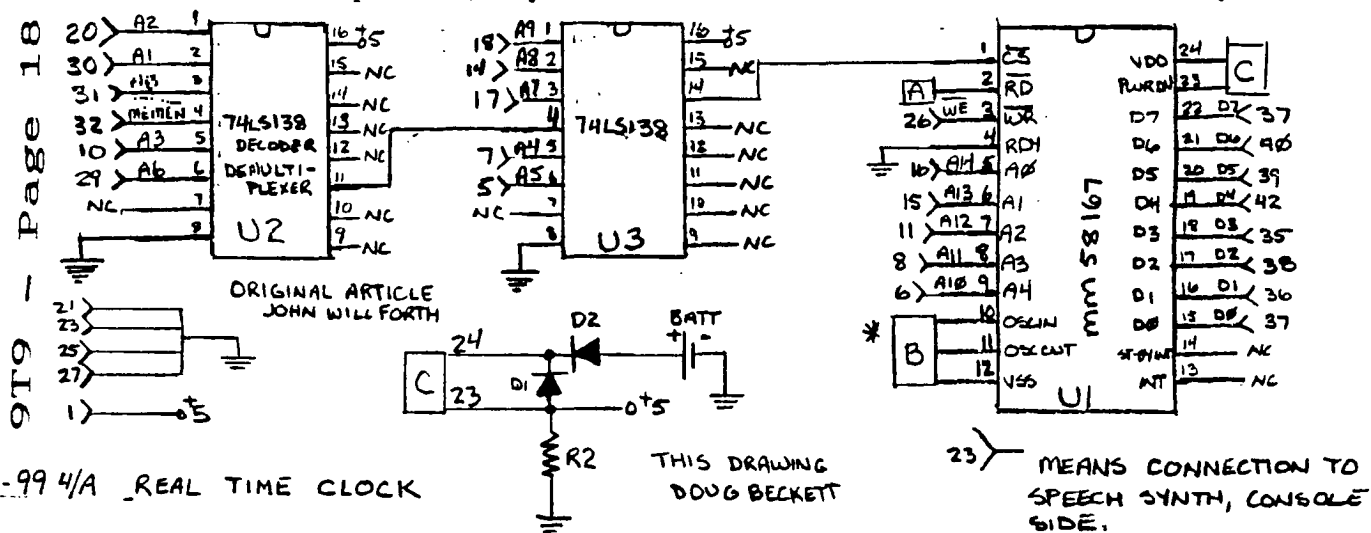
The parts that were outlined in the article ended up costing me almost 40 bucks to buy from Electrosonic! The clock chip was $20 alone! The high price of not having free trade at the time. The construction was straight forward -- just follow the schematic to the "T". I used a breadboard instead of a perfboard for two reasons. First, it would allow me to make easy corrections if I messed up, and second, I now have a temporary board to do other projects on. After carefully making all the connections on the board, and then even more carefully soldering leads to the console side of the speech synth, and making a real mess of the breadboard in joining the two, I fired it up. PRESTO! nothing happened. After double-checking the wiring I could not find the problem. I called in a friend to consult with him. He checked it top to bottom and inside out. We even tried different chips, but still no time.

Both of us being totally stumped (and me not knowing that there were corrections made to the schematic), I made a last ditch effort and called Mr. Willforth at his home in the States (mom flipped about that!). He kindly gave me the necessary corrections and asked me to write to him when I got it going. If you tried to make the clock and had the same problem I did, I can give you the proper schematic at one of the meetings. Once I put the clock in the speech synth (on a perfboard, of course), I will try to demonstrate the clock and the support software at a future meeting.
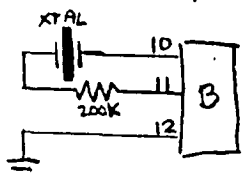
For those of you who can't wait for a demo and want to build it yourself, the article by John Willforth appears in the June 88 issue of the West Penn newsletter. It can be found in the library binder #9. I don't know where the corrections are, but if you want them, give me a call at (416)473-2825 VOICE ONLY!!!

When the clock is trimmed to keep the proper time, I find it very useful when using the MENU loader, as the time is displayed in the top right corner. It also is picked up by Remind Me with an added bonus -- the program will load the day and date as supplied by the clock!!! Very nice for anyone who uses the program like I do, to plan my day.

At the time of this writing, I was having problems with my Brother M-1109 printer and the Myarc PIO port. Gary Bowser suggested trying the ".IB" software switch option. Gary, that didn't work, but I kept playing and found that the ".HS" switch brought the printer to life! If you have a Myarc card and a printer that doesn't seem compatible, try the .HS switch. Thanks for the hint, Gary!
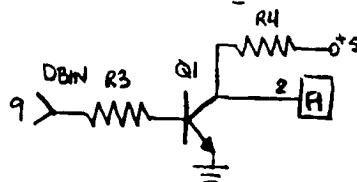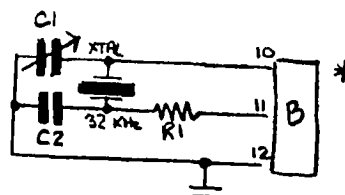

TI-99 4/A REAL TIME CLOCK

THIS DRAWING DOUG BECKETT

23> MEANS CONNECTION TO SPEECH SYNTH, CONSOLE SIDE.

John Willforth informs me this
should also work:

XTAL 10
200K 11 B
12

IF IT DOES, LET
ME KNOW!

C1
XTAL 10
C2 32 KH R1 11 B
12

R4 o 5
DBIN R3 Q1
9 2 A

ORIGINAL ARTICLE
JOHN WILLFORTH

THIS DRAWING
DOUG BECKETT

1 MM 58167 CLOCK CHIP _ U1
1 32.768 KHz CRYSTAL _ XTAL
2 74LS138 DECODER U2,U3
1 2N2222 TRANSISTOR Q1
1 50 PFD TRIMMER _ C1
1 22 PFD CAPACITOR C2
1 220KΩ RESISTOR R1
1 1KΩ RESISTOR R2
2 2KΩ RESISTORS R3,R4
2 1N914/1N4148 DIODES D1,D2
1 3V LITHIUM BATTERY BATT

NEW PRODUCT ANNOUNCEMENT

PROGRAM DEVELOPERS DEVELOPMENT PACKAGE

BY PAUL CHARLTON

This package contains:

1) GENASM macro assembler. Runs in MDOS mode. Ideal for developing
     code for 99/4a and MDOS applications.
     Great for C99 programmers!
2) GENLINK linker. Runs in MDOS mode. Full support for code libraries.
     Ideal for developing 99/4a and MDOS applications.
3) GENLIB librarian. Runs in MDOS mode. Allows easy interactive maintanence
     of code libraries for the linker.
4) libraries for 99/4a and MDOS programmers, with commonly used routines.
5) GENMAKE make utility. Runs in MDOS mode. Allows an author to easily
     keep track of file dependencies in programs and large documents.
     Great for programmers and people who are writing the great
     american novel. When run, it will update all files which need to
     be updated, and will (optionally) ignore all files which are already
     up to date.
6) MDOS programming environment documentation, with programming examples
     for all MDOS library functions, programming tricks for MDOS.

All utilities can be invoked from a batch file, for complete development
automation.

The suggested retail price is $69.95 for the entire package, which will be
available from Genial Computerware and Disk Only Software.

Quick notes on GENASM assembler. (c) Copr. 1989 Paul Charlton

This is a one-pass assembler which generates object code for all 9995 opcodes
(and it is FAST).
Symbol table size is only limited by the amount of memory on your system.
(over 2,000 fully cross-referenced symbols with TIMODE off)
Assembler performance:

	GENASM	99 assembler (GPL speed 5)	speedup
floppy(1)	2,500 line/min	900 line/min	x3
HFDC(2)	7,000 line/min	1900 line/min	x4
ramdisk	12,500 line/min	2600 line/min	x5

1 --- interlace 4 floppy disk
2 --- interlace 22 HFDC disk

In addition to the standard 9900 series assembler directives, the assembler
supports nested conditional assembly, nested macros, and local symbols.

The assembler can generate several types of reports:
1)   Error log
2)   Unreferenced symbols (unused code)
3)   Cross reference of programmer specified global symbols.
4)   Full cross reference of all global symbols (w/o registers)
5)   Full cross reference of all global symbols (including registers)

Error reports are very complete, identifying the file, line number and
statement number of the error, as well as a highly detailed description of the
cause of the error (good learning aid for people just starting to dabble in
assembly.)

Expression evaluation is much more robust than the TI99 assembler, with more numeric operations allowed (+,-,*,/,mod,and,or,shift left). Expressions are also allowed to contain parentheses to override the normal left-to-right evaluation sequence of expressions.

All symbols are allowed to contain up to 31 characters (including REF/DEF !!!) Get rid of those cryptic label names!

Numeric constants can be expressed in Hex,Decimal, -and- Binary.

The assembler also has support for a symbolic debugger for object code.

Quick notes on the GENLINK linker program.

The linker has full support for developers of MDOS and TI99/4a applications programs, including GPL based programs.

The linker accepts command input from the keyboard or a script file.

The linker has full support for a symbolic debugger, and should be robust enough to support symbolic debugging environments for higher level languages such as Fortran, "C", and "PASCAL".

You are able to specify blocks to load, with priorities for each block. You are able to move data from place to place in the object code before you save the program image. (Good for reducing the disk space used by a program which is fragmented in memory.)

You are able to save chained program images for MDOS,TI99, and GPL program images. You can also save large program images similar to SYSTEM/SYS (for complete control of the computer!) You are able to use any DEF symbols in expressions for saving and moving blocks of memory.

You can resolve references from subroutine libraries provided, and libraries of own creation.

You can execute any MDOS internal command from within the linker.

The linker is also -fast-, it is able to link more than 150k bytes/min.

Quick notes on the GENLIB librarian.

The librarian has full interactive support for maintanence of linker subroutine libraries, including insertion and deletion of subroutines.

This comes with libraries for the full E/A programming environment, as well as a library for MDOS programmers.

Quick notes on the GENMAKE utility.

The best way to keep your multi-part programs and documents up to date after making changes to parts of them. In general you only want to update the resulting files which are affected by the changes, GENMAKE does this for you automatically. (You can override this default to update any section you want to.)

GENMAKE files can contain:

1)   macros to be used on later lines in the file.
2)   rules specifying file dependencies (can be many lines long)
3)   actions to be executed if a rule fails to be up to date.

The dependencies can be nested and be shared between different rules.

Quick notes on MDOS documentation.

The most complete documentation available for the MDOS programming environment. All parameters, quirks and calling sequences are documented for each MDOS library routine. The structure of a TASK's header is explained. Programming tips and tricks for MDOS programmers. Programming examples are given for each subroutine call.

AVAILABLE EXCLUSIVELY FROM:

Genial Computerware, P.O. Box 183, Grafton, MA 01519. Check, Cash, Money Orders.

Disk Only Software, P.O. Box 244, Lorton, VA 22079
1-800-456-9272 or 703-550-9877.
Available on Delphi TI NET Shopping area.
Visa, Mastercard, American Express accepted.
DELPHI: DOS - CIS: 74405,1207
You will not be billed until product is shipped.

$69.95 PLUS SHIPPING
Credit card orders: add $5.00

ESTIMATED RELEASE DATE - APRIL 1989