

Newsletter Nine-T-Nine

NOVEMBER 1991 ISSUE

THE PRESIDENT'S WELCOME

As President of the Chicago TI99/4A Users Group and Chairman of the 9th annual Chicago TI International World Faire, it is my privilege and pleasure to welcome you to what promises to be one of our best and biggest events ever. Vendors and visitors from all over the world have come together to hold what amounts to a celebration of survival. Those of us who have been TI owners for some time know that the continued existence of our favorite computer has been an act of faith and dedication by a large group of men and women around the world.

This little machine has brought people together in a way that is truly amazing. The exchange of information and ideas around the globe has allowed our computer to survive, and even thrive, in a way that few would have predicted a short time ago. For, indeed, our 99s have not only endured, but they are now more powerful tools than they were at the time when Texas Instruments ceased to manufacture them. Thanks to a lot of people who have invested their time, energy, and money, we now have a machine that continues to astound those who think that "real" computing can only be done on a piece of equipment that cost thousands of dollars.

As important as the hardware and software parts of our TI community are, the most important part is the people themselves. Not all of us are able to write dazzling programs, or have the skill and knowledge to design new projects, or to repair aging equipment, but we all make a contribution. Without all of the TI "family" there would not be the critical mass to generate the enthusiasm that seems unique to TI loyalists, amongst the legions of those whose computers have been "orphaned."

The support of those around them is what sets a family apart from just a group of ordinary people. Although we come from all walks of life, belong to different races, religions, sexes, live in widely distant lands, we all share something in common that binds us together: the admiration (dare I say love?) for a little machine, that has sometimes frustrated us, but has enriched our lives way beyond what we could have imagined before we became owners and users.

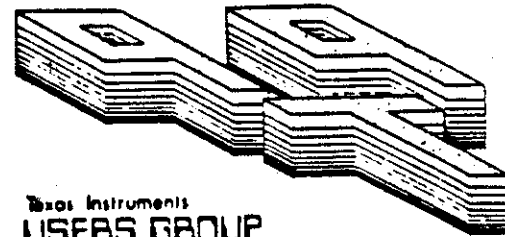
This little box full of wires and chips has become a part of our lives in a way that is hard to believe, though absolutely real. People do not journey as far as most of you have come, and invest the amounts of money we have all invested without a strong sense of dedication and purpose. Through the agency of this little machine we have grown, expanded our horizons, and intertwined our lives with our fellow TIers. We have thus become for each other a sort of extended family, and the Chicago TI International World Faire has become a giant reunion.

Indeed, our family has become so large and has so many branches that we can call ourselves a "clan." Therefore let me say "Welcome to the Faire, The Gathering of the Clan!"

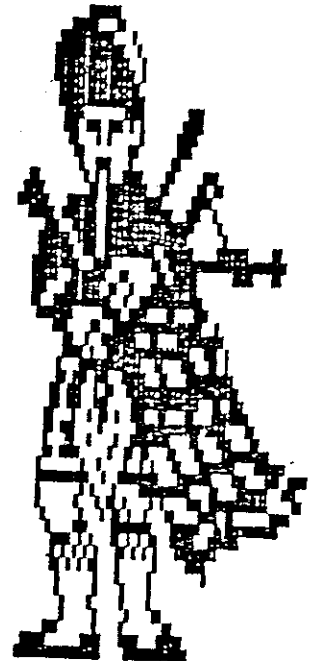
--Hal Shanafield
President CTIUG
Faire Chairman '91

FROM:
9T9 USERS GROUP
15 KERSDALE AVE.
TORONTO, ONT., M6M-1C9
CANADA

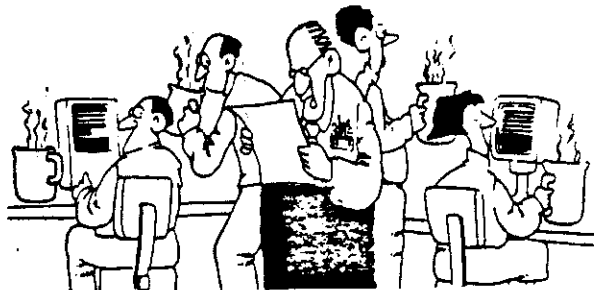
To:



Texas Instruments
USERS GROUP
TORONTO



9T9 USERS GROUP



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FULL MEMBERSHIP \$30.00 / year
 NEWSLETTER SUBSCRIPTION \$20.00 / year

All memberships are household memberships. A newsletter subscription is only for those who do not wish to attend meeting, 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 by phone.

The meetings are usually held on the last Wednesday of each month (exceptions are December's meeting date, usually mid-month and the months of July and August, when there are no meetings. Consult this issue of Newsletter 9T9 for the date and time of the next meeting. Meetings are usually held at Neil Allen's place, 52 Graystone Gardens, south of Bloor St., just west of Islington Ave., at 7:30 P.M. from 7:30 - 10:30 PM.

BBS

The 9T9 Users Group supports the Toronto BBS. The TI Tower BBS # (416) 921-2731, 300/1200/2400 BPS, 24 hrs. Sysop. Gary Bowser.

MAILING ADDRESS

9T9 Users Group, 15 Kersdale Ave., Toronto, Ontario, M6M 1C9, Canada

COMMERCIAL ADVERTISING

Any business wishing to reach our membership may advertise in our newsletter.

The rates are as follows (width by height):

FULL PAGE (7" x 10") \$30.00

HALF PAGE (7" x 5") \$15.00

QUARTER PAGE (7" x 2 1/2") \$7.50

Please have your ad's camera ready and paid for in advance. For more information contact the editor. Don't forget, that any member wishing to place ad's, may do so free of charge as long as they are not involved in a commercial enterprise.

NEWSLETTER ARTICLES

Members are encouraged to contribute to the newsletter in the form of articles, mini programs, helpful tips, 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 names: 9T9, Nine-T-Nine Newsletter, 9T9, 9T9 Users Group, and Nine-T-Nine Users Group are Copyright (C) 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991 by the 9T9 Users Group of Toronto, Canada. All rights reserved.

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9th ANNUAL

TI INTERNATIONAL WORLD FAIRE



THE GATHERING



OF THE CLAN

at the
Holiday Inn
 1000 Busse Road (Route 83), Elk Grove Village, Illinois
 Easy Access from I-90 and O'Hare Airport

Exhibits and Seminars
Saturday, 2 November 1991
 9:00 A.M. to 5:00 P.M.



TIDBITS

#53

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

Short and sweet:

This month's Tidbits will be short and sweet. Because of demands at work and home, I've not found enough time to write a review of Chicago, so I'll reprint one. I hope to be able to demo two new items; the MIDI master for the TI/9640, Mike Maksimik's hardware-software MIDI package and Barry Boone's Sound F/X at the November meeting.

Another piece of hardware is the Digit R.G.B., 40-column adapter kit for the TI-99/4A. I purchased this piece of hardware from L.L.Conner Enterprises. This adapter came out before their 80-column kit, consisted of replacing the 9918 video chip with a 9928 video chip, along with support hardware to drive an R.G.B. colour monitor.

Other products which were for sale were: used TI monitor for \$45.00, P.E.Box with all cards,(except RS-232), for \$100.00, replacement P-Box Power Supply and reg. board for \$30.00, plus much,much more.

One of the best purchases I made, was that of a 12-volt, 15-watt soldering iron,(still new in the package), with cigarette lighter plug, an Australian product for only \$5.00.

Elections Next Month:

A reminder to members that we will conduct elections next month. Any member who would like to help participate, as a member of the 9T9 executive, please let me or another executive know.

I've decided to include some interesting articles from other newsletters, in this issue, hope you find them interesting!



1991 LIST OF VENDORS

CHICAGO
TI-INTERNATIONAL WORLD FAIRE
NOVEMBER 1 AND 2, 1991

HELD AT:

Elk Grove Holiday Inn
1000 Busse Rd.
Elk Grove Village, IL 60007
(708)437-6010

PRODUCED BY:

Chicago Area TI-99/4a Users' Group
P. O. Box 578341
Chicago, IL 60657
Hal Shanafield, Faire Manager,
for information call 708-8648644 (2:00PM to
to 10:00PM. Hot Line answering machine
708-869-4304, or Group bbs 708-862-0182
leave a message to # 162.

SOCIAL MIXER:

Friday, November 1, 1991
8:00pm - 12:00pm
admission - \$5.00

FAIRE:

Saturday, November 2, 1991
9:00am - 5:00pm
admission - \$4.00

DINNER:

Saturday, November 2, 1991
6:00pm - 9:30pm
admission - \$15.00

HOTEL ROOM RATE:

\$49.00 - single
\$49.00 - double
(both rates include breakfast)

LIMOUSINE SERVICE:

free to and from O'hare Airport and hotel

CONJUNCTION WITH:

The Milwaukee TI-Faire
November 3, 1990 / 9:00am - 5:00pm
Quality Inn
5311 S. Howell Ave.
Milwaukee, Misc.
(across from Mitchell Field Airport)

PRODUCED BY:

The Milwaukee Area 99/4a Users' Group
Mr. Gene Hitz
4122 N. Glenway
Wauwatosa, Misc. 53222
Information telephone # 414 535-0133

ASGARD SOFTWARE: (Booth 117) P.O. Box 1306 Rockville, MD 20850, PHONE 703-255-3085. Software for the TI-99/4A Home Computer and the Geneve 9640 Home Computer. Some of the programs sold are Batch-It, Beyond Video Chess, Page Pro 99, Legends, Legends II, Oliver, Twist, Karate Challenge, Calendar Maker 99, Hard Master, and many more fine programs.

BUD MILLS SERVICES/OPA: (Booths 222, 223, 224, 225) 166 Dartmouth Drive Toledo, OH 43614. PHONE 419-385-5946. Hardware for the TI-99/4A Home Computer and the Geneve 9640 Home Computer. Items offered include the Horizon RAM Disk, the p-GRAM Card, TIM, MEMEX, Composite Converter for TIM, RAMBO, GEN-MOD, and (hopefully) the Accelerator Board.

CHICAGO TI 99/4A Users Group: (Booths 118, 119, 120, 121, 122, 123) P.O. Box 578341 Chicago, IL, Hot Line 312-869-4304. Tee shirts, commemorative CTIUG mechanical pencils, Hardware Manuals, TI Writer Supplement Manuals, Graphics Encyclopedia, including the brand-new Volume 3, TI-99/4A replacement keys, muffin fans, switching power supplies, Chicago Times newsletter back issues, 500-disk library, cassette library, chips and custom EPROMs, souvenirs, and much more.

COMPETITION COMPUTER SOLUTIONS: (Booths 124, 125, 126, 127, 128) 2219 S. Muskego Ave. Milwaukee, WI 53215. PHONE 414-672-1600. Software and hardware for the TI-99/4A Home Computer and the Geneve 9640 Home Computer. Their stock includes printers, cables, disk drives, software, PE boxes, and 4A cartridges.

C.O.N.N.I. Users Group: (Booth U67) Software for the TI.

DEL AND WALTER: (Booths 110, 111, 112) 185 North Post Road, Indianapolis, IN 46219. PHONE 317-895-1265. Disk drives, monitors, TI hardware.

DISK 'N DAT a division of H&H COMPUTER SUPPLIES (formerly B D Computer Supplies): (Booths 129,130,131) 14 South River St., Aurora, IL 60506. Disks, paper, labels, cables, ribbons, accessories, and general computer supplies.

FOX VALLEY Users Group: (Booth U66) 1536 Amarillo^o Carpentersville, IL 60110. PHONE 708-426-6301. Software for the TI-99/4A Home Computer.

GENIAL COMPUTERWARE: (Booth 215) 835 Green Vally Drive Philadelphia, PA 19128. The GENIAL TRAVELER, a software based publication which contains programs, routines, and articles, all on floppy disks, XXB, and Coney Games.

CRYSTAL SOFTWARE PROJECT
BOOTH 211 MIDMASTER99
635 MACKINAW CALUMET CITY
IL PH. (708) 891-2513

HARRISON SOFTWARE: (Booth 210) 5705 40th Place Hyattsville, MD. 20781-1727. New assembly language games, SCUDBUSTERS, missile defense game, CODE BREAKERS, an encryption and deciphering game, music software for both sound chip and MIDIMASTER99, including "Magdalena's Notebook" by J.S. Bach, upgrade to the Harrison Word Processor, Golf Score Analyzer, plus several disks of brand new assembly utilities for XB.

HUNTER ELECTRONICS: (Booth 132) 4N370 Pine Bensenville, IL 60106. PHONE 708-766-0566. Software and hardware for the TI-99/4A Home Computer and the Geneve 9640 Home Computer. Stocks include floppy drives, hard drives, monitors, cables, and more.

HOOSIER USERS GROUP: (Booth U64) 185 N. Post Road Indianapolis, IN 46219. Software for the TI, souvenirs, buttons, etc.

L.L. CONNER ENTERPRISES: (Booths 114, 115, 116) 1521 Ferry St. Lafayette, IN. 47901. PHONE 317-742-8146 Fax 317-423-4876. Software and hardware for the TI-99/4A Home Computer and the Geneve 9640 Home Computer. TI CC-40 portable computer and all available peripherals for it. TI-74 and TI-95 also available.

MICROpendium MAGAZINE: (Booth 113) P.O. Box 1343 Round Rock, TX 78680. PHONE 512-255-1512. The most important publication in the 4A/9640 community. Free copies will be handed out. Subscriptions available. Complete sets of magazine programs on disk.

MILWAUKEE USERS GROUP: (Booth U61). 7759 South Scepter Dr. #7 Franklin, WI 53132. Membership information, as well as information for those attending the Milwaukee Faire on Sunday.

MS EXPRESS SOFTWARE: (Booth 216) P.O. Box 498 Richmond, OH 43944-0498. PHONE 614-282-5627. Adventure games, Galatic Emperors, sliding block puzzles, Adventure games players hints and tips manual and other brand new programs.

9640 NEWS: (Booth 217) P.O. Box 75-2465 Memphis, TN 38175-2465. PHONE 901-368-1169. A new publication devoted entirely to the Myarc Geneve 9640 Home Computer. Other new products include \$CRASH\$\$ and Windows.

NOTUNG SOFTWARE: (Booth 218) 7647 McGroarty Street, Tujunga, CA 91042. PHONE 816-951-2718. Brand-new programs, TI-Casino, Fonts 'n' Borders IV, art programs, educational programs, and games, and clip-art products.

RANCHARGED COMPUTERS: (Booths 213, 214) 6467 E. Vancey Dr., Brookpark, OH. 44142. PHONE 1-800-669-1214. Complete line of software and hardware for the TI. Show special of giant Faireware software selection. Producer of RANCHARGED-Prostick joystick.

10:15 a.m. Bud Mills of Bud Mills Services and Gary Bowser of Oasis Pensive Abacutors will demonstrate a range of products, including the Accelerator Board, the Horizon Ram Disk 3000, TIM, RAM60, P-GRAM, MEMEX, the Composite Converter for TIM, and GEN-MOD.

9 a.m. John McDevitt of the RAVE 99 Company will demonstrate his new products for the TI 99/4A and the Geneve 9640, including the RAVE keyboard interface, the speech adaptor card, memory cards, and the PE/2 expansion box designed to contain both the 4/A and the 9640.

9:30 a.m. Bruce Harrison of Harrison Software will demonstrate several new programs, including SCUDBUSTERS, an action game featuring missile intercepts, CODEBREAKERS, a cryptogram game offering intellectual stimulation, new sound chip music, including "Magdalena's Notebook" by Johann Sebastian Bach, several disks of music for the new MIDIMASTER99 format, and new assembly language utilities for Extended Basic. Time permitting, he will also demonstrate Golf Score Analyzer and the Harrison Word Processor.

RAVE 99: (Booths 219, 220) 112 Rambling Road Vernon, CT 06066. PHONE 203-871-7824. Rave 99 is the producer of IBM type keyboards, a new memory/RAM card, and a speech synthesizer card for the peripheral expansion box, and a brand-new custom Peripheral Expansion Box, the PE/2.

TEXAMENTS: (Booth 221) 53 Center St. Patchogue, NY 11772. PHONE 516-475-3480. Brand-new digitized sound program, SOUND F/X. Distributors of TI ARTIST, TI ARTIST PLUS, TI Sort, TI BASE, MICROdex, GIF-MANIA, and other software for the TI-99/4A Home Computer and the Myarc Geneve 9640 Home Computer.

WILL COUNTY USERS GROUP: (Booth U65) 36 Montrose, Romeoville, IL. 60441. PHONE 815-886-5326. Software for the TI-99/4A Home computer.

VERENIGING TI-GEBRUIKERSGROEP (Dutch TI Users Group) (Booth UG2) is Oosterparkstr. 141e 1091 GZ Amsterdam, The Netherlands. New hardware and software from Europe.

Last-minute additions and changes of table locations will be posted and announced at the Faire.

FAIRE SPEAKERS' SCHEDULE

OFFICER'S CORNER

11:00 a.m. Barry Boone of Texaments will demonstrate the line of programs that include GIF-Mania, TI-Artist, and TI-Base, plus many games. Featured this year will be the brand-new Sound FX program, which allows the use of digitized sound, both speech and music. New games, as yet untitled, may also be debuted.

11:45 a.m. Beery Miller of 9640 News will be showing new and long-awaited items for the Myarc Geneva, such as GEME and the P-code card. Other software may be demonstrated as well, time permitting.

12:30 p.m. Mike Maksimik of Crystal Software will demonstrate and debut both version 3.0 of MIDIMASTER99, and MIDIALBUM. Version 3.0 of MH99 allows the creation of MIDI files from the musical keyboard for the first time. MIDIALBUM will allow users to play whole disks of MH99 music, in the order of their choice, thus providing hours of uninterrupted music. Other new hardware and software projects from Crystal may also be announced, time permitting.

1:30 p.m. Barry Traver of Genial Computerware will discuss and demonstrate programs from his diskazine publication, GENIAL MAGAZINE. Barry is a columnist for MICROpendium Magazine, Computer Monthly, and a former correspondent for Computer Shopper.

2:15 P.M. Ken Gilliland of Notung Software will demonstrate the newest creations of his company, including TI-Casino, a comprehensive program that allows the user to play all the Las Vegas games in a very realistic fashion. Version 3.0 will debut at the Faire. Fonts 'n' Borders IV as well as other clip art products and MH99 music disks will also be debuting.

3:00 p.m. Don Shorrock will demonstrate his educational software and will debut his Olde English fonts. Don has produced many programs of foreign language instruction, as well as educational games and utilities.

3:45 p.m. Mike Sealy of MS Express Software will present the newest releases from his company, with an emphasis on games and tutorials on game strategy and tactics.

4:30 p.m. Larry Tippet and David Bishop will represent Asgard Software and will demonstrate some of the large selection of products from this company. New releases are expected to be available.

If history is any guide, there will be changes and modifications to the above listed schedule of times and speakers. These changes will be posted throughout the TI International Faire area, and announced during the Faire with the public address system. Please listen to these announcements for the latest information.

As in previous years the Hoosier User's group was represented at the Chicago TI International World Faire and at the Milwaukee TI-Faire. In all, nine members of our group were present at Chicago. This year's faire appeared to be successful, although attendance did not appear to be as high as in previous years.

This time our table was in a separate room adjacent to the main exhibit room. In spite of being in a less visible location, we still managed a respectable profit.

There were approximately 16 dealers set up including Larry Conner, Asgard, Texaments, Bud Mills Services, OFA, RAVE 99, MICROpendium, Genial Computerware and 9640 News. Other users groups present included the Fox Valley U. G. from Carpentersville, Il; the Milwaukee U.G.; and the Will Co. U.G. from Romeoville, Il.

Most of the new products shown were software rather than hardware. Two items nearly ready for release are a composite converter for OFA's TIM (TI Image Maker - 80 column analog device) and the previously announced Accelerator Board. Also announced were a device call a POP-cart from OFA, and a FPM Card from Tony Lewis of Raleigh, NC.

The POP-cart is custom cartridge that can hold up to 2 megs worth of

programs burned into ROM by OPA. These can include code from modules, or disk based programs. One advantage of this is that cartridge programs can be modified before installing in the FOP-cart. This cartridge takes advantage of the "REVIEW MODULE LIBRARY" routine built into the console roms, or an optional custom menu is available. The base module has 256k and will be available in sizes up to 2 megs.

The FPM card is a "floating point math" card for the P-Box. It uses a Motorola 68881 floating point math co-processor and will be able to greatly speed up math intensive programs that access the card thru use of call link's from basic, or assembly routines; and will provide double precision and extended precision accuracy. The FPM card should be available in 1992.

Software wise, there were a number of new 4/a programs. These included more music disks and a game called SCUBDUSTERS from Bruce Harrison of Harrison Software, several new programs from Texaments, Asgard, and Ken Gilliland of Notung Software. For the GENEVE, Beery Miller had several items of interest including functional versions of MYARC's GEME operating system, the Pascal Runtime software, a very impressive new DOS shell menu program from LGMA Products, and J.P. Software's GEN-TRI program, along with many of J.P.'s other programs that have been very hard to find for the last 2 years.

Of the new programs shown, one of the most interesting was Sound F/X by Barry Boone. This program allows the playing of and manipulation of digitized sound - including speech - with impressive clarity. Barry also released 6 new games for the GENEVE that run under MDOS. Asgard had a number of new programs including LinEditor for working with text files too large to fit into memory, an interesting mail list program called Mail Room - that supports 80 column devices, a charal character set editor called SGW, and for the GENEVE only a program called Thumbnails for cataloging and converting MacPaint pictures. And Notung Software had an impressive new game called TI-Casino v.3 and more clip art and music disks.

As to the Milwaukee TI-Faire, it was a more relaxed affair, attendance was better than previous years, in part due to being opened up to other computers such as Apple and Commodore systems. The majority of the vendors and groups there were TI oriented and having a few "other" computers represented there did not detract. Both faires were well worth attending.

- BCF

THE HUGGERS
HOOSIER USERS GROUP
People Helping People

CONFIDENTIAL FILE

available. In any case, the 68881 has many more math functions than the /4A, and is good for 17 digits. [Would you believe that earlier this spring, I tried to check the accuracy of 17 digit math on a Compaq at work, and found that DOS machines and hand held calculators are only good to only 15 digits or less? I personally find it quite humorous that a TI 99/4A can be more accurate than a '486 33 Mhz DOS machine.]

That's it for the time being. According to Motorola, I have the only non-Motorola microprocessor hookup to a 68881. Perhaps with the right help we can provide the card to others in the immediate future. If you have questions on the 68881 interface card project, feel free to drop me a card at the address below, or leave a message on Compuserve (73357,1730) or BIX (tonylewis).

Tony Lewis
409 Drolmond Drive
Raleigh NC 27615

~~A POTENTIAL PERIPHERAL~~

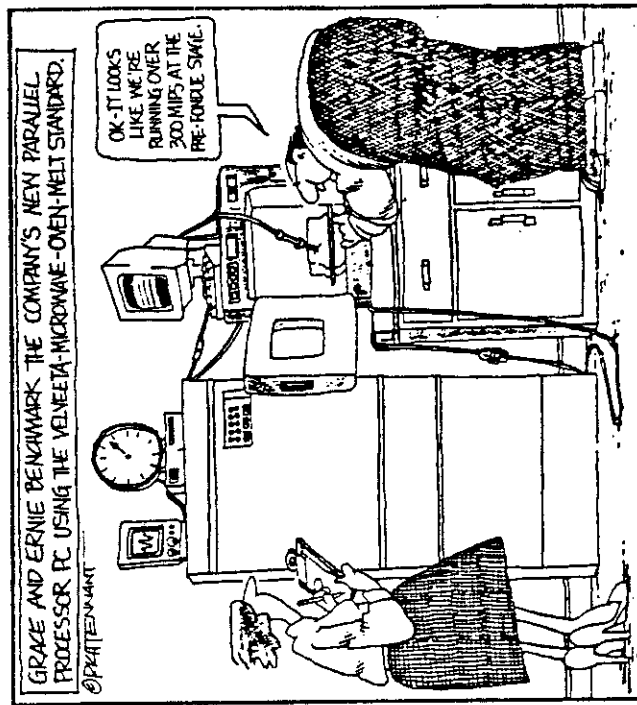
A PRACTICAL PERIPHERAL

As noted in the February issue of this newsletter, Al Beard and myself have been collaborating for over a year on developing a math coprocessor card for the Pbox. Well, as you might guess from the title, it is now functional (not 100% done, but functional).

To recap: In 1989, I did a little research and found that the Motorola 68881 math coprocessor chip (used in Macs and Amigas) could be used with the TI system. I played around with some circuit designs, and ran them past a Motorola engineer who said it might work. In 1990, Al Beard put things into motion by actually buying a 68881 and sending it to me. I started serious design on the peripheral card last summer, wired up the prototype card in the winter of 1990, and developed an all-assembly interface program in early 1991. I finally installed and checked out all the chips the first week of August, and what do you know, the darned thing worked after all.

I am currently (late August) in the process of cleaning up last minute bugs in the interface program; the bugs are related to my lack of assembly programming ability, and are not related to how the 68881 works. What we have envisioned for the 68881 is a PBox card, possibly with its own simple DSR, that can be accessed by various programs on either the /4A, Geneve, or the announced 99105 "accelerator" card. We hope that the basic software and hardware design can be converted into a simple PBox card that the user could put together as a kit, like the Horizon RAMdisk. Assembling the card would be a snap, since there would be only the 68881, 2-3 PALS, and the data/address bus chips. We are currently seeking others who may help us in having the card produced and marketed. If we are very lucky, a working version of the card may be shown at the Chicago show in early November.

Last but not least, everyone keeps asking me "How fast is it?". This is not a trivial question. Once I have debugged the basic interface software, I hope to run some '68881 vs. TI' tests to see how much faster it is to access a 68881 in the PBox, versus the built-in floating point math routines in the console. I will publish the results later when



FORUM>Reply, Add, Read, "?" or Exit> read 28072
28072 17-NOV 23:20 General Information
Apple DOS info?
From: SMICKELSON To: ALL

At our last user group meeting, a member asked whether or not a DS/DD disk used in a TI, with a Corcomp FD Controller could be made to read an apple, (I assume Apple II series) floppy diskette. I know that the formatting is most likely different. This member said he tried using Advance Diagnostics without any luck. Not being familiar with the Apple DOS hardware/software, I would like to asked any/all members of the Forum whether this is possible or if the problem lies in disk drive compatibility, can an Apple drive be hooked to any of our TI controllers and the disk be read? I know PC transfer works because we use compatible drives and the controller hardware can be accessed to emulate an MS-DOS controller for formatting and data transfer, what about the Apple world? Thanks in advance those who reply.-Steve

Enter FOLLOW for related Message(s).

FORUM>Reply, Add, Read, "?" or Exit> follow
28076 18-NOV 01:17 General Information
RE: Apple DOS info? (Re: Msg 28072)
From: JHWHITE To: SMICKELSON

I think the Apple II series uses "smart" drives like the C64 does. More sectors are put on the outer tracks than on the inner tracks. This requires special timing of the bit i/o. The controllers used by the 99/4A do not vary the bit i/o timing on the tracks--each track has the same number sectors and stored bits.

Jeff White

Press RETURN for related Message(s).

FORUM>Reply, Add, Read, "?" or Exit>
28101 18-NOV 21:25 General Information
RE: Apple DOS info? (Re: Msg 28072)
From: LMCCLURE To: SMICKELSON

Perhaps the biggest problem is that Apple drives use GCR-encoding, whereas TI DS/DD (and PC-compatibles, and the ST, and just about every other computer except the Commodore 64/128, and the Mac) use MFM for double-density formats, and as I recall, FM for single density.

Simply put, disk controllers for MFM formats choke on GCR (Group Code Record).

It is extremely unlikely an Apple disk could be read in a TI without some additional custom hardware being involved.

Press RETURN for related Message(s).

FORUM>Reply, Add, Read, "?" or Exit>
28102 18-NOV 21:30 General Information
RE: Apple DOS info? (Re: Msg 28076)
From: LMCCLURE To: JHWHITE

Actually, at least in the case of Apple's 5.25" drives, they were as 'dumb' as the drives in a PC-clone or TI are. Some of their drives, especially the first 3.5" drives, used a microprocessor, but mostly for port handling, not direct control of drive functions normally handled by a DOS.

You are on the right track, however, as both the Commodore 1541 (and the 1571 in 1541 and 'native' mode) use GCR-formatting. I am not certain the Apple 5.25" drive uses zoned recording, however. The Commodore 1541, which definitely DOES, stores around 170K. An Apple 5.25" disk stores only around 128K. (Both being single-sided drives).

Press RETURN for related Message(s).

FORUM>Reply, Add, Read, "?" or Exit>
28145 20-NOV 02:52 General Information
RE: Apple DOS info? (Re: Msg 28102)
From: EICHER To: LMCCLURE

What is "GCR -formatting"? thanks, dan

Press RETURN for related Message(s).

FORUM>Reply, Add, Read, "?" or Exit>
28156 20-NOV 23:55 General Information
RE: Apple DOS info? (Re: Msg 28145)
From: LMCCLURE To: EICHER

About all I can tell you for certain is that GCR stands for 'Group Code Record' (although 'group code recording' sounds more correct to me! <grin>)

It is somewhat akin to the relationship of MFM vs. RLL formatting for harddisks, in that an RLL controller cannot read an MFM formatted disk, and a MFM controller cannot read an RLL-formatted hard disk. (Not that the structure of GCR is in any way akin to RLL).

FORUM>Reply, Add, Read, "?" or Exit>

End of Thread. Press RETURN to resume.

9648 News
 c/o Beery Miller
 5455 Marina Cove #1
 Memphis, TN 38115

THE RAVE PS/2 EXPANSION BOX

Dave Ratcliffe, Harrisburg, Pa.

At the 1990 TICOFF show, lots of people crowded around the RAVE99 table to get a 'first' look at the proposed RAVE PS/2 expansion box for the TI-99 and Geneve computers. What we saw was a prototype, set up to run a TI-99 and what a wonderful sight it was. NO console, (RAVE Keyboard Interface and computer mounted INSIDE the box), hard drive (Myarc HFDC) AND quiet! Several people ordered then and my order was submitted in April. Even though I did NOT receive the unit till January 1991, I am still VERY satisfied. Why? Because every step of the way, RAVE's owner, John McDavitt, kept me informed of progress and setbacks. I knew going in that I was buying an as yet unfinished product and the manufacturer's openness and the whole process was both refreshing and welcomed. This is the second product I've purchased from RAVE (Keyboard interface was the first) and I have yet to be disappointed. Now on to the 'official' review..

There are 2 versions of the RAVE PS/2, the A and the B series. I purchased the A series, designed for the Geneve computer. The B version allows the use of both the TI/99 AND Geneve computers IN THE SAME BOX, or just the TI alone. Since mine is for a Geneve, the following description is of the PS/2-A version except where noted:

The cabinet is made by Megitronic and contains a 300 watt fully regulated power supply. There is room for 3 5.25" 1/2 height drives and 1 floppy drive all in externally accessible drive bays. The 3.5" floppy drive is NOT accessible if the RAVE Keyboard interface is used (PS/2-B version). The 3.5" drive bay holds 1 full height and 1 1/2 height if desired. Additionally, there is internal space for a vertically mounted 3.5" hard drive behind the front panel and adjacent to the 3.5" bay. Let me assure you, the power supply is fully capable of running ALL of these devices as well as the CPU and all related cards. While the power supply contains a cooling fan, RAVE saw fit to install a second fan in front of the card rack that moves air directly across the expansion cards providing extra cooling capacity.

The card rack is a well designed unit and even includes a removable section to make room for the internal 3.5" hard drive. The backplane shows good design and workmanship and all jumpers are laid out well with easy access. I had note here, while the documentation refers to numbers, I had note the jumper selection points, NO numbers are printed on the board. After a quick call to John I found out that the pin closest to the front of ALL jumper locations is pin #1. For the Geneve, there is a small wiring harness that requires a bit of soldering to install. It will connect the front panel reset switch to the Geneve card to provide a HARD reset when needed. An additional connection provides for use of the front panel KEYLOCK switch.

Without the clamshell, the cards tend to wobble in the edge connectors. With nothing inside the cover to hold the cards in place and nothing to keep them from moving sideways, it is possible for a card to pop out of the socket with disastrous results. This is particularly true of the cards with cables and connectors. These are the danger to sockets of resilient foam inserts. My solution was to order like cards connectors and perpendicular to the edge of the strips. HOLDS the cards in their sockets and keeps them from moving sideways as well. Since I took the cards to the office, I sent John a sample of the material I used in hopes that he will add it to future versions.

I have been asked how much I paid. My answer is that it is no longer a valid price. I paid for the unit in April of '90. SEVERAL modifications and upgrades have since been made to the initial design that have changed the price upwards. Those of us who pre-paid were locked in with no further charges. For an accurate CURRENT price, contact:

RAVESS Co.
112 Rambling Road,
Vernon Ct 06066

or Call John McDevitt AFTER 7pm at (203)871-7824

Finally, the grade. I can't grade the documentation properly since what I received was VERY preliminary. On that basis, I'd say:

Documentation - B+

On the PS/2-A, taking into account workmanship and functionality, I'll say:

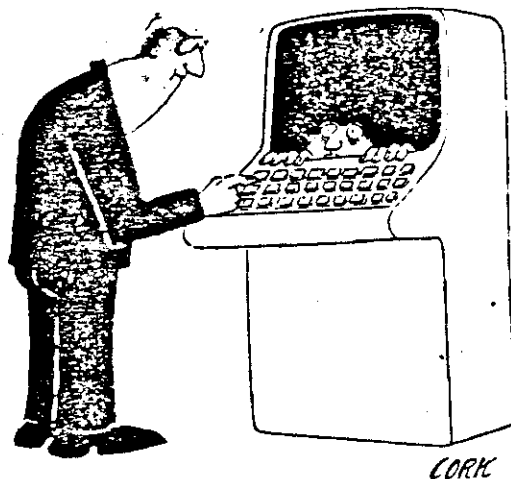
Product - A

On RAVE's customer relations, counting willingness to communicate, honesty and willingness to listen, a definite:

Customer Relations - A+

Do I like what I got? Yes
Would I recommend it to others? Yes
Was it worth the wait? YES!

x>> Dave <<x



NEWS RELEASE

JP Software (originally posted 10/29/91)

The following JP Software titles are now available:

- TRIAD Price: \$20.00
- TRIAD is a terminal emulator, disk manager and 40 column text editor combined in a single program so everything is in memory at the same time. 99/4A and Geneve versions included. Author: Wayne Stith.
- CHAINLINK SOLITAIRE Price: \$12.00
- CHAINLINK SOLITAIRE is the most challenging of all solitaire card games. Requires a TI 99/4A, Editor/Assembler, TI-Writer, or XB. By Wayne Stith and Walt Howe.

-- and Mike Dodd has confirmed the following new prices for his programs:

PC TRANSFER (ver 1.1) + Utilities [9640 AND 99/4A] Price: \$25.00 (now includes utilities at no charge) -- Utilities only: available for \$7.50

HYPERCOPY [9640-MDOS] Price: formerly \$20.00 -- now \$15.00

IDENTIFILE [99/4A and 9640 GPL] Price: formerly \$15.00 -- now \$10

-- Mike's programs are also available from 9640NEWS -- SEE BEERY MILLER AT MAJOR TI FAIRES (he will also have copies of GEN-TRI and Jump800).

Any of the above, and ver. 1.02 of GEN-TRI (\$49.95), may be ordered from:

Jerry Coffey 9119 Tetterton Ave. Vienna VA 22182

For GEN-TRI updates send original disks plus \$1.00 for postage (please specify if you can use double density).

All prices include S&H.

MIKE DODD PROGRAMS (posted 11/3/91)

Here are (slightly edited) descriptions from the JPS catalog:

IDENTIFILE - \$10

Identifile creates floppy, hard, and RAM disk catalogs. The lists may be printed out or saved to disk. In addition, Identifile tells you the filename, the number of sectors, and file type, Identifile also tells you what each file actually is.

What does that mean? It means Identifile can tell if a file is a MacPaint picture, a FirstBase dictionary, a TI-Artist font, a GRAM Kracker cartridge, a TI-Writer file, an Infocom adventure, an Archive, or any of over 50 different file types, in addition to the description provided by Identifile, the manual contains a more detailed description of each file type for reference. Imagine being able to quickly scan through piles of disks and being able to immediately know what each file is! No more trial and error. No more guess work. With Identifile, you're ready to take on any disk!

PC TRANSFER (ver 1.1) + Utilities - \$25 (Utils only = \$7.50)

PC-Transfer is the fastest and most convenient method available to move

data between a TI 99/4A or MYARC 9640, and an MS-DOS machine. Just place an MS-DOS disk in one TI drive and a TI disk in another TI drive and PC-Transfer does the rest. Requires Myarc or Corcomp FD controller. Author: Mike Dodd.

The utilities allow you to transfer Multiplan SYLK files (IF128), binary images (DF128), 7 and 8-bit text, "TIFILES" downloaded with a PC, MAC-Paint files, etc.

HYPERCOPY - \$15

HyperCopy is the final word in disk copiers. It can copy a single sided single density disk in just under 35 seconds, including formatting the copy disk. It copies a double sided 40 track disk in just under a minute and an 80 track disk takes just under two minutes. HyperCopy also allows disks to be formatted with a Skew. Requires 9640 and floppy controller - MDOS native mode. Author: Mike Dodd.

*** These Mike Dodd programs may be ordered from:

Jerry Coffey 9119 Tetterton Ave Vienna VA 22182 - OR
 9640 NEWS (Beery Miller - address in news release below)
 9640 NEWS
 P.O. Box 752465
 Memphis, TN 38175

9640 News is proud to announce the availability of several JP Software titles via Mike Dodd.

At special reduced prices, they are:

HyperCopy

HyperCopy is the copy program of all programs. Runs directly out of MDOS, and if enough memory is available, it will store an entire DS/00 disk in memory for multiple copy outputs. A SS/SD disk can be copied in 15 seconds. \$15.00 SS/SD

PC-Transfer and Utils

PC-Transfer is a program compatible with the Myarc and CorComp disk controllers permitting one to read/write/format both TI and IBM disks. The PC-Transfer utilities disk is included in this package allowing one to convert Multiplan files, ASCII files, and others between one computer and another. \$25.00 SS/SD

PC-Transfer Utilities

PC-Transfer Utilities is a package of 4 programs that can be used inside of PC-Transfer to manipulate and move DIS/FIX 128 files, SYLK files (Multiplan), ASCII files, and files with the TIFILES header. A "must" set of utilities if you own PC-Transfer. \$7.50 SS/SD

Identifile

Identifile is the first and only program available capable of cataloging a disk and telling you the user, what kind of files are there. Information as far as EA Utility, XB Program, Multiplan worksheet, Game file, etc are available. \$10.00, SS/SD

All of these prices have been negotiated directly with Mike Dodd. Outstanding orders with JP Software can not be handled under my distribution agreement with Mike Dodd.

Beery Miller
 11/5/91

Send your order directly to Textaments, 53 Center Street, Patchogue, NY 11772, Office: (516) 475-3480. BBS: (X16) 475-6463. Since we do not accept credit cards, all phone orders will be shipped on a C.O.D. basis only. C.O.D. orders will be shipped via UPS, and a \$4.25 service charge will be added to your order.

SHIPPING CHARGES

For domestic and Canadian delivery, please add the following shipping charge to your order:

More?
o Software: add \$3.25 per order.

For orders shipped outside of the United States (excluding Canada), please add the following delivery charge to your order:

o Software: add \$8.50 per order.

Prices, specifications, and availability of all products listed here are subject to change without notice.

Enter FOLLOW for related Message(s).

FORUM>Reply, Add, Read, "?" or Exit> follow
27811 11-NOV 13:44 Announcements & News
RE: Sound F/X Advertisement (Re: Msg 27794)
From: SSLICER
To: BBOONE

Just sent my order to Textaments today for Sound F/X and all 3 Sound Byte collections. Can't wait to hear them all!

Press RETURN for related Message(s).

FORUM>Reply, Add, Read, "?" or Exit>
27827 11-NOV 20:15 Announcements & News
RE: Sound F/X Advertisement (Re: Msg 27794)
From: JERRYCY
To: BBOONE

Thanks Barry - if you don't mind I will park this message as a file in TRADING post lib.

Jerry

FORUM>Reply, Add, Read, "?" or Exit> reply
To: [JERRYCY]

Subj: RE: Sound F/X Advertisement
Please enter your message below. Control-Z when Complete. /HELP for Help.
Saw Barry demo Sound F/X at Chicago -outstanding piece of software!!!. I bought it, as well as several extra diskettes of sounds/speech.
Can think of one application if this program were incorporated into a programmers package, one could add realistic sound effects to games, have a narrator talk to user's, to augment documentation. Imagine modifying Tunnels-Of-Doom or the Adventure Module, so one could write adventure games or TOO with real sound effects,(eg creaking doors, braking glass, shouts and screams, engine noises,etc,etc). Now if Barry could possibly modify or patch some software that can say utilize the cassette port as an input source and convert the input to a sound f/x format,(if it is feasible to digitize data from the cassette port), imagine the fun we might have.
-Steve

read 27794
27794 11-NOV 00:14 Announcements & News
Sound F/X Advertisement
From: BBOONE
To: ALL

The following is excerpted from Catalog No. E11 from Textaments:

SOUND F/X

Listen to your computer sing, talk, scream and even play music tracks! With Sound F/X you can play previously recorded audio files on a standard TI-99/4a or Geneve without any additional hardware! The most incredible software experience in TI history!

The most incredible thing happened in our labs... we discovered how to make a standard TI-99/4a and Geneve 9640 play true digital sound through your existing monitor, without requiring you to purchase any new hardware. We call our discovery Sound F/X. You'll call it "amazing". But we didn't stop there... taking our incredible breakthrough one step further we developed a vital link that would connect Sound F/X to the outside world. This development is a

More?
sophisticated utility that converts industry standard sound files originally recorded using IBM, Macintosh and Amiga personal computers into Sound F/X files. And it's included free with the Sound F/X program. Other features include a convenient disk cataloging utility, a variable playback speed control and a memory buffer report (varies with your installed equipment). Only \$14.95

Sound F/X is compatible with the TI-99/4a, Geneve 9640 and Myarc HFBC. The program automatically takes advantage of memory additional found in the Geneve 9640 the Memex card, 80 column devices, and the Supercart and Superspace modules. Operating requirements: TI-99/4a with 32k, disk system, and either an Extended BASIC, Editor/Assembler or TI-Writer module -- or -- Geneve 9640 with Extended BASIC, Editor/Assembler modules or Exec. Included with Sound F/X is a small sampling of Sound Bytes (recorded files for playback).

SOUND F/X SOUND BYTES

There are thousands of Sound F/X available world-wide, and they can typically be More?
obtained through user groups and online services such as CompuServe, GENie and local bulletin boards. If you prefer, you can purchase our own two disk Sound F/X Sound Bytes for only \$3.95 each.

Sound Bytes #1: Cartoons. This animated collection features Bart Simpson plus Twenty Bird, Porky Pig, Yosemite Sam and more. Sound Bytes #2: Science Fiction. Includes sound bytes from Star Trek, Star Wars, 2001: A Space Odyssey, plus more hi-tech stuff. Sound Bytes #3: Miscellaneous. Includes snippets such as Tarzan yodeling and Robin Williams screaming "Good Morning Vietnam".

SUPER SPECIAL: Order Sound F/X with all three Sound Byte Collections for only \$21.95, or all three Sound Byte Collections alone for just \$9.95.

PLACING YOUR ORDER

Orders may be placed by mail or by phone. When placing an order by mail, please be sure to include the following:
More?

- o A brief description and price of the items being shipped.
- o The address where the order is to be shipped.
- o Payment including proper shipping charges (foreign orders must be paid in U.S. funds drawn on a U.S. bank; International and Postal Money Orders are preferred forms of payment for foreign orders). Sorry, credit card orders are not accepted at this time.

this daunting task. You can earn bonus points by driving over specific areas, by picking up gas cans you find on your journey, and by colliding with other traffic when your protection shield is activated. High paced fun! For 1 or 2 players. Two skill levels. Requires joystick. Only \$12.95

ISLANDER AND CAR RACE

It's two games in one! In Islander you've landed on a deserted island... or so it seemed. Suddenly hordes of natives come out to attack you. If you don't shoot them down they're going to have you for dinner! An exciting shoot-em-up action game. For 1 or 2 players. Two skill levels. Requires joystick. In Car Race you must use your powers of math, English and quick reflexes to succeed in this game. Answer questions in this educational romp to keep moving. For 1 player. Three skill levels. Requires joystick. Both games for only \$9.95

SUBMARINE REVENGE

You must attack the outpost at the bottom of the sea, commanded by your most feared enemy, Mordred. But your task will be anything but easy... you must avoid being destroyed by depth charges, torpedoes, enemy subs and other deadly weapons. And if you don't keep moving, the enemy base will get a lock on your position and destroy you with a smart bomb! For 1 or 2 players. Two skill levels. Requires joystick. Only \$12.95

SEA TERROR

Eureka! You have just discovered a hidden treasure at the bottom of the sea. But there is one small problem... you must reach the bottom of the ocean to claim it. Sound simple? It would be, except directly below you is a school of man-eating piranhas, great white sharks, killer jelly fish and more horrible hazards. To make matters worse, you only have your deep sea shooter to protect you. However, "grave" is your middle name, so you strap on your sea gear and take the plunge. Yikes! The piranhas have found you, and here comes the shark... 1 or 2 players. Two skill levels. Requires joystick. Only \$12.95

SUPER GAME SPECIAL!

Order any 2 games for only \$22.95, any 3 games for only \$35.95, any 4 games for only \$48.95, or get all 9 games for only \$79.95!

PLACING YOUR ORDER

Orders may be placed by mail or by phone. When placing an order by mail, please be sure to include the following:

- o A brief description and price of the items being shipped.
- o The address where the order is to be shipped.
- o Payment including proper shipping charges (foreign orders must be paid in U.S. funds drawn on a U.S. bank; International and Postal Money Orders are preferred forms of payment for foreign orders). Sorry, credit card orders are not accepted at this time.

Send your order directly to Texaments, 53 Center Street, Patchogue, NY 11772. Office: (516) 475-3480. BBS: (216) 475-6463. Since we do not accept credit cards, all phone orders will be shipped on a C.O.D. basis only. C.O.D. orders will be shipped via UPS, and a \$4.25 service charge will be added to your order.

SHIPPING CHARGES

For domestic and Canadian delivery, please add the following shipping charge to your order:

- o Software: add \$3.25 per order.

This file should be called "9640GAMES" on your computer.

The following is excerpted from Catalog No. E11 from Texaments:

GENEVE GAMES

Texaments is proud to introduce the first array of games ever developed exclusively for the Geneve 9640 computer system.

Please Note: All of the games listed here were developed for the Geneve 9640 they will not operate on the TI/99/4a. Each game runs directly from M-DOS, as all Geneve specific software should.

SPACE CHAMPIONS

Take your advanced 21st century spaceship through missile zones, asteroid belts, attacking enemy ships and more, while capturing fuel to keep your ship flying. Negotiate treacherous space tunnels as you travel toward your final battle with the mother of all enemy ships. For 1 or 2 players. Two skill levels. Requires joystick. Only \$12.95

CAVE EXPLORER

Locked in a twisted series of tunnels and caverns you need to find the secret key that will unlock the only door to freedom. During your search you will do battle with gruesome monsters. But don't take too long or you could run out of air and die. Read your hidden map to find the exit door, monster locations and more. For 1 or 2 players. Two skill levels. Requires joystick. Only \$12.95

TRAIN TWISTER

The gremlins are out... and they're moving sections of railroad tracks away from your train hoping that you will crash. You have to act quickly and move the tracks back in front of your train before running out of track at every turn. If that's not enough, your train must compete with other trains for the same track - increasing your chance of disaster. And unless you hurry, impatient passengers are going to take their business to the airlines unless you arrive on-time. A high-paced action puzzle that will drive you nuts! For 1 or 2 players. Two skill levels. Requires joystick. Only \$12.95

TIME GUARDIAN

You are the captain of the Starship Chitzix (the closest English translation). Invaders from another time are trying to take over our universe by crossing a time tunnel. You, the only ship in the entire quadrant, have been assigned to guard the time tunnel until the reinforcements arrive. Can you destroy the invaders while they're still vulnerable in the time tunnel? Or is the universe doomed? For 1 or 2 players. Two skill levels. Requires joystick. Only \$12.95

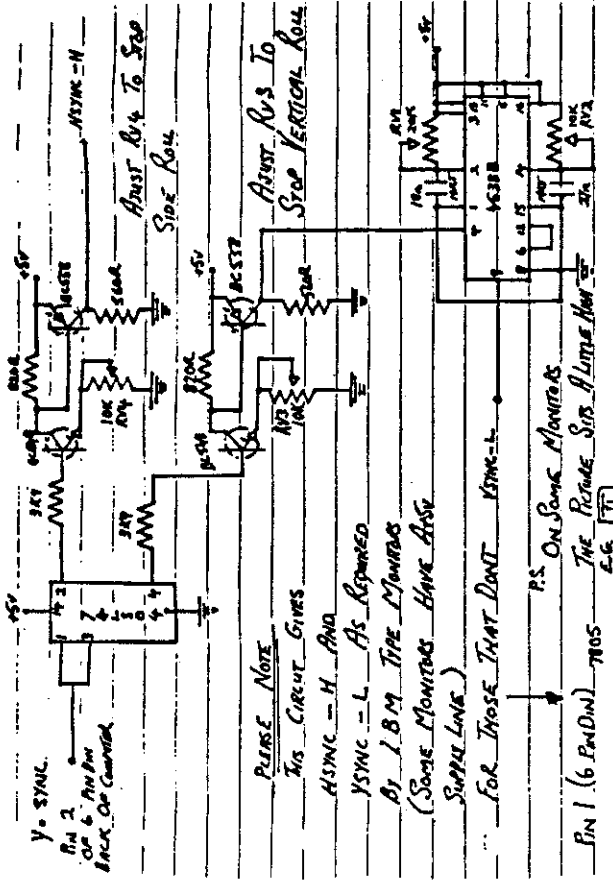
JUNGLE TERROR

Look out! The worms are out to get you! In this fast, colorful and exciting high speed game you must control the white Jungler Worm so it can attack and destroy red, yellow and green worms. If you don't act quickly the Jungler Worm is doomed! Excellent arcade action! For 1 or 2 players. Two skill levels. Requires joystick. Only \$14.95

TRAFFIC FRENZY

If you hate traffic jams you're going to hate this game! You alone must drive over and cross every city street without crashing into other cars, roadblocks or the dreaded steamroller. If that's not enough to send you to the rubber room, the steamroller erases your hard work while you're trying to accomplish

(Adjust Rv1 And Rv2 First)



IF NOT ADJUST CAREFULLY UNTIL IT DOES
NOTE IF PICTURE IS BROKEN eg.
WHEN ADJUSTING Rv1 AND Rv2 YOU
MAY HAVE TO VERY CAREFULLY RETURN
Rv4 TO STOP PICTURE BREAK-UP

IF YOU FEEL THAT YOU DON'T WISH TO BUILD THIS FOR WHATEVER REASON, I
HAVE READY MADE BOARDS COMPLETED, READY TO SUIT MONITORS, AT \$12 EACH
WITHOUT REGULATOR OR S/G WITH REGULATOR.
ALSO, READY MADE ANALOG RGB INTERFACE TO SUIT A NUMBER OF MONITORS.
INTERFACES TO SUIT EOA OR EGA MONITORS CAN BE SUPPLIED AT AROUND \$65,
PROVIDING I HAVE A MINIMUM ORDER OF 10.
WHEN ADJUSTING THE SYNC CIRCUIT, PLEASE TAKE CARE AS CORRECT POSITION
IS CRITICAL.
THE CIRCUIT SHOWN DOES WORK AS I AM USING ONE ON MY A/A, RUNNING A
VERY HIGH RES. EGA TYPE MONITOR. THE DEFINITION AND COLOUR ARE
GREAT! and with no hash up. Well lets turn the tap off on this topic
and put the plug back in the sink, and it should hold water.
I WOULD LIKE TO THANK ALBERT ANDERSON OF HUNTER VALLEY YEARS FOR HIS
VERY HELPFUL AND PROMPT REPLY TO MY INQUIRY REGARDING EPROM
PROGRAMMERS. THANK YOU ALBERT. I WILL WRITE LATER AS SOON AS I CAN
CRAWL OUT FROM UNDER ALL MY MESS.

DO YOU HAVE PLUGGABLE

BY COLIN CARMICHAEL

Well Fred (this may seem like a strange way to start an article, but I think lateral not logic!). I have finally got around to putting some words to paper. Really, this story is for all, but Fred has been asking me for about nine months to put some of my thoughts to paper. Well this is easier said than done, as my thoughts are a bit like my work room!!!! (I'll leave that to your imagination).

You may well wonder what the title of this article has got to do with computers, well the SYNC tells all, "plughole", nothing as far as I know!! I decided that this "SYNC" might just be useful to a few people (are you reading this Paul?). I have had quite a few people ask me why they can't get their monitor to work using the sink separator circuits that have been published in earlier I.I. newsletters. Well I'm not going to go into the reasons why, technical or otherwise, as the ones that can't make it work don't really want to know why it doesn't. What they want to know is how to make it work (interesting thought), so here is how. Don't ask why, because unless you know a fair bit about electronics, you won't understand and if you think you do know all about electronics then you don't need to ask why or how it works! Just for the record, analog is by far better for the A/A than TTL and for those that have a colour monitor that requires TTL, RGBI, they can be converted to analog. The SYNC, well that's another story. Anyway, below I will solve the SYNC saga for you.

RGB Monitor Interface for the T199/4A

by Peter Schubert, TisHUG

For those of you who have a RGB colour monitor, or would consider getting one, I have just finished building and testing an RGB interface board that plugs into the standard console and provides outputs for an Analog RCP monitor. It is powered from the 12 volt from the regulator socket, and is simple to build using common transistors (8 off) and resistors. It has adjustable resistors for setting colour saturation and balance. Also included is a simple single chip sound amplifier with volume control. A Printed Circuit Board has been made by club member Leo Gorniak and for details on availability, contact club Director Cyril Bohlsen. This PCB can be mounted into a small plastic box with the 3 inch speaker, or directly inside the Console or Monitor.

This design is based on an idea from a Japanese article by N. Shibuva, circa 1982. It has very good colour purity, and in its present form gives truly exceptional performance, which you will have to see for yourself.

Circuit diagram

Figure 1 shows the complete circuit of the RGB Board. Some monitors may not handle the 'Y' signal from the console directly as was done in this design, and as it is not buffered you will have to remove the 75 ohm termination from the SYNC input of the monitor, as this load is too high for the console video chip output. Figure 2 shows an optional buffer stage that can be added if needed. It requires a 5 volt supply which must be well regulated, and because it must drive a 75 ohm load will draw more current from the console 12 volt than is desired. This is one reason why I did not use it, because it is the 12 volt regulator in the console that makes the console hot.

Adjustment procedure
Adjust the following potentiometers for colour saturation on Primary Colours:

- VR1 - GREEN
- VR3 - BLUE
- VR5 - RED

Start with all three potentiometers fully clockwise (minimum colour) and slowly turn each anti-clockwise to get the colour. Adjust VR2 and VR4 for purity of secondary colours, in particular CYAN and MAGENTA. It may be necessary to repeat the adjustment procedure to obtain true white and grey.

Note: If your monitor has a 75 ohm termination on the SYNC input, this must be removed by opening monitor and cutting out this resistor. (Unless Figure 2 buffer amplifier is used).

continued on page 18

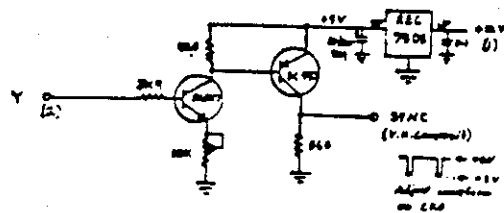
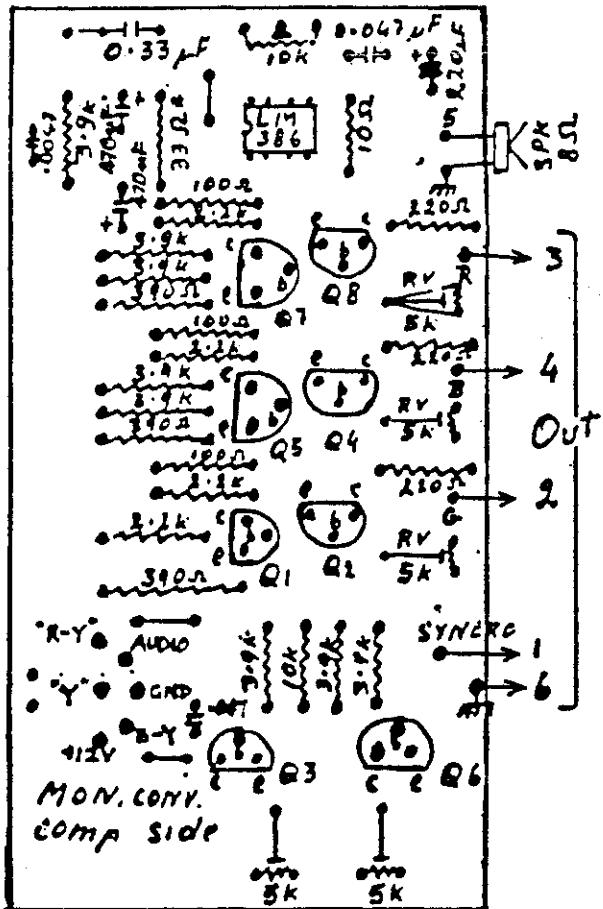
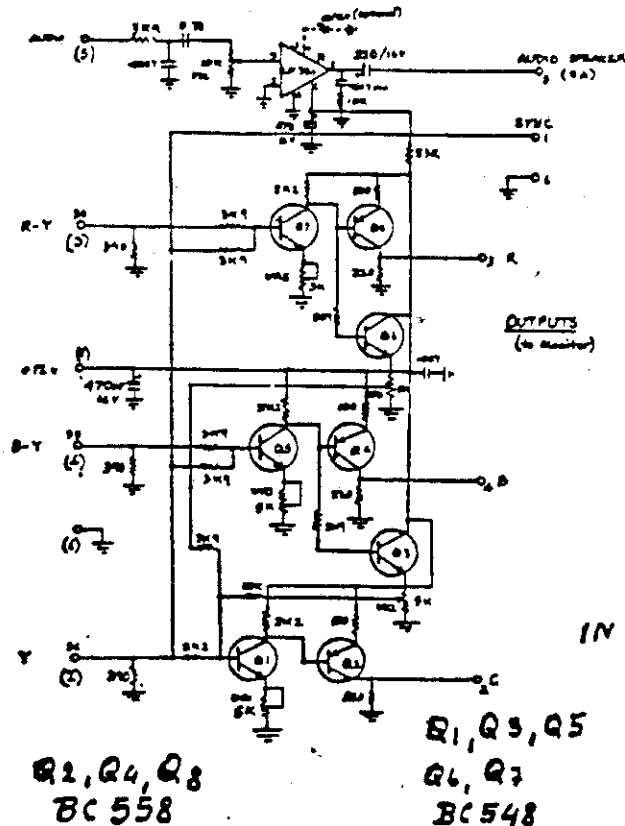


FIG. 2

T1-99 RGB INTERFACE (Analog)

12V to (from Console)

12-1-1988 P. Schubert

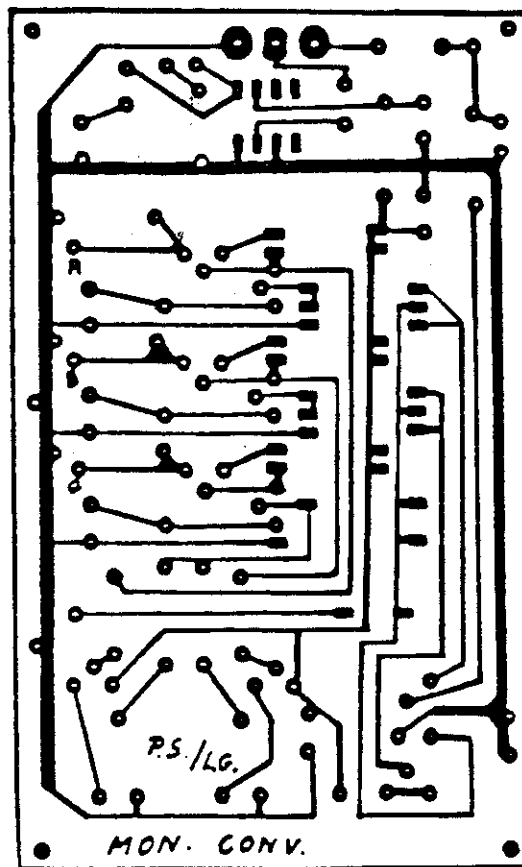


RGB MONITOR INTERFACE (CONT. FROM P. 17)

PARTS LIST

QTY.	DISCRIPTION	
5	BC547,548	TRANS. (NPN) Q1,3,5,6,7
3	BC557,558	TRANS. (PNP) Q2,4,8
1	LM386	SOUND IC (OPTIONAL)
1	3" SPEAKER	8 OHM
5	5K OHM TRIMPOT	MINIATURE
1	10K VOL. CONT.	POTENTIOMETER
2	470 MFD 16V.	ELECTROLYTIC CAPACITOR
1	220 MFD 16V.	ELECTROLYTIC CAPACITOR
1	0.33 MFD 25V.	CAPACITOR
2	0.047 MFD 25V.	CAPACITOR
1	0.0047 MFD	CERAMIC CAPACITOR
1	10 OHM 1/2 WATT	RESISTOR
1	33 OHM 1/2 WATT	RESISTOR
3	100 OHM 1/2 WATT	RESISTOR
3	220 OHM 1/2 WATT	RESISTOR
3	390 OHM 1/2 WATT	RESISTOR
4	2.2K OHM 1/2 WATT	RESISTOR
11	3.9K OHM 1/2 WATT	RESISTOR
1	10K OHM 1/2 WATT	RESISTOR

TO THE RIGHT YOU WILL FIND A POSITIVE FOR ETCHING PURPOSES. THE BOARD WILL BE OF COURSE A SINGLE SIDED UNIT WHICH WILL MAKE CONSTRUCTION EASIER. GOOD LUCK! J.F.W.



FOR SALE

ALL TI EQUIPMENT, 1) AMDEK COLOR I MONITOR 2) CONSOLE 3) PEB w/32K CARD AND AN AC POWER STRIP. WILL SELL ALL FOR \$200. OR IN PIECES. CONTACT ERIC ZENO (412) 371-4779

FOR SALE

CONSOLE , SPEECH SYNTHESIZER, AND VARIOUS MODULES, CALL FRANK FOSTER (412) 238-7532

WANTED

TI DISK CONTROLLER WORKING. WILLING TO PAY AROUND \$35. CALL PAUL BROCK (412) 478-2754

FOR SALE

1- BOX-CAR STAND-ALONE RS232/PIO UNIT LIKE NEW, ASKING \$50., 1- TI RS232/PIO PEB CARD, ASKING \$55., 1- PANASONIC CASSETTE RECORDER/PLAYER (RECOMMENDED BY TI) ASKING \$20., 1- SPEECH SYNTHESIZER VERY GOOD SHAPE ASKING \$25., I'VE BEEN SAVING TOO MUCH, AND MUST CUT BACK IN THE EXCESS EQUIPMENT I HAVE. CONTACT JOHN WILLFORTH AFTER 9 PM (412) 527-6656.

TALKING TYPEWRITER

FROM THE JUNE ISSUE OF MICROPENDIUM COMES THIS VERY USEFUL PROGRAM FOR THE VERY YOUNG IN THE FAMILY OR IN THE SCHOOL TO HELP THEM LEARN THE ALPHABET. CONTRIBUTED BY ELAINE CHAN PH.D OF SEATTLE WA.

EXTENDED BASIC VERSION DISPLAYS A KEY DEPRESSED IN DOUBLE-SIZED IMAGE IN THE CENTER OF THE SCREEN AND SAYS THE LETTER.

100 REM TALKING TYPEWRITER, E

XTENDED BASIC REQUIRED

110 CALL CLEAR

120 CALL KEY(O,K,S)

130 IF S=0 THEN 120

140 IF K>90 THEN 120

150 IF K<65 THEN 120

161 CALL CLEAR

162 CALL SPRITE(#1,K,2,85,120)

164 CALL MAGNIFY(2)

170 CALL SAY(CHR\$(K))

180 GOTO 120

IF YOU WISH TO USE A TE-II CARTRIDGE INSTEAD OF EXTENDED BASIC, THEN REMOVE LINES 162,164, AND 170 AND INSERT :

165 CALL HCHAR(12,14,K)
105 OPEN #1:"SPEECH",OUTPUT
170 PRINT #1: CHR\$(K)