ISSUE #100
FOR THE RECORD

by Frank N. Zic

Someone started the December meeting at 6:59 PM. As a reverse action, the entire group thanked that someone for holding the meeting on such short notice. The night was cold with sleet and wind blowing and we were outside because they changed the locks. Luckily, Bob knew where the custodian lived and quickly dispatched the keys. I thought I could hear faint gingle bells as he drove up through the pine trees. After explaining how Mickey had to work in the toy department and that Norm was out of state, I passed on to the group their warm best wishes for a healthy and happy holiday season. I next asked who would take notes. After a few moments of silence I made everyone happy by revealing that I would use my meeting notes as the minutes. I figured, since I was going to collect Mickey's salary and Christmas bonus anyway I could easily afford to take the minutes. Well enough frivolity, down to business.

Thanks were given to John Whelan for taking over the disk library, to Ralph Vasco for his editorial prowess, to Lynn and Art Gardner for their fine efforts every meeting (BTY, Lynn, the holiday cake roll was very good) and to Bob Sadusky for the Pizza at the November meeting. Ralph brought in a special train and we all gathered behind it and Art took our picture, he really wanted to take this particular picture for some strange reason. Next we heard reports from Lynn on our finances, from Art on supplies, from Ralph on the Newsletter and myself on the BBS system. Next Joe Ekl reported on the individual pictures he took at our last meeting. He said he would enclose them and add any new pictures as members attended. We all were pleased to see Robby Ekl at the meeting. He said he was doing well in college and was playing several sports. In Norm Rokke's absence it is suggested that we all read the November issue of MICROpendium throughly from cover to cover. How's that cover it Norm? Lynn reminded all that 1994 dues should be paid.

I told several jokes that went over rather well and then demoed parts of Superdisk and showed a French version of Runner. Due to circumstances, we didn't have either a raffle or receive an annual holiday disk. For these and many other affectionate reasons we eagerly await your return next month, Mickey. From all of us at the meeting to all our members that could not attend and to all the TI community, we wish you and yours a Healthy and Very Happy Holiday Season. May the good 4's be with you.

JIM PETERSON

obituary

"THE TIGERCUB" died unexpectedly on January 12, 1994. He went out to get his morning newspaper, sat down in a chair to read, and never got up.

Jim Peterson was known to many 99/4A users as a newsletter columnist (Tips from the Tigercub), a MASTER Extended Basic programmer, and the organizer of a fantastic and inexpensive library of public domain 99/4A software.

He usually attended the annual Lima MUG Conference and can be seen in the video record of many of these conferences.

His most recent contribution to the TI Community is a "Microreview" in the January 1994 issue of Micropendium.

Jim's family indicates that his business (Tigercub Software) will be closed and discussions are underway with his local user group (C.O.N.N.I.) concerning the business assets which consist of disks from his public domain catalog.

The February issue of the C.O.N.N.I. newsletter will be a memorial issue in his memory.

Speaking on behalf of myself, (Mickey Cendrowski) and the rest of the TI Community - "Gentleman" Jim Peterson is a man who will be greatly missed!

More than once, Jim's articles have been an inspiration to me, (and for those times, I am most greatful).

With so many of our fellow TI'ers leaving the TI Community these days it was always nice to know that Jim continued to remain steadfast in his efforts of keeping the TI alive and interesting for all of us.

On behalf of all, (those that have already left the TI Community and those that have remained) THANK YOU JIM! for all you have given us. We will miss you dearly.

GENERAL ITINERARY OF THE CLUB'S MEETING

Time	Activity
6:45 P.M.	DOORS OPEN
7:00 P.M.	GENERAL MEETING
7:45 P.M.	DEMOS AND NEW INFO
9:45 P.M.	ONE ON ONE HELP
9:45 P.M.	SOCIALIZING
11:00 P.M.	DOORS CLOSE

MEETING HIGHLIGHTS FOR THIS MONTH

LATEST T.I. NEWS AND SOFTWARE DISCOUNTS

NEW SOFTWARE FOR SALE - GENEALOGY PLUS!

ADVENTURE DATA BASE - DEMO BY MICKEY

REMINDERS! - DEMO BY MICKEY CENDROWSKI

BRUCE HARRISON'S XBASIC COMPILER - DEMO

WEST PENN 99'ERS "ATTENDANCE INCENTIVE"

RENEW YOUR MEMBERSHIP DUES!

$15.00 PER YEAR FOR INDIVIDUAL / FAMILY
$10.00 PER YEAR FOR ONLY OUR NEWSLETTER

A REVIEW of PAGE PRO CATALOGER

During the Christmas break, I sent away for two new pieces of software. One was PAGE PRO CATALOGER by Norman Rokke and sold by MS EXPRESS Software and the other is the PC99 programme for the TI 99 emulation on the IBM.

MS Express sent me the Page Pro Cataloger very quickly and I had it by the first week of January. This was excellent service. They even sent me the software despite the fact that I did not send in the Shipping and Handling charge. Of course, they billed me for that and hope that I will be paying. Of course I will. But I will be ordering the GENEALOGY PLUS programme so I can kill two birds with one stone.

This will be a quick review of PAGE PRO CATALOGER.

Originally, I found out about this programme in the Jan. 1993 edition of MICROpendium. It had received RAVE reviews and it sounded like something that I could put to work immediately. And I did.

I even read the book before running the programme, but I doubt that this is really necessary; the programme is very easy to figure out.

Page Pro Cataloger (PPC) is menu driven and runs from Ex-Basic and requires 32K and at least 1 disk drive. Of course, I ran the programme from the Horizon Menu loader and it would NOT work properly. It was necessary to run it AWAY from the HORIZON MENU (version 8.14F) since there are some routines that must collide with the Horizon DSR. It will NOT catalog any Horizon Drives ! This is too bad since I keep some files on them for constant use. Dare I say that we still need a BETTER DSR for the Horizon ? Don't forget that I am using the MYARC Floppy disk controller and it usually runs MOST programmes.

What does the PPC do ?

It gives you a HARD COPY of ANY and ALL of the Page Pro files that you have on a disk: small

/ >FONTS :- large \
line

>PICTURES

>BORDERS

>PAGES

>TEXT files (imported files to the page)

The print outs for the FONTS include EVERY character in the proper size. This is very handy.

Since I don't have BORDERS, I can't comment on them.

The PICTURES were my main interest. It will print out the pictures from a disk in either CROPPED or FULL SIZE format. I prefer the cropped for most small pics.

The catalog that you get is nicely organized with a FILE TYPE LISTING on the first page. The printing is in low res, but that's OK since you don't need to wear out a ribbon.

I guess that there is a fair amount of Assembly Language hidden in the low memory of the programme (it's mainly Ex-Basic) since the printing goes VERY FAST when compared to Page Pro itself.

Each picture has its NAME and SIZE (Rows and Columns) printed with it. Pagination is done for you so that it runs without having to watch it (it skips over the perf and prints the max. number it can for a page).

The Pics are printed alphabetically as you might expect. What I realized was that there are a lot of useless pics that I have save over the years. Now I can see exactly which ones that I want to remove.

When the printing finishes you can make the pages into a neat 'little' (depending on how many pics there are) booklet.

The printing of the PAGES proved to be a problem. The reason for this was that my FONT files were on drive \ which the programme can't access. This is a real problem to fix but can be done using a Disk File Utility like DSKU. However, I gave it up since I really did NOT need the page print-outs or the TEXT print-outs. However, you should be aware that to print out something from a PAGE PRO PAGE you need to have access to ALL of the PICS that are on it and ALL of the FONT files (lines, small and large) before you will get a print out. And these files must be on the write drives and NOT on a ram disk.

Overall, this is an excellent programme despite the inability to use that Horizon Ram disk. Norman Rokke has done a great job and MS Express markets it nicely. I guess that it's called MS EXPRESS because they're F A S T !

Documentation is done in the standard 8 1/2 x 5 1/2 " booklet form. I always like this format, since it fits under my monitor nicely. As I said earlier, you don't need to read much since the programme is VERY USER FRIENDLY. The actual documentation is not as well done, but what the heck, the programme is easy. Someone, unfortunately forgot the page numbers at the bottom of each page.

Cost is $14.95 PLUS $2.00 shipping and handling (US funds of course). Order from:

MS EXPRESS SOFTWARE
P.O.Box 490
RICHMOND, OHIO
43944

An EXCELLENT PROGRAMME for anyone using PAGE PRO !
Tom (Jan 1994)

Asgard Changeover

In a previous newsletter, you were informed of the changes at Asgard. Below is Harry Brashear's letter published in MICROpendium, Nov. 1993. Some of you who are programmers may find it informative; others will still find it of interest:

This letter is to inform MICROpendium and the TI community that as of Nov.11 I have become the sole owner of Asgard Software. That is to say, I will be the manufacturer and distributor of all DISK software previously distributed by Asgard Software, previously in Rockville, Maryland, and later in Woodbridge, Virginia. Asgard Peripherals will maintain responsibility for all hardware oriented products of the TI such as cartridges, memory devices and mice. Repeating, I will be sharing the Asgard name, but will be responsible for DISK products ONLY.

I intend to drop a few older products, add some new ones in the coming months (including some surprises) and give this community the best service I possibly can. As you know, I have been working for Asgard for the past two years and have come to know the needs of the community pretty well, primarily the need for timely mailing of the products purchased. I have accomplished this, within reason, for the past two years and expect to continue for some years to come.

The following are some personal resolves and comments:
1. New products for the future that exceed the capacity of single-sided, single density disks will be manufactured on DOUBLE-sided, single density disks. There is no excuse for the members of the TI community today not to have this capacity. Certainly not when you can pick up DSDD drives for as low as $5 apiece.
2. I intend to try to put our mice to work. There have been hundreds sold, but to date the number of programs that use these little buggers can be counted on one hand. I hope to remedy this in the near future.
3. I will be cooperative with the entire community of hardware and software producers. I have stayed out of all the wars that have occurred over the years and will continue to do so. The only possible exception to this are concerns over the 9640 and related products. I have never considered the 9640 a TI in any way, shape or form. I will NOT beat my brains out trying to make our software work with these units, nor will I go out of my way to make our programs hostile to it. New products will be sent to the 9640 News to see if they were with the GEneve and it will be up to them to recommend or reject said products for the Geneve 9640 community.
4. I will be looking for new programmers and products immediately. If you want a project to program, or have a completed one lying around with nothing to do, please drop me a line to the address below. Assembly programmers only, please.
5. My phone number is (716)778-9104. I am available every day from noon to 9 p.m.(except Sunday or when Star Trek or DS9 is on. Tuesday is also iffy because I go to school on that day.) The phone is answered "Frontier Microfilm", my other company and the one with which I pay the bills. I WILL NOT return long distance phone calls if I am not here, but the phone will be answered by a human being - my wife or one of my adult offspring - leave a message of your needs and I will try to take care of you. Your message must be concise, complete and presented in a loud voice; otherwise, you're on your own <grin>.Also, allow me to repeat, I cannot answer questions concerning Asgard hardware or cartridge products.
6. There will be NO credit card orders. CODs will go via UPS, which costs dearly - you'd better want it awfully bad.
7. Finally, I will be looking to add to my dealer base, but be advised, some stringent rules will apply to these dealers. If your group is interested, let me know; I'll send details.

I will be looking forward to your support to help guarantee continued success for our computer. All future orders for Asgard Software (DISK only) should be sent to: Harry Thomas Brashear, 2753 Main St., Newfane,NY 14108.

Hardware and cartridge orders should go to: Asgard Peripherals, 1423 Flagship Dr., Woodbridge, VA 22192.

Harry T. Brashear
Newfane, New York

TI WRITER SURPRISE

By Frank W. Aylstock

Since I won the Laser Printer at the 1993 FEST WEST NORTH , I have been playing with TI-WRITER and have tried some of the forgotten uses that our benefactor(Texas Instruments) had incorporated in the program. This is a tale of one of these facets of the program which I feel many of us may have over looked.

I was printing out another copy of a DISK I had received from the Chicago USers group which contained a collection of there newsletter articles that had been written by KROM DOME about the Geneve.

I would mention that this is a good tutorial and a story of how a geneve user suffered and worked out the problems. It also is a good example of how to create an autoexec file with a menu. I first printed out the articles one at a time and ended up with a collection of 150 pages. This caused me to look at the problem of reducing the paper work.

I figured that the only way would be to print on each side of each page.

ANSWER::

I created an INCLUDE FILE to set up the FI,AD and all of the other printer commands. This would allow the pages to look alike , but I had to go to each file and strip them of all printer commands which had come with the disk. I then renamed the files and added their name to the INCLUDE FILE per example.

(.FI;AD;LM8;RM70;PL60)

(.FO   PAGE %)

.IF FILE1

.IF FILE2

ETC.   Until all of the files have been

renamed. I believe most of the users know how to us INCLUDE FILES.

Now I went in and place a PAGE BREAK (BP) at the end of each file.
Next when in the FORMAT phase you are asked which page? Your answer would be 1,3,5,7,9 ETC. instead of accepting the default A(all). You can do 5 to 10 pages with little trouble, but the buffer can only hold so much, so I only did a few pages at a time.

The big item here for those with tractor feed is after you have printed the ODD pages the turn the paper over and feed it in with the EVEN numbers.

When you get up to the later pages it takes time for the computer to load the programs,figure where each page ends, which page to print, etc.

This all can be done with tractor feed paper and/or single sheet. With the single sheet you can also put the numbers of the pages in consecutive order and state that you wish to PAUSE at the end of each page. Then feed each page in and then turn it over to print the next side.

The reasoning in doing both sides of the page is to reduce the number of pages you have to have in your DOC FILES.

I appreciate the extensive docs that have come with many of the latest programs such as DM-1000 VER.6. Funnelweb VER. 4.4 OR 5.

I like the more extensive docs as I feel like they are explaining ever detail to make the program more user friendly and to explain in detail the use of its many built in functions.

We have in the past have had skimpy docs that left a lot to be desired.

I hope that you understand this as again I am doing the same thing, skimpy docs.

An Open Letter To All TI User Groups - A Crisis ???

Are We Finally Coming To The End Of The Line?

When Texas Instruments dumped us ten years ago, our groups had a massive membership increase, as over a million owners out there, with probably the finest computer on the market, suddenly found themselves orphans, and feeling lost, sought whatever help or solace available. Gradually, over the years, this number, slowly but surely, began to evaporate, as people who couldn't handle computers turned to other pursuits, while many of those that could, upgraded to state-of-the-art PC's. During these last few years however, this unfortunate erosion seems to be accelerating. Every month or so another of the top-line groups bites the dust.

Combining PC's With TI's Marks The Beginning Of The End!

Many groups think that, since so many from their group are turning to PC's, allowing PC's into their group would help keep the group alive and kicking. Unfortunately, the direct opposite results, as the PC's gradually take over, and the TI's disappear. Let's face it. With megs of memory, gigabytes of hard drives and Super VGA graphics, how could our little TI's compete? The programs available for the PC's take advantage of all these capabilities and make our TI programs pale in comparison. If a group is to demonstrate PC and TI programs at the same meeting, the TI demonstrators soon slink away while the PC's demonstrators do their hard-sell for their computers. Is it any wonder then that the group soon loses its TI identity?

What Advantages Do Our Little Computers Have?

Many users switch to PC's to gain all those above mentioned advantages, to run all those fantastic superprograms available on the PC's. But somehow, for some strange reason, there just doesn't seem to be that much fun anymore. Why is that? Look at the people in the PC groups. If 2% of them have ever done any programming of any sort, it would be extremely rare, while over in our TI groups, 80 to 90% have gotten their feet wet doing at least some programming. Face it. The TI is easy to program. That's why so many have tried it. That's perhaps also why programmers for the TI have always had a harder time trying to make money at it. Our basic little computer has sound, colors, speech, music and sprites. Even the latest state-of-the-art PC's can't do all that. Their machine language can produce sprite-like action, but extra cards are necessary to produce sounds, colors or speech: things we normally take for granted.

What Can We Do To Survive?   Is There Still A Chance?

First of all, we must recognize that we are something different. Then we must hold on to that difference. Keep our individuality. It is most essential to keep our TI groups strictly TI! Here in Milwaukee, we have formed a PC home computer user group from members of our TI group, open to other PC users, but strictly separated from our TI group, with its own meetings, officers, treasury, library etc. The only contact is through the members of both groups, at computer fairs and swap meets.
Keep your group alive, even if you're down to a half dozen members and have to meet at some member's house each month. Look and advertise for new members continually. All those computers that TI built are still out there. Someone has them and perhaps may be still using them. Those little buggers were built tough and just refuse to break down. We have meetings twice a month, on a Saturday afternoon and a Tuesday evening to accomodate members who can't make one or the other.
Get as many members as possible to subscribe to MICROpendium. It's the only commercial publication carrying information about our TI. If enough members subscribe, you can have them delivered at the reduced bulk rate.
Publish and exchange newsletters with as many other user groups as financially possible. These are a another great source of information. If this is not possible because of lack of funds, articles to print or volunteers to do the work, then at least have each member become a member of some other group just in order to obtain their newsletter.
Make your meetings as interesting, informative, inviting and user friendly as you can. Besides our annual Fair, we hold a swap meet each year and a hardware project meeting. We've installed the extended basic cartridge in our consoles one year, built external power supplies for disk drives and this year added a fancy music board. An article with accompanying diagrams of it will be featured in an upcoming newsletter. Since our group is stressing the social aspects of the group, we hold a Christmas party every year, a picnic every summer, and occassionally throw a surprize pizza party. We also don't send out newsletters to members unless requested with extra charge, as an added incentive to get the members to attend. A disk-of-the-month featuring new, updated programs or old forgotten classics, is another meeting drawing card.

INTERESTING MEMORIES

I mean the kind in our computers. The TI Console memory has 16,000 (16K) bytes. With one byte needed for a letter or number, 16K is equivalent to about 10 typed pages. That's a bunch! This is random access memory (RAM), meaning that you can "write" into this memory program instructions and data from the keyboard and later "read" them back to do the job you planned in your program. My first TI use was a challenge: To compute water surface flood levels in small streams like First Creek in Knoxville or the great big TVA reservoirs of the Tennessee River. It was done with the help of a small cassette recorder. Yes-sir-ee, a lot can be done with 16K and the internal powers of the TI 99/4A! These internals don't need our understanding, but they sure do deserve our respect!!

Right here at the start other memory requires our attention, because pushing the 'off switch' erases that pretty flood profile program, or the one for car expenses, or mortage payments, or the household inventory. These need a more permanent memory. Cassette tape provides permanent storage for programs, data, and answers but it is S L O W ! !

So most of us have spent some of our savings for a diskette system. This needs a periferal box to contain a disk drive, a disk controller, and in the process a 32K memory expansion. Maybe you borrowed from your Credit Union to get this far. If so, borrow a little more and get two disk drives.

Now you're in high cotton! Utopia!! Not for long. You need to load Funnelweb for some word processing, then must flip back to Basic for some computing, and then to TI Artist for decorations. Funnelweb takes 30 seconds to load. TI Artist takes lots longer. Impatience! So here comes RAM DISK. Myarc and Corcomp both make them in sizes to 512K. But size isn't their main virtue. Speed is their game. It is 10 times faster than disk. With Funnelweb stored on RAM DISK this word processor is ready with Editor up in 3 seconds!

But whoa! Again, turning off the computer empties RAM. I have an adapter plugged into mine to keep it alive. It works until KUB power goes off or I accidentally pull the plug. RAM DISK is not for permanent storage.

E. M. Smith thought he had the answer. His Horizon Ramdisk has rechargeable battery back-up. Batteries charge while the computer runs and batteries will last for years. Trouble, one charge barely lasts overnight.

All of the above to get to my main purpose. Latest I've heard about is the GRAND RAM. It has up to 512K and as many as four can be inserted into the P-Box. That totals over 2 Megabytes. Each GRAND RAM can simulate 4 disk drives. And GRAND RAM, it is said in the advertisement, is battery backed to eliminate data lose.

All memories seem to have draw-backs. What may be wrong with GRAND RAM? Really I'm glad I don't know yet. Hence Suspense! Maybe you'll look foreward to an answer in the next news letter in KINDER- KORNER. B.B.

TINKERER'S BENCH

By Frank Frankenberger

SPEECH IN THE CONSOLE

First we need to define TINKERER. According to Webster "to TINKER is to repair, adjust or work with something in an unskilled or experimental manner". This is me to a T, and I just hope to be able to pass along some helpful information to anyone who wants it.

Before we go any further I want to print this disclaimer: This modification is intended for the hobbyist. Anyone who decides to attempt this, does so at their own risk. I have successfully done this mod using this article as my guide. Please be sure you understand all the steps before you plunge into it.

My first project is to put the Speech Synthesizer inside the console. With the price of the Speech Synthesizers down to something we can all afford most of us have a spare and since I had a couple of them I decided to play around a bit and see if I could insert it right into my console. I remembered seeing an article about this somewhere but I didn't know where. It took me a couple of months of looking but I found it in the Jan 1986 Syndey News Digest's newsletter. The original article was written by Peter Schubert. This will be the first in a series of different plans, projects, mods, and what ever. I hope you will enjoy them as much as I will enjoy bringing them to you. I did this simple mod myself. It took me a few weeks of tinkering and I had to re-solder the connections because it didn't work right the first time. However, the second time was a charm and it is working great. So if we are all ready let's plug in the iron and go to work.

The first thing you must do is to remove the pc board from the case. This is very simple and you don't even have to be very careful because we are not going to save any of the nuts, bolts, or the metal shielding. After you have the pc board out you must remove the female I/O port connector. Use a low-wattage soldering iron (15 to 40 watts) to heat up each connection and then separate it from the board with a small screwdriver. Do this to each of the 44 connections, being careful to do only one at a time and not damage any other circuits as you work with the soldering iron. After you have de-soldered and removed the 44 contacts the plug should just fall right off, if not, gently rock it back and forth or double check to make sure you removed every contact. You should go back and touch the tip of the soldering iron to each contact on the pc board to smooth out the surface for the next step of soldering the jumper wires.

You should use at least an 18 strand ribbon cable that is available at almost any electronics store. I used an 18 inch piece of scrap 34 strand ribbon cable that was lying around collecting dust. It is best to divide this into two sections of 8 and 9 strands each. Split each of the strands of cable back about 2 inches to give yourself enough play in the cable to reach all the contacts on the side on which you are working. You should not strip back to bare any more than you will need for soldering. It may be advisable to pre-solder (tin) each strand of wire before you solder them to the pc board.

Solder the ribbon strands to the contacts as described in the diagram below and remember to be as neat as possible. The top of the speech board has the chips on it and it is numbered with even numbers from right to left as you view it from the front. The bottom of the board is all solder connections and is numbered with odd numbers from right to left as you view it from the front. On the top use the 8 strand ribbon cable and solder one end to contacts 2, 12, 34, 36, 38, 40, 42, and 44. On the bottom solder the 9 strand cable to contacts 1, 3, 5, 19, 21, 35, 37, 39, and 43. If you are looking at the side of the pc board they are numbered as follows;

NOTE: For simplicity only the connector pin numbers that are actually used are listed, the pc board is numbered consecutively on the top row with even numbers and consecutively on the bottom row with odd numbers.

TOP 44,42,40,38,36,34,12,2
BOT 43,39,37,35,21,19,5,3,1

The second stage is to attach the ribbon cable to the mother board. I removed the mother board from the console for this and removed the metal shielding around the mother board. If you are unsure how to do this we have an excellent video tape that shows in detail how to do this part. It can be checked out from your librarian (me).

Now comes the tricky part. Solder the other ends of the ribbon cable to the male 44 pin I/O bus connector on the mother board. Be extremely careful not to allow the solder to get on the end of the bus connector where it could interfere with the attachment of the BOOT cable or whatever device you attach to the I/O port of the computer. The top of the mother board has the chips on it and the bottom is just solder connections. As you view the side of the console I/O bus into which the speech synthesizer would normally plug,

NEW CLUB ADDRESS

Effective immediately - all club correspondence and newsletter exchange should be sent to the following address:

West Penn 99'ers

C/O Mickey Cendrowski
R.D. 1 Box 133
Russellton, Pa 15076

HELP A FELLOW TI'ER OUT!

For quite some time now, many of my fellow TI'ers have been abandoning their TI-99/4A's and the TI Community.

Although the reasons for this are varied - the end results are still the same - More and more TI-99/4A's are being pushed into corners and stuffed into closets.

If this situation is true of you (the reader), perhaps you would consider DONATING your TI HARDWARE AND SOFTWARE to someone who still appreciates this computer - namely me!

I'd be happy to take what I can use and pass along the rest to others who are still using and appreciating their TI-99/4A's.

Give it some thought...and remember...I am interested in DONATIONS only!

Thank You!

Mickey Cendrowski
R.D. 1 Box 133
Russellton, Pa. 15076

Phone: 412-265-5201 after 8 PM

the bus is numbered as follows, (left to right):

```
TOP 2,12,34,36,38,40,42,44
BOT 1,3,5,19,21,35,37,39,43
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Be sure to solder the wires to the same pins on the mother board as on the synthesizer. After all the soldering is complete be sure that none of the wires are accidentally touching any other connection and that all traces of flux and small pieces of scrap wire are cleaned off and removed so as to not interfere or cause trouble. I ran the ribbon cable out the side and under the metal shielding. I did notch out where the cable would be exiting the side of the shielding so that it would not pinch the cable and cause a short.

I placed the pc board in the upper left hand corner of the console above the monitor jack. I used a couple pieces of mirror tile double stick tape to attach the bottom of the speech synthesizer to the underside of the console top piece. It seemed to fit in there like it was made for it. You may want to put some masking tape on the metal shielding right below where the speech synthesizer is now located in case the adhesive in the tape used to hold it to the console gives away. This way if it falls onto the shielding it won't short out anything.

After re-assembling the console and plugging everything in (the second time) everything worked great. The biggest trick to this mod is probably the same as in most mods, be very diligent and neat.

My next project will be to put a joystick adapter inside the console so that the joysticks are accessible in the rear of the console and with the adapter you can use any off the shelf joystick. EDITOR NOTE: NOT TI JOYSTICKS! This will be a two part article, the first part will be to build the adapter and the second will be installation. Good luck with your tinkering.

NEWSLETTER/MEMBERSHIP RENEWAL

To renew your membership or newsletter subscription here is where to send it.

LYNN GARDNER
642 LOIS DRIVE
PITTSBURGH PA 15236-2436

USING TI-WRITER TO LF FROM AN RS232

Fm LIMA(Ohio)TI USER GROUP
Newsletter

You can hook two different kinds of computers togther with a cable linking the RS232 ports of both computers. The TI serial printer cable will do the trick. You can then load text files directly into TI-Writer (or the Funnelweb editor) from a word processor program on any other computer. You don't need a modem or a terminal program, and the other computer doesn't have to be compatible with TI.

After cabling the two computer's RS232 ports together, boot TI-Writer, type **LF** Load File) and press <<**ENTRE**>. Then type **RS232.CR** for the file name and Press <**ENTER**>. The TI's screen will appear to look to lock up as the TI waits to receive the file from the RS232 port. It may be necessary to specify a baud rate in the RS232.CR file name if the default 300 baud is not satisfactory. However, TI-Writer (and Funnelweb) will not accept baud rates higher than 600. With the other computer, save or send a text file already in memory, specifying RS232 as the save file name. (PC users may have to specify a COM port rather than RS232 - Ed.). Text will then flow into TI-Writer. When transfer is complete, press FCTN-4 on the TI and the received text file will be desplayed.

Since I don't have the TI99/4A HexBus interface, this is how I transfer text from my CC40 to my TI for processing with Funnelweb and printing with my Star printer.

RCVD PGH PA 02/09/94

29 USA