OSHAWA TI 99/4A COMPUTER USERS GROUP

OSHTI

SEPT 1993

OSHTI PICNIC ANOTHER SUCCES!

Well the OSHTI picnic was another success. The weather was hot and sunny except for a brief sun shower.

Everyone found their way to the site OK despite the detour.

Highlights included the following:

> HORSE SHOES: again Karen and Dom 'shoed ' their mastery over Liz and Ray, and Ed and Bob. However, they got worn down by the third game which went to Bernie and Tom.

> CANOEING : Dom showed his skills at paddling despite an unforeseen dunking ! Karen couldn't or wouldn't hand his glasses to him. Of course, Dom then changed his wet clothes for his bathing suit.

> HOME BREW was sampled to compare it with the big breweries.

> BADMINTON and 'pool' (not the swimming kind) proved to be of interest to the teens while the younger ones used the pond for a swim. No Laura, there are no 'toe-eating' fish !

> GOOD CONVERSATION was the order of the day as we all enjoyed the hot summer of '93. We have already had more summer in one week than we had in 1992! (See my forecast back in the April newsletter.)

> the FOOD was great ! Thanks to June for pickles etc. to Liz for the pastery h'ors d'ouvre and rice crisps, to Karen for the cheese and fruit and to Jennifer for the salad, and to Fran for the potato salad and banana bread (I never got any, boo hoo). The hamburgs and sausages seemed to go well also. Howcome those teens always seem to disappear when there is a job to be done but magically reapear when the food's on ?

I hope Bernie's finger has healed OK! The onions were sliced well though !

I overheard some of the girls planning something; maybe a get together at Christmas...

I hope that I haven't left anything or anyone out.

Tom

LAST OSHTI MEETING:

The June OSHTI meeting saw a good crowd both from the OSHTI group and from the Kawartha 99ers. Phil Towsend and Glen Daniels and Dick Bulmer made it down on the nice sunny evening.

Unfortunately, there were a number of LATE arrivals to the meeting. It appears that this was an oversight on Tom's part . Ritson Road has been dug up between Taunton and Conlin Rds. A number of members were greeted by a huge hole instead of a roadway. Apparently the city did NOT provide alternates via detour signs.

Transfering files to and from the palm-top TI PC-6600 was demonstrated by Tom. Dom also brought his Olivetti palm-top organizer. It turns out that it too is a TI PC-6600 under the name Olivetti ! The Olivetti has different colours to the plastic and is actually more aestetically pleasing than the SMART2 (Radio Shack version). Tom also demonstrated how to send files to and from the TI and IBM using TELCO(TI side) and TELIX(IBM side). Converting the IBM ascii files (DF128 format) can be done though the GOFER programme. There are other transformers, but I don't know their names.

Phil would like a way of transferring his files on the TI PC-6600 to a Macintosh. If anyone knows of a way, let

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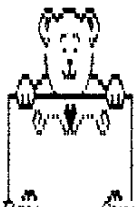
him or me know.

The Disk of the Month featured a NEW LOAD programme. This loader has been released by Art Gibbens for general use. Although it does not have all of the nice features of the MUG BOOT programme, it has the ability to go to ANY DRIVE ... FLOPPY, RAM or HARD. The LOAD programme can also be 'chained' other loaders to increase the flexibility.

The June DOM had a BASEBALL (John Phillips assembly game) game on it as well as a CAD (Computer Assisted Drafting) programming. Included on the DOM was the DUTCH FILE COMPRESSOR programme. Brief demonstrations were done on each of these.

As the night wore on the coffee drained down and the donuts disappeared. I trust everyone had a good time.

ARTIST'S CARDSHOP



It all started with a special request from Doug. Anne, Doug's wife wanted a SPECIALIZED birthday invitation for a relative. Anne/Doug wanted some graphics and a border and of course details as to where the party will be held.

My first thought was to use the COLOR CARD by Comprodine. I threw this out since the graphic was limited to 1 CSGD graphic (small at that). However, the Color Card is the easiest to use since it is WYSIWYG.

Next I entertained using PAGE PRO. This is also WYSIWYG. However, I gave up on this since I had trouble producing a decent border.(I am sure that I would have gone this route in the future when I know how to do the borders... I think ASGARD has a special programme just for Borders!)

Finally, I decided to use ARTIST CARDSHOP by Paul Coleman and distributed through Comprodine.

I must EMPHASIZE that this programme is NOT WYSIWYG !

The programme is menu driven and takes some understanding to get used to. The version that I used was 1.0. I can see a better version coming out, if Paul has time to produce one.

The programmes are written in c99 and written as E/A 5 files. There is an XBasic LOAD programme that doesn't like running out of ROS 8.14F(MYARC). There is a 28 page booklet that comes with the programme. However, there are a lot of assumptions too.

The intro menu allows you to configure the colours of screens to make the programme easier to use. Nice idea but I don't feel this is a great help.

You can next choose CARD BUILDER. Card Builder allows you to do just that, build your card. You have an INSIDE and an OUTSIDE to each card and you proceed to do this. However, the biggest problem is that you MUST PLAN AHEAD before doing any building. You MUST select ALL of your graphics files and FONT files (TI Artist Instances and TI Artist Font files, _I and _F at the end). Put these files on ONE disk BEFORE YOU START ! And make sure that you KNOW the NAMES of the FILES ! There is NO option to do a CATALOG from within the programme, this is the BIGGEST flaw in the programme.

If you choose to do the OUTSIDE first (most of us would) then you must choose your fonts and graphics. Oddly enough, you choose the INSIDE fonts at this time as well (I don't know why you would have to).

You have 40 lines to work with ! Someone should have said this somewhere. The SMALL text prints on 1 line but needs 2 since it will always put a blank line between text. A LARGE font needs 2 lines to print so you need 3 for each large line.

The prompts do NOT give you an idea as to what lines you can use. If you have used lines 1 to 10, you will have to know this ahead of time. Option 4 (view page) is very helpful to figure this out.

On a positive note, each line is automatically centred. You can use blanks to LEFT justify. You also don't have to figure out how many letters to type. If you can type 10. then it allows only 10. If you have room for 1, then that's all you can type in.

You can include combinations of GRAPHICS and TEXT to give a variety of cards.

You can also chose to do the OUTSIDE ONLY (or INSIDE only) before saving the file.

As I mention the option 4 enables you to VIEW and DELETE each line or graphic.

After you save the card to disk, you CANNOT get back to the main menu. I don't know why you can't do this but it seems to me that this too could be fixed up.

Other things of note are the fact that there is NOT a COLOUR option. You get whatever colour your printer can print. However, if you use coloured paper, you can make the card beter.

There are 2 fonts (one large and one small), 3 sample cards and a goodly number of borders.

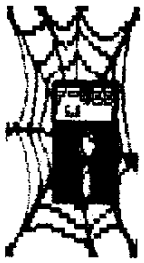
There is a file to show you how to make borders from TI-ARTIST. I used this and it worked. Just make sure that you save the instance from the far left hand top corner to the extremity on the other corner.

Printing is FASTER than most programmes, however, the programme doesn't know that it has loaded one font and will reload the same font for the inside printing. This is a feature which would greatly speed things up.

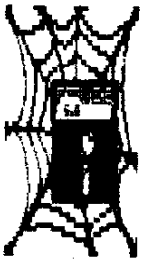
Finally, a nice feature is the ability to add a picture to the end of the card. You know, it's where the price would be. This is a nice touch.

The cost is $10 US from Comprodine. I got my copy at the LIMA MUG conference.

Tom (Aug.93)



FUNNELWEB Vsn 5.0 40 Column EDITOR

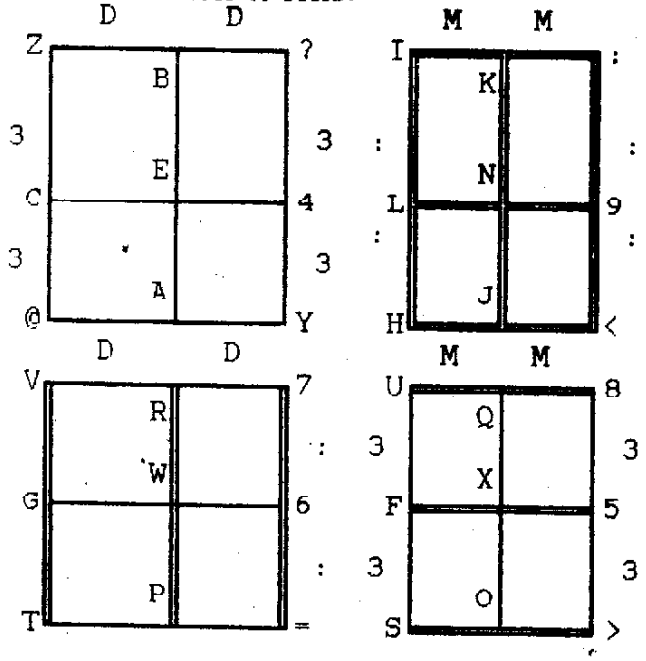


The LATEST VERSION of FUNNELWEB 5.0 for 40 and 80 column editors has arrived (Aug.16th,1993) from Charles Good of the LIMA OHIO group . Another thank you goes out for the massive distribution that Charles does. I also received a copy of the these programmes from Pat Graham of the North Bay (Canada) 99er's who also get a direct mailing from Tony McGovern. Thanks to Pat also.

I have checked out the version of the 40 column editor on both a Myarc FDC and a TI FDC (FDC=floppy disk controller) and it works. As you will recall, the QQ or quick quit from the editor used to leave you in never-never land.

Of Note is the improved screen for Show Directory (SD). You can see MORE file names on the screen. This is much improved. Gone are the <N> and <B> keys on the 80 column editor, they have been replaced by the <Q> and <A> keys or the <CTRL E> and <CTRL X> ! The same thing is also in effect on the 80 column version. Why do I have the feeling that the McGovern's are LEFT-HANDED ? humm !

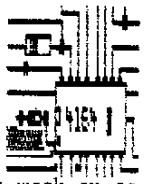
There is a only one problem that I can detect and this is quite minor, except if you are reading it. HELP file HELP4E on the 40-column editor is flawed. The letters for making boxes have some mistakes. I have redone the entire file and made it into a new help screen for the distribution disk. As anyone knows, making boxes with the IBM character set is anything but logical. I'll try to pass this on to other people who are interested. The print out of the new file is below:



Various Boxes (CTRL -,) T.J. 08/93

The following article will be helpful to those people who have a FAILURE in their Horizon Ram disk operating system (DSR)

RAM DISK RECOVERY:



I hadn't been working on the computer for a week or so and when I got to it, the RAMDISK DSR(Vs. 8.14F MYARK) put the computer into never-never land (a blank screen with an annoying hum). I then fired up my system again but holding down the SHIFT key. The main menu of the TI system fired up (actually the OPA S.O.B. screen) and I was able to run the configure file for the ROS 8.14F again.

What I found was that the smaller HRD was OK, but my bigger one with RAMBO in it was not. Here is what I saw:

>strange characters on the screen to the ram disk
>only DSK7 was seen as a drive; only 36 sectors on it (DSK8 and DSK9 were gone!)

The only thing that I could do was to REFORMAT the drives to their proper configurations.

When you do this of course there will be NO FILES when a catalog is called up. However, as I discovered using a sector editor like DSKU is that the data is still on the disk (in the RAM CHIPS in this case) only the first two sectors on the ram disks were rewritten during REFORMATTING.

Before I reformatted the DSK7,8 and 9 with the ROS 8.14F config. file, I did try to use a sector editor on these drives. Only about 30 of the sectors could actually be read. The rest gave I/O errors on reading.

After the reformatting, I thought that I would look into the DSK7,8 and 9 sectors again using DSKU. Low and behold, everything was still there. I then used RECOVER FILES (from DSKU) to see if I could recover known files. Voila, it was recovered.

Why didn't I use my back-up disk to rewrite the files you might ask. Well, there were some files that I didn't have backed up (oh no!). Anyway, it was a good test to see how many files I could recover.

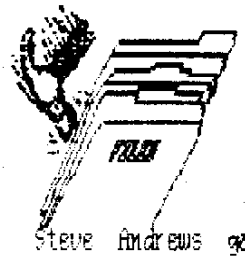
I learned something quickly. When you try to recover a PROTECTED file, DSKU gave me a <FILE NOT FOUND> message. However, on the catalog was a ' NO NAME ' file with the correct characteristics (by the way, I did have a print out of MOST of the DSK7,8 and 9 catalogs from June 93). What I did, was to erase the 'blank name' using F3 and then type in the correct name and make it permanent by saving it to disk. This worked fine. Remember, this is for PROTECTED FILES ONLY! The other unprotected files were recovered with no problems.

Of course, the best way is still to have a back-up of all of your hard or ramdisk files. But if you don't then remember that they can be RECOVERED using DSKU recover file option.

One other thing that I did to ensure that there were NO files left unrecovered was to use the SECTOR EDIT function of DSKU to VIEW all of the sectors. While the sectors between 3 and 20 are FDRs (File Descriptor Records) , the FDRs for other files will be at other random sectors.

The only proviso for recovering your files is that you DO NOT SAVE ANY NEW FILES to your ram disk until you have recovered the ones that you want.

Tom (Aug.31,93)



PROGRAM FILE COMPRESSER:

Steve Andrews gave me a call late in June to thank me for the article that I wrote about him building the ultimate TI. The pleasure was all mine Steve.

What Steve told me in that conversation was even more exciting!

On one of the LIMA disks, Steve found an archiver programme, but NOT just an ordinary one.

This programme will Archive a program alright, but what is really great is that it AUTO ARCHIVERS (explodes itself) when RUN!

What does this mean ? Well just what I had asked for a few months ago ! This programme 'scrunches' your programme and then is RUNNABLE from the scrunched format ! What we've got now is programmes that take up LESS SPACE. This is great ! Now you can put more in the same space !

This is great for people with small ram cards or who would like to have more space; and who doesn't ? Of course, even users with SSSD disks will get more space per disk too.

The programme was developed in Holland and the documentation is also in Dutch so Steve couldn't find out all of the features of the programme that he will when the docs get translated.

If you have the LIMA disks, its on DISK 716A. Wouldn't you know it I didn't copy it; but I have 716B.

GOTTA HAVE IT !

P.S. I just found the PFC programme on LIMA disk 704A.
The documentation is in ENGLISH Steve, so the translation has already been done.

I found that some programmes would NOT RUN properly even though they had been compressed OK.

The ones that are compressed and run have very little speed difference.

The e-99 E/A 5 programmes seem to compress/run well, but others like DM1000 seem to hang up.

On the 704A disk there is note of a BUG in PFC that someone has addressed. It involves going into the file and sector editing it. I will look into it and add it in here.

Thanks Steve for pointing out this programme, it has already saved me valuable ram disk space.

Tom

MORE ON FILE COMPRESSER:

More about PFC...! There is an article on the PFC disk out lining an apparent BUG or ERROR in the PFC programme. The article is called, "PFC-BUG?", by JH White (Jeff White). The article tells why some of the E/A 5 files FAIL to compress and run properly; PREDITOR was one that didn't work when compressed.

I read the short (less than 2 printed pages) article and found it to be confusing. I did finally figure out what was going on by looking at a programme that failed to compress and run. The programme was PREDITOR.

Here is my attempt to outline the problem.

You must understand ONE thing in order to get the idea. The ONE thing occurs as the second (2nd) word (a word is TWO BYTES!) of each programme FILE in E/A 5 format. The second word is the actual length of the programme file. For example:

word 2 = >0C78 () means HEXADECIMAL) .

This means that the number of sectors used for this programme is >0C (12 in decimals). The >78 part means that >78 bytes of the next sector (13th) are actually used. Remember, a sector is 256 bytes or >FF in hexadecimal.

So, the programme that has >0C78 as the second word will be just over 12 sectors, but really uses an addition >78 bytes of the next (13th) sector).

Well, when I checked this out using DSKU 4.12 (Birdwell) I found that the actual last byte on the 13th sector was really >7D. By the way it is easy to see this since the bytes after the last byte are all 0's.

(Ed. note: If there are NO end zeros, then the whole of the last sector would be used and you would see >0D00 instead of >0C78).

So you can see the actual number >0C78 SHOULD have been >0C7D not >0C78 (this is 5 bytes too short!).

Well, you might want to know why this programme will work UNcompressed. The answer lies in the fact that the length bytes in the 2nd word of the file ARE NOT really used when E/A 5 is used! So how does the E/A 5 loader know when to STOP if it doesn't use this word ? Ah ha the answer is quite simple. The E/A 5 loader looks at byte 16 or >10 of the FDR (File Descriptor Record). I talked about the FDR in the MAY 1993 OSHTI page 3-4. The value in this byte tells the loader when to stop. In fact, it read >7E or one more byte than needed when I looked it up for the above programme.

So the 'BUG' in the PFC programme, is really NOT a big bug, it simply did NOT look at the FDR when it shrunk the file, it only looked at the 2nd word of the file. You might not think that a few bytes (5) like this would matter, but in actual fact they make a big difference if they are programme code.

So, what you MUST do, is to go back and read the FDR byte >10 or 16 and compare it to the 2nd byte in word 2 of the file. If it is >0C78 there and >7E in the FDR, then you would rewrite this sector so that it would say >0C7E.

Another example you might have is that the 2nd word might read >1FFA and the FDR at >10 is 00. In this case, you MUST increase the 1st byte by 1 and make the second byte 00; thus you would rewrite >1FFA as >2000.

I have tried it out and it worked perfectly. I used it on PREDITOR files (PREDITOR and PREDITO9), both files had t have their 2nd words adjusted. The final product was reduced by 11 sectors from 47 to 36 a 23 % savings in space.

I am including this article on any disk that I give out with the PFC file run/compactor programme. Please be aware of this BUG. It really occurs in the ORIGINAL PROGRAMME and thus the compacted programme may work but it also may crash.

Tom Aug.8,'93

SOME QUIRKS OF ROS 8.14F ....

The NEW ROS (Ram disk Operating System) released by Bud Mills at the LIMA MUG Conference vsn 8.14F should be used by everyone with a RAMDISK (Horizon). Through out the previous versions; this one works!

Previously, I could NOT access the ram disk with some programmes. This, I believe had something to do with the level of access used in the DSR. Now, using ROS 8.14F, these problems seem to be cleared up.

For example, IDENTIFILE by Mike Dodd would NOT access the RAM disks above DSK5., even though it would acknowledge their presence. The same thing applied to the earlier version of GOFER vsn 1.0. This version, now works on my system. I know that Don Gaszy will be happy to know this. It was he who had to spend extra time writing more code to get the Vsn 1.1 to work on RAM disks. This turns out NOT to be his fault but the fault of the DSR written for previous versions of the ROS. I can see why programmers must tear there hair out when they have to access so many devices and the DSR may be different for each. Hopefully, the SCSI will have a good working DSR that can be accessed easily.

The new ROS comes with ROSTICC for the TI and CorComp disk controllers and ROSMYARK for the MYARC disk controllers. Maybe this is what the former versions should have had.

ROSTICC NOT AS GOOD AS ROSMYARK !

N E W S F L A S H : ROSTICC BUG!

Phil Townsend just phoned me and said that he found that the ROSTICC would NOT CATALOG the Identifile programme for his Horizon Ram disks. So I went and tried using my Ram disks in my other computer with a TI controller. Sure enough the ROSTICC would NOT catalog ANY RAM DISK above the CRU of >1000. It works for a CRU of >1000 but did NOT catalog a ramdisk at CRU >1400. So it seems that there is a BUG in Ros 8.14F; at least for the TI and CorComp disk controllers. Of course, the MYARC disk controller works just fine.

Tom (July 93)

DSKU AGIN TO THE RESCUE:

The trials and tribulations of disks seem endless. Last month I told you about how I was able to recopy a file which had a bad sector on it. Well I've had another interesting problem.

I was working with TI-BASE and I had a file open. I then deleted the file while it was still open to WRITING new records. Then to top this off, I copied a file from one drive to the one I had my disk in.

I knew something was really wrong when the screen started to accumulate a lot of 'garbage' (odd print).

When I got back to my main menu programme the disk would NOT even come up with a reasonable name. In fact it was almost like an unformatted diskette.

I went to my trusty DISK UTILITY by John Birdwell and found that I had re-written two sectors; not just any sectors, but sector 0 and sector 1 ! These are probably the most important ones on a disk !

Since I could READ the two sectors mentioned, I knew that I could still WRITE to them, if I could figure out what to write.

Apparently, the other sectors on the disk remained OK. This is probably the case since sector 0 and sector 1 control most of what is written to all of the other sectors.

Using my ADVANCED DIAGNOSTICS (by Miller Graphics), I was able to figure out what to write onto sector 0.

Sector 0 must have the disk volume name, the DSK letters, the type of disk (DSSD) and the important BIT MAP which tells the controller what sectors are available.

If you write an F into a byte, you are basically telling the controller that certain sectors are USED so don't write there. Since I didn't know how many sectors were used I just put in a lot of 'F's', hoping to copy the files to another diskette.

Then I found all of the programme NAMES and position of the FILE DESCRIPTOR RECORDS and rewrote the SECTOR 1 in byte.

Of course, when I tried to get a directory, there was mass confusion !

I forgot what I had in last month's newsletter ! Each file descriptor is written as 2 byte pairs. So when I wrote 0102 I should have written 0001 0002. When I did so, the directory again appeared.

I began to transfer all files to the new disk. Everything was OK except for one file. It was TOO SHORT !

What I did was to check out WHERE the actual data was stored by looking in the FILE DESCRIPTOR RECORD then I checked to see if I had freed up those sectors on the BIT MAP. I HADN'T !

After I did, everything again worked fine and I was able to back-up the file.

All of the files were recovered !

What did I learn ?

Don't erase files that you have open in TI-BASE while you're still working on them for one.

The second thing is obvious, KEEP A BACK-UP of YOUR WORK. Doug will attest to this too.

Lastly, I learned again of the tremendous value of the DSKU programme given to us by the late John Birdwell.

Tom

The other day I was working on my TI system and noticed that one of my 3 1/2 disks seemed to be buggered (I/O error 7). The directory won't load and the size of the volume was way off. I was able to use DSKU to look at the first few sectors but they were all filled with the hex value 'E5'. In other words, the disk looked like it had been reformatted. I could only read a few sectors as most of the disk would give I/O errors. I thought that this was unusual, but found that this disk was the only BAD 3 1/2 of the lot. Since I had backups for this disk, I was able to replace all of the files after reformatting.

With another disk in this 3 1/2 drive (DSK2.), I was rewriting all of the new files to the disk when I noticed that the system was slowing down. It was as if the drive was having trouble allocating space for the files that I was coping.

I switched to a different copy programme but noticed that the slowness in copying files was still there.

Although the files were there in total, there was no problem transfering the (reading) to another drive.

Then I was doing some of this newsletter and noticed that the saving (writing) to DSK2 was also slow. For some reason, saving to DSK2, was having a problem. The drive head laboured back and forth trying to find the proper place to save the files. When I checked the placement of the files with DSKU, they were on consecutive sectors, so this baffled me.

Finally, I found that DSK2 would NOT verify a disk if you had just formated a disk in this drive. There was definitely a major problem here.

By coincidence, Doug said that he was having trouble with his disk drive (5 1/4" slimlines). Doug eventually bought a new one and it seemed to fix the problem for him. I was hoping that the same would NOT be true for me.

Since I was skeptical about the drive going bad, I proceeded to test the drive outside of the PBox by making it drive 3. After some fumbling and mistakes, I was able to get the drive to perform properly. One of the 'fumbles' that I made was assuming that it had the same pin placements as my 3 1/2 DSK4 (an IBM drive). For some reason, my DSK2 drive had the opposite pin placement. Anyway, the drive proved fine.

When I placed the drive back in its regular spot and took drive 1 (DSK1) out, DSK2 worked perfectly. With drive 1 returned, so returned the problem. Have you got it figured out now ?

The answer is of course the CABLE !

. When I examined the cable there was a removed 34 pin snap-on plug moved out. The marks left on the cable showed his to be the case. Obviously, there was a small break in one of the 34 lines between DSK2 and DSK1.

What I did was make another cable for the DSK1 and DSK2 drives. I made it a bit longer so that it' allowed me to replace the drives easier. Because I didn't want to buy new connectors, I took the ones off that were on the bad cable. This takes patience and a steady hand. Also, you must figure out how they snap together. Even doing this, I broke off several hold downs. However, they were still useable.

When I replaced everything in the PBox, it worked correctly.

The reason that I mention this is to make everyone aware of the fact that CABLES can go wrong even after they have been used for years !

Here are a few things to watch out for.

>Access errors (I/O errors eg. #7) to previously good disks or files.

>SLOW SAVING (writing) or READING.

>Disks that become garbage after sitting in the drive for a few days.

>The disk head moving for long periods though a repetitive cycle.

MAKE sure that any new cables have the connectors placed at right-angles to the cable. Use a carpenter's square (a small one) or a Mathematicians plastic triangle to line of the correct placement.

Place small pieces of wood over each part of the plastic connectors and pound the top one (one with the piercing parts) into the cable and holder. Use a rubber mallet for pounding if you can !

Buy new connectors if you break off both snaps on the backing.

For those who don't want to try making cables, you can buy them at most computer centres. Of course they will be more expensive. Most IBM type cables will work. Some have the 'old' 34 pin connectors, some have both. The cables with a twist for a second drive are unnecessary.

Surprisingly, the IBM cables are very similar to the TI 99's.

If you still are having trouble, contact your club; there are usually members who can do it for you.

Although I saved myself some money doing it myself, it did take me about 3-4 hours. However, I learned a lot in that time. Trust the hardware, suspect the cables !

Tom (Aug.99)

WHAT'S a S.I.G.? (special interest group)

A few weeks ago, Doug phoned and suggested that we might want to set up a SIG (Special Interest Group) on programming.

The idea is to get those members who are interested in programming together for small meetings (not the regular group ones) to do some 'programming' on the TI. This would be on a voluntary basis and NO EXPERIENCE would be needed.

Initially, this would mean that the BASIC COMMANDS would be reviewed and then the group would do some programming. This would start with simple programmes but might progress up to more complex programmes.

We will discuss this at the Sept. OSHTI meeting and see if there are any other members interested.

Remember, that the TI 99/4A has a wide variety of languages to programme in; here is a short list.

>TI BASIC (built into every machine)

>TI EXTENDED BASIC (requires XB cartridge)

>ASSEMBLY LANGUAGE (requires MINIMEM or 32K expansion)

>FORTH (32K and programming disk)

>PASCAL (32K and a p-CODE card)

>c99 (32K and c99 software)

>TI-BASE (32K and TI-BASE programme)

>GEE (32K and software-Sept. D.O.M.)

>The Missing Link(TML) (XBASIC cartridge and 32K and TML software)

>MULTIPLAN (32K, MP cartridge, disk software)

>GPL (32K, E/A cartridge and software)

Personally, I prefer TML because it is similar to EXTENDED BASIC but has the ability to use the TI regular HI RES graphics. A demo disk is available to show how powerful TML is.

I have included MULTIPLAN for financial programming and TI-BASE for data base programming since they are user programmeable.

The ASSEMBLY LANGUAGE is the LOWEST LEVEL language and operates at the MACHINE LEVEL. Thus assembly language will be the FASTEST ! GPL (Graphics Programming Language) is similar to assembly language but it resides in every machine in the GROM chips.

Some languages can be combined with other languages. For example, EXTENDED BASIC, TI BASIC (with MINIMEM or 32K), FORTH and c99 can have assembly language in its code. This enables them to access faster routines.

So you see that programming can be an on-going affair. You can progress from TI BASIC to more complex forms of programming.

Tom Sept. 99

MINIMEM PART II:

MINIMEM PART II: from MAR.99 BC99er
by MARV SMITH

It is NOT the intention of this session to teach Assembly programming or any portion of it; but instead to show the how you use the Mini Memory module.

The next thing we will do is to enter a simple program, run it, change it, and run it again to see the changes made.

TO KEY IN A PROGRAM - 1. Select Mini Memory
2. Select Run
3. Type "New"

Location	Code	Label	OP CODE	Operands	Description
7D00	02E0		LWPI	>70B8	Memory area for
7D02	70B8				registers
7D04	0200		LI	R0,67	Initial print
7D06	0043				position Row3 Col.4
7D08	0201		LI	R1,PO	Where the text is
7D0A	R0000				found.
7D0C	0202		LI	R2,18	No. of bytes to
7D0E	0012				write
7D10	0420		BLWP	@>6028	Branches to the
7D12	6028				Write routine
7D14	045B		B	*R11	Return to Easy
7D16	4153	PO	TEXT	'ASSEMBLY LANGUAGE'	
7D0A	*7D16				
7D28			.END		

Providing there are no errors ... Select Easy Bug and type "E7D00" to run your program.

The program will display "ASSEMBLY LANGUAGE" in row 3 column 4 on your screen.

TO MAKE A SIMPLE CHANGE: Select Easy Bug then type M7D0A and with several enters it will display Hex 41 53 53 45 4D 42 4C 59 20 4C 41 4E 47 55 41 47 45 20 which is ASCII 65 83 83 69 77 66 76 89 32 76 65 78 71 85 65 71 69 32 and in english is 'ASSEMBLY LANGUAGE'

REKEY "M7D0A" and 42. Hit enter and key 2E. Note: hit enter between each of the following; 43 2E 20 39 39 45 52 20 47 52 4F 55 50 20 20 20 which in ASCII is 66 46 67 46 32

57 57 69 82 32 71 82 79 85 80 32 32 32.

Press the period then "E7D00" to verify the changes have been made. It now reads "B.C. 99ER GROUP ". As you can see, simple changes can be made fairly easily.

Before continuing, why not try POKING in the code to change the shape of the cursor. Go into BASIC and type "Call POKEV(1008,255,129,129,129,129,129,129,255)" and you will note the cursor is now hollow.

SOME OTHER EXAMPLES FROM LOTTRUP'S BOOK ARE

1. A moving * sign that travels around the screen.
2. Scrolling to the right and linkage to a BASIC program (SCLRIGHT).
3. Automatic sprite motion.
4. The last one is the most complex. It is an artist sketchpad that allows slow or fast drawing on any color of screen and any color pen, with eight directions to draw in. It also has a bordering feature.

HAVE FUN

CATALOGING 80 TRACK DISKS: -what you should know

In the JUNE OSHTI newsletter I reported that I now had the ability to FORMAT or INITIALIZE a diskette to 2880 sectors (760K) using the MYARC Floppy Disk Controller (FDC) and 80 tracks instead of 40. I did this by adding a 4th disk drive (yes, MYARC allows 4 floppy drives; not like TI that allows only 3). The 4th drive is a PANASONIC 3 1/2" drive (720 K).

Well, you would expect some problems but not as many as I have found.

The first one came when I tried to DELETE a FILE from the 80 track drive. I was left with a NO NAME (blank) file of length 2 sectors. This happened using DM1000 vsn 3.5

I also found out that DISKREVIEW (FunnelWeb 4.4) will NOT format the disk properly.

Then the most startling discovery came when I was writing files to the 80 track disk and then came up with a NO SPACE error. I thought that I would be out of space, but when I checked with the MENU programme and with DM1000, they both indicated hat there was still lots of free space left. Obviously, something was wrong.

I then did a comparison of several programmes that tell you how much space is used and what is still free. The results are incredulous. So here they are, READ them and WEEP. The programme writers will be wondering where they went wrong.

	SECTORS		
PROGRAMME	FREE	USED	TOTAL
MYARC DM III	102	2778	
FWEB DISKREVIEW (Vsn 4.40)	102	2778	
RAPIDCOPY	102	2778	
IDENTIFILE	102	2778	
S.O.B. (OPA)	102	2778	
CLIPIX(ASGARD)	102	2778	
DSKU (Vsn 4.2)	102	-----	2878
TI BASE (Vsn 3.01)	102	-----	2878
Archiver (Vs 3.3)	102	2745	2880
TELCO (Vsn 2.3))	897	1983	
DM 1000 (Vsn 3.5)	900 (VARIABLE------)	1980	
MENU	854 (VARIABLE------)	2024	

Obviously, the correct answer was given by DISKREVIEW and MYARC DM III. The total sectors on the disk is 2880. so what explains the errors in the other programmes ?

The MENU programme that I have used so long with the horizon ram disk is totally out of it as is DM 1000 Vsn 3.5. In fact DM 1000 gives a different answer each time you use it. MENU also gives a variable answer. I can see why there was a file delete problem when I used DM1000 Vsn 3.5. TELCO gives the same numbers each time, but they disagree with the others.

Am I still going to use an 80 track disk drive ? You bet, but I'm going to be very careful to write to it using a reputable disk manager.

Tom

PHONING OSHTI LONG DISTANCE:

Just a reminder that the new AREA code for a OSHTI and surrounding area will be CHANGED to 905 (from 416) as of OCT.4, 1993.

Only METRO TORONTO will remain as 416. This is important to anyone phoning LONG DISTANCE.

905 GOT IT ? 905

The TRANSLITERATE (TL) COMMAND

A TRANSLITERATE (TL) command in TI-Writer (FunnelWeb, etc) turns a previously defined character into a REDEFINED character. There are several advantages of this. For example, you could:

1. change one symbol into another
2. change one symbol into a printer control command
3. change one or more symbols into a picture

To accomplish the transliterate in TI-Writer you simply use the dot TL command followed by the number of the character to be changed followed by a colon and the numbers which redefine the character.

For example, '.TL 124:27,87,1' at the beninning of a line followed by a carriage return (c/r) redefines the '|' as the sequence 27 87 1. This is a standard PRINTER command which turns ON the EXPANDED print for your printer. When you RUN the file though the FORMATTER, every occurence of the '|' character will cause the printer to change its print to EXPANDED (double width). When you type your text, the '|' letter looks as it should. It is ONLY when you go through the FORMATTER that this will change.

The NEXT question is HOW to change back to the REGULAR print that you want in the rest of your file. Note: Expanded text is usually good for TITLES !

Since you have defined '|' to turn on expanded print you can redefine another character to turn it OFF. For example: '.TL 126:27,87,0' will redefine the '~' character which in turn will return the printer to its print mode used before the '|' was invoked.

Where did I get these codes ? The answer is "from the PRINTER manual that comes with your printer".

Where did I get the CHARACTER codes like '|' equal to 124 and '~' equal to 126 ? The answer here is, "from the TI-WRITER reference manual."

In fact there are 128 characters that CAN be redefined. They include characters from 0 to 127. The characters below 32 are accessed by 'CTRL U'; see page 146 in the TI-Writer manual to see the characters from 0 to 31.

After having said all this, one does NOT want to redefine things like the ' ' or space command, or a letter like 'A' since they are used throughout the text. This leaves you with a few characters like "\ [ ] { } ' |~" and the characters below 32.

However, there is a way of making these characters go farther. You may redefine the same character over and over again to accomplish different things. I don't do this too often, but I may want to print out a '|' at some point in my article, so I simply put '.TL 124:124' on a line just before I want the '|' symbol to be correctly printed.

For those people who want to use the '~' symbol to be printed like an 'X' just use '.TL 124:88'. Every time the '~' symbol is encountered by the formatter, an 'X' will result.

Usually, I have ONE or TWO files which have all the TRANSLITERATES in them. I use them as a sort of standard. This is great when I am printing chemical symbols for compounds which need subscripts and superscripts. I use the '$' sign to turn on superscripts and the '#' sign to turn on the subscripts. To turn the sub OR superscripts OFF only one symbol is needed. There I use the '!' to turn them off.

The TL function command can have several different commands together. So if you want to do 2 or 3 or more things like, set the print to condensed, set the left margin to 5 and the right margin to 66 then you just have to use one redefine character. So what I am saying here is that you can CHAIN commands into the one character. The limitation for chained commands is the length of the line. There MUST be a carriage return at the end of the TL command.

If the TL command only did printer commands it would be a powerful tool. The fact that newer printers have more printer options means that you will never have to worry. You can always transliterate a character to do the job.

Now that FUNNELWEB 5.0 is out we also have 128 more characters (128 to 255) if you use the ALL CHARACTERS option. This means that you could use these for transliterates if your printer is turned on in the IBM format.

GRAPHICS CHARACTERS:

Because most printers allow its characters to be redefined, one can accomplish this with a TL command.

The command '.TL 33:27,76,11,0,0,24,12,6,3,255,255,3,6,12, 24 ' will redefine the exclamation point to a DOWN ARROW ↓

How to redefine print characters is found in your printer manual.

There is also ways to convert TI Artist Instances into TL commands. SWAN graphics editor also allows TI-Writer files to be loaded and a picture printed. For more information on this we have the CHICAGO group's TI-WRITER SUPPLEMENT which has examples and other related programs.

As you can see the original TI-Writer program had a lot of power built into it for the time it was done and for the future. It was well thought out and is still one of the best word processors around. Although the original TI-Writer programme has been improved upon by Tony McGovern in FUNNELWEB and by R.A.Green in TI-Writer vsn 5.0, the original ideas are still there.

By the way, this entire page was printed through the formatter in TWO PASSES without touching the paper in any way. Newer printers have the ability to BACK FEED the paper and print where you want to.

Tom Jakabfy (Sep.93)

NEXT

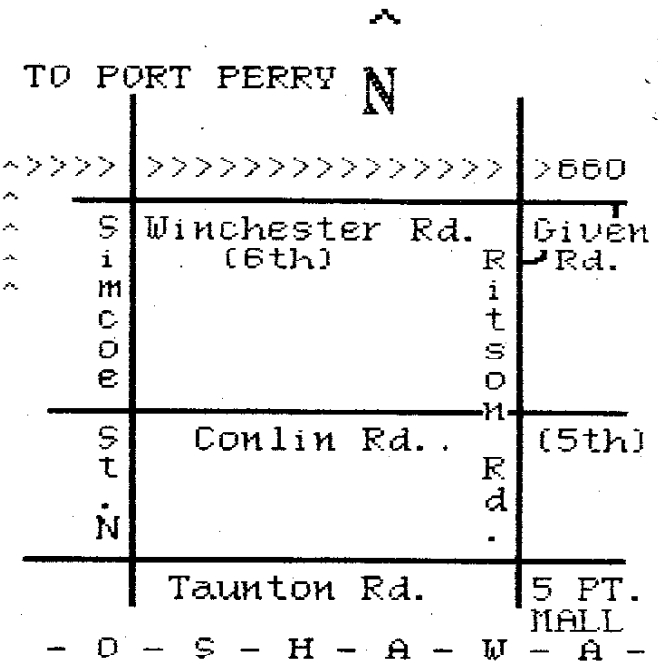
OSHTI meeting

TUES SEP. 28

(NO DETOURS!) AT TOM'S
See map >>> >>>>^

THE GEE LANGUAGE !

USING PFC TO SAVE SPACE !



OSHAWA TEXAS INSTRUMENTS HOME COMPUTER USERS' GROUP

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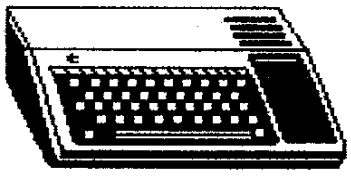
MEETING TIMES:

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

O=hTI



MEMBERSHIP FEES:

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

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