

WEST PENN

99ER S

NEWS

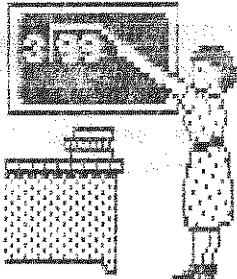
VOLUME 1 NUMBER 12

NOVEMBER 1997

ANOTHER WAY TO CALL FILES

See page 6

A TEACHER'S



IMPACT

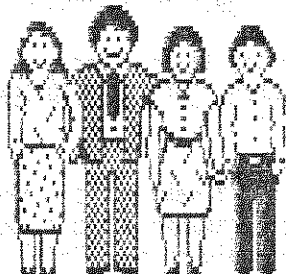
See page 4



WE NEED YOU TO COME AND VOTE



See page 3



Family night
for everyone.

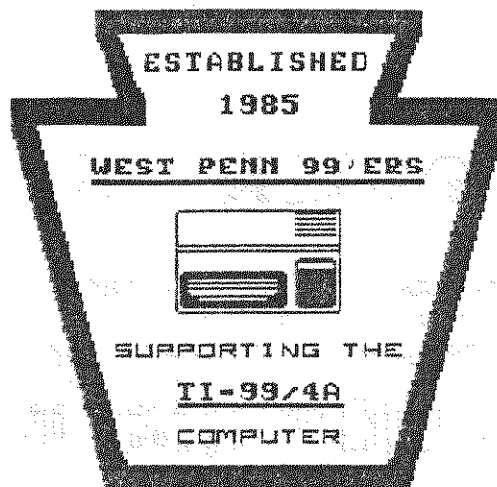


ADDING A 4TH DRIVE TO THE TI???

See page 5

WEST PENN 99'ERS CLUB INFO

Next Meeting Date: *November 18, 1997*
 Meeting Location: Penns Woods Civic Association
 Just off Route 30
 N. Huntingdon, Pa
 Time of Meeting: 7: P.M.



GENERAL ITINERARY OF OUR CLUB'S MEETING

6:45 P.M. Doors Open
 7:00 P.M. General Meeting
 7:45 P.M. Demos and New Info
 8:45 P.M. Questions and Answers
 9:30 P.M. One on One Help
 10:00 P.M. Socializing
 10:00 P.M. Doors Close

MEETING HIGHLIGHTS FOR THIS MONTH

CARTRIDGE DEMO'S.....Demo by Paul Brock
 NOMINATION of Office.....Open to members
 ELECTION OF Officers.....Open to members
 Help with C 99.....Demo Norm Rokke
 PIZZA NIGHTOpen to all

LIST OF WEST PENN OFFICERS FOR 1997

President:	Paul Brock	412-478-2754
Vice-President:	Norm Rokke	614-264-6442
Treasurer:	Ed Mandich	412-824-5566
Recording Secretary:	Paul Brock	412-478-2754
Corresponding Secretary:	Paul Brock	412-478-2754
Librarian:	Mickey Cendroski	412-265-5201
Newsletter Editor:	Paul Brock	412-478-2754
Assistant Editor:	Paul Brock	412-478-2754

The West Penn 99'ers Users Group is a Non-Profit organization, dedicated to encouraging the continued use of the TI-99/4A home computer.

Our Membership Fee is:

- * \$15.00 per year for an INDIVIDUAL / FAMILY membership.
- * \$10.00 per year for a NEWSLETTER ONLY membership

Those having Full memberships are entitled to the many extra benefits our club has to offer.

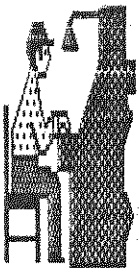
Some of those benefits are:

- * Getting to meet some of the nicest people.
- * Demos of the latest TI-99/4A software.
- * Free copying of our West Penn 99'ers Disk Library.
- * Up date of T.I. news, Local, National, International.
- * One on one help / Problem solving.
- * Participation in our Module Lending Library.
- * Participation in our Video Lending Library.
- * Ribbon re-inking- for just \$1.00 per ribbon.
- * Various Computer supplies - at a substantial savings.
- * Ability to trade or sell computer equipment, or electronics.
- * Help on getting equipment fixed.

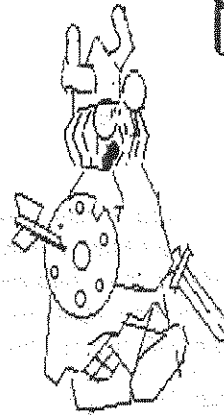
We meet the third Tuesday of each month at the PENNS WOODS CIVIC ASSOCIATION in North Huntingdon, PA. at 7:00 P.M.

If you can't make it to our meetings...at least become a Newsletter member - and enjoy our NEWSLETTER FORMAT- done entirely on a TI-99/4A computer.

SEE PAGE 10 FOR OUR WEST PENN MEMBWRSHIP APPLICATION.



FOR THE RECORD BY PAUL BROCK OCTOBER MINUTES



MESSAGE FROM THE PRESIDENT

EDITOR



ELECTION OF OFFICERS

I called the meeting to order at 7:25. We were late getting started because I was getting the American Snow blower ready to give out. I needed some help getting the truck unloaded. Mickey and Becky were late and almost miss out.

Ed gave the treasures report. The funds are getting a little low. We have to think of something to get them back in the black. No new items being sold and not much going on for raffels. We need some input!

Norm spoke of the up coming Chicago faire. If he dose attend he will give us a report.

The Librarian had no input. We now have the PUG's disk library and I will ask for an update. There is a lot of software to be had.

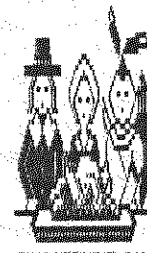
Norm has the module lib. which is there for those that would like to try. All one has to do is sign for them. Art Gardner did not attend the meeting I am sure that Inking ribbons will resume soon, I have a few back ups but I need a couple inked .

We had the coffee pot on for thoes coffee drinkers. I had brought in several P-Boxes, one had power supply for IBM. I also brought an E Prom burner, a box of Power suplyys with RF mod., and Three 4A computers. Raffel prizes were 25 1/4" disks and three computers with power suplies and RF mod.

November 18th is ELECTION NIGHT. It is also Pizza night. We hope to have a big turn out. We can try to beat those high scores. brng your favorite game.

The meeting was over about 9:00. the parking lot was set for another meeting. We didn't have to use the snow blowers!

Untill then my QUILL has run out of ink!



THANKSGIVING DAY

Well it's that time of year.

HAPPY THANKS GIVING

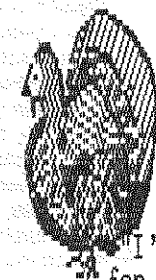
Where has the time gone? This is my twelfth issue of the West Penn News. I want to re write part of a letter written by Charles Good. Printed by the MID-SOUTH 99-OCT 1997.

I have been doing the Lima newsletter more or less by myself for 12 of its 13 years. Each issue is a lot of work! With local support down to almost nothing (there were two people at the August lima UG meeting and three at the September meeting) and the loss of low cost copying facilities at my place of employment I thought that this would be a good time to end the newsletter. There will be additional mailings from Lima on a irregular basis. I will have at least one mass mailing in 1998 concerning the MUG Conference....End

HAPPY BIRTHDAY!

I am looking for a big turnout for the Nov meeting. Many of the members are quitting, and some are passing on. I am looking for someone to take one of my positions. I hope that I can find some help along this line.

On October 3, 1997 John Whelan's wife passed away. From the members of West Penn 99er's. May your faith sustain you in your sorrow. Our Deepest Sympathy.



Direction on a recipe: "Seeves four hungry or six polite people.

Man to friend: "I'm very grateful for pro football. I'd hate to have those big guys on the street with nothing to do."



TI'er where ever you are!

Teacher's Impact

He was in the first third grade class I taught at Saint Mary's School in Morris, Minn. All 34 of my students were dear to me, but Mark Eklund was one in a million. Very neat in appearance, but had that happy-to-be-alive attitude that made even his occasional mischievousness delightful. Mark talked incessantly. I had to remind him again and again that talking without permission was not acceptable. What impressed me so much, though, was his sincere response every time I had to correct him for misbehaving - "Thank you for correcting me, Sister!" I didn't know what to make of it at first, but before long I became accustomed to hearing it many times a day.

One morning my patience was going thin when Mark talked once too often, and then I made a novice-teacher's mistake. I looked at him and said, "If you say one more word, I am going to tape your mouth shut!" It wasn't ten seconds later when Chuck blurted out, "Mark is talking again." I hadn't asked any students to help me watch Mark, but since I had stated the punishment in front of the class, I had to act on it. I remember the scene as if it had occurred this morning. I walked to my desk, very deliberately opened my drawer and took out a roll of masking tape. Without saying a word, I proceeded to Mark's desk, tore off two pieces of tape and made a big X with them over his mouth. I then returned to the front of the room. As I glanced at Mark to see how he was doing he winked at me. That did it! I started laughing. The class cheered as I walked back to Mark's desk, removed the tape and shrugged my shoulders. His first words were, "Thank you for correcting me, Sister."

At the end of the year I was asked to teach junior-high math. The years flew by, and before I knew it Mark was in my classroom again. He was more handsome than ever and just as polite. Since he had to listen carefully to my instructions in the "new math," he did not talk as much in ninth grade as he did in third.

One Friday, things just didn't feel right. We had worked hard on a new concept all week, and I sensed that the students were frowning, frustrated with themselves - and edgy with one another. I had to stop this crankiness before it got out of hand. So I asked them to list the names of the other students in the room on two sheets of paper, leaving a space between each name. Then I told them to think of the nicest thing they could say about each of their classmates and write it down. It took the remainder of the class period to finish the assignment, and as the students left the room, each one handed me the papers. Charlie smiled. Mark said, "Thank you for teaching me, Sister. Have a good weekend."

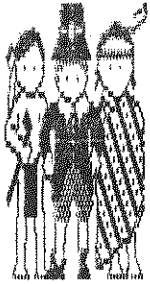
That Saturday, I wrote down the names of each student on a separate sheet of paper, and I listed what everyone else had said about that individual. On Monday I gave each student his or her list. Before long the entire class was smiling. "Really?" I heard whispered. "I never knew that meant anything to anyone!" "I didn't know others liked me so much!" No one ever mentioned those papers in class again. I never knew if they discussed them after class or with their parents, but it didn't matter. The exercise had accomplished its purpose. The students were happy with themselves and one another again. That group of students moved on.

Several years later, after I returned from vacation, my parents met me at the airport. As we were driving home, Mother asked me the usual questions about the trip, the weather, my experiences in general. There was a light lull in the conversation. Mother gave Dad a side-ways glance and simply says, "Dad?" My father cleared his throat as he usually did before something important. "The Eklunds called last night," he began, "REALLY?" I said, "I haven't heard from them in years. I wonder how Mark is?" Dad responded quietly, "Mark was killed in Vietnam," he said. "The funeral is tomorrow, and his parents would like it if you could attend." To this day I can still point to the exact spot on I-494 where Dad told me about Mark.

I had never seen a serviceman in military coffin before. Mark looked so handsome, so mature. All I could think at that moment was, Mark, I would give all the masking tape in the world if only you would talk to me.

The church was packed with Mark's friends. Chuck's sister sang "The Battle Hymn of the Republic." Why did it have to rain on the day of the funeral? It was difficult enough at the graveside. The pastor said the usual prayers, and the bugler played taps. One by one those who loved Mark took a last walk by the coffin and sprinkled it with holy water. I was the last one to bless the coffin. As I stood there, one of the soldiers who had acted as pallbearer came up to me. "Were you Mark's math teacher?" he asked. I nodded as I continued to stare at the coffin. "Mark talked about you a lot," he said.

After the funeral, most of Mark's former classmates headed to Chuck's farm house for lunch. Mark's mother and father were there, obviously waiting for me. "We want to show you something," his father said, taking a wallet out of his pocket. "They found this on Mark when he was killed. We thought you might recognize it." Opening the billfold, he carefully removed two worn pieces of notebook paper that had obviously been taped, folded and refolded many times. I knew without looking that the papers were the ones on which I had listed all the good things each of Mark's classmates had said about him. "Thank you so much for doing that" Mark's mother said. "As you can see, Mark treasured it." Mark's classmates started to gather around us. Charlie smiled rather sheepishly and said, "I still have my list. It's in the top drawer of my desk at home." Chuck's wife said, "Chuck asked me to put this in our wedding album." "I have mine too," Marilyn said. "It's in my diary." Then Vicki, another classmate, reached into her pocketbook, took out her wallet and showed her worn and frazzled list to the group. "I carry this with me at all times," Vicki said without batting an



CONTINUED
FROM PAGE 4
TEACHER'S
IMPACT

eyelash. "I think we all saved our lists." That's when I finally sat down and cried for Mark and for all his friends who would never see him again.

THE END

Written by:

Sister Helen P Mrosia

The purpose of this letter, is to encourage everyone to compliment the people you love. Sometimes the smallest of things, could mean the most to another. I am asking you, to please send this letter around and spread the message and encouragement, to express your love and caring by complimenting and being open with communication.

This article was submitted by John Willforth.

Thanks John!

LINE TOO LONG?

By: Jim Weigand

How often have you been typing a multi-statement line in Extended Basic, only to find the last few characters will not fit in the five rows allowed, then FCTN 8(Redo), cursor to the end of the fifth row, then add the missing characters. A faster method

exist. At the end of the fifth row, back the cursor to the spaces before and after the double colon statement separators, delete as many of these spaces required to allow you to finish your line. When you press ENTER, EXT Basic will add the missing spaces. Your line will now extend into the sixth row.

Should you decide that any line is longer than you would prefer, it can be divided quickly by the following method. After selecting the line with FCTN X, change the line number to the next previous number (assuming that you had available spaces). Now delete the last statement(s) not wanted on this line. Press ENTER to accept it. Again display the original line. Delete the statement(s) from the beginning down to the statement that was deleted above, press ENTER. Don't forget to SAVE your changes. You may also have to search your program for any branches to the line just modified. These will have to be changed to the new line number. A RESEQUENCE can be done now if preferred. Again, SAVE your program.

The above sounds like a lot of moves to get the done but it is faster than having to retype the changes. TRY IT YOU MAY LIKE IT.

Thanks Jim!

ADDING A FOURTH DRIVE !

LET'S ADD A FOURTH DRIVE

By: Jim Weigand

Last month I discussed adding a fourth drive would be useful (I use a 3 1/2" for backups). See the last paragraph for important 3 1/2" disk information.

This modification requires some wiring changes (with soldering) and drilling a small hole. Materials needed are: A SPST miniature toggle switch, a dual drive data cable to match your drives (3 1/2"-5 1/4" or whatever), and the proper power "Y" adaptor. These items can usually be purchased at Radio Shack or a local computer store.

As mentioned in the last issue, pin #14 of the TI disk controller is the DRIVE Select (DS) line for DSK3. This is the wire that we will be working with. The task here is to install the toggle switch to allow selection of DSK3 (A or B).

To accomplish this, you must count the wires in the data cable (the colored wire is #1) to wire #14. Cut this wire between the disk controller connector and the disk drive connector, about one inch from

the disk drive connector. Now find wire 14 between the two drive connectors and cut it near the center. Strip and tin these two ends plus the end selector switch and mount it. With a 3 1/2" drive installed in a 5 1/4" bay, there is ample room. Cut a suitable length of three conductor wire (a piece of ribbon cable works well) to connect the switch to the data cable. Solder these wires to the switch with the center wire connected to the center terminal. At the drive connector, solder the center wire to wire #14 from the disk controller. The other two wires must be soldered to the cut wires between the disk drive connectors. Insulate all soldered junctions and install the drives.

If all went well the drive selector position (A or B) can be identified. Type in OLD DSK3.TEST and press ENTER. Watch the drive lights and label the switch position appropriately.

Remember that if this is beyond your ability, ask for assistance. Someone will usually help.

If you are using a 3 1/2" drive and cannot find the double density disk (with only one hole on the back edge), you can use the high density disk if you cover the second hole with a write protect tab. Do not cover the hole with the little slider in it, this is the write protect slot and may be needed later.

HAVE FUN!!

This article came in just in time for me to put my newsletter together. I was hoping that I could get some input for the newsletter. Bruce also included a disk to be added to our library. To his knowledge nobody else ever made a routine of this kind, that would allow a user to perform CALL FILES from within a running program. Pick up a copy at the meeting and enjoy!

ANOTHER WAY TO CALL FILES

By Bruce Harrison

Just enjoyed reading the October issue of West Penn 99ers Newsletter. In there I found a "TIP OF THE MONTH" that dealt with the matter of using CALL FILES to increase storage capacity when using Basic or Extended Basic.

What the article didn't say was that this affects only the VDP Ram space, not the expansion memory. Thus it provides more of what Extended Basic calls STACK SPACE, and has no effect on PROGRAM SPACE. Thus, while the extra space may be useful, it can only expand the room for string variables, not the space for numeric variables or the program itself.

The books say that you can perform CALL FILES only from Command Mode, and must follow it with NEW. I've found NEW to be unnecessary, and have devised an Assembly routine that can be used within an XB program to perform CALL FILES while an XB program is running. This little product, which can be "embedded" in an XB program either with ALSAVE or with Harry Wilhelm's HML, allows the program to free up string space for itself by a CALL LINK to my Assembly routine.

I've supplied a copy of this Public Domain disk along with this article. The disk includes sample programs and all the instructions so that XB programmers can incorporate the routine into their own programs.

By the way, in some cases CALL FILES may be needed in the other direction, so that a program may have more than three disk files open at one time. Numbers up through 9 are accepted and handled by my Assembly routine. Of course using high numbers cuts into the string space that's available, but in some programs that's a necessary evil.

The Public Domain disk CALLFILES should be available from your West Penn library, so you can easily give it a try. Enjoy!

Protection Schemes

Source Unknown

The TI proprietary protection scheme simply wrote an upper case P at a certain byte. UALPHA P is ASCII hex 50. Using a sector editor simply change the >50 to >20.>20 is decimal 32 which is the space character. Do this for all of your files. Now they are all unprotected.

I am assuming some familiarity with a sector editor. Old hands will know that you have to write the changes back to disk to make them permanent. Extended Basic protection is just about as simple. It usually consists of adding eight to the file type byte in the FDR. Sometimes you may have to XOR words 2 and 4. So simply subtract eight from the file type byte and your program should be unprotected.

How do you XOR words >2 and >4? The simplest way is to change both words to binary. Line up the columns. If both columns are different i.e. 0/1,1/0 write a 1 beneath those two columns. If the columns are the same write a 0. Ignore any long line of 0's you may have to the left. Start with the first 1 and continue writing left to right as you would any number. Store the result in bytes 0 and 1.

Perhaps an example will make it more easily understood. Let us assume that word

H2 = 37CE = 0011 0111 1100 1110 and that
37CB = 0011 0111 1100 1011 word H4.

The result 0000 0000 0000 0101. 101 is 5 in decimal and hex. So in bytes 0 and 1 we will write H00 and H05.

The next protection scheme I would like to discuss is almost as simple as writing P. This type of protection uses a program which can detect bad sectors. It depends on only initializing a certain number of tracks. Let us say you have a disk manager such as CorComp's which will allow you to initialize a certain number of tracks. Let us say you initialize 8 tracks. 8 tracks * 9 sectors/track = 72 sectors. The program checks sector 72 and if it is good returns you to the title screen.

Why 72? Remember in "computer" we almost always start counting at 0. So 8 tracks would initialize 0 through 71 for a total of 72. Sector number 72 would be

on track 9.

Another method which was once widely used until everyone caught on was the spiral sector. In this scheme not all of the bytes which should be written to sector 0 are written to sector 0. Let us say you break this sector up into eight byte blocks. $256/8 = 32$ so your last 8 byte block will be written to sector 31.

Why not 32? Remember we start counting at 0. This is called a spiral sector because of the pattern formed as it moves inward towards 31. Meanwhile 31 is moving outward in the same pattern and so on. Of course once copier programs were written which could copy spiral sectors authors and publishers quit using them.

Another scheme which has had some success is to zero out sectors 0 and 1. Some authors also zero out the byte count for each line of an Extended Basic program which lets it run but makes it unlistable. Of course once again when programs were developed which could restore the byte count and sectors 0 and 1 they were forced to try other schemes.

One is to tell a track editor the sectors are IBM type sectors with 512 bytes per sector. Another is to tell it there are no sectors on this track when the track actually has sectors on it. Another is to misnumber sectors and tracks so that we have sector 2000 on track 400 when it is actually sector one on track 0. Almost anyone can come up with some kind of protection scheme.

The real fun lies in writing a short program which in effect tells the FDC that everything is all right. Another interesting little tidbit. I once examined a protected disk with a track editor and found the names and addresses of three people written in the tracks throughout the disk.

Needless to say the disk would not boot or if force booted would not run unless the names and addresses were there. Fortunately I had a track copier which could copy the names so I was able to make my backup copy.

Ultimately all these schemes fail because at some point the card has to be able to read the disk. How many possible protection schemes are really possible? Since TI decided to follow IBM's lead in this matter there are exactly 34. Another gem. Tell the backup program that the tracks are alternating single and double density!

SHORT JABS

By Earl Raguse

Found in the Milwaukee Hocus.

Two Texans left their swanky club to go back to their offices, it began to rain so they ducked into a car show room, to call a cab. But no cab showed, so one said, "No sense waiting, I just buy a car." "No let me", said his pal, "You bought lunch."

Earth provides enough every man's need, but not enough for every man's greed." -Mohandas Gandhi

A single housefly can lay 30,000 eggs in a year. However, there are no statistics on how many a married one could lay.

MURPHY ON TECHNOLOGY

You can never tell which way the train ran by looking at the track.

Logic is a systematic method of coming to a wrong conclusion with confidence.

Technology is dominated by those who manage what they do not understand.

The opulance of the front office varies inversely with the fundamental solvency of the firm.

The attention span of a computer is only as long as its electrical cord.

All great discoveries are made by mistake.

Always draw your curves, then plot your data on them.

Alls well that ends.

A meeting is an event at which minutes are kept, and hours are lost.

The first myth of management is that it exists.

New systems generate new problems.

To err is human, but to really foul things up requires a computer.

The primary function of the design engineer is to make things difficult for the fabricator, and impossible for the serviceman.

After all is said and done, a hell of a lot more is said than done.

A complex system that works, is invariably found to have evolved from a simple system that worked.

Under the most rigorously controlled conditions of pressure, temperatue, volumns, humidity, and other controllable variables, the organism will do as it damn well pleases.

Fill what's empty. Empty what's full. And scratch where it itches.

The only perfect science is hindsight.

Work smarder not harder, and be careful of your speling.

If its not in the computer, maybe it doesn't exist.

Build a system that any fool can use, and only a fool will want to use it.

If an experiment works, something has gone wrong.

EXTRA MEMORY

By Earl Raguse

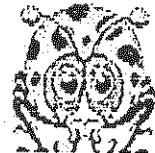
The following was excerpted from the Central PA Newsletter who got it from the PUG PERIPHERAL Newsletter. They in turn got it from the Sept 1992 TID-D-BITS Newsletter.

It is reported that if you need or use a lot of memory for data files, and want to change programs without reloading the file, even after you CALL QUIT. You can set up the entire 24k of high memory in the PEBox as a single data file named EXPMEM2. You open this file just like any other file, with one exception, you must precede the open statement with CALL INIT and CALL LOAD to location -24574 as follows, for a DV80 file.

```
100 CALL INIT
110 CALL LOAD(-24574,-16)
120 OPEN #5: "EXPMEM2", RELATIVE,
UPDATE, DISPLAY, VARIABLE 80
```

To open other types of files, the call load is:

```
INT VAR= -24 INT FIX= -8
DIS FIX= -0
DIS VAR= -16
```



Then continue as with other normal files. You may not turn off power to the PEB. I am not sure if you can access this file from TIW, or only XBASIC and Assembly.

I tried the above program, and consistenly got an error in line 120. Anybody know what is wrong, or is this all a hoax?

=====
GUIDE TO TI'S 32K MEMORY EXPANSION
by Peter Hutchison, Halifax, HX1 2X0

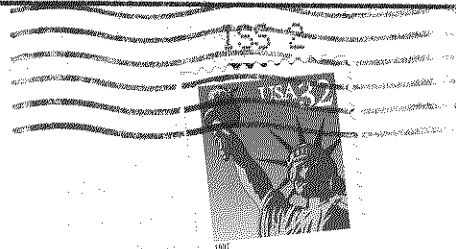
Just what is a 32k memory and how does it work and what is it used for? I hope this article will solve these questions.
If you plug in your expansion RAM, on the right hand port in my case, and switch on, plug in Extended Basic and type the command SIZE:
13928 BYTES OF STACK FREE
24511 BYTES OF PROGRAM SPACE FREE
[differing values will be given for disk users depending on state of CALL FILES, and may also differ with some versions of ExBas.].
The 13k part is the RAM that comes in the console [VDP RAM] and the 24k part is the Expansion RAM.
Where has the other 8k gone to?
The 8k part is for machine code routines and is not used for Extended Basic.
[Extended Basic can LINK to machine code routines in this area. Pure machine code programs can fill all 32k if required].

Another question is- why am I limited to 12k programs if I use cassette for storage? The answer to that is the way the TI saves code. If you have one, look at the Editor Assembler manual, page 297- SAVE. It says "the SAVE operation writes a file from VDP ram to a peripheral".
How much VDP ram do we have? 13k. The TI in fact copies the PROGRAM from Expansion RAM to VDP RAM and THEN to the peripherals- this explains the short delay when you type SAVE CS1.
[Longer programs are allowed on disk as the console switches to an alternate format which saves programs as shorter records instead of dumping them all at once. This format is 'Internal Variable 254' but you needn't worry about that].

- The 32k ram area does not have continuous addresses (Editor Assembler manual page 400):
>0000... console ROM (2 x 4k rom chips)
>2000... low memory expansion (8k)
>4000... peripheral roms for Device Service Routines
>6000... reserved for modules (8k)-ROM or RAM.
>8000... memory mapped devices, VDP, GROM, SOUND, SPEECH
>A000... High memory expansion (24k)

If you use Extended Basic, High Mem will contain your basic program and numeric data, console ram will contain strings, and data for the screen display, sounds, sprites, pattern definitions.
Low memory on the other hand will be used (if at all) by CALL LOAD and CALL LINK commands, for loading and linking to machine code routines.
Expansion memory can be used by other modules, such as Editor Assembler (32k to store machine code programs), Mini Memory (as Editor Assembler, OR as two ram disks), TI LOGO (32k required), etc .
With the disk system, 32k is essential as the disk operation takes up some memory from VDP RAM.
32k ram cannot be used by TI Basic or modules not designed for its use.
[Ram disks may incorporate rather than replace the 32k standard expansion, for example the Myarc 512k card uses 32k for normal purposes, and the remainder for ram disk or printer buffer uses.]

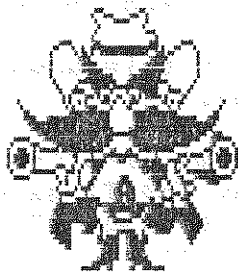
WEST PENN 99'ERS
C/O Paul A. Brock
P.O. BOX 222
North Apollo PA 15673-9999



Newsletter Editors

Please note new address
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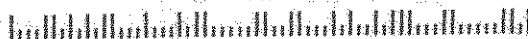
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