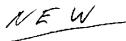
NEUSLETTER OF THE CHICAGO JI-99/4A USERS

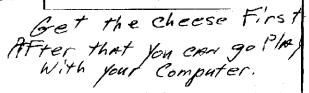
COMPUTER USERS

sabuetoxa



# THANK YOU FOR NOT SMOKING HERE





T FOR WHAT ? ??? MARCH!

THINK SPRING !
THERE MOVEING ; OAKLAND COMPUTER
CLUB !

GOING TO



% EUNICE B. SPOONER RR 1 BOX 5860 POND RD. OAKLAND, MAIN 04963

PHONE # 1-207-547-4136

AS FOR THE LAST Newsletter,.,,,.
One of our members (#274 LARRY SCOTT )
gave me a call and told me what was on
the JANUARY COVER. THANKS LARRY !!

Think SPRING! Grab one of them IRISH people and squeeze them until the little GREEN guy falls out of em.

I CAN SAY THAT , I MARRIED ONE OF THEN

SDMEBODY SENT ME A LETTER. AND IN IT THEY ASKED ME IF THEY COULD RE-VIEW SOME OF OUR DISKS. IT'S AL-RIGHT WITH ME. BUT! I'M NOT THE ONE TO ASK. ASK DAVE...

From Elgin, III,

This part gose out to all of the other newsletter editors.;; THANKS FOR BEING THERE. I DON'T HAVE THE TIME OR ROOM TO THANK ALL . I GOT A THICK PILE OF NEWS-LETTERS FROM ALL OF THE REST OF YAS..

JUGS ERIE 99ers WEST PENN 99 ers DTTAWA 99ers FOX VALLY 99 ers ASGARD SOFTWARE DOWNEAST 99 ers POMONA VALLY 99 ers WILL COUNTY 99ers BOSTON COMPUTER SOCIETY

MUGS- PENNSTATE - NEWS

WILLIAM G. CHAVANNE + 1696 JUSTIN DRA

GAMBRILLS, MD 21054-2013 === TI-TAX ?? WRITE & ASK ..

OZARK 99 ers MID SOUTY 99 ers OZARK 99 ers

S.C.C.G. 99ers ST.LOUIS 99 ers WORDPLAY 99 ers HOOSIER 99 ers LA 99ers There is to many to continue..

THANKS GUYS & GALS FOR CAREING !!!!!!

TO CONTINUE from the last news \*\*\*;

I lost my drive #two. I lost the RAM DISK. Tried to lost the kid! Didn't work.

Got more computers in this room. Went out yesterday to another old TI-99 USERS GROUP.

The only T1-99 that was there was sold. To WHO ELSE. ME! I'M STARTING TO THINK THAT THIS COMPUTER WAS NAMED THE WRONG NAME.

Just in my mind, It should have been named, "SEX-79" WHY? CAUSE I JUST CAN'T SET ENOUGHT OF IT. \$20. GOT ME A TI-79, 250 TO 300 DISKS FULL OF PROGRAMS, BOOKS, & ect.

There is some for sales stuff..

ok, GARY MAYDEN 2350 MCBRIDE C-2

SANTA ROSE, CA. 95403

HE'S GOT TWO PAGES OF TI-STUFF 4/SALE.

NEW & USED. sorry, no phone number.

OK NOW, This guy has a full system.
JUST TALKED TO HIM, HE SAID HE WOULD
BRING IT ALL TO THE NEXT MEETING.
RAVE KEY BOARD - 1 RAM CARD - ROSS &
RAMBO

PRINTER - 100 or so PROGRAMS - LOTS OF CARTRAGES - & ect. \*\*\*

still another; This guy will bring the stuf to the meeting too. TI-99 w- TAPE PLAYER & JOY-STK & GAMES. 1708-517-1233 I GOT TO CALL THIS ONE BACK NOW TO BE SURE THAT IT IS STILL THERE. 1-708-XXXXXXXX IT IS STILL THERE. BUT, SHE DON'T WANT HER NUMBER IN THE NEWS.

LAST ONE; I HAVE 4/SALE: ONE TI-P.C. COLORED MONOTER. IT IS NOT FOR THE TI-99 IT'S FOR THAT OTHER ONE.1/708/755/0051

\*\*\*
IRV LEVINSON EVANSTON, ILL.

1 708 328 0245 \*\*\* VIC STEERUP SCHAUMBURG,ILL.

\*\*\* VIC STEERUP SCHAUMBURG, ILL. 1 708 351 4130

\*\*\*\* JIM DEARDS CARPENTERSVILLE, ILL. 1 708 426 6301

\*(\*\*\* DAVE CONNERY ELGIN, ILL. 1 708 888 8120 \*\*\*\*\* JIM BAIRD ARLINGTON HTS.,ILL.
1 708 398 3149

\*\*\*\*\* JIM BROOKS CHICAGO,ILL.
1 312 WHAT ??????
&&&\*\*\*\*\* BBS SYSOP

MIKE MAKSIMIK CALUMET CITY, ILL. 1 708 891 2513

DON'T KNOW WHAT ELSE TO DO WITH IT NOW,
GOT TO CLOSE IT & GET IT TO THE PRESS!
THANKS ALL, HOPE IT'S A GOOD
NEWS-LETTER.
TONY Zski

\* 256 \* (Read 37 times)

Ar: TI General Forum

To: ALL

Fr: Ricky Bottoms #209

On: 01/29/93 10:46:41 pm

Sb: Hardware Manuel

To Whom it may concern,

I am relatively new to the TI and am interested in all concerning it. I am really interested right now in what I can do to increase the versatility of my machine. I have inquired a couple of times as to the how of getting the manuel of thardware mods, but as of yet no one has given me any usefull info. I would like to know how much they are and to whom I am to contact about their availability. Please these long distance calls tost alot.

Ricky Bottoms A member A review of programs demonstrated at the February 6th meeting. AA

At last south's General meeting, I can a demo of the different to programming languages, "Bit-Map brephics" and "6". 'B # Map traphics", or BNG from here on, ran in his. and used COLL LINKs to access assembly routines that were loaded in seperately. The programs on the disk generate (rather slowly) plots that looked like a rubber sheet of graph paper stretched over a hemisphere, or a saddle, etc., and could be used to show any kind of sing/cosine, or other mathematical display. Bit-map mode can draw or erase a point at any part of the screen, and has LINE and CIRCLE routines, too. A nice feature is that the program WILL save any screen it draws, to disk, in II-ARTIST 25-sector file, but without the f suffex. Use a disk manager to rename the file if you munt to load it into II-ARTIST, or if you want to load an existing picture into this program. Another useful routine is the screen dump that prints the screen to an Epson-compatible printer. The disk comes with minimal documentation, and a dozen demonstration programs. Be careful, though, as some of the programs do not run if you have run another one of them first. Apparently, the memory expansion is not being cleared properly, so don't be suprised if you have to turn your competer off and on again to be able to run them. This happened to me when I tried to run every program on the disk one right after the other.

The next lisk is called simply "6". It uses a simple, powerful text editor to generate a BU/80 file, that controls a quick assembly program to draw color graphics and test on the screen. The files are rasy to edit, and built in error-trapping stops the program at any illegal commands. It comes with a large README file that explains how to use 6. There is one file that dosen't run right, MIRES, and stops at a line listing a MEMI-variable statement. It seems there is no fOR-variable listed before it. All copies of this disk from our Library will have this fixed. Galso can save and load screens from disk in GRAPHM format, and can read most DU/80 files, including the -REAIME file on the disk. There are quite a few example files that can be run that show the results of various commands.

Another disk I like to show is the Tipercub Mats & Bolts demo. What are they? The M&B disks are collections of 100 or more subprograms per disk in BU/163 format, ready to merge into your own programs.

And what does that mean? Hell, T1994/A ixtended Basic allows the use of user-written subprograms. And what are subprograms? You know them well. CALL COLOR, CALL SOUND, CALL HCHAR - those are all subprograms which are built into the Basic language. You can write your own subprograms, to do anything that Extended Basic is capable of, and tack them onto the end of your program to be CALLed wherever you need them. To put it another way, using a subprogram is almost like running one program from another - except that you can access it much faster, you can pass along any values you want to, and you can return to where you left the first program.

Also, with a disk drive you can save programs in MERGE format and then LERGE them into a program in memory. Providing that the line numbers are different, the program which you MERGI in will be added to the program in memory.

The variables used in a subprogram are entirely separate from those used in the main program, therefore libraries of utility subprograms can be developed in MERGE format, and MERGES into any program without conflict.

The Muts & Polts Bisks are libearies of such subprograms. The first disk centains 100 subprograms, plus a tutorial on using town. Bisk #2 contains 108, and Bisk #3 contains 140 more in 114 files. Mething like them has ever been offered by anyons else for the TI-59/4A computer.

These 348 subprograms have been consecutively line-numbered with high line numbers so that they will not overwrite your program line numbers, and so that any number of them may be #ERGEd into a program without overwriting each other.

Advanced programming techniques have been used to make these routines as compact as possible, averaging hardly more than 3 sectors each, so the a hundred or mare could be crannel onto a disk and so that they would add very little to the length of a program. If you are learning to program, you might learn a great deal by studying these subprograms.

Many of these subprograms can be used by persons with almost no programming knowledge, to modify existing programs. For instance, a program written in Basic, which crashes with BAD WALUE when run in X/B, will run with a simple CALL BXB, and CALL KILLOUI: will disable the infernal CUIT key. Many different screen character styles are available, as well as colorful wipes to replace CALL CLEAR.

6

However, it is the programmer who will find these disks truly invaluable. Even if you have the skill and ingenuity to develop these routines for yoursel!, wouldn't you rather just pay five cents apiece for thee?

The Muts & Bolts Disks are available for just \$5 each, postprid, with full documentiation on disk. Bit-map Graphics (disk \$906) and "6" (disk \$1180) are \$1.50 each. Order from Tigercub Software, 156 Collingwood Ave., Columbus OH 43213. If ordering less than 8 dists, add \$1.50, Canadian customers add \$1.50 per order, and overseas add .50 per disk. Ohio residents add 5.75 I sales tax.

I recomment getting the demonstration disk, (Huts & Bolts Demo, \$1.50) and watching it a couple of times, to see what all of these subprograms can do. Why reinvent the wheel? Jim Peterson has done a fine job of writing these routines, and making them available at a bargain price of only \$5 per disk, including documentation.

Who Did The Re-View?

\* 285 \* (Read 22 times)

Ar: TI General Forum
To: ALL
Fr: Ricky Bottoms #209
On: 02/13/93 03:36:01 pm
Sb: HARDHARE MANUEL

Hal and Don,
Ihanks for the info on the manual line of the info on the manual line of the line of the

\* Origin: The Chicago UG BBS / 708-862-0182

## NEMBERSHIP KENS AND VIEWS BY JAMES BROOKS

Hello there all of you Il'ers. The plan of the meetings has changed. Ho more will there be besiness discussed to the general membership. If you wish to know about the besiness meeting, come one hour earlier, 11:00 Moon.

How this will be the last issue for some of the sembers who have not renewed. Due to the sudgen illness of the editor; Tony "2", the newsletters have gotten behind a bit. He is back to work now and we hope he will continue with good health.

I missed the last meeting because I did not get the MASK that I needed but I have it now. If you see a strange face at the next meeting, it may be me meeting my 'filter out all forms of smake and even chemical odors".

Nith our new President, many new things will be happening. The next meeting will be more software demonstrations (a project had been planned but changed to a later meeting).

Now the big thing is yet your renewals up dated. If you plan to continue with this group, now is the time to renew.

Oh, BIN, any member who has reserved and I do not have you recorded as "up to date", please bring it to my attention.ince I was not at the last couple of meetings, I may have missed a few that signed up there that I am not aware of.

Also, our sysop has really made vast improvements in the Sal program on the IBS. It can now be reached by the meer dialing ! 708 861 0182, no "coma's needed anymore.

So until the next meeting, I will say so long for awhile.

### NEMBERSHIP NEWS AND VIEWS BY JAMES BROOKS

Hello there all of you TI'ers. The plan of the meetings has changed. No more will there be business discussed to the general membership. If you wish to know about the business meeting, come one hour earlier. 12:00 Noon.

Now this will be the last issue for some of the members who have not renewed. Due to the sudden illness of the editor, Tony "Z", the newsletters have gotten behind a bit. He is back to work now and we hope he will continue with good health.

I missed the last meeting because I did not get the MASK that I needed but I have it now. If you see a strange face at the next meeting, it may be me wearing my "Filter out all forms of smoke and even chemical odors".

With our new President, many new things will be happening. The next meeting will be more software demonstrations (a project had been planned but changed to a later meeting).

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Also, our sysop has really made vast improvements in the S&T program on the BBS. It can now be reached by the meer dialing 1 708 862 0132, no "coma's needed anymore.

Some of the out of town members have sent letters requesting various needs so I have decided to print the main theme of some of these letters.

Member #173, Al Morgan is interestred in finding instructions for ASSIMBLY LANGUAGE. He is at 859 E. Broadway; Stratford, Conn. 06497. He does not have a phone number to reach him. Anyone that can help him cut, please write to the above address.

Member #250, Tom Morrison for a DS/DDdrive controller, info on a CORCOM RANDISK, and a program for a SMART MODEM. Also, can anyone identify chips? These are memory chips marked TMM4164AP-15. He list no phone so you can write him c/o Rt.1 Box 15 B; Louisburg.KS 66053.

Member #699, Laverne Ilatnik would like to be of benifit to the group by reviewing programs for library articles. Attention: Librarian! Laverne is offering to help you. Write or send programs to; Laverne Ilatnik; 1872 102nd Rd; Delia, KS 66418.

Member #240, Lowell L.Snitchler, who finally got his Geneve to work but is plagued with the fact that the hardware and operating system keeps evolving and information was not available. He would like to get a "HARD COPY" of the final process to operate the GENEUE, Hrite him: Lowell L. Snitchler, PH.D.; 248, Olde Post Road; Niceville, FL 32578.

So until the next meeting, I will say so long for awhile.

# SAY NO TO DRUGS AND YES TO LIFE



DON'T BE A LITTERBUG!

The loard secting adjourned at 1:20 P.M.

The Executive Board Meeting of the Chicago T.1. User's Group stinted at 18:15 P.M. february 6th. Attending were Don Hallen, Jis Bracks. Hall Shanefield, Jis Baird, 11 Antennaicz, Jis Bracks. Golan Degras, Dave Connery, and Lic Steely.

PRESIDENT'S REPORT - ton Halden - There has been a problem at past meetings with excessive cigarette smoke in the building. It is not reasonable to expect people to bring their own air supply, or have to sit next to an open windom. As the meeting hall uses ho; water heat, not forced air, air circulation is limited to opening doors and windows to the outside. Also, there seems to be liability to smokers, the organization and the building owner. Dave Connery moved, and Orlan Degris seconded, to eliminate smoking at Board Neetings, but allow it in the hallmay outside the room. After a debate, the Board passed the motion 9 to 1.

TREFSURER'S REPORT - Inv Levinson - He have soney to cover all checks that have been written, and have received checks for deposit, and can now pay all outstanding lebts. The Treasurer has handed in an accompting sheet to the President, who then asked the Equipment Chairman for a list of all hardware the tlub owns. Irv moved, and lim Baird seconded, raising dues to cover the cost of renting our meeting hall. Attending members voluntarily denate towards this rental, but their contributions don't cover the rental. It was mainted out that if we move our meeting place, we will probably loose some members, and it would be unlikely we would gain any. Also, this hall is an the ground floor, not a basement, and close to the parking lot, which makes it easy for members, vendors and those doing demonstrations to move their equipment in and out of the building. Pius, we have here seperate rooms to hold the loard, and General meetings, and a ... lood service to get lunch from in the hall, without having to leave the building to get something to eat, coffee or soda. George Lempeotis moved, and Irv seconded, tableing the motion on raising dues. It was brought up that we smould publish in the Newsletter the names, addresses and phone sumbers of the Board members. The Club will start to provide kits of parts, and circuit boards where necessary, for the projects described in our Mardware manual. Betails on which kits, and costs, will be announced later,

Tony Zlotorzynsky arrived at 1:15 P.M.

BEHERAL MEETING - The President greeted the attending members, and announced that we will have a hardware project next month. Bring your soldering pencils! He also mentioned that at the Board meeting, we discussed that since the Hardware manual was such a good seller, how about providing kits? Some suggestions from members were: build a supercart (E/A w. battery-backed BK), putting a write-protect switch on a supercart to protect the program memory, putting a write-protect switch on the disk drive, so tabs would not have to be put on the disks to protect them; a switch on the front of a disk drive to change the frive number, a console variable-speed control, putting the speech synthesizer and TEII chips on the RAVE speech card, to access unlimited speech from I/B, a light pen, A/B & E/A in the console to eliminate lockups, a ciode on the alpha lock, so joysticks work whether the alpha lock is up or down, and changing the UDP load resistor, for a sharper display on a TV. The club would supply, at cost, all parts, solder and software. Just add heat! It was brought up that the Board had tanned smoking at the Board mertings, and the Members were asked if they wanted to ban sanking at the General meeting. Bave Connery moved, and Bon Jones seconded, banning smaking in the secting hall, but allowing it in the fover and hallway outside, so anyone wanting a stoke would not have to leave the building. It was brought up that this ban would disrust meetings and demonstrations, if people were getting up and leaving the room to get a smoke. After some discussion, the ban was passed by 10 to 4. He have copies of the hardcover "kids working with computers" II Basic and TI LUGO minuals by Childrens Press that even some adults could find usefull for learning the basics about these two language. They are being sold at the meeting; for \$1 each, or both for \$!.50. The Librarian (Bave Connery) innounced that the two disks reviewed is the Jan. 93 Newsletter, Edecation 12 and 13, are being sold as a set of two for \$3, or archived on one dsst for 12. You must use AKCHIVER, also available from the Library, to inpack these files so they can be run. A note to all of you who have replaced the power supply in your P-box with a switching type, and have subsequently jumpered the voltage regulators on the cards, you might (should) cut the ground wire of the regulators, as some members reported that they had regulators of low value that were trying to short the "excessive" voltage to ground! The sumptom was they were very hot. The BOS library (George Lempeotis) non has a new list of software, the programs Express Check, File Express, and TELEK, and a catalog of the files on the CD-ROI.

Iony Ilotoriky displayed a 15 oot long sheet listing everything that had ever been published by 99'er / HCM Negazine / Best of 99'er, a seftware catalog, and all artises all lable on 1 disk. Orlan Degris announced that he has his fack getting a HP Laser printer to work with his II, as it seems to emulate Epson 24-jin mode. It has miny built-in forms, but he was wondering how to get it into graphics mode. . . Vic Steerup ran a demonstration of three completely, different graph is disks, "Bit-map Graphics', "6", and the Tigercub Nuts & Bolts series:

Minutes respectfully submitted by Victor Steerup, Secretary.

The CTIJ6 Library Corner. March 1993 Disk Reviews by: WALTER #ARD Jr.

All discs are \$2.00 per disk unless otherwise noted. Bhippin; and handling: U.S.A. add \$0.30 per disk. Others add \$0.60 per disk.

Make check or money order payable in U.S. funds to: CHICHAGO II USERS GROUP

Mail to: CTIUG LIBRARIAN DAVID A. EONNERY 420 FRANKLIN BLVD ELGIN IL 50120-4439

Please allow 4-6 weeks for deleviery.

THE OPINIONS EXPRESSED IN THESE REVIEWS ARE THOSE OF THE REVIEWERS AND ARE NOT NECESSARILY THOSE OF THE CTIUS.

\* SPECIAL SPEC

Diskname: Free: 358 Used: 2
Filename Size Type P Comments

1ST-ADD 14 Pgm N Exactly the same as 1/ADDITION on EDU-#12.

ADDITION 18 Pgm N The same principles as IST-ADD but uses various fruits such as cherrys, apples.

pears and various cecmetric shapes such as diamonds, circles, squares, etc. This is the one which sets off fireworks after each correct answer. That can get old in a hurry for us so called adults. I wonder if the preschool set for which this was written would get tired of the fireworks too? If we had the choice of turning off the fireworks I would say this is a great program. As it is I can only say it is a good program.

CAT 5 Fqm N XB catalogger.

EUROPEAN B Figm N You must name the capitols of 27 European countries some of which no longer exist such as East and West Germany for example. Needless to say the names must be spelled correctly. A great program.

EXPRISSION 45 Pgm N Sorry but this one requires speech.

GRADEBOOK 5 Pgm N This is much like the last gradebook program. GNE GREAT BIG BUG. 'our grade is 'D' no matter if you got 100%. In fact your grade is 'D' no matter what your par cent. All grades are 'D'. I would definitely fix this before I put it on a disk and tried to sell :t!

LOAD 5 Pgm 1 N XB loader runner.

MICHIGAN 19 Pgm N CALL FILES 1), NEW, OLD DSK1.1ICHIGAN, RUN. Recuires speech. Sorry.

\_PIGGYBANK 49 Pgm N CALL FILES:1), NEW, OLD DSK1.º16GYBANK, RUN. Requires speech. Sorry.

RUSSIAN I Pgm N This program will turn your keyboard into a Russian keyboard. If your printer supports the Russian character set you may get a printout if you wish. I did not know the Cyrillic alphabet used so many Greek characters. Very good program by the way.

SCRAPBLE 42 Fgm. N Sorry but this one requires speech.

SFANISHIII 12 Pgm. N Practice the four arithmetic functions. All directions and prompts are in Spanish. Very easy problems Very advanced Spanish! The little chirps after each correct answer are a nice touch but I would like to be given the choice of turning off the sound effects. Another great tutorial.

SPELLING 6 Pgm N I thought CALL SAY was IB speech and CALL SPEECH was YE II and Speech Synthesizer. Perhaps so but this one bombs anyway at 160. 160 CALL SAY(Y\$." ", H:(X)) in XB.

STATES II Pgm N In this program you are given the choice of guessing the states or their capitols. No obvious bug; that I could find. Please remember I am only one time. Great program!

TEACHER 35 Pgm N This must be run in TI Basic. Press the rumber key corresponding to the number of balloons the clown is holding. After you have run through the digits enter A and go around again. Definitely preschool or kindergarten. Great program. A better file name might be COUNT.

WRITER 14 Fgm N This is a file handling program or so it says. It won't accept any of my numbers for number of records or record size(?). I always thought it was record length. I don't know why since the disk catalog says there are 358 sectors free, 2 used. There should be plenty of room. Just on the chance that I made a bad copy I checked the original with the same results. (Written with tongue firmly in cheek.)

WRITER1 8 I/F 48 N A file used by WRITER.

Diskname: EDU-#17 Free: 12 Used: 348

Filename Size Type P Comments

ADD 15 Fgm N Barnyard math. Addition. Speech is optional. There is music playing in the background. The farmer keeps moving his tractor rom right to left(?). Every farmer I have ever seen moves alternately right to left and left to right. Oh well. Never mind the farmer. These barnyard math grograms are so good we should try to find a disk full.

ALPHABET 35 Pgm N This is to teach your child the alphabet. It uses different colored screens, giant capital fetters and other tricks to try to hold the child's interest. A great program for about the four to sic year old set.

ARITHMETIC 15 Pgm N Slow! Slow! Slow! This program mates molasses in January look like a speed demon. It does give problems or drill in the four arithmetic functions. No obvious bugs that I could find except it is so alow a small would get a speeding ticket! It does not give a score. If it could be speeded up some and a score keeping feature added it would be a great program instead of a marginally good one.

CAPITALIZA 42 Pgm N Sorry. This one requires speech.

CAT 6 Pgm N XB catalogger.

CONSTELLAT 19 Pgm. No This program shows the constellations all alone in the sky and with colored stars. The few constellations I know are in a sky packed full of stars. So full that you are lucky if you can find the constellation even when you know where to look. As for colors all stars appear to be the same color to me. I agree that the full moon on certain nights does have a silvery color and Mars is definitely redfish but that is as far as I can go. Of course astronemers have all of these nice instruments for measuring such things as color. And the last time an

astronmer actually looked through a telescope was probably his freshman year in college. Uhh-Ham. Back to the program. I would have to say it is an excellent program and a great job of programming given the memory limitations of the II especially for graphics which as everybody knows are memory hogs.

COUNT 15 Pgm N This is another program in the barnyard series. I have praised these so much I am running out of adjectives and superlatives. They have only two faults that I can find.

1) The program never ends. You must use FCTN 4.

2) There is no score.

Other than that these are the best tutorials for youngsters I have seer.

D114A 26 I/F100 N Data file for another program.

D114B 18 I/F 80 N Part two of data file.

DIVIDE 16 Pgm N Barn yard division. I have already used up my stock of superlatives in describing these programs. This is the third file on this disk. At this rate it wouldn't take long to get a disk full.

JRHIMATH 9 Pgm N This program calculates the areas of various Euclidian figures and the volumes of various regular solids. It suffers from the same defect as the time and speed program discussed at length. Too many decimal places! In ordinary every day problems especially those in high school chemistry or physics I have yet to see a problem which requires that pi be sore accurate than J.14. Sorry but I cannot recommend this program until these problems are fixed.

LOAD 5 Pgm N XB loader runner.

MULTI 16 Pgm N Barnyard multiplication! About six more files and we would have our disk uil. Unfortunately there are only four functions in arithmetic. This series used counting as a separate file but that only makes five and we would need at least twice that number to have a disk full.

AGADRUNNER 18 Page N You must solve the 25 addition and subtraction problems and speed counts. Everyone starts at snail level and as you get faster you are promoted to turtle, chipmunk, rabbi covote and finally the pinracle of success. You are as fast as the roadrunger himself! I wonder how many of today's kids have watched these old cartoons? Great program by the

SFELT: 17 Pgs N This programmight be better named if we called it DEFINE. You wast pick he phrase which is closest in meaning to the given word. That is Part I. In Part I you are asked to use those same words to fill in the blanks in sentences. The computer prints a list of the words and the list is in view at all times. Provision is made for a printer dump of you can't hard copy. Siven all of this I would say you are tired of me saying it but what can you do? The great ones just keep coming!

SUBTRACT 15 Pgm N Barnyard subtraction!

If we don't get a disk full of these it would be a downright shame! Anybody want to write ADDII, MULTIY!, SUBTRACII and DIVIDEII? And while we are at it let's fix it so they end after temproblems? Or any number up to

USA 38 Pgm N This program is arranged so that you can take any one of three quizzes: One on the states and one on the state respitols. Your maximum score is 160 points. At that point you may decide to play another game or quit. Another creat program. This one runs in 11 basic.

Sorry.

This one

Telpan Toyleach.