

# ROCKY MOUNTAIN 99ERS TIC TALK

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# FROM THE EDITOR

Well, another month gone by. Where does the time go? It seems that only last week we were getting ready for the new year, and now it's nearly half gone.

Included in this month's newsletter is a letter to the club from RYTE DATA in Canada. They say they have sent previous correspondence, but it has not passed this way if they did. Some of the other Users Groups have been discussing this at length for a few months, now, but this is the first "OFFICIAL" information that has passed before this editors eyes. The bulk of the comments from other newsletters have implied that there was another rumon going around, and I saw no reason to spread it any farther.

To those members that have expressed the desire to sell some (or all) of their equipment, please contact me when you DO sell something so I can remove it from the list that I have.

4A/TALK IS COMPLETED!!! Bring your latest copy in to the meeting this month for your final update.

JUNE MEETING

June 11

Jefferson County Fairgrounds

Auditorium 7:00 PM

#### SIG MEETINGS

The EDITOR/ASSEMBLER SIG will meet on Wednesday, Jun 5th, 7:00 PM at Unique systems located at Bates and Broadway behind the Oak and Pine store.

6th Ave. West to Indiana Ave.

#### Downloaded from the Star Board.

The following is a description of a disk protocol developed for use with the TI-99/4A. This protocol will be implimented for use with the XMODEM file transfer protocol in the program 4A/TALK. Additional information on 4A/TALK will soon be available from Triton, Micropendium and other sources. The XMODEM protocol will not be discussed here.

The first 128 byte record of an XMODEM file transfer will consist of the following information, Subsequent records will each contain the data from one half of a disk sector. Bits within a byte are numbered from 0 to 7 from left to right. Bit 0 is the most significant bit and bit 7 is the least significant bit.

 $\Rightarrow\Rightarrow\Rightarrow$  Record 0 of the file transfer. BYTE 1  $\Rightarrow$ 07 Length byte for the following string.

BYTES 1 to 7 Text String 'TIFILES' identifies the following as a TI-99/4A program or data file.

BYTES 7 AND 8 Word containing the total number of disk sectors occupied by the file.

BYTE 10 Flag Status Byte. Interpreted bit by bit.

BIT 0 Record type 0=Fixed Length, 1=Variable length.

BITS 1 to 3 Not used.

BIT 4 Disk Manager File Protection 0=Not Protected, 1=Protected

BIT 5 Not used.

BIT & Basic File Type. 0=Display, i=Internal.

SIT 7 0=Data File, 1=Program File.

BYTE 11 Contain the number of records per sector for fixed length record files only.

BYTE 12 End of File Offset.

BYTE 13 For Fixed length files - Logical Record Length For Variable length files - Maximum Record Length

BYTES 14 and 15 Word containing the total number of records in a data file bytes reversed.

BYTES 16 TO 25 Suggested file Name - Right Justified, Space filled.

BYTES 26 and 27 Carriage Return, Line Feed. ()0D,)0A)

BYTES 28 TO 125 Optional Text, File description.

BYTES 126 AND 127 Carriage Return, Line feed (>0D,>0A).

A furthur description of bytes 8 through 14 above can be found in the TI Terminal Emulator II Protocol Manual. This information is a new standard disk protocol for use with the TI-99/4A, when transferring data under protocols other than that supplied by the Terminal Emulator II.



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JUNE 1985

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TIPS FROM THE TIBERCUB

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The entire contents of lips from the linercub Nos. 1 through 14, with more added, are now available as a tull disk of 50 progress, routines and files for just #15.00 postpaid:

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I thought that my 28-Coluen Converter. 45 finally tooloroot. but someone found a way to print a program incorrectly with it!

I'm sure you know that theracture 127-143, and on up to 159 in Basic, can be redefined and 4484 16 graphics. You probably also know that these redefined tharacters can be put into PRINT or DISPLAY AT statements, by holding down the CTRL key as you type thes. If you load a program containing such redefined characters and LIST it, they will appear as biangs. If you RUN the program, so that they arm redefined by the CALL CHAR statements, and then LIST it again, they muda 111m up in their redutined fore - but if you Drint out the program on VOUP printer, they will still appear as blanks. So, before You publish a program, it's a good idea to RUN it and LIST it, and look for any of those greating.

If you do want to publish such a progres, this fix will take care of it by underlining all characters that must be typed with CTRL down (except that lower case v is typed with FCTN down). It's slow, so only use it when you need to.

190 IF WS="E" THEN 195 IL PR INT #2:".TL 126:94:" 11 PRIM T #21".TL 123:64: " :: PRINT #2:".TL 125:38:" :: PRINT #2 1".TL 124:42:" :: PRINT #2:" .1L 921461" II PKINE #21",NF

195 PRINT \*Does the program Contain": "redefined characte rs above": "ASCII 126? (Y/N)" 196 ACCEPT AT(24,1) VALIDATE( "YN") 1004 202 IF 998="N" THEN 290 283 FOR Jet TO LEWILD) 204 A=ASC(SE68(L8,J,1)):: 1F AC127 THEN L28-L284CHR8(A):

1 6010 288 285 IF A=127 THEN A=118 ELSE published in Tips #18, was . IF A=128 THEN A=44 ELSE IF

A-155 THEN A-46 ELSE IF A-15 6 THEN 4-59 ELSE IF 4-157 TH EN Ambi ELSE IF Amisa THEN A =56 ELSE IF A=159 THEN A=57 ELSE ARA-64

286 L24\*L24&CHK4(27)&CHK4(45 MACHRE (1) ECHRE (A) &CHRE (27) &C 機会(45)ACHRE(C)

268 MFIT J 11 LEGE 28 11 126=

That should do it. unless the number of added control characters stretches line bevond Ðθ characters. Such 18 the case with the following, which I had to type in manually (It also contains Iow ASCII characters which the printer assinterprets as controls).

#### TIGERCUB CHALLENGE

100!The Unprintable Unksyabi e Program! 110!To shuffle the numbers i to 255 into a random sequen ce without duplication 120:The strings contain the ASCII characters 1 to 127 an đ 128 to 255 130!Most of the ASCII charac ters below 32 or above 159 c annot be input from the keyb

Dard 140:So how was this program programmed? 150 Max\*

1 \*\* \$576' () \$+. -. /0 123456789::(=)?@ABCDEFGHIJKL MMOPORSTUVMKY2[\3^\_ 'abcdefon i(klanopgrstuvwxyz(!)\* 160 M25="

170 MS=MS&M2& 180 L=LEN(M\$):: RANDOMIZE :: K=INT(LIRND+1):: N=ASC(SE66 (H4, 1, 1)):: M\$=SE6\$(M\$,1,1-1 }&SE68(#\$,I+1.LEN(#\$)) 190 PRINT NII: IF LEN(MS)=0 THEN STOP ELSE 130

GROCERY SHOPPING LIST

Are you desperate for some way to convince your wite that your computer and PEB and printer and all are not just a too-expensive plaything? Maybe this will do the job.

The first thing to do is to prepare a file of the Grocery items she might want buv. It will be especially useful if you can list the items in the sequence in which she will Come to them in the misles of her favorite story. This little program will set up the file. Type END when you are finished.

100 OPEN #1: "DSK1.BUYLIST". O UTPUT 110 INPUT AS 120 IF AS="END" THEN 150 130 PRINT #1:A\$ 140 6070 110 150 CLOSE #1

If you have II-Mriter. you can also use that to create the file, edit it and add to it - but BE SURE to delete all the carriage return symbols and any blank lines at the end. Save it under the filename BUYLIST.

Mext, this program will hopefully get your wife to actually sit down at the keyboard and try out your computer. It will through the list and ask if she wants to buy. If she types in any quantity other than 0, it will output the item name and quantity to the printer. At the end, she will be given the opportunity to add any other iteas.

100 CALL CLEAR 110 OPEN #1: DSK1, BUYLIST". I MPUT 120 OPEN #2: "PIO" 130 LIMPUT GLIAS 140 IF EOF (1) THEM 210

150 DISPLAY AT(12.1) | AT 160 DISPLAY AT(12, LEN(AS)+2) 1 "0" 170 ACCEPT AT(12,LEN(A\$1+2)8 12E(-4):8 180 IF B=0 THEN 130 190 PRIM! #2:A65" "ASTRE(D)& \* \*&CHK\$ (175) 200 6010 130 210 DISPLAY AT(12,1): "ADDITE EMAL 2 Y" 220 ACCEPT AT(12,13) VALIDATE ("YN") SIZE (-1) 195 230 IF #5="N" THEN 300 240 DISPLAY AT (12,1): "17EM?" 250 ACCEPT AT(12.7):AS 260 DISPLAY AT (14.1): "DUANT! IY?" 270 ACCEPT AT(14,11):0 ZUU PHINE SZERSE" "ESTKS(B)& \* \*&CHR\$(175) 290 6010 210 300 CLUSE #1 310 CLOSE #2 320 EMD

The list will be in enlarged print, so that no one in the store will see her outling on her reading spectacles. And after each item and quantity is a blank square to be checked off when she picks up the item.

You might also point out that she could use the checkett blocks to mark the items she has compons for, and she could jot down prices on it to be sure she isn't cheated at the checkout counter, or to shop for better bargains elsewhere.

The program is set up for the beain; printer. You may need to change the "PIOto the name of your printer, and other printers may not have the open block character CHR\$(175) available.

Of course, you can also use this program for sore important things, such as shopping for computer software...!

If you type the period key while holding down the

CTRL key, the printer interprets resulting the blank space CHR\$ (27). 31 even though the computer knows 11 Paully CHHS (105). Since Comp (27) is the 180 or "escape code" Which tails the printer to interpret the foilowing characters as function command codes, you can for instance set up the orinter emphasized couble-struck double-width underlined Italics by OPEN #1:"PID" :: PRINT #1:" E & W"&CHR\$(1)&" -"&CHR\$(1)&" 4 . using CTRL . in the blanks. I have been Overlooking another VOC V usetul éestore. the Ekin-nver perforation. PRINT #1: N=&CHR+(6), mgain with Cikk . in the blank, Causes the paper to advance to the top of the next mane when there are only 6 lines left at the bottom of the page (providing that you started at the top, of COUPER). This makes possible to LIST \*PIO\* a program, or PF PIO from Ti-Writer Editor, without printing right across the perforations.

bhosts! Did you ever read data from a file, and find that you were detting date from a file that was no ionger on the disk? It can happen, at least if you are reading from a KELATIVE file in the UPDAIL ande. When you delets a file, only its address is actually deleted - the data remains on the disk until it is overwritten by a new file. If the new file is shorter than the old one, and you try to read beyond the end of the file. 

Are you making use of those special characters that are available on your Semini printer? You didn't know about them? Iry this,

100 GPEN #1:\*PIO\* :: 110 PRINT Oli" (hold sown the CTRL key and type 1234567/ and then hold down one FOIN key and type () dyakikimay A T. GEN BARGATI SEAST SEAS or terms gant \$5 1.79 Maniati, auch an the the division sign that you sat with FCIR H. There are senv sore of these that you can access by CHKS, For a complete list of them and their CHR\$ codes, run this -100 OPEN \$1:"PIO" :: FDR CH-160 TO 254 ## PRINT #1:CH1CHR#(CH)::: MEXT CH :: CLOSE 01. Unfortunately. these can't be used but of îl-Writer.

Here's a handy little routing to practice up on your typing.

100 CALL CLEAR

110 CALL CHAR 194, "3C4299A1A1 99423C\*) 120 CALL SCREEN(S) 130 CALL VCHAR(1,31,1,96) 140 CALL COLOR (1.8.16) 150 FOR SET=2 TO 12 160 CALL COLDR (SET, 2, 16) 170 NEXT SET 180 PRINT TAB(10); "TIBERCUB" : :TAB(8);\*TOUCH-TYPING\*: :T AB(11);"TUTOR": 1TAB(9);" T 102rcub Software's s 190 REM by Jim Peterson 200 PRINT " Watch the scree n. not the": kmyboard!"; ;" Letters and numbers will\* 210 PRINT \* appear on the sc reen grid": in position cor responding":" to their keybo ard position.": :" Type the a and they will" 220 PRINT \* disappear.\*; : : " Press any key" 230 CALL KEY (0,K,81) 240 IF ST=0 THEN 230 250 CALL CLEAR 260 CALL CHAR(32, "FFB0808080 80808\*) 270 CALL VCHAR (1,30,1,192) 280 CALL HCHAR (14,1,1/384) 290 CALL VCHAR(1,4,1,14)11 C

ALL VCHAR(5,6,1,11):: CALL V

CHAR(8,7,1,6): CALL VCHAR(1

1.8,1,3):: CALL VCHAR(8,29.1

6) 300 CALL VCHAR (11, 28, 1, 3) 310 CALL CHAR(48, \*003A444C54 AAAABQ\*1 320 XEY6=\*12345=7990=00ERTYU 105 / MEST SANGELLE SECRETARIES 12:11 CV. ... 350 MANDER LIE JAO Z-ABDIBEGBIKEYB, 3NT 14225 MD+1),1)} 350 60SUB 370 360 6019 429 370 1=POS(KEYS, CHR\$ (K), 1) 380 Y-ABS(1)111+ABS(1)22)+AB 8(1)33)+1 390 R=Y43 400 C=1(1-685(Y)1)\*(%-1)\*11) 321+4+Y 410 RETURN 420 CALL HCHAR(R.C.K) 430 CALL KEY (3, K, ST) 440 IF BT=0 THEN 430 450 **60808** 370 460 CALL SCHAR (R.C.S) 470 IF 6()32 THEN 500 480 CALL 800%D(-100,110,0,-4 .0) 490 5010 340 500 CALL HCHAR(R.C.32) 510 CALL SOUND (-100,1000.0,1 005,0) 520 60TO 340

Here's one for the kids to have fun with, I'm sorry I lost track of who published it.

100 CALL INIT :: FOR J=1 TO 100 :: PRINT J :: FOR P=1000 TO 1 STEP -J :: CALL LOAD (-31456,P):: NEXT P :: NEXT J

MEMORY FULL,

Jim Peterson

# CALL LOADS

Then following is a list of CALL LOAD commands that can be used in extended Basic for various things (all listed). This list is by no means complete, or the only CALL LOADs that can do a specific thing. Anyone having more CALL LOAD commands, let me know, and I'll print them for everyone else.

CALL LOAD(-32187,0) Unprotects an extended Basic program (SAVE

"DSKX.XXXX",PROTECTED)

CALL LOAD(-31204,X) X=0-255 Changes the flash rate of the cursor.X=0 is

normal.

CALL LOAD(31886,16) Disables QUIT Key.(FCTN=)

CALL LOAD(-31962,255) Restarts the computer from extended Basic and looks for

a program named LOAD.

CALL LOAD(-32116,4) Changes from extended Basic to console Basic.

CALL LOAD(-32112,8) Searches disk, (Ideal for cleaning)

CALL LOAD(32218,32) Returns to title screen.

CALL LOAD(31806,48) Disables QUIT key and sound.

CALL LOAD(31806,128) Disables all Sprites.

CALL LOAD(-28672,A) Checks for Speech Synthesizer. A=96 if present,0 if not.

FUR SALE: Epson MX80F/I. Friction tractor feed. Set up for Parallel Serial connection. Excellent condition. Originally cost \$850.00 , will sell for \$200.00. Lloyd Maple 979-6677

I have a lot of hardware and software for sale by various people. If you are looking to buy something, give me a call in the evenings at 303-458-7315. I will act as a middle man for those of you that do not wish your phone or address given out. David Owen

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31 JANUARY/85

Dear Users Group,

# IMPORTANT ANNOUNCEMENT FOR ALL TI 99/4A OWNERS!

A NEW COMPUTER - based on the successor to the 99/4A: the "99/8", has been developed by one of the foremost TI support companies. Fully hardware and software compatible, this machine promises to revive the huge TI 99/4A world. This new computer goes beyond the unreleased 99/8 in several important ways.

The formal release is scheduled for the June 85 Consumer Electronics Show. Beta testing is slated to begin as soon as the printed circuit boards roll off the production line. Full scale production hinges upon the interest and response generated among TI users in North America. Being long term, die hard TI enthusiasts, we intend on supporting this new machine fully. As the company has not officially announced public availability and FINAL system features, we have been asked to not reveal certain information at this time. The new computer will be produced and marketed under a different company name as well. We are working on determining the level of interest. To be first and foremost, everyone is offered the first newsletter and initial users support for this machine (and the 99/4A) free of charge. Write us with a self-addressed large envelope - #10 or larger - and will send you the first copy free of charge. Pass this along to your friends and associates. We would appreciate postage costs - US stamps cannot be used from Canada.

You can be assured that your system will not become obsolete. We understand that existing TI equipment can be used with this new computer! It was only a matter of time before someone took advantage of the superb technology represented by the 99/4A.

We would also like addresses of TI users groups you may know of. Several groups have come to our attention that were not listed in our files. We are also seeking assembly language programmers who wish to provide programs for this true 16 bit - 10 megahertz computer. Code is fully compatible with the 9900 chip.

As per our last letter, we are interested in users group newsletters to provide a forum for information resources among all TI owners here and abroad.

Looking forward,

Bruce Ryan

Bruce Ryan

## Rocky Mountain 99'ers

### TIC TALK

This publication is printed monthly for the benefit of the membership of the Rocky Mountain 99'ers Computer Club. The Club and the paper are not for the benefit nor backed by any commercial enterprise. Both are non-profit in nature and are for the sole purpose of computer education. Any fees collected are used to defray any cost to maintain the organization. Neither the paper nor the Club have any affiliation with Texas Instruments. Any statements published in this paper are not necessarily the opinion of the membership.

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