



TIC TALK

VOL II, NO 5

DENVER, COLORADO USA

JANUARY 1984

NEW LOGO

In our experimenting, we have changed the logo of the front page for the first time since we published our first newsletter July 1982. If any of you have any artistic talents, please send us your ideas for a future logo. Your comments would be most appreciated. It's a new year and we are all looking toward a brighter future for our club and also for the expansion of software for our computer. The logo for our newsletter should reflect this.

The New Year brings new resolutions. Every year comes and I promise myself to make some resolutions but time flies and you know it's to late in February. That means I will have to wait until next year. Not this time! I have written them down and will review them from time to time so as not to stray to far. One resolution we all could use is Patience and more Patience. I don't know about you but my Computer doesn't understand what I want it to do at times and Patience plays a big part in our understanding one another. We also need Patience since the future is a little uncertain for our computer world. I am certain with Patience the fixture will soon start to brighten up.

If you should call me, right when the Computer and I have had a trying time, I might not demonstrate the Patience I should at that moment. Please, don't take offence, as I really want you all as my friends and I promise to be better the next time(hopefully you won't call during another time the Computer is misunderstanding me again).

Wayne Luedtka has helped greatly in the production of this issue. My Thank You for sure goes out to Wayne. Wayne and I would certainly be open for anyone else that could offer their time and effort. Another area that is needed is articles. Articles of all types. Even if you have never written one before, try your hand at writing one. We can use helpful hints, programs, cartoons, or any other information you might share with the membership.

Many thanks for the members that have sent in articles in the past. I am sure they were appreciated by everyone. But we do need more. Let's fatten up this Newsletter. Also send in your want adds, after all they are free to members. Let's keep them to items that are individual in nature. If it is business in nature place a request for a Display Add.

TI-WRITER

Did you know that you could do bit graphs using TI-WRITER ?
 The list below may look familiar to you. I took it out the TI-WRITER book
 and changed it for the Gemini 10X printer. All the display characters were
 made with the bit graphs mode of the printer, and the transliterate
 command.

Some simple graphs can also be done with these commands. The problem comes
 when you use a CHR\$ greater than 127 ,why, hint pg.145.
 The most important ASCII CODE is 27 to me anyway.

ASCII CODE	FUNCTION	FUNCTION	PRESS	SCREEN
			KEY	DISPLAY
0 NUL	Null		SHIFT 2	'0
1 SOH	Start heading		SHIFT A	'1
2 STX	Start text		SHIFT B	'2
3 ETX	End text		SHIFT C	'3
4 EOT	End transmission		SHIFT D	'4
5 ENQ	Enquiry		SHIFT E	'5
6 ACK	Acknowledge		SHIFT F	'6
7 BEL	Rings Gemini's Bell		SHIFT G	'7
8 BS	Backspace		SHIFT H	'8
9 HT	Horizontal tab (Gemini)		SHIFT I	'9
10 LF	Line feed (Gemini)		SHIFT J	'E
11 VT	Vertical tab (Gemini)		SHIFT K	'B
12 FF	Form feed (Gemini)		SHIFT L	'P
13 CR	Carriage return (Gemini)		SHIFT M	'F
14 SD	Double-width (Gemini)		SHIFT N	'E
15 SI	Condensed print (Gemini)		SHIFT O	'P
16 DLE	Data link escape		SHIFT P	'O
17 DC1	Offline (Gemini)		SHIFT Q	'1
18 DC2	Device Control 2		SHIFT R	'2
19 DC3	Device Control 3		SHIFT S	'3
20 DC4	Device Control 4		SHIFT T	'4
21 NAK	Negative acknowledge		SHIFT U	'5
22 SYN	Synchronous idle		SHIFT V	'6
23 ETB	End transmission block		SHIFT W	'7
24 CAN	Cancel		SHIFT X	'8
25 EM	End medium		SHIFT Y	'9
26 SUB	Substitute		SHIFT Z	'A
27 ESC	Escape (Gemini)	FCTN R	FCTN R	'B
28 FS	File separator		FCTN Z	'C
29 GS	Group separator		FCTN T	'D
30 RS	Record separator		SHIFT 6	—
31 US	Unit separator		FCTN U	'F



ACCEPTING 255 CHARACTERS IN EXTENDED BASIC

The following program illustrates a method of accepting up to 255 characters from the keyboard in extended basic. The normal maximum with "ACCEPT AT" is 28 characters.

The only trick to it is the arithmetic operation in the subscript. With out it only a maximum of 28 characters can be inputed . More than 255 characters can be entered but odd effects will occur.

All the normal "ACCEPT AT" options except (size), seem to work E.G. BEEP, VALIDATE, AND ERASE ALL.

One other thing to be careful of is the edge character which is present when print statements are used. The edge character will cause the ACCEPT AT statement to crash the program.

Try some experiments with the program. You may be able to make some use of it in your own programs.

ED ASS

```
100 ! #####  
110 ! * ACCEPT AT UP TO *  
120 ! * 255 CHARS IN EXT *  
130 ! *      BASIC ?? *  
140 ! #####  
150 !  
160 ! FROM AN ARTICLE BY ED  
170 ! KENNEDY IN THE AUGUST  
180 ! ISSUE OF THE  
190 ! CINCINATTI/DATONA  
200 ! USERS GROUP NEWSLETTER  
210 !  
220 !      DISCOVERED BY  
230 !      ERIC COSTELLO  
240 !      OF T.I.U.P. IN  
250 !      WESTERN AUSTRALIA  
260 !  
270 !  
280 CALL CLEAR  
290 ACCEPT AT (5,1):A$(0+0)  
300 DISPLAY AT(16,1)ERASE  
ALL:A$(0)::GOTO 290
```

An Introduction To ~~~~~~ ~~~~~TELECOMMUNICATIONS

By Ron Kuseki

In the centuries when printing first began, the precursor to today's newspaper was the "broadside." Published, for the most part, in people's homes or in small printing shops these leaflets carried every kind of thinking - from revolutionary maxims to religious cannons - into the hands of the people. Today's answer to the historical broadside is the computerized bulletin board service, often referred to as Public Access Message Systems (PAMS). Most of the PAMS listed here run on computers in people's homes or in small computer stores. Some are filled with messages of purely personal nature, others carry much in the way of programming information, and some are political - they are the leading edge of the new information explosion. As such, they are interesting both as phenomenon and as a source of unique telecommunicating.

Just as some broadsides were printed in various type fonts on assorted styles of paper and in many formats, today's PAMS all run on various computer systems. But, just as any broadside could be read by anyone with eyes and the skill of reading, all of these PAMS may be accessed by anyone with a computer (or terminal) and a modem. But, each style of PAMS has it's own command structure to learn. Most of them share certain commands ("H" or "?" on most will get you a "HELP" file to read). Most of the systems, however, are easy enough to understand, as long as you follow the directions.

Because the systems are "free" you can't access them through Telenet, Tymnet, or Uninet, or even a "toll-free" 800 number like The Source. They all operate through their own standard telephone line, and sometimes, even share the line with the system operator. (The systems designated by Ring Back.) Long distance bills begin to mount with the more calls you make to these systems. If you haven't already taken a look at one of the discount long distance services, such as Sprint, MCI, ITT Long Distance, Western Union Metrofone, and many others, you may want to consider it. A word of caution, check the quality of the transmission of these services. Excessive noise "hiss" will cause more problems than it's worth. MCI has a problem with this. The connections are fine for talking, but not for data communication. Sprint and ITT Long Distance work much better. Most of the systems in the PAMS listing can be accessed by both of these networks.

The system type usually involves what software the PAMS is using and what kind of computer you will be calling. Apple systems such as PMS, NET-WORKS, and ABRS seem to attract more in the way of Apple using callers while systems such as BULLET-80 running on TRS-80 computers attract more in the way of TRS-80 users. But in the final analysis, most of these systems have every style of computer user calling them.

TIC SUPPLY

HERE'S VALUE!

PERIPHERAL EXPAN. SYSTEM \$439.00

Expansion Box - Disk Drive - Disk Controller - 32k Memory Card

We only found a few. Hurry, this may be your last chance to expand with TI hardware equipment. RS232 cards will be in soon.

NEW SOFTWARE

PHM3131 MOONMINE....\$29.95 \$23.95

PHM3158 M*A*S*H.....\$29.95 \$23.95

PHM3152 METEORBELT..\$49.95 \$23.95

PHM3220 MICROSURGEON..\$29.95 \$23.95

PHM3153 SUPERFLY....\$49.95 \$23.95

PHM3225 STAR TREK....\$29.95 \$23.95

\$11.95ea CLEARANCE SALE \$11.95ea

MOONBEAM EXPRESS (diskette)

MOONBEAM EXPRESS (cassette)

DEATH DRONES .. (cassette)

STRIKE FORCE 99 .(cassette)

MOONVASION . . . (cassette)

GARBAGE BELLY . .(cassette)

TIC SUPPLY

6926 W Fremont Place

Littleton, CO 80123

BOULDER

RON (303)444-1797

AURORA

PETE (303)750-5949

LITTLETON

BOB (303)366-2344

LLOYDS (303)979-6677

Please add 4% for CREDIT CARDS



JANUARY 1984

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8		10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



JANUARY MEETING

JANUARY 10, 1983 - 7 to 9 PM

MAIN PROGRAM: RON FEEFSKI to discuss the art
of TELECOMMUNICATIONS.

WORK SHOPS: * will continue discussion of
TELECOMMUNICATIONS.

MARTIN WILL discuss INTRO-
DUCTION TO 99/4A HARDWARE.
(this is for beginners)

LLOYD MAPLE will demonstrate new
TI 99/4A SOFTWARE just received.
and the GRAPHICS CODE GENERATOR

We meet at JEFFERSON CITY FAIRGE MDS
Take 6th Ave West to Indiana Exit

Your best bet is to hunt around first in your own area code and then gradually move further afield to find boards that have content that will be of interest to you. For more information on computer communications, I suggest two excellent books on the subject. The Small Computer Connection, by Neil L. Shapiro, McGraw-Hill Byte, and The Complete Handbook of Personal Computer Communications, by Alfred Glossbrenner, St. Martin's Press.

I welcome your comments, questions, or suggestions. I can be reached by:

SourceMail - TCU583

CompuServe E-Mail - 708e9,145

Delphi Mail - RNebiker

Telemail - RNebiker

TELEX 466284 or 4993681

PMS Akron (leave message to SYSOP) (216)-867-7463 or TELEX 3775186 (that connects to the PMS)

Telephone: (216)-922-2990

The preceding was excerpted from a public file called PUBLIC 112 on The Source. A search of this file for area code "303" revealed the following phone numbers for access to "free" PAMS in the Denver area.

CONNECTION-B0.....	690-4566	RCP/M Boulder.....	499-9169	RCP/M
CUB-NOTE.....	781-4937	RCP/M RBBS, C. Springs....	598-4662	RCP/M RBBS,
Lakewood.....	985-1108	RCP/M RBBS, Pinecliffe....	598-3995	Remote
Northstar.....	444-7231	TBBC Aurora.....	690-4566	GBBSII
Denver.....	693-1064	GBBSII Apple PI.....	469-7541	GBBSII
Aurora-Net.....	343-8481	GBBSII Eamon.....	750-3783	GBBSII Off The Wall.....
	443-3367			

I don't know if any of the numbers above really work because I have not had time to try them. I do know that the following additional numbers do work.

UFONET..... 278-4244 TBRG #1, Aparat..... 741-4071

You may also want to try these additional untested numbers.

ARBS..... 759-2625 ????. 333-1132

All you need to begin telecommunicating and access these PAMS is:

1. Your TI99/4A
2. An RS232 Card or Stand Alone
3. A 300 baud MODEM
4. Terminal Emulator II Module

The manuals that come with these item have instructions for setting up each item and how to operate them. If you have any questions call me at 444-1797.

TI SHORT STUFF

by TED MICHELSEN

- I am sure you have heard this pitch before, but I want to give it again. The TI User's Group is your **CLUB**. As such you have an obligation to help run it and take part in the meetings. The quality of the monthly programs will go down hill rapidly if the same small group continues to conduct all the main programs and the workshops. We desperately need both input on topics for the main program and workshops as well as people to conduct them. Nuff said about that.

I was reading the other day an article about how computers store and work with numbers. As I am sure you know most computers use the binary number system. Well, that works fine for whole numbers and some fractions but may commonly used numbers such as .1 can not be correctly represented by the binary number system, thus they are approximated. Of all the home and personal computers only the TI 99/4A and 99/4 use the radix system to represent numbers internally. The radix system is actually a base 100 number system which is used on many mainframe computers. Thus the TI 99/4s can accurately represent any number that has an exact value in the standard decimal system. What all this means to a TI owner is that they can get very accurate values from any calculation that is done on the TI Home Computer. The attached programs can be used to show the accuracy of the TI 99/4s. The next time a friend tries to tell you that his computer is better let him try the following programs and see how inaccurate his computer is.

PROGRAM 1

```
100 A=A+.1  
110 PRINT A  
120 GOTO 100  
130 END
```

PROGRAM 2

```
100 A=A+.1  
110 PRINT A  
120 IF A=3 THEN  
130 GOTO 100  
140 END
```

Just so you know what to expect, on most computers, program one will give values of 2.899999 or 2.911111 not 2.9. Program two will not stop at 3 because of the inaccuracy in the value of A since it will never equal 3.000000, but rather 2.999999 or 3.001111 or something like that. So not only does the TI give more accuracy but is also easier to program because a routine like program 2 will work and the program will do what you want it to do. Just to sum it up, the above is another example of the power of the TI Home Computer even if TI could not make any money selling it because they did not know how to market it. They built a better mouse trap and waited for the world to come to them.

// HOME FOR PROJECTION TV //

Have I got a deal for you! Just imagine this for a second, the fight of the century will be on HBO tonight and you have the Club's Projection TV. You have invited a couple of the neighbors over to watch the fight with you. It looks like you are sitting there at ringside. You feel like part of the action. Sounds just great doesn't it. Just for taking care of and making sure the Club's Projection TV makes it to the meeting only once a month, you can watch your favorite movies on the large screen right in your own home.

Really, how can you pass up this deal. The wife has been nagging you to get a new TV. This will kill two birds with one stone. For the right person this is really a great deal. Give this writer a call. Hurry, because I am sure there will be a number of calls and I can not take bribes (well let's not get too carried away). It will be first come, first served.

Lloyd Maple
h 979-6677 or w 795-5225

<<<< WANT ADDS >>>>

WANTED - I will buy your used, broken, not working TI Joysticks. \$5.00
contact Mike Kestel - 232-7835

FOR SALE - Beginning Grammer Module, New, Not used \$20.00 -- Early Learning Fun Module, Slightly used for demos \$20.00 contact Raine DePue - 420-2487

FOR SALE - TI Internal Disk Drive, New, Not used \$100.00 contact Susie Dedisce - 674-4121

<<<< WANT ADD RATES >>>>

MEMBERS - FREE (25 word max) We must have you add by the 20th of the month to assure insertion in the next issue. Call 979-6677 or mail to BOX 3400 Littleton, CO 80161. **NON-MEMBERS** not allowed!

<<<< DISPLAY ADDS >>>>

10 in X 7.5 in - \$30.00 ALL DISPLAY ADDS must be camera ready and
RATES: 4.5 in X 7.5 in - \$16.00 must be received before the 20th of the
4.5 in X 3.5 in - \$9.00 of the month and accompanied by a check
made out to the ROCKY MOUNTAIN 99ers. Since the Club is a non-profit
organization all money collected for advertising goes toward publishing costs of
this newsletter.

~~~OFFICERS and CHAIRMEN~~~

PRESIDENT	RON KUSESKI	444-1797	~ PROGRAM	TED MICHELSSEN	986-3513
VICE-PRES.	TED MICHELSSEN	986-3513	~ LIBRARIAN	FETE CROWELL	750-5949
SECRETARY	MARTHA WEEG	455-4309	~ MEMBERSHIP	MARTHA WEEG	455-4309
TREASURER	KEN MONSON	233-1788	~ ASSEMBLY SIG	MIKE HOLMES	751-7945
EDITOR	LLOYD MAPLE	979-6677	~ What's your SPECIAL INTEREST		750-5949

* * ROCKY MOUNTAIN 99ers * *
P.O. Box 3400
Littleton, CO 80161

* Do you see stars on the label *
* this means your membership is *
* now due. Send in your renew- *
* al today so you don't miss a *
* single issue of TIC-TALK!!! *
