

VOLUME NO. 2 ISSUE 26

MARCH 1986

Bayou 99 Users Group, P.O. Box 921, Lake Charles, La. 70602

BAYOU BYTE



Price One Dollar

Distribution: 150 copies

Bayou
March
006
8603

MEETING NOTICE

The March meeting of the Bayou 99 Users' Group will be at 7:00 P.M. on March 13th at the Nelson Elementary School. Anyone interested in learning to use the capabilities of the 99/4A is invited.

CONTENTS

ARTICLES

Myarc Update
BASIC Classes
New Products
Special Notice

FEATURES

Lagniappe
President's Letter
Editor's Column
February Meeting
Tips from the Tigercub

PRESIDENT'S LETTER

The transfer of Doug Hargett, by his employer, is a loss to the Bayou 99 Users Group not only of our Newsletter Editor, but also one of the doers and helpers in our organization as well as a good friend. Doug will be missed.

Our Group will start classes in BASIC Programming for all TI-99/4A users at our next meeting - March 13th. Registration for these classes will begin at 6 PM at the Nelson Elementary School. A second registration period will begin at 8:30 PM. Instruction is without charge to all members of the B99UG. A \$12 fee will be charged for all non-members. Members are requested to pass the word concerning these classes as widely as possible. Arrangements for Tuesday nite classes can be made if a sufficient number of persons will attend.

Participation in a computer show at the Prien Lake Mall with other area user groups is planned. Our Vice-President, Noel Moss, will be in charge of planning and preparations. Tim Hill is now Chairman of our Training Committee and the Equipment Chairman duties has been taken over by Pete Still in addition to his duties as Recruiting Chairman. Volunteers to assist on the various committees are needed. Please notify any of your Group Officers if you are willing to help. A volunteer is also requested for the Newsletter Editor position. The success of our Group depends on your presence and participation.

DISK STRUCTURE

N & T UTILITYWARE ***** DISK + AID ***** PRINT SECTOR
 STARTING SECTOR:0000 ENDING SECTOR:0003 CURRENT SECTOR:0000

ADR-	1	2	3	4	5	6	7	8	9	A	B	C	1	2	3	4	5	6	7	8	9	A	B	C
00-	30	33	38	41	20	20	20	20	20	05	A0		0	3	8	A								
0C-	12	44	53	48	20	02	02	00	00	00	00													
18-	00	00	00	00	00	00	00	00	00	00	00													
24-	00	00	00	00	00	00	00	00	00	00	00													
30-	00	00	00	00	00	00	00	00	00	FF	FF	0F	00											
3C-	FC	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
48-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
54-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
60-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
6C-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
78-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
84-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
90-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
9C-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
AB-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
B4-	FF	FF	FF	FF	FF	FF	FF	03	00	00	00	00												
C0-	00	00	00	00	00	00	00	00	00	00	00	00												
CC-	00	00	00	00	00	00	00	00	00	00	00	00												
D8-	00	00	00	00	00	00	00	00	00	00	00	00												
E4-	00	00	00	00	00	00	00	00	00	FF	FF	FF												
F0-	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF												
FC-	FF	FF	FF	FF																				

N & T UTILITYWARE ***** DISK + AID ***** PRINT SECTOR
 STARTING SECTOR:0000 ENDING SECTOR:0003 CURRENT SECTOR:0002

ADR-	1	2	3	4	5	6	7	8	9	A	B	C	1	2	3	4	5	6	7	8	9	A	B	C
00-	4B	41	4E	41	47	45	52	20	20	00	00													
0C-	00	01	00	61	00	FF	00	61	00	00	00													
18-	00	00	00	00	00	00	00	00	00	5A	00	37												
24-	A0	00	00	00	00	06	00	30	21	00	00	00												
30-	00	01	00	34	3F	30	FF	FF	A0	24	00	00												
3C-	00	00	00	00	00	00	00	00	00	00	00	00												
48-	00	00	00	00	00	00	00	00	00	00	00	00												
54-	00	00	00	00	00	00	00	00	00	00	00	00												
60-	00	00	00	00	00	00	00	00	00	00	00	00												
6C-	00	00	00	00	00	00	00	00	00	00	00	00												
78-	34	30	32	44	34	30	32	44	34	30	31	53												
84-	34	30	31	53	31	32	30	49	4F	5F	5F	5F												
90-	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F												
9C-	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F												
AB-	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F												
B4-	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F												
C0-	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F	5F												
CC-	5F	5F	5F	5F	34	20	30	32	37	20	31	30												
D8-	5F	00	00	00	00	00	00	00	00	00	00	00												
E4-	00	00	00	00	00	00	00	00	00	00	00	00												
F0-	00	00	00	00	00	00	00	00	00	00	00	00												
FC-	00	00	00	00																				

N & T UTILITYWARE ***** DISK + AID ***** PRINT SECTOR
 STARTING SECTOR:0000 ENDING SECTOR:0003 CURRENT SECTOR:0001

ADR-	1	2	3	4	5	6	7	8	9	A	B	C	1	2	3	4	5	6	7	8	9	A	B	C
00-	00	13	00	0E	00	10	00	11	00	12	00	06												
0C-	00	07	00	0E	00	02	00	09	00	00	00	0F												
18-	00	05	00	03	00	04	00	00	00	00	00	0C												
24-	00	00	00	00	00	00	00	00	00	00	00	00												
30-	00	00	00	00	00	00	00	00	00	00	00	00												
3C-	00	00	00	00	00	00	00	00	00	00	00	00												
48-	00	00	00	00	00	00	00	00	00	00	00	00												
54-	00	00	00	00	00	00	00	00	00	00	00	00												
60-	00	00	00	00	00	00	00	00	00	00	00	00												
6C-	00	00	00	00	00	00	00	00	00	00	00	00												
78-	00	00	00	00	00	00	00	00	00	00	00	00												
84-	00	00	00	00	00	00	00	00	00	00	00	00												
90-	00	00	00	00	00	00	00	00	00	00	00	00												
9C-	00	00	00	00	00	00	00	00	00	00	00	00												
AB-	00	00	00	00	00	00	00	00	00	00	00	00												
B4-	00	00	00	00	00	00	00	00	00	00	00	00												
C0-	00	00	00	00	00	00	00	00	00	00	00	00												
CC-	00	00	00	00	00	00	00	00	00	00	00	00												
D8-	00	00	00	00	00	00	00	00	00	00	00	00												
E4-	00	00	00	00	00	00	00	00	00	00	00	00												
F0-	00	00	00	00	00	00	00	00	00	00	00	00												
FC-	00	00	00	00																				

If you have trouble deciphering the information on these print-outs, then don't miss Richard Mitchell's program on disk structure. This program will tell you what information is located on your disk and where. With this information, you will be able to bring back files deleted in error (if you haven't written over them) and tips on how to recover files from a "crashed" disk. This program is scheduled for our meeting on March 13th. One word of caution; this schedule depends on time being available after Richard reports on the great LA FUN FEST including the latest on Myarc's computer and new Ext. BASIC plus Craig Miller's latest offering.

The computer we love and defend against all detractors; the computer we have seen survive and flourish in the face of seemingly insurmountable odds; the computer which has earned our loyalty and to which we have remained faithful is again facing a debilitating illness. The situation is rapidly becoming desperate and a concerted effort is required to arrest the progress of this disease before it becomes terminal.

Regular transfusions are presently maintaining our computer in its vigorous daily activities. These transfusions will be needed more and more frequently and commercial sources can no longer be counted on to maintain our computer in a robust state of existence. We are becoming increasingly dependent on private sources which have recently shown signs of diminishing.

Continuation of these life-sustaining transfusions in the form of "freeware" offerings is imperative. A concentrated effort from all 99/4A users is required to prevent the sources of user-written software from drying up and causing the untimely death of our computer. We must set aside the few minutes required now, address that envelope and enclose the few dollars that represents a fair amount. When we have progressed this far, we might as well include a note saying "Thanks." We have the power to extend the life expectancy of our computer with just a few minutes and a few dollars. I did, won't you?

.MINUTES

Roger Hickerson opened the meeting with a few remarks of general interest: 1). Registration for BASIC Programming will be from 6-7 PM and again from 8:30-9PM, March 13th. 2). The group plans to participate in a computer show at Prien Lake Mall in late March or early April. Neil Moss will keep the group advised of the schedule. 3). The position of Newsletter Editor is open and volunteers are needed.

The meeting was then turned over to Richard Mitchell who demonstrated many of the capabilities of Multiplan as a Data Base and as a spread sheet. The program was recorded on video tape complete with full screen recording of the displays Richard used in the demo-tutorial.

John Singleton demonstrated a high degree of expertise in taping of these programs. The tapes will be circulated to our out-of-town members who have requested their names be included on the mailing list.

Next month's program will discuss disk structure. Learn how disks are initialized, protection and protection removal, recovering a deleted program and more. Software required to read disks and write to disks will be available to those attending the meeting for \$2.00 or you may copy to your disk at no charge. A demonstration of several assembly language routines which can be included in your BASIC programs will also be presented.

The video tapes of our meetings provides an opportunity for those members who are unable to attend the scheduled meetings due to the distances which separate us. The reports from those who have reviewed the tapes have been quite good. A great amount of credit is owed to John Singleton, our producer and director. If you are located out-of-town and would like to view these meeting tapes, call or write and your name will be added to the distribution list. It is important that the tapes be viewed and forwarded promptly.

Programs for future meetings will contain subjects of interest for both novice and expert users. If you want to get more out of your 99/4A, attend the classes and meetings. The time will be well spent.

BASIC PROGRAMMING

T. O. Hill

For those who want to learn programming in TI BASIC, classes will be conducted at our regular meeting location just prior to the meeting and following the meeting. The first class will start at 6:00 P.M. and conclude at 7 P.M. The second will be from 8:30 P.M. to 9:30 P.M. Both classes will cover identical material. Registration will be held at the beginning of each class period March 13th. Please register for the class time which will be most convenient for you to attend. There will be no charge for members of the Bayou 99 Users Group.

An outline of the course content is shown below. Anyone not presently a member of the Users Group may join during registration on payment of the annual dues of \$12.00.

BEGINNING BASIC

- I. Introduction
 - A. Hardware
 - 1. Input Devices
 - 2. Computer
 - 3. External Storage
 - 4. Output Devices
 - B. Software
 - 1. System Programs
 - 2. Application Programs
 - 3. Computer Language
 - C. Equipment Set-up
- II. Starting BASIC
 - A. What is a BASIC Program?
 - B. Instructions to Computer
 - 1. Commands
 - 2. Statements
 - 3. Functions
 - C. Constants
 - 1. Numeric
 - 2. Character Set
 - D. Variables
 - 1. Numeric
 - 2. String
 - 3. Subscripted Variables
 - 4. Memory Locations
- III. Starting Programming
 - A. A Few Commands
 - B. Some Statements
 - 1. Assigning Variables
 - 2. Outputting
 - C. Loops
 - D. Decisions
 - E. Flow Charting
- IV. More BASIC Programming
 - A. Subroutines
 - B. Arrays
 - C. Advanced Printing
- V. Debugging
 - A. Trace
 - B. Display Variables
 - C. Error Handling
- VI. Graphics
- VII. Sound
- VIII. Files

TIPS FROM THE TIGERCUB

#31

Copyright 1986

TIGERCUB SOFTWARE —
156 Collingwood Ave.
Columbus, OH 43213

Distributed by Tigercub Software to TI-99/4A Users Groups for promotional purposes and in exchange for their newsletters. May be reprinted by non-profit users groups, with credit to Tigercub Software.

Over 130 original programs in Basic and Extended Basic, available on cassette or disk, only \$3.99 each plus \$1.50 per order for PPM. Entertainment, education, programmer's utilities. Descriptive catalog \$1.99, deductible from your first order.

Tips from The Tigercub, a full disk containing the complete contents of this newsletter Nos. 1 through 14, 50 original programs and files, just \$15 postpaid.

Tips from the Tigercub Vol. 2, another diskfull, complete contents of Nos. 15 through 24, over 60 files and programs, also just \$15 postpaid. Or, both for \$27 postpaid.

Nuts & Bolts (No. 1), a full disk of 100 Extended Basic utility subprograms in merge format, ready to merge into your own programs. Plus the Tigercub Menuloader, a tutorial on using subprograms, and 5 pages of documentation with an example of the use of each subprogram. All for just \$19.95 postpaid.

Nuts & Bolts No. 2, another full disk of 100 utility subprograms in merge format, all new and fully compatible with the last, and with 10 pages of documentation and examples. Also \$19.95

postpaid, or both Nuts Bolts disks for \$37 postpaid. Tigercub Full Disk Collections, just \$12 postpaid! Each of these contains either 5 or 6 of my regular \$3 catalog programs, and the remaining disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - my own programs on these disks are greatly discounted from their usual price, and the public domain is a FREE bonus!

TIGERCUB'S BEST PROGRAMMING TUTOR
PROGRAMMER'S UTILITIES
BRAIN GAMES
BRAIN TEASERS
BRAIN BUSTERS!
MANEUVERING GAMES
ACTION GAMES
REFLEX AND CONCENTRATION
TWO-PLAYER GAMES
KID'S GAMES
MORE GAMES
WORD GAMES
ELEMENTARY MATH
MIDDLE/HIGH SCHOOL MATH
VOCABULARY AND READING
MUSICAL EDUCATION
KALEIDOSCOPIES AND DISPLAYS

For descriptions of these send a dollar for my catalog!

A few people have asked for a program that they could use to encode personal messages on a BBS. considering the current legal threats to BBS's, I doubt that a SysOp will allow coded messages, but here is a coder/decoder to create code that should be quite difficult to crack. First we need another of those programs that write a program -

```
100 !CODEPRINT by Jim Peters
on - creates a random code in
a MERGE format program COD
ESTRING to be MERGED into CO
DEMAKER
110 FOR J=1 TO 254 :: N0=N0&
CHR0(J):: NEXT J
120 FOR J=1 TO 254 :: RANDOM
```

```
IZE :: X=INT(RND*LEN(N0)+1)::
C0=C0&SEG0(N0,X,1):: N0=SE
G0(N0,1,X-1)&SEG0(N0,X+1,LEN
(N0)):: NEXT J
130 OPEN #1:"DSK1.CODESTRING
",VARIABLE 163,OUTPUT :: PRI
NT #1:CHR0(0)&CHR0(1)&"C0"&C
HR0(190)&CHR0(199)&CHR0(127)
&SEG0(C0,1,127)&CHR0(0)
140 PRINT #1:CHR0(0)&CHR0(2)
&"C2"&CHR0(190)&CHR0(199)&C
HR0(127)&SEG0(C0,128,127)&C
HR0(0)
150 PRINT #1:CHR0(0)&CHR0(3)
&"C0"&CHR0(190)&"C0"&CHR0(18
4)&"C2"&CHR0(0):: PRINT #1:
CHR0(255)&CHR0(255):: CLOSE
#1 :: END
```

And now the coder/decoder -
100 !TIGERCUB CODEMAKER writ
ten by Jim Peterson
110 !The MERGE format progra
m CODESTRING created by the
program CODEPRINT must be ME
RGEed into lines 1-3 of this
program

```
120 DIM A0(254):: DISPLAY AT
(3,6)ERASE ALL:"TIGERCUB COD
EMAKER" :: DISPLAY AT(12,1):
"Do you want to": "(1)Encod
e": "(2)Decode"
130 CALL KEY(0,K,ST):: IF K=
49 THEN 140 ELSE IF K=50 THE
N 290 ELSE 130
140 OPEN #1:"DSK1.CODE",VARI
ABLE 254,OUTPUT
150 DISPLAY AT(5,6)ERASE ALL
:"Type message in segments o
f": "not more than 254 charac
ters": "and Enter. When done,
type"
160 DISPLAY AT(9,1):"END and
Enter. Type slowly": "to avo
id skipped characters.": "Bac
kspace with FCTN S to": "corr
ect.": "Press any key"
170 CALL KEY(0,K,ST):: IF ST
=0 THEN 170
180 CALL CLEAR :: CALL LONGA
CCEPT(0,M0):: IF M0="END" TH
EN 280
190 DISPLAY AT(20,1):"WAIT,
PLEASE - ENCODING"
200 FOR J=1 TO LEN(M0)
210 A0(ASC(SEG0(C0,J,1)))=SE
G0(M0,J,1)
220 NEXT J
230 FOR J=1 TO 254 :: RANDOM
IZE
```

```
240 IF A0(J)=" " THEN A0(J)=C
HR0(INT(26*RND+65))
250 CODE0=CODE0&A0(J)
260 NEXT J :: PRINT CODE0
270 PRINT #1:CODE0 :: CODE0="
" :: FOR J=1 TO 254 :: A0(J
)=" " :: NEXT J :: GOTO 180
280 CLOSE #1 :: END
290 OPEN #1:"DSK1.CODE",VARI
ABLE 254,INPUT :: CALL CLEAR
:: DISPLAY AT(12,10):"DECOD
ING"
300 LINPUT #1:CODE0 :: FOR J
=1 TO 254 :: M0=M0&SEG0(CODE
0,ASC(SEG0(C0,J,1)),1):: NEX
T J :: PRINT M0:: M0=""
310 IF EOF(1)<> THEN 300 ::
CLOSE #1 :: END
320 SUB LONGACCEPT(L,M0):: X
=0 :: IF L<>0 THEN R=L ELSE
R=R+1
330 M0="" :: C=3 :: CH=140 ::
CALL CHAR(140,RPT0("0",14)
&"FF")
340 CALL HCHAR(R,C,CH):: CH=
CH+5+(CH=160)*25 :: CALL KEY
(0,K,ST):: IF ST<1 THEN 340
350 IF K<>8 THEN 370 :: X=X-
1 :: C=C-1 :: IF C=2 THEN C=
30 :: R=R-1
360 M0=SEG0(M0,1,LEN(M0)-1)::
GOTO 340
370 IF K=13 THEN 410
380 X=X+1 :: M0=M0&CHR0(K)::
CALL HCHAR(R,C,K):: IF X=25
4 THEN 410
390 C=C+1 :: IF C=31 THEN C=
3 :: R=R+1 :: IF R=25 THEN C
ALL CLEAR :: R=1
400 GOTO 340
410 R=0 :: SUBEND
```

Here is a simple little game I call Cover-Up. Use the #1 joystick, try to cover the white square with the black square. Press the fire button to speed up, release it to slow down.
100 CALL CLEAR :: CALL CHAR(96,RPT0("F",64)):: CALL SPRITE(0,1,96,5,92,124):: CALL MAGNIFY(4):: CALL SPRITE(0,2,96,16,100,100)
110 X=INT(20*RND)-INT(20*RND):: Y=INT(20*RND)-INT(20*RND):: CALL MOTION(0,2,X,Y):: T=T+1 :: IF T=250 THEN 300
120 CALL JOYSPEED(1,1):: CAL L COINC(0,0,2,0,A):: IF A=-1

```

THEN 130 ELSE 110
130 Z=Z+1 :: DISPLAY AT(1,1)
:Z :: CALL SOUND(-50,500,5)
: GOTO 120
300 CALL DELSPRITE(ALL):: DI
SPLAY AT(12,5):"YOUR SCORE I
S "&STR0(Z):: OISPLAY AT(2,
1):"PRESS ENTER TO PLAY AGAI
N"
310 CALL KEY(0,K,S):: IF S=0
OR K<>13 THEN 310 :: T,Z=0
:: GOTO 100
2110 SUB JOYSPEED(N,A):: CA
LL JOYST(N,X,Y):: CALL KEY(N
,K,ST):: S=S+K/9-1 :: S=S+AB
S(S)0):: IF S>30 THEN S=30
2111 CALL MOTION(0A,-(Y=S),
X=S):: SUBEND

```

For a one-handed BREAK, if you can't reach FCTN and 4, try FCTN with J and the space bar together.

If you like to call BBS's, try the TIBBS Spirit of 99 BBS in Columbus, Ohio on (614)451-9888 and leave me a "hello!"

Probably useless info - holding down FCTN and CTRL together and typing 1, 2, 3 and 5 will give ASCII codes 145, 151, 133 and 148, which are the codes obtained from CTRL Q, W, E and T, the keys diagonally below the 1, 2, 3 and 5.

Occasionally someone sends me a program they have keyed in from my newsletter, and asks why it won't run, so I wrote this routine to help find the errors. It is also useful to check whether two copies of a program are identical, but only if they have not been resequenced.

```

100 !CHECKER by Jim Peterson
- to compare two programs a
nd list all differing lines
to the printer
110 OISPLAY AT(12,1)ERASE AL
L:"1st program DSK/filename?
": "DSK" :: ACCEPT AT(13,4):F
10
120 DISPLAY AT(12,1)ERASE AL
L:"2nd program OSK/filename?

```

```

": "DSK" :: ACCEPT AT(13,4):F
20
130 OPEN #1:"DSK"&F10,INPUT
:: DIM M0(500),CH(500):: OPE
N #2:"PIO",VARIABLE 255 :: P
RINT #2:CHR0(15)
140 X=X+1 :: LINPUT #1:M0(X)
:: M0(X)=M0(X)&" " :: IF EOF
(1)<>1 THEN 140 :: CLOSE #1
:: OPEN #1:"DSK"&F20,INPUT
150 IF EOF(1)=1 THEN 230 ::
LINPUT #1:X0 :: X0=X0&" "
160 FOR Y=1 TO X
170 IF X0=M0(Y)THEN CH(Y)=1
:: GOTO 150
180 NEXT Y
190 P2=POS(X0," ",1):: P2=S
EG0(X0,1,P2-1)
200 FOR Y=2 TO X :: P1=POS(M
0(Y)," ",1):: P1=SEG0(M0(Y)
,1,P1-1)
210 IF P2=P1 THEN PRINT #2
:"1st program = ";M0(Y):"2nd
program = ";X0 :: CH(Y)=1
:: GOTO 150
220 NEXT Y :: PRINT #2:"2nd
program = ";X0 :: GOTO 150
230 FOR J=1 TO X :: IF CH(J)
=0 THEN PRINT #2:"1st progra
m = ";M0(J)
240 NEXT J
250 CLOSE #1 :: CLOSE #2

```

Here's a great idea that was printed and reprinted in several newsletters -

At the beginning of a program that will run only in Basic, add the lines -
1 IF PI=0 THEN (first line of program)
2 PRINT "YOU ARE IN EXTENDED BASIC": "THIS PROGRAM RUNS ONLY IN BASIC"
3 STOP

The idea is that PI is a function in XBasic with the value of pi, but is just a variable name in Basic with an undefined value of 0.

The trouble is, it doesn't work! If PI is keyed in from Basic and saved, it is saved in token format as a variable name, and when loaded back into XBasic is still just a variable name. And if PI is saved from XBasic, it is tokenized as a function, loads back into Basic

as an unrecognized function and crashes! Can anyone come up with a way around that?

The above is the answer to the Challenge in Tips #30. Lines 100 and 110 were keyed in and saved from Basic, and loaded back into XBasic, then lines 120 and 130 were keyed in.

Here is a handy PEEK that hasn't been published as widely as most of them -
100 CALL INIT
110 CALL PEEK(8192,X):Thanks to Dale Loftis in the Orange County U6 newsletter!
120 PRINT X !If X=32 you are in Extended Basic; if X=165 you are in Basic with the Editor Assembler or MiniMemory module inserted.

And another 3-D sprite demo, just to make all the Apple polishers jealous. See if you can figure out how it works.

```

100 CALL CLEAR :: CALL SCREE
N(5):: CALL CHAR(100,RPT0("F
",64)):: CALL MAGNIFY(4):: F
OR S=5 TO 9 :: CALL COLOR(S,
16,1):: NEXT S
110 DISPLAY AT(3,3):"TIGERCU
B SPRITE SHUFFLE" !by Jim Pe
terson
120 DATA 70,116,2,75,121,7,6
9,124,11,78,115,16
130 FOR J=5 TO 8 :: READ P(J
,1),P(J,2),L(J):: CALL SPRIT
E(0J,100,L(J),P(J,1),P(J,2))
:: NEXT J :: W=45
140 DATA 5,6,7,8,0,5,6,7,7,0
,5,6,6,7,0,5
150 RESTORE 140 :: FOR Y=5 T
O 8 :: READ A,B,C,D
160 FOR J=1 TO W :: CALL LOC
ATE(0A,P(A,1)-J,P(A,2),0B,P(
B,1),P(B,2)-J,0C,P(C,1)+J,P(
C,2),0D,P(D,1),P(D,2)+J):: W
=90 :: NEXT J :: GOSUB 180
170 NEXT Y :: GOTO 150
180 FOR J=5 TO 7 :: CALL POS
ITION(0J,P(J+1,1),P(J+1,2))
: NEXT J :: CALL POSITION(00
,P(5,1),P(5,2))
190 T=L(8):: L(8)=L(7):: L(7
)=L(6):: L(6)=L(5):: L(5)=T
200 FOR J=5 TO 8 :: CALL SPR

```

```

ITE(0J-4,100,L(J),P(J,1),P(J
,2)):: NEXT J
210 FOR J=5 TO 8 :: CALL SPR
ITE(0J,100,L(J),P(J,1),P(J,2
)):: NEXT J :: CALL DELSPRIT
E(01,02,03,04):: RETURN

```

Do you need some really REAL BIG letters on the screen? Just type your letter at the beep.

```

100 DIM X0(96):: CALL CLEAR
:: FOR CH=33 TO 89 STEP 8 ::
FOR A=0 TO 7 !REAL BIG LETT
ERS by Jim Peterson
110 CALL CHARPAT(CH+A,X0(CH+
A-32)):: CALL CHAR(CH+A,"0")
:: L0=L&RPT0(CHR0(CH+A),3)
: NEXT A
120 FOR T=1 TO 3 :: R=R+1 ::
DISPLAY AT(R,4):L0 :: NEXT
T :: L0="" :: NEXT CH
130 CH0(1)=RPT0("0",16):: CH
0(2)=RPT0("F",16)
140 CALL SOUND(100,500,0)
150 CALL KEY(0,CH,S):: IF S=
0 OR CH>96 THEN 150
160 CALL HEX_BIN(X0(CH-32),B
0):: FOR J=9 TO 64 :: CALL C
HAR(J+32,CH0(VAL(SEG0(B0,J,1
)))+1)
170 NEXT J :: GOTO 140
180 SUB HEX_BIN(H0,B0):: HX0
="0123456789ABCDEF" :: B0="
0000X0001X0010X0011X0100X010
1X0110X0111X000X1001X01010X1
011X1100X1101X1110X1111"
190 FOR J=LEN(H0)TO 1 STEP -
1 :: X0=SEG0(H0,J,1)
200 X=POS(HX0,X0,1)-1 :: T0=
SEG0(B0,X0+1,4)&T0 :: M0=
J :: B0=T0 :: T0="" :: SUB
ND

```

Thought for the day. The excuses for piracy are exactly the same as the excuses for shoplifting, but you probably won't have to tell them to the judge - in this world, at least.

And that is almost
MEMORY FULL
Jim Peterson

LAGNIAPPE

- * The Windy City 99 Club in Chicago is one of the latest User Groups with which the B99UG exchanges newsletters. From the February 1986 issue are two interesting tips. 1). If a program is stored in line number order, it executes faster. To get your program in line number order, first save it in MERGE format. Load it back into the computer and save it in the usual manner to obtain a memory image format in line number order. 2). Multiplan speed will be improved if the files are stored in order: OVERLAY, MPHELP, MPCHAR, MPDATA, MPINTR, then MPBASE. Access time to the most often used files will be at a minimum when stored in this order.
- * A new FAIRWARE program is available from Tom Wynne. Tom's program will print graph paper with EPSON-compatible printers. The code for 960 dot graphics mode is <ESC> "L" N1 N2. The user specifies the square partition size from 1 to 30. The 8 square partition is very handy for creating graphics characters. The program is available from the Library for \$3.25 which includes the disk or tape, the program, and \$2.00 to be sent to Tom.
- * Joe Gillo, Forest Lane Users Group, has published "TI GUIDE" which covers many of the areas where most users experience difficulty when using the 4A. Included are chapters on: Modules, GROM, ROM and RAM; RS232 Interface; Disk Drives and Controllers; Languages; PEEKS and POKES all written in easy to understand wording. Orders may be entered with the Library at \$4.50 or order direct from Joe for \$4.00 each.
- * The Bayou BYTE is being exchanged with a number of other Users Groups for their newsletters. This is a valuable source of information which helps keep us informed. A listing will be included in a future issue of the newsletter.
- * A new Peripheral Diagnostic Module from CorComp is now available at your dealer. The module plugs into the console cartridge port where it is used to test the TI and CorComp Expansion Box Cards or Stand-alones. The SRP for this new module is \$34.95.
- * TI began manufacturing a modified 99/4A shortly before they abandoned the Home Computer business. The modification was made to prevent third-party software such as Atari-soft modules from being run. These computers have a 1983 copyright and V2.2 on the Title Screen. CorComp is now producing an '83 Module Adapter to enable the version 2.2 to run third-party software. The SRP is \$34.95.
- * CorComp has also released a Load Interrupt Switch. When the proper screen dump program has been loaded, the screen display is dumped to your printer with the press of a button. Plugged into the I/O port of the console and with a Screen Dump program such as the one written by Danny Michael, the screen can be dumped to a printer. The program will continue to run when the Dump is completed. The SRP is \$12.00.

- * Randy Holcomb's, "Randy's Ravings," will no longer appear in COMPUTER SHOPPER. Stan Veit, Asst. Publisher, announced that Randy Holcomb's efforts would be concentrated on the ATARI 520 ST.
- * TI Forum SysOps, Ron Albright and Jonathan Zittrain, will be featured columnists in future issues of COMPUTER SHOPPER.
- * Reports have been received that Foundation, manufacturer of the first 128K memory card for the 4A, has gone out of business. Another report, unconfirmed, has the same fate attributed to a large distributor of TI products.
- * Repairs for CorComp cards is being offered by Don Scofield. The repair costs are \$35 per card with each card having a 30 day warranty. Scofield is one of the original members of CorComp and is operating at:

CLELAND CONTROLS CORP.
2212 DuPont, Suite G
Irvine, CA 92715

CorComp has issued a statement that this firm is not an authorized repair company for their products.

- * One of the best sources of information from the world of the 99/4A is the NATIONAL NINTY-NINER. Each issue contains many worthwhile articles by knowledgeable writers. Send \$12.00 for 12 issues to: National Ninty-Niners, 3535 South H Street #26, Bakersfield, CA 93304.
- * From the Edmonton 99'er Computer Users' Society's newsletter, 99'er ONLINE, a new call load has been published to change to Console BASIC from Extended BASIC. Try CALL LOAD (-31962, 8787), then type NEW.
- * Having trouble keeping the disk drive running for the time recommended by your disk drive cleaning kit? The following program appeared in the June/July 1985 newsletter of the Wiregrass 99/4A Users Group:

```
10 CALL CLEAR
20 CALL SCREEN (13) :: FOR C=1 TO 12 :: CALL COLOR (C,16,13) :: NEXT C
30 DISPLAY AT (12,10) : "CLEANING...." :: DISPLAY AT (23,12): "(HOLD FCTN
  4 TO STOP)"
40 ON ERROR 60
50 GOSUB TO
60 GOTO 40
70 RUN "DSK1.B" REM CHANGE FOR OTHER DRIVES
80 RETURN
```

- * You don't have a modem? This may be an opportunity you can't refuse. DAK Industries, Inc. is advertising the 1200 Baud "Smart Duck" Hayes Compatible Modem for \$169 + \$6 P&H. Costs of the cable will be \$15 to \$20 or make your own for about \$6.00. DAK's address is: 8200 Remmet Avenue, Conoga Park, CA 91304 or call 1-800-325-0800.

(Ed. I wouldn't expect a Hayes "equal" with regard to lightning and power line surge resistance, but I would expect a very good deal. Money back offer is for the first 30 days.)

MYARC UPDATE

By J. Peter Hoddie

A few weeks after completing my 22 page report on the TI Faire in Chicago, I recieved a copy back from Lou Phillips himself. He had gone through my article with a pen and made comments, clarifications, and corrections. Instead of editing the original file (which I believe is 100% accurate with respect to what was said in Chicago) I am appending this file which contains Phillips' comments. I also spoke with Lou on the phone and got some further information. Some of this is very technical and some of it is very trivial. My main purpose through all of this has been to bring to you as much information on the new Myarc computer as possible. I plan to stay in regular contact with Lou Phillips so if you have any other questions, let me know and I'll pass them on.

The 48K of internal ROM I mentioned includes both library routines and also the BASIC interpreter. The 8K of mouse support is not mouse support but Operating System support. The mouse support is built into the video chip. Thus the reason for using the MicroSoft mouse is that the support is built right into the hardware.

The 9995 microprocessor, although faster then the 9990 will still be working under conditions similar to those that governed the 9990. This means that like the 9900 it has 256 (or 128 words) of internal "0 wait state" RAM which was used for scratch pad in the 99/4A. The 9995 has the same 256 bytes of "0 wait state" RAM and it will be used similarly. It will be used primarily as work space registers when the machine is running in the Myarc mode. The remaining memory (up to 2 megabytes) will be "1 wait state memory" (i.e. 666ns or 2 clock cycles).

Phillips says that at this point there are no specific plans to develop a card to allow internal placement of the Speech Synthesizer (there is no connection for it on the Myarc machine) as is done in CorComp's Triple Tech card. He says that Myarc is "only considering" such a product.

Phillips felt it necessary to clarify why a new connector to the PE Box was needed. He says 1) "The TI flex cable has only 16 bits of address!! To get at 512K (which the TI PEB was designed to support) we need 3 more address line!" Furthermore, Phillips plans to be able to address 2 megabytes of memory which means that 2 more lines are needed. I have seen the pin outs for the side port on the 99/4A and it does have the address lines to support 512K as Phillips has pointed out. However, he has made it clear that these lines were not fully implemented in the PE Box hardware and so he can't use them. Thus he needs to have another cable. On this point, I must admit, I am not 100% clear. 2) "In order to perform more 'exotic' control and machine code debugging, more of the signals are now going to the PEB (i.e. IAG, HOLD, and other video capabilities)." 3) "Everyone says they want a round, more 'flexible' cable, therefore here it is!"

Phillips also pointed out that he is not using the 9938 video chip developed by TI, but a chip very similar to it now coming out of Japan.

Phillips was also quick to point out the the quad density disk controller was "only a re-layout of their present controller" and not a

new product. I guess this means that we can hope to see it in the near future and without the problems that can often accompany new products.

I submitted two and half pages of questions to Phillips and the results are reproduced below.

- Q: Will a new assembler be released to support the new features of the 9995?
- A: We are looking for someone to write one.
- Q: Will more utilities such as VMBW, DSRLNK etc. be available?
- A: They will be implemented as XOP's (eXtended OPeration). Over 100 are planned and most are currently implemented in some form in the new Extended BASIC II. This will allow for integration from XB II to the new machine with relative ease.
- Q: Will the GPL interpreter be any faster?
- A: It should be between 2 and 3 times faster.
- Q: Will Craig Miller's new GPL assembler and dis-assembler still work?
- A: We have been in contact all along. (this should mean that the GRAM Kracker will also still be useable!)
- Q: Will a technical assistance line be available?
- A: If economically feasible. (this I don't like. Although Phillips has promised full documentation of the machine, things could get very sticky unless there is an established way of getting answers to questions that users may have.)
- Q: Are there any other problems with compatability besides the changes in the KSCAN routines?
- A: I hope not. (Phillips has said that they have encountered none so far but even just the change in the KSCAN routine renders such programs as Fast-Term and Danny Michael's Screen Dump useless without modification. Keep your fingers crossed.)
- Q: Will current programs with an assembly/X-BASIC mix work with the new X-BASIC, especially when all the changes in variable space allocation are considered?
- A: Too early to tell but XB-II will be a good test. (in a later conversation Phillips said that the initial release of XBII would NOT support passing variables between XB-II and assembly but that a future release in a month or so would).
- Q: Will all the old "scrach pad" RAM use remain the same - at least in 99/4A mode?
- A: There will be RAM there but the highspeed RAM is at >F000 in the 9995.
- Q: How will one switch from 99/4A mode to Myarc mode?
- A: From the operating system, you are in Myarc mode. In BASIC there are 2 calls to ASSEM (one old, one new).
- Q: Will CorComp cards, particularly their disk controller, work with the new machine?
- A: Yes, but we sure DON'T like what they do on power-up. Maybe Craig Miller (can fix this). (Although Phillips is justified in his view that CorComp is wrong in what they do at power-up, I only hope that he doesn't use this as an excuse to shut out thousands of CorComp users.

The San Antonio Area 99'ers Newsletter

Hopefully a solution will be found.)

Q: Will XB-II support ALL graphics modes?

A: It will support most but not all such as Pattern (multi-color) mode.

Q: Will the commands to put text on the screen (i.e. DISPLAY AT, PRINT, etc.) work in bit map mode or will there be separate commands for this?

A: In XB-II HCHAR, VCHAR, and two new commands CALL WRITE(X,Y,A\$) and CALL VWRITE(X,Y,A\$). On the new computer DISPLAY AT will work in bit map.

Q: Have user defined subprograms been retained?

A: Not in release 2.0 of XB-II. They will be in release 2.1. The hooks are already there.

Q: Will user defined subprograms execute faster then in TI Extended BASIC?

A: Yes. Everything is 2.3 times faster.

Q: In the BASIC editor will there be a way to search (and replace) a certain piece of text?

A: No.

Q: Will there be some sort of EXEC command facility to allow a "batch" file to be created?

A: Yes. In version 2.1 you can use DIS/VAR 80 files as input.

Q: Will it be possible to use the function keys in BASIC to enter key words?

A: The function keys are only supported with the TERMCHAR function in BASIC.

Q: Will the floating point routines maintain the high level of accuracy of TI's routines?

A: We are using the same routines.

Q: Will functions be available to convert from integer to floating point and back?

A: This is done automatically like IBM Fortran G.

Q: Will there be an easy way to catalog disks from BASIC? Initialize, rename, etc.?

A: The catalog feature is in our controller already. The new computer will support access to the disk operating system from BASIC.

Q: C has been mentioned as the next language: Have you contacted Clint Pulley who has ready written a small C for the 99/4A?

A: We are in contact with a developer for C. (Phillips has further clarified this. He has said that they have helped out a person who is developing a small C but at this point there is no formal arrangement between the two. Furthermore, he has not dealt with Clint Pulley.)

Q: Will a print spooler and RAM disk be built into the new computer?

A: It is already in our 128/512K cards. It will be built into the new computer.

Q: Is the TI 32K card useless or can it still be used as RAM?

A: Useless.

Q: Will there be a BASIC compiler?

The San Antonio Area 99'ers Newsletter

Q: It is a high priority. As of yet, it is not started however. (Phillips has further stated that due to the vast array of XOPs available that the task of writing a compiler for any language will be considerably simplified.)

Q: Will it be possible to time and date stamp files?

A: This is already done in the WDS/100 (Winchester hard disk system) and will be done in future products.

Q: Will a reset switch be in place instead of wearing out the on/off switch?

A: A buffered keyboard will be used with special keys.

Q: Will it be possible to auto boot off of disk on power-up instead of dealing with title screens?

A: Yes, on the new computer.

Q: Will there still be joystick and cassette support?

A: Yes.

Q: How about a switch like on the Apple //c to allow use of a DVORAK keyboard?

A: I doubt it.

Q: Will more levels of interrupts be available than the 2 on the 99/4A?

A: Yes. The 99/4A only used 0 and 1. The 9995 uses 0,1, and 4.

Q: How about an internal 300/1200 baud modem?

A: Possible card in late '86.

Q: Anything new in the sound chip to allow for more complicated sound effects and music?

A: No. We must use the same chip for compatability.

Q: Will "TI-FORTH" work?

A: Probably. (I don't like this answer at all. TI-Forth is not so exotic that any special problems should occur.)

Q: Will there be a fan and will there be problems with extended use?

A: No fan. Should have no problem with extended use.

Q: Who will service the new computer?

A: We are NOW setting up capabilities in the Southwest (3 places), California, Chicago, Atlanta, and looking for more.

Well that is the end of it. I hope this has answered some more of your questions about the new Myarc computer. No definite release date has yet been set but Phillips seems to be aiming for the March/April time period. All we can do is wait.

MECHATRONICS GmbH

In Conjunction With

TECHNICAL APPLICATION PRODUCT ENGINEERING

Douglas J. Morgan & Associates

7655 Cheriwoya Court Fontana, CA. 92335 (714)+350-2354

GOOD NEWS FOR TI-99/4A OWNERS!

At last some intelligent products at reasonable prices are available which greatly expand the capabilities of the Texas Instruments TI-99/4A Home Computer.

Designed and produced by MECHATRONIC GmbH of Germany, the TI-99/4A owner can produce high resolution graphics in Extended Basic using the 60 additional commands built into their **EXTENDED BASIC II PLUS** cartridge, use all the power of a true **128K MEMORY CARD** with automatic bank switching, available either as internal card for the Peripheral Expansion System or as a Stand Alone Unit with built in Centronics Parallel Printer port. Other new products include a true **MOUSE** with PC icons, an **EPROMMER**, the 2.8" floppy **QUICK-DISK** as well as the book **TI-99/4A INTERN. THE OPERATING SYSTEM OF THE TI-99/4A INTERNAL** with ROM, GROM, and GPL listings. An **80 COLUMN UPGRADE** is expected for the console soon!

The **GRAM-KARTE** allows the user to transfer the contents of module ROM to disk and to reload onto the card the contents of up to six cartridges, which are then menu accessed. Up to three **GRAM-KARTES** can be installed in your P-Box, and each at 128K significantly increases the power of your system. Imagine having eighteen cartridges accessible from a common menu at any time. The **GRAM-KARTE** has a total of 128K bytes of RAM of which 64K can be addressed as GRAM. The remaining 64K of the **GRAM-KARTE** are normal RAM and can be switched from the TI-99/4A through the addresses 6000 to 7FFF in 16 different ways by means of bank switching. The RAM can also be used for additional GRAM by special manipulation.

With the GPL-Assembler, the **GRAM-KARTE** can be used to develop your own modules. The built in software enables you to load any module into the **GRAM-KARTE**. You may then change the program to your liking, modifying printer defaults, disk I/O, et cetera, and save the modified program to disk. With the **GRAM-KARTE** in your system, you can transpose your basic program into a module and still have 12K RAM available to you for variables.

The 128K **GRAM-KARTE** is a product of **ELECTRONIK SERVICES** and TI-99/4A specialist Heiner Martin, author of the book **TI-99/4A INTERN. THE OPERATING SYSTEM OF THE TI-99/4A INTERNAL** with ROM, GROM, and GPL listings. The **GRAM-KARTE** is fully compatible with TI and CORCOMP disk controllers.

SPECIAL INTRODUCTORY PRICES!

128K GRAM-KARTE	\$ 249.95
80 COLUMN CONSOLE UPGRADE	\$ 200.00
EXPANSION 128K MEMORY CARD	\$ 159.95
STAND ALONE 128K MEMORY	\$ 149.95
EPROMMER	\$ 129.50
MOUSE FOR TI 99/4A	\$ 98.95
EXTENDED BASIC II PLUS	\$ 79.95
TI-99/4A INTERN BOOK	\$ 17.95

MECHATRONICS GmbH
 In Conjunction With
TECHNICAL APPLICATION PRODUCT ENGINEERING
 Douglas J. Morgan & Associates
 7655 Cherimoya Court Fontana, CA. 92335 (714)+350-2354

ORDER FORM

NAME : _____

ADDRESS : _____

CITY, STATE: _____ ZIP : _____

DATA: _____

QUANT.	DESCRIPTION	PRICE	SHIPPING	TOTAL
_____	128K GRAM-KARTE	* \$ 249.50	\$ 7.75 EA	\$ _____
_____	80 COLUMN CONSOLE UPGRADE	** \$ 200.00	\$ 8.75 EA	\$ _____
_____	EXPANSION 128K MEMORY CARD	* \$ 159.95	\$ 7.75 EA	\$ _____
_____	STAND ALONE 128K MEMORY	* \$ 149.95	\$ 6.75 EA	\$ _____
_____	EFROMMER	* \$ 129.50	\$ 6.75 EA	\$ _____
_____	MOUSE FOR TI-99/4A	* \$ 98.95	\$ 4.10 EA	\$ _____
_____	EXTENDED BASIC II PLUS	\$ 79.95	\$ 3.50 EA	\$ _____
_____	TI-99/4A INTERN BOOK	\$ 17.95	\$ 2.50 EA	\$ _____

* FOR DELIVERY MARCH / APRIL 1986

** FOR DELIVERY APRIL / MAY 1986

PAYMENT: CHECK OR MONEY ORDER WITH ORDER
 CALIFORNIA RESIDENTS ADD 6% SALES TAX
 C.O.D. SHIPMENTS ADD \$2.50

THANK YOU FOR YOUR ORDER!

BAYOU 99 USERS GROUP

OFFICERS

PRESIDENT	Roger Hickerson
VICE PRESIDENT	Noel Moss
SECRETARY	John Singleton
TREASURER	Robert Nordan

COMMITTEE CHAIRMEN

NEWSLETTER EDITOR	Roger Hickerson
PROGRAM	Richard Mitchell
LIBRARY	Sonny Hoffpauir
RECRUITING & EQUIPT.	Pete Still
TRAINING	Tim Hill
EDUCATION	John Singleton
TIBBS - SYSOP	Roger Hickerson

ARTICLES AND OTHER MATERIAL APPEARING IN THE BAYOU BYTE MAY BE COPIED BY OTHER USER GROUPS OFFERING RECIPROCAL PRIVILEGES IF BOTH BAYOU BYTE AND BYLINE CREDIT ARE GIVEN.

ADVERTISEMENT RATE SCHEDULE

FULL PAGE.....	\$14.00
HALF PAGE.....	8.00
QUARTER PAGE.....	6.00
EIGHTH PAGE.....	4.00
MINIMUM 4 LINES.....	3.00

Members are entitled to three lines free each month for notices or ads for personally owned hardware or software.



"NOTICE"
BAYOU 99 USERS GROUP
P.O. BOX 921
LAKE CHARLES, LA. 70602

MEETING 2nd THURSDAY EACH MONTH AT 7:00 P.M.
A. A. NELSON ELEMENTARY, 1001 COUNTRY CLUB ROAD, WEST OF LAKE STREET ABOUT 2 BLOCKS ON SOUTH SIDE OF COUNTRY CLUB ROAD.

Learn More About Your Texas Instrument Computer
Join A Users Group Now

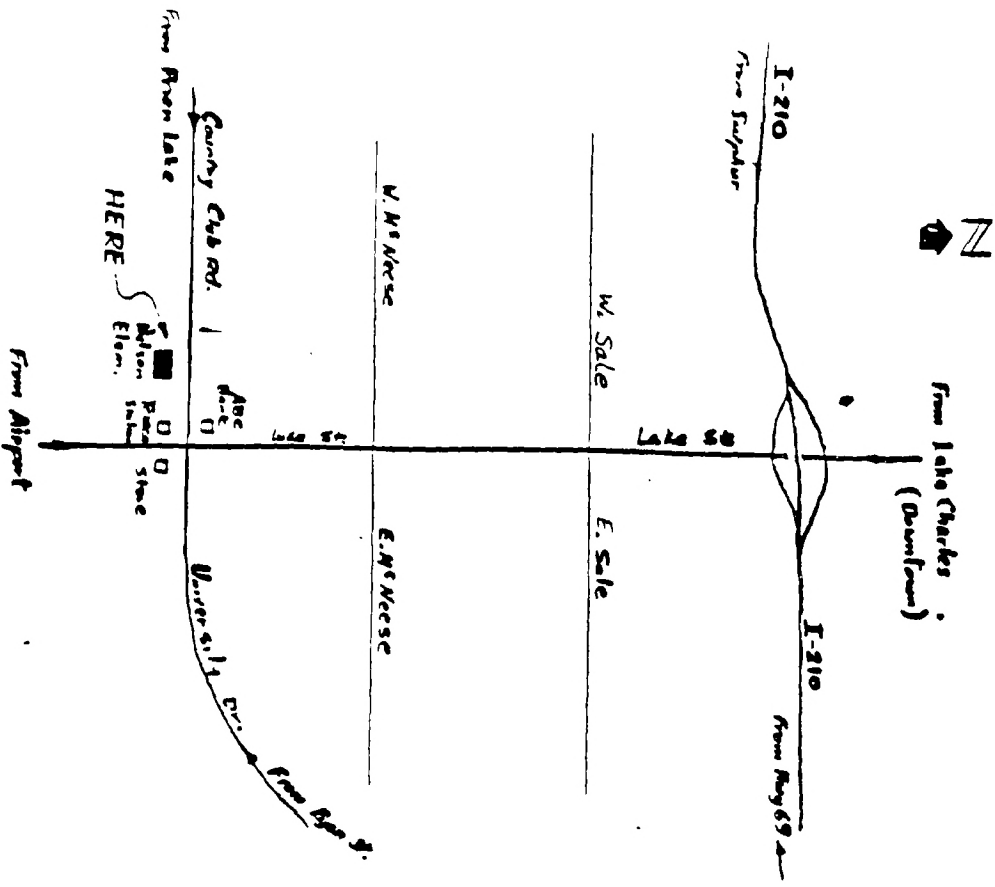
1986 MEETING DATES

JAN	FEB	MAR	APRIL
9	13	13	10
MAY	JUNE	JULY	AUG
8	12	10	14
SEPT	OCT	NOV	DEC
11	9	13	11

The opinions and views expressed in articles published are those of the authors and do not necessarily reflect the views of the officers or members of the Bayou 99 Users Group or the Editor of the BAYOU BYTE.

Mention of a company or product in the BAYOU BYTE does not constitute an endorsement by either the BAYOU BYTE or the Bayou 99 Users Group.

BAYOU 99 USERS GROUP
MEETING LOCATION
A. A. NELSON ELEMENTARY
1001 COUNTRY CLUB ROAD



BAYOU 99 USERS GROUP
POST OFFICE BOX 921
LAKE CHARLES, LA 70603

1986

EDMONTON USERS GROUP
PO BOX 11983
EDMONTON - ALBERTA
CANADA T5J-3L1,

FIRST CLASS

