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KINGS 99ers USERS GROUP
299 w. Birch Ave.
Hanford, Ca. }9323
Bill Milla, Pres. (209)582-1385
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May Meeting:
Well here we are again, in the spring of the year. Because of the holiday this month we will meet on Monday, May 19.

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KINGS 99erg USERS GROUP
MONDAY, MAY 19, 1986
* * * * 7:00pm * * * *
1255 Beulah Street, Hanford
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## April Minutes:

We had an interesting meeting. Billy installed a buffer in Doris Ingram's Panasonic printer. Jeani explained the purpose of a printer buffer and then we ran a couple of test programs to show the difference of buffer and no buffer. We would like to welcome Albert and Linda Howard to our membership and to welcome back Kevin Donaldson (we missed you Kevin). We really had some great items in our monthly raffle-SAM games, Programming Aides II and Programming Aida III. Remember to bring YOUR donations for this months raffle-items you wrote, items you no longer need, etc.

Membership Renewal:
If your newsletter contains a renewal form its time to renew your membership. Remember, all memberships run from July 1 (or are prorated) to June 30. Please help your users group by gending in your renewal early this will save us the expence of monthly reminders (and we REALLY need the money).

## Articles Wanted:

First of all a BIG public thank you to Harry Allston for his mail list program that we ran last month. If you would like to see more of the same (less recopying of articles from oter newsletters, less of my rambling, etc.) take the time to submit an occassional article. This can be origional programs, reviews of other programs, reviews of new (or old) software, reviews of articles, helpful hints, etc. A couple of years ago one of our former members used to write a monthly article on adventure gaming. How about some help!

Programs Wanted:
We need some fresh ideas for our monthly meetings. If you have a program or module that you use on a regular basis how about yolunteering to do about a 20 minute demonatration at the meeting? Or if there ia a particular module you own or are interesting in purchasing and would like someone to demonstrate, let us know and we'll seek out someone to demonstrate it.

## Help Requested:

I didn't receive any answers to my request for the names and addresses of any known users groups in Oklahoma. Please let me know I'd rather receive ten copies of the same addregs than have everyone wait for the other guy to respond.) PLEASE

Tigercub Reminder:
Iust a reminder to the various users groups that we gerhange newsletters with. Last year, we along with geveral ather userg grauper in order to save printing coata, stopped including copies of Jim peteraon'a Tiger Cub hints in our exchange copies. It just didn't make sence to send you coples of something, when you recelve the origional gtraight from Jim. If this causes a problem with any of the groups plesse let me know.

Just an added note on Tigercub. A couple of times when we have accidently left the current copies of Tigercub hints out of a newsletter it is not uncommon to receive a note in the mail along with a self addressed stamped envelope asting for their misaing copy. This is considered by several members to be the beat part of the newsletter. If you don't read it and use it-start nowiAlso be aure to mention the name of your users group when you order from Jim. This helps him keep up with where his orders come from. Keep up the good work Jim.

## Finances:

We are in financial trouble! Unless renewal forms come in, we will not have the money to publish next months newaletter. WE need you to send in your dues now and we need NEW members. All current members are urged to renew right awey-please save us the expence of constant reminders. We still have a couple of more payments to pay off our loan for the club'a equiptment, this will really help when this bill is paid off.

## Word Count:

Do you need to know how many word in the article you just wrote? (This sounds especially helpful to students who must submit a 500 word essay, to newsletter editors with limited amount of space, people typing papers for college students, etc.) Anyway if you are interested in this type ot program see pages 43 \& 44 of the April MICROpendium.

## TI (still) CARES:

The other day $I$ dialed $1-800$ TICARES and asked for help with a sick Extended Basic module. I was very impressed with the efficiency and knowledge of the operator. After a couple of questions (she wanted to make sure I knew what $I$ was talking about when $I$ aiditit didn't work-this was to aave me the expence of repair if it really didn't need it). I was told how and where to ship it, price of exchange, amount of time it would take to receive my replacement, etc. They said $I$ could send a check or they would aend the replacement module in the mail and include an involce. Not bad for an "orphan"s parents. The only thing $I$ was disaapointed to find out is that they have closed down thier local exchange centers-Texas is so far away.

Unusual Ube:
For those families like ours that have an interest in both computers and model railroading the latest pittaburg newaletter contalned an ad (on the back page) for a train controllex for the TI. If intereated write to Hobby Software Co., P.O. Box 431, Irwin Pa. 15642.

Millera Graphica:
We have just received copies of the latest Millers Graphios catalogs, these will be distributed at the May meeting. This contains an outilne on how the Gram Kracker works (allows you to take ANY module and put it on disk, to modify any module to fit your specific needs, to store 15 modules on one disk, etc.), lists of TI books such as "Orphan Chronicles". "The Smart Programing Guide to Sprites", discription of Disk Assembler, Advanced Diagnoatica, etc., etc. The catalog also contains a list of 60 TI products dealers and 130 userp groups.

Reminder:
Just in case you forgot or are new to our users group-Jeani is a $T$ products dealer and can generally qet almost any item made for the $T I$ and generally much cheaper than other miurces.

## Ir tre shortie Dept

Here is a collection of SHORT programs I found in various newsletters. I've tried them all and I think you'll enjoy them.

The followirg progran eriatlss

 Frinter ar the Epjan Frirters The same cen be incorper ated in any program that will raquire a printed line longer then BO characters:

```
(from Houston LSEM's Er:up)
IDQ CALL CLEAF
110 GFEN #2: "FID".VARIAELE 170
120 FFINT #2:CHFF\15:
```


## FLOTTIMG CIACLES

This li.ttle beauty comes from the Cin二Day UVGVvia MICFOpendium It draws circles based on $X, Y$ and Fadius cordinates in "EASIC wi亡n notinirg added."

```
BQ EALL BEAR
1ID INFLT "FADIUS,FD,CDF":FADIUS,FD,CC
120 EALL HCHAF(1,1,32,704)
13Q FDF X=-RADIUS TO FADIUS STEF 1/FADIUS
AO SALL CAEAR
150 C=SQF(FADIUS*2-xN2)+CC
160 IF (F<1)+(F`24)THEN 220
170 IF (C&1)+(EYZ2)THEN 170
ESU COLL FCHAR(R,C,42)
AO SALL CAEAR
```



```
-2D CALL HCHAR(R,C,42)
AO SALL CAEAR
SOD GALL EAEAR
```

EVEF-CHANGING DESIGNS

BD CHLL CLEFF : : CALL MAGNIFY(2): CALL SCREEN(2): CALL CHAF(140,"Q10204DE10204
उGU": : FGF $x=1$ TU $2 G$





Free Proarsa：by Ed York
The prograg listed belon dexonstrates the power of illusion as you see shades of colors that you thought never axisted．itie original idea caze froa our friends in Sydney，Australia．The author is，at the present tine，unknown！

```
1OO REM COLOR BONANZA
110 FEM WRITTEN BY:
120 REM ED YORK
130 CALL CLEAR
140 FOR A=40 TO 136 STEP 8
150 CALL CHAR(A,"55AA5SAAS5AAS5AA")
160 NEXT A
170 FOR B=2 TO 14
1 8 0 ~ C A L L ~ C O L O R ~ ( B , 1 , 1 )
190 CALL VCHAR(1,2*B,24+8*B,22)
200 CALL VCHAR (1,2*B+1,24+8*B,22)
```

100 REM COLOR BONANZA
110 REM WRITTEN BY：
120 REM ED YORK
130 CALL CLEAR
140 FOR $A=40$ TO 13G STEP 8
150 CALL CHAR（A，＂55AAS5AASSAASSAA＂）
160 NEXT A
170 FDR $B=2$ TO 14
180 CALL $\operatorname{COLOR}(B, 1,1)$

200 CALL VCHAR $(1,2 * B+1,24+8 * B, 22)$

210 NEXT B
220 FOR C＝2 TO 14
230 CALL SCREEN（INT（16＊RND）+1 ）
240 FOR $D=2$ TO 14
250 CALL COLOR（D，D，C）
260 NEXT D
270 CALL $\operatorname{KEY}(O, E, F)$
280 IF Fく1 THEN 270
290 NEXT C
300 GOTO 220

From the Newsletter of the Evdnev User＇s Groun．SFF：ITE DEMO bV Fiict：Lilley．

```
100 CALL CLEAF : CALL CHAF:(9
6."SCTEFFFFFFFFTESC") :: J=-1
110 FOF: L=1 TO 28 :: こALL SFR
ITE(#L.96,5,L*4.10.(%.L*1) : :
NEXT L
120 FOF L=1 TO 28 : : CALL MOT
ION(#L.O.L*J) :: NEXT L
130 J=J*-1: GOTD 120
```


## SCFEEN TEXTノDUMF

IF YOU WANT TD PRINT A CERTAIN PART OF YOLK FFOOGFAM THAT IS IN TEXT FRCM THE SCFEEN THEN ADD THIS AS A SUS PFOGFiAM TO yOUF PROGRAM AND inJELT A gQSUE TD THIS SUE FFDGRAM AND YDUG PRINTER WILL FRINT OUT WHAT YOU HAJE DN THE SCFEEN． 1000 REM A SCFEEN TEXT／DUMP
1010 REM SUE／FFGGFiAM ：WILL FAINT TEXT
： 020 FEM FROM SCFEEN TO A FIO PRINTER
1030 REM DANE HEATHERINGTON
1040 REM LARGO，FLA．
1060 DPEN＊1：＂FIO＂
1070 FOF ROW＝1 TD 24
1080 FOK CRLUMN＝1 TD 32
1090 CALL GCHAR（ROW，COLUMN，$X$ ）
1100 PEINT $11:$ CHRs $(x)$ ；
1110 NEKT COLUMN
1120 FFINT \＃1：：＂（FREES SPACE BAF：I2 TIMES EETWEEN QUOTES）＂
1130 NEXT FOH
1190 CLOSE 1
11 EO RETUFR
＜－m thanks to M．D．V．A． of the Vancoliver Area

270 DATA $9,11,3,14,16,6$
280 DATA 0078444478504844,00
44442810101010,003C40405C444
438,004444428281010,004
444454545428,00782424222424
78
290 FGR X=35 TO 46
300 READ AS
310 CALL CHAR(X, As)
320 MEXT X
330 IF ANS $={ }^{-8}$ P THEN 370
310 FOR $x=96$ TO 136 STEP 8
350 CALL CHAR(X,"FFFFFFFFFFF
FFFFF")
360 MEXT X
370 FOR $x=9$ T0 14
380 READ Y
370 CALL COLOR(X,Y, 1$)$
400 NEXT X
410 IF ANs="C" THEN 470
420 FOR $x=96$ TO 136 STEP B
430 READ As
440 CALL COLOR(x/8-3,2,1)
450 CALL CHAR(X, A!)
460 MEXT X
470 Ramdonile
490 FOR $x=1$ IO 4
$490 \mathrm{~A}(\mathrm{X})=1 \mathrm{NT}$ (RND $\mathbf{6 + 1}$ )
500 FOR $Y=1$ 10 $x-1$
510 IF $A(X)=A(Y)$ THEN 490
520 NEXT Y
530 MEXT X
510 CALL CLEAR
550 PRINT TAB(1)):"あHItath
RIGH7 ${ }^{\circ}$
560 PRIMT CHR 196 );"R ED"; 1 A
B(11):'1 $111^{\prime \prime}$
570 PRINT CHRs(136);"B LUE';
TAB(II); "( $+1+1+n+1$ COL ROK"
5BO PRINT CHRS(129);"WHIE"

590 PRIMT CHR $\$(112): " 6$ REEN"
; TAB(!1);'t 1: 1
600 PRINT CHRs(120):*V IGLET
":TAB(II):", (H)HA-"
blo PRINT CHRs(104):"Y ELLOW
'; TAB(1):": 1:1:

-
6JO PRIAT TAB(11):"1 1:11
-
640 PRINT TAB(11): ", 11):

660 PRINT TAB(11);", 11) 1 ):
-
b70 PRIMT TAB(11):'1 : 1 :
680 PRINT TAB(11);", (1):
-
690 PRIMT TABILD;': : : : 1
10101F10101, 10101010F010
101, FF81BDA5A58D81FF

700 PRINT TAB(11);", 8):
-
710. PRINT TABC11);"1:111 -

TJO PRINT TABCID:": 1 !
.

-
750 PRINT TABII!): ${ }^{*}$ : : :

-
770 PRINT ${ }^{2}$ COLOR?'; TAB(11);
11111"
 ';
790 IF ANS $=$ "C. THEN 810
800 CALL VCHAR $(2,3,32,6)$
810 FOR C=14 T0 20 STEP 2
B20 FOR R=5 TO 23 STEP 2
B30 CALL HCHAR (R, C, 46)
840 MEXT R
850 NEXT C
B60 FOR C=14 1020 STEP 2
870 CALL HCHAR $(2,[, 63)$
880 NEXT C
870 ㅇ․ 23
$900 \quad n=0$
$910 \mathrm{~B}=0$
920 FOR C=14 1020 STEP 2
930 EOSUB 1080
940 CALL HCHAR (R, C, K 18+89 $)$
950 IF $\mathrm{A}(\mathrm{C} / 2-6)($ ) X THEN 970
$960 \quad 8=8+1$
970 FOR $\mathrm{x}=1$ 10 4
980 IF $A(x)() K$ THEN 1000
$990 \mathrm{H}=\mathrm{H}+1$
1000 NEXT X
1010 NEXT C
1020 CALL HCHAR(R, 24, $4+4$ B)
1030 CALL HCHAR(R,29.B448)
$1040 R=R-2$
1050 IF $8=4$ THEN 1340
1050 IF R(S THEN 1340
107060 T 900
1080 CALL MCHAR(R,C, 88)
1090 CALL HCHAR (23, 10,95)
1100 CALL KEY $(0, K, 5)$
1110 CALL HCHAR (R, C, I2)
1120 Call hCHAR $23,10,32)$
1130 IF S(I THEN 1080
1140 Call $\operatorname{HCHAR}(23,10, K)$
1150 IF $(K=82)+(K=89)+(K=71)$
$+(K=86)+(K=87)+(K=66)$ IHEN 11
90
1160 CALL SOUMD $(-50,220,0)$
1170 CALL SO11401250,110,01
1180 60T0 1080
1190 Call sound $(-50,880,0)$
1200 CALL SOUMD (-50, $9.98,4$ )
1210 IF KC>82 THEN 1230
$1220 K=1$
1230 IF K< $>89$ THEM 1250
$1240 \mathrm{~K}=2$
1250 IF K() 7 ! THEN 1270
$1260 \mathrm{~K}=3$
1270 IF K 3 )8b THEN 1290
$1280 \mathrm{r}=1$
1290 IF K ( $) 8$ I TMEN 1310
$1300 \mathrm{~K}=5$
1310 IF K()66 THEN 1330
$1320 K=6$
1330 RETURN
1310 FOR $x=1$ 10 4
1350 CALL HCHARL2,X12+12,A1X $1: 8+88)$
$1360 \mathrm{MCXT} X$
1570 L=11
1380 M8:- HELL YOU -
1370 50518 1700
1400 IF BCA THEN 1440

1420 โ05us 1700
1:30 $113=\times \operatorname{IN}$ OKLY*
1140 605U日 1700

-12) \& $^{\prime 2}$ TRIES"
1480 60SUB 1700
1470 6010 1540
1180 MI= -MIGHT MAKE"
1470 GOSUB 1700
1500 H: = " 11 HEXT"
1510 60SU8 1700
1520 Ms=" TIME'
1530 605ub 1700
$1540 \mathrm{~L} L+2$
$1550 \mathrm{Ht}={ }^{\prime}$ PLAY*
1560) GOSUB 1700
$1570 \mathrm{~ms}={ }^{-}$AEAIN*
1580 f0SUB 1700
$1590 \mathrm{MS}={ }^{\prime} \mathrm{Y} / \mathrm{N}$ ? ${ }^{*}$
$1800 \mathrm{~L}=\mathrm{L}+1$
161) CALL XEY (0, K, S)
$150^{\circ}$ CALL MCHAR $\left.20.5,72\right)$
1500 Call hChar $120,7,321$
1.64 60Sy 170)
$1550:=?$
166) IF S:! THEN 1610

1670 IF $K=89$ THEN 470
16RO IF K ( 378 THEN 1610 1590 F40
1700 FOR $=1$ TO LEN(MS)
1711) $C=$ GSC (SEG5(Hs, $x, 1)$ )
1720) CAL LHCHAR(L, X $+2, \mathrm{C}$ )

1730 NEY X
130 L-L.
1350 RETVAN

32K MEMORY EXPANSION
( SEM-KIT FORM )

* 32 K of STATIC RAM. (using $8 \times 8 \mathrm{k} 6264 \mathrm{LP}-15$ ).
* Physical dimentions. (1 1/16" x $2^{\prime \prime}$ x $1^{\prime \prime}$ ).

Send Self Adresbed Stamped envolope to:

John D. Wilforth
RD \#1 Box 73a Jeannette PA 15644

* Operates exactly the same as the T.I. Expansion Memory. (412)527-6656
* Installs in the small space directly behind the game port..
* Requires the soldering of the unit to the pin extensions on the back of the game port connector, soldering 5 wires to two chips on the main board, and the removal of some plastic inside the top cover. (approximate total time 30 min .)
* Tools needed: 15 to 25 watt soldering iron

6 " fine resin core solder
knife (EXACTO type)
phillips screw driver
small pair of pliers
I'm planning to manufacture this unit, if there is sufficient interest.
The cost should be between $\$ 35$. and $\$ 45$. plus shipping. If you might be interested, please submit your name, address, and phone number so i can contact you.
NAME $\qquad$ ADDRESS

PHONE $\qquad$ QUANTITY $\qquad$ COMMENTS

John Willforth is in the process of having some circuit boards etched for a specifically designed internal memory expansion unit. Assemby will be increadibly simple, John is looking for support. The finiacial outlay to get 100(the bare-get it,bareminimuim) is about $\$ 500$. The more interest in this project, the lower the individual cost. Please send a self addressed STAMPED envolope to john if you are interested.

Other tentive projects include, a 156 K ram disk that fits inside the console, a lak minimemory that would beable to dump most non-grom modules, internal speech for less than $\$ 35$, RS232's and disk controllers that fit inside the console. If you want to see some of these innovations materialize>>>please give John Wilforth all the support you can. 1 have had the chance to tryout some of these prototypes and they work perfectly and are compatable with all software that we can think of.


32 Kilobyte MEMORY EXPANSION FOR INSIDE THE SPEECH SYNTHESIZER ( OR ANY PLACE YOU WANT TO PUT IT).
by JOHN WILLFORTH
(based on ideas from the WESTRAILIA, and the CEDAR VALLEY USERS GROUPS)

I have written up several articles on the subject of putting 32 K of static RAM inside of the TI console. I belleve that most of the information for this came from the WESTERN AUSTRALIA U.G., and the work leading to the insertion of the same memory into the Speech Synthesizer, was done by the CEDAR VALLEY U.G.

Now I have put memory into both the console and the Speech Synthesizer. I thought that there should be no place you couldn't stick it. So $I$ just finished putting it into the OLDE TI STAND ALONE DISK CONTROLLER ( part of the old train ). This made a nice quiet, sort of micro-expansion system ( without RS232/PIO). If you already have a full blown system, or are just beginning to get int a disk system, and realize that you either don't have the funds, or will not need anymore than that just described, you should read on.

The long connector on the left of the schematic, represents the large 44 -pin conn. that is inside the speech synth., or any other plug in peripheral ie: Stand-alone Disk Cont.. The big difference, however, is that ONLY the speech synthesizer carries pins $1,2,43$, and 44 into the unit from the console. Therefore if you do decide to put memory into any other unit than the speech synthesizer, I would recommend that you wire across that unit, in other words you should run a wire from pin $l$ on the console connector to pin 1 on the output end of that unit, where the 2nd unit from the console might be plugged in, and do the same for pins 2, 43, and 44. This will enable you to put the very small speech synthesizer out on the end, instead of between the 2 much larger units (console and Disk Controller ). There is only one lead that is involved here that is a must, and that is the pin 1 , since $I$ have stayed with using the +5 VDC from the console, rather than tapping it from the +5 Volt source in the unit where this is installed.

If you have the documentation on the RAM chip, you may be confused by the reverse order of the address lines. DON'T WORRY, just wire the chip up as $I$ have indicated, and if you do your part correctly, it will work. I've done nearly 20 of these installations in the console and the speech synthesizer, and in a stand alone disk controller, and as far as I know, they are all working. If you want the more simple instructions, on how to install this same memory into your console, ( which is what I prefer ) just contact me, by sending a stamped, self-addressed envelop, and I will send the instructions. Have fun! JOHN WILLFORTH RD\#1 BOX 73A JEANNETTE, PA 15644 , or call after 9:00 PM, (412) 527-6656


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