WORDPLAY

The PUNN Newsletter Portland, Oregon

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MURPHY'S LAW:

ANY GIVEN PROGRAM WHEN

RUNNING, IS OBSOLETE

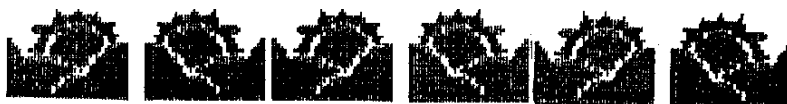## From the President

President's Message July 1992

It was a hot and muggy night, I couldn't sleep so I ambled out of the sack and switched on my trusty 99/4A. The keyboard beckoned like a tepid pool of water, my fingers swimming over it with a rhythmic, calculated motion. My mind was wandering, my thoughts were in a different place, a different time ....

ENOUGH ALREADY! Our next meeting should be REALLY special! It will be at INTEL, where Al works. Details inside, and also on our BBS. Bring your system if you are having problems accessing the BBS and we will help if we can. Telco and Fast Term welcome. Make sure to bring all of your cables and boards.

I sure hope the warm weather stays around for awhile, though we could use some rain. The July meeting is set and for August, our annual picnic will take place at the Elks Lodge in Milwaukie. Terry is catering again and promises a great spread. Chicken, burgers, hot dogs, salads and soft drinks along with all the necessary condiments to make a meal. $5.00 adults, $4.00 children 12 and younger. Can't beat that!

Ted and Jim will have some demos in the works so look for some good programs to come up soon. Give them some input as to what you would like to see. They both have hundreds of great programs. You can support the club by bying Micropendium. Donations are also welcome. This is the fuel that keeps the motors of our club turning so that we may bring you the products you enjoy!

See you in July! Happy 4th! * Walt *

JULY PROGRAM AND D.O.M.
Ted Peterson

PROGRAM

The program for PUNN this month will be a demonitration of Intel's 16 line BBS. Al has also have arranged for a phone line so if you are having trouble getting into the PUNN BBS, you should consider bringing your system, cables, and software. We maybe able to give you some help. This should be a good meeting.

DISK OF THE MONTH

We will have the club system and library there and of course sets of this months DOM and any left over from the last 3 or 4 months. As always we will have blank disks if you want somthing different please give me a call the number is 244-1587.

July's disk of the month will be a set of programs put together by Jim Thomas. He plans to demonstrate them at the meeting so you can see what they do and how the work.

We really need more membership imput after all this is your club. What do you want us to include on the disk of the month. We would like to have some good new ideas from some other members. You have no idea how hard it is to come up with fresh ideas for the DOM each month please give us a hand.

We also have the sets of preformated disks. They are $5.00 per package of 10 disks, formated how ever you want SSSD, SSDD, DSSD, DSDD. All are pretested and ready to run.

Starting this month we will have a drawing for the Disk of the month. Each person will be given a drawing ticket as they walk in the door. Then we will have a drawing sometime during the meeting and if you are still there you will win a free disk of the month. But you have to come to the meeting to be given a ticket and at the drawing to yell "Hey! that's me.".

Remember as a member you can order any of the library disks you want by mail. The club charges $3.00 for the disk and copying and you can have as many programs on one disk as you want. On programs that require more than 1 disk the cost is $3.00 for the first disk and $1.00 for each additional disk in the set. All disks are SSSD and ready to run. The charge for shipping is $1.25 + postage for each order. Send your requests to Ted Peterson, 3705 SW Stephenson St Portland, OR 97219, and we will send your disks within 2 weeks.

Come and help support PUNN. Your dues do not even pay for WORDPLAY and now that the postage is up to $.29 each and we need more money in the treasury to cover costs. The main way that we have been paying for PUNN is by selling software from the club library. It's an easy way to support PUNN and as long as you want the software anyway it doesn't cost you anything. In the past software sales have paid for the newsletter and the club dues pay for the BBS etc.

Ted Peterson

%%
%%   WHAT IS AUGUST 4th, 1992? WHY ITS THE ANNUAL PUNN PICNIC AT THE   %%
%%   MILWAUKIE ELKS LODGE   %%
%%

##
REMEMBER WE HAVE A NEW BULLETIN BOARD NUMBER 693-6913
##

THE EDITOR GROUSES AND
TIPS FROM THE UNKOWN
Mike Calkins

As an editor of WORDPLAY and hard copy librarian I don't know who it is I hate the most. A readership who absolutely refuse to write articles for me or the person or persons unknown who take out NewsLetter books tear the NewsLetters apart, and then don't put them back in the proper order. Heck some people don't even put them back in the same book. Each time I go through the library I find some single sheets that are just floating loose. With a couple of hours work I can usually match up about a 1/2 to 2/3 of them. Then I put the rest in a file folder and hope someone will look there when they find part of the article they are reading is gone.

Of course what creates this nasty little situation is editors who are so ashamed of the work they do that they will not put a simple masthead, date and page # on each page of the Newsletter they print. Heavens, if the editors of the Oregonian aren't afraid to, why should they be. I can not hold myself out as a very good editor. I am just now begining to get he hang of it. But when you pick up WordPlay you at least know the name of the newsletter, what month and year it was printed, and what page you've got in hand. Though the style changes with each editor we can thank Chuck Ball for standardizing our foremat.

What bothers me more is that I often run across neat little articles that I would unhesitatingly print if I knew where they came from. The ones I am talking about are the the little one and two paragraph items. I'd like to put them in WordPlay and not feel sneaky when I can't acknowledge the author or at least the source. So if anyone sees their efforts here in and you didn't get credit, send me a letter and you will.

With that little tirade out of the way here are some I didn't know.

While editing a line you mistakenly hit FCTN 3 {Erase} when you meant to hit FCTN 2 [Insert], and the entire line disappears, not to worry, just hit FCTN 4 (Clear), retype the line number and hit FCTN X. Like magic the line is returned, ready to be edited.

If you are using a BW TV as your computer monitor use Call Screen(15) to disable the color generator. That will remove those verticle lines that may have been driving you nuts.

One of the nicest features of the Extended Basic Module is the REDO (FCTN 8) key. Let's say that you typed in a long line only to get an error message. Rather than retype the entire line, you simply press Redo and the line reappears for you to make the correction.

When you are using your TI 99/4A to make a video run the video tape through first without any recording signal. This will leave a blank signal pulse on the tape and gives you a cleaner picture. It's a good idea to do this with all the video tape you buy before using it.

When you're making a video using a computer let it run for a few seconds and then start the next section by backing up a little bit so you wont have any blank space.

When using the "INPUT" in a program you can't use ",". For instance if you're asking for a city and state you can't use Portland, OR. Instead you must use Portland OR. If you use the comma the program wont work.

If you have a ramdisk and use FunnelWeb or BA Writer you will need to use one of of your numbered disks as a scratch disk to save your data to. As niether Funnel Web or BA writer can save to a disk with an alphabetical designation. But you can load from disks with an alphabetical designation. So save data to a numbered scratch disk and then if you want to use an alphabetically numbered disk you can transfer it using DM1000.

PROGRAMS THAT WRITE PROGRAMS
PART 6
by Jim Peterson

The first five parts of this series were written long ago, but since then I have found a new method to write programs that really do write programs. I must give Karl Romstedt credit for this idea. To illustrate this technique, I will use a program which writes an auto-loader to display a diskfull of programs by their complete name rather than the abbreviated filename. This is the LOAD program which I put on all my TI-PD disks. First, we key in the part which will always be a part of the LOAD program. Do not change the line numbers because there is a reason for them, and leave that REM in line 11 because something else will be plugged in there later.

```
10 CALL CLEAR :: DIM M$(127)
:: CALL SCREEN(5):: FOR S=0
TO 14 :: CALL COLOR(S,2,8)::
 NEXT S :: CALL PEEK(8198,A)
:: IF A<>170 THEN CALL INIT
11 REM
12 ON WARNING NEXT
13 X=X+1 :: READ M$(X):: IF
M$(X)<>"END" THEN 13
14 R=3 :: FOR J=1 TO X-1 ::
READ X$ :: DISPLAY AT(R,1):S
TR$(J);TAB(4);X$ :: R=R+1 ::
 IF R<23 THEN 17
15 DISPLAY AT(24,1):"Choice?
 or 0 to continue 0" :: ACCE
PT AT(24,26)VALIDATE(DIGIT)S
IZE( 3):N :: IF N>X-1 THEN 1
5
16 IF N<>0 THEN 19 :: R=3
17 NEXT J
18 DISPLAY AT(24,1):"Choice?
" :: ACCEPT AT(24,9)VALIDATE
(DIGIT):N :: IF N=0 OR N>X-1
THEN 18
```

```
19 CALL CHARSET :: CALL CLEA
R :: CALL SCREEN(8):: CALL P
EEK( 31952,A,B):: CALL PEEK(
A*256+B-65534,A,B):: C=A*256
+B-65534 :: A$="DSK1."&M$(N)
:: CALL LOAD(C,LEN(A$))
20 FOR J=1 TO LEN(A$):: CALL
 LOAD(C+J,ASC(SEG$(A$,J,1)))
:: NEXT J :: CALL LOAD(C+J,0
):: GOTO 10000
10000 RUN "DSK1.1234567890"
```

Now, save that "source code" by SAVE DSK1.CAT/S,MERGE . Then key in this "assembler" which will convert the "source code" into an "object code."

```
100 OPEN #1:"DSK1.CAT/S",VAR
IABLE 163,INPUT
110 OPEN #2:"DSK1.CAT/O",VAR
IABLE 163,OUTPUT
120 FOR J=10 TO 21 :: LINPUT
 #1:M$ :: PRINT #2:CHR$(0)&C
HR$(J)&CHR$(156)&CHR$(253)&C
HR$(200)&CHR$(1)&"2"&CHR$(18
1)&CHR$(199)&CHR$(LEN(M$))&M
$&CHR$(0):: NEXT J
130 PRINT #2:CHR$(255)&CHR$(
255):: CLOSE #1 :: CLOSE #2
```

Note what this routine does. It reads in each line of the tokenized CAT/S and prints it back out to CAT/O preceded by line numbers 10 to 21 in tokenized two-byte format followed by the tokens for PRINT #2, the tokens for a quoted string followed by the CAT/S record and the CHR$(0) end-of-line indicator. Then it prints the double-255 end-of-file indicator and closes the files.

PROGRAMS THAT WRITE PROGRAMS (CONT.)

Now key in the CATWRITER program.

```
1 CALL CLEAR :: CALL TITLE(1
6,"CATWRITER"):: CALL CHAR(1
27,"3C4299A1A199423C"):: DIS
PLAY AT(2,10):"Version 1.4":
;:TAB(8); Tigercub Softwar
e"
2 DISPLAY AT(15,1):"For free
":"distribution":"but no pri
ce or":"copying fee":"to be
charged." :: FOR D=1 TO 500
:: NEXT D :: CALL DELSPRITE(
ALL)
3 DISPLAY AT(2,3)ERASE ALL:"
TIGERCUB CATWRITER V.1.4":::
" Will read a disk directory
,":"request an actual progra
m":"name for each program-ty
pe"
4 DISPLAY AT(7,1):"filename,
 and create a merg-":"able Q
uickloader which dis-":"play
s full program names and":"r
uns a selected program."
5 DISPLAY AT(12,1):" Place d
isk to be cataloged":"in dri
ve 1 and press any key" :: C
ALL KEY(0,K,S):: IF S=0 THEN
 5
9 OPEN #2:"DSK1.CAT",VARIABL
E 163,OUTPUT
100 OPEN #1:"DSK1.",INPUT ,R
ELATIVE,INTERNAL :: INPUT #1
:N$,A,J,K :: LN=1000 :: FN=1
100
110 DISPLAY AT(12,1):"Disk n
ame?":;:N$ :: ACCEPT AT(14,1
)SIZE(-28):N$ :: LX$=STR$(14
-LEN(N$)/2):: LXLEN=LEN(LX$)
120 PR$=CHR$(0)&CHR$(11)&CHR
$(162)&CHR$(240)&CHR$(183)&C
HR$(200)&CHR$(1)&"1"&CHR$(17
9)&CHR$(200)&CHR$(LXLEN)&LX$
130 PR$=PR$&CHR$(182)&CHR$(1
81)&CHR$(199)&CHR$(LEN(N$))&
N$&CHR$(0)
140 PRINT #2:PR$
145 DISPLAY AT(23,1):"To omi
t a file, press Enter"
150 X=X+1 :: INPUT #1:P$,A,J
,B :: IF LEN(P$)=0 THEN 190
:: IF ABS(A)=5 OR ABS(A)=4 A
ND B=254 THEN 160 ELSE X=X-1
 :: GOTO 150
160 DISPLAY AT(12,1):P$;"
 PROGRAM NAME?" :: ACCEPT AT
(14,1)SIZE(25):F$ :: IF F$="
" THEN X=X-1 :: GOTO 150
170 PRINT #2:CHR$(INT(FN/256
))&CHR$(FN-256*INT(FN/256))&
CHR$(147)&CHR$(200)&CHR$(LEN
(F$))&F$&CHR$(0):: FN=FN+1
180 M$=M$&CHR$(200)&CHR$(LEN
(F$))&P$&CHR$(179):: IF X<11
 THEN 150
190 IF M$="" THEN 210
200 PRINT #2:CHR$(INT(LN/256
))&CHR$(LN-256*INT(LN/256))&
CHR$(147)&SEG$(M$,1,LEN(M$)-
1)&CHR$(0):: LN=LN+1 :: M$="
" :: X=0 :: IF LEN(P$)<>0 TH
EN 150
210 PRINT #2:CHR$(INT(LN/256
))&CHR$(LN-256*INT(LN/256))&
CHR$(147)&CHR$(200)&CHR$(3)&
"END"&CHR$(0)
220 PRINT #2:CHR$(255)&CHR$(
255):: CLOSE #1 :: CLOSE #2
230 DISPLAY AT(8,1)ERASE ALL
:"Enter -":;:"  NEW":;:"  ME
RGE DSK1.CAT":;:"  DELETE ""
DSK1.CAT""":;:"  SAVE DSK1.L
OAD"
240 SUB TITLE(S,T$)
250 CALL SCREEN(S):: L=LEN(T
$):: CALL MAGNIFY(2)
260 FOR J=1 TO L :: CALL SPR
ITE(#J,ASC(SEG$(T$,J,1)),J+1
-(J+1=S)+(J+1=S+13)+(J>14)*1
3,J*(170/L),10+J*(200/L))::
NEXT J
270 SUBEND
```

If you have a ramdisk and use FunnelWeb
or BA Writer you will need to use one of
of your numbered disks as a scratch disk
to save your data to. As niether Funnel
Web or BA writer can save to a disk with
an alphabetical designation. But you
can load from disks with an alphabetical
designation. So save data to a numbered
scratch disk and then if you want to use
an alphabetically numbered disk you can
transfer it using DM1000.

PROGRAMS THAT WRITE PROGRAMS (CONT.)

Next, enter MERGE DSK1.CAT/O and that "object code" will pop into place right after line 9. If you list it, it will look like a blown file, because most of the token codes are unprintable, but don't worry. Save the program as CAT-WRITER.

When you run the program, it will open an output MERGE format file called CAT and write those merged lines from CAT/O in MERGE format. Then it will open the disk you are cataloging, read the directory sector, and ask you for a disk name with the existing diskname as default. You can select any disk name you want to title the menu screen, up to 28 characters long. Line 110 computes the position to center the title, and lines 120-140 write to the CAT file a tokenized line 11 (overwriting that REM line) to display your title at the top of the screen.

Line 150 reads each filename from the disk directory, skipping over anything that is not a program (no one yet has been able to tell me how to distinguish an assembly image "program"!). For each filename, it will ask you for a complete program name. If you don't want a program on the menu (such as an XB program that is run from another program, or an image file), just press Enter. Otherwise the program name you select will be printed as DATA by line 170, in tokenized format in lines starting with 1100 (note the FN=1100 in line 100) and incremented by 1. Lines 180-200 assemble the filenames into DATA lines of up to ten names, and tokenize them in lines beginning with 1000.

When the last filename has been read, line 210 prints one last DATA item "END" to signal line 13 to stop reading, and then prints the double-255 end-of-file. Then you are given instructions to clear memory with NEW, merge in the CAT file, delete it because you don't need it any more, and save it back as LOAD.

When you list the LOAD program, you will find the original CAT/S restored in lines 10-19 and 1000, the line to display the title in line 11, the filenames in DATA lines starting with 1000 and the program names in DATA lines starting at 1100.

When you run the program, it will display the disk name, and read the filenames into an array. Then it will display the program names, numbered, on as many screens as necessary, and ask you to select a program by number. The corresponding filename by number is selected from the array, and lines 19-20 rewrite line 10000 to RUN that filename. List the LOAD program after you have used it to load something, and you will see that it has changed.

That algorithm in lines 19-20 was published in one of the earliest 99'ER magazines, in a letter by A. Kludge. It has been the basis for every XBasic menu loader, and has saved us uncounted thousands of hours. The author had asked me not to reveal his identity, but I think I can now tell you that "A. Kludge" was really the late Dr. Stefan Romano, who passed away recently at the age of 57. He was a brilliant man who did much for the TI world, at first as editor of the IUG library, and then through the Amnion library and Amnion Helpline. He was of great help to me on several occasions.

Some of you may have obtained from me a copy of CATWRITER which wrote GOSUB 21 in line 12, and CALL LOADs in lines 21-25 to change the cursor to my Tigercub emblem. If you have begun to have problems with the resulting LOAD program or with my previous Tigercub Menuloader which used the same CALL LOADs, I have finally found out the cause. When my Horizon RamDisk is on, any program con- taining those CALL LOADs will lock up the second time it is run!