WORDPLAY
The PUNN Newsletter Portland, Oregon

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MURPHY'S LAW:

EUPHAMASIA: A KINDER
GENTLER WAY OF PUTTING
EUPHANISMS OUT OF OUR
          MISERY

From the President

Time Marches On here it is almost March, 1992 and our TI's are still going strong. What a deal! Sometimes I start to do something on my PC then say "Hey, this would be a lot simpler and more fun on my TI!". So I move my chair over three feet and start pounding the keys on the computer I enjoy most, my TI. It never ceases to amaze me what this little old Orphan can do and it gets more versitile every year. But then its got a lot of people like you and me working to keep it up to date.

I hope to see everyone at our next meeting, which you all know, is at The Old Beaverton City Hall and Fire Station. Rumor has it that Al Kinney is back. Hi Al!

Ron and I have done our best to keep the BBS running. But it looks like your surgeon like touch is needed to get all those really nasty little bugs out. At the last board meeting there was talk about moving the BBS into your back room. That'll teach you to miss board meetings. As all our good members know wide area phone service has opened this up for us. The majority of our members can now call your house without a long distance charge.

Our Software Librarians, Ted Peterson and Jim Thomas, are planning on DOM's packed with utilities both old and new. Ted will report on the program in his column so I won't steal his steam. Mike Calkin's place is coming right along and the hard copy library is ready to go. He says he will start bringing it to future meetings as soon as his driveway is passable. Dorman Blazer reports we have a well rounded bank account. We have enough in the bank for any emergency as well as our day to day expenses for a good long time. However, if you have not renewed, please do so.

We plan to have future meeting that will be devoted to a workshop. This will be a meeting where you can bring your systems, questions, and problems and we will do our best to help. At least we'll give you some insight as to what you can do. We'll discuss it in more deapth at the March meeting.

See you on the 2nd!!!
*** Walt Morey ***

THIS MONTHS PROGRAM & DOM
Ted Peterson

PROGRAM

The meeting this month will feature Paul Colman introducing his progam LABEL. Paul is a prolific programmer and a member of PUNN who we never see enough of at meetings.

DISK OF THE MONTH

As always we will have the library and club system. But if you want something special please call me at home so I can have it ready for you. The phone # is 244-1587.

The March *DOM is a disk of utilities that we are sure you will find useful. It is always hard to try and guess what you want to see on the DOM. So rather than take what we find interesting why don't you tell us what you want to see.

This month we will have another new club video. Last month the Video was on DM1000 this month it is on Archiving. Archiving is something we can all use and at times we are all confused by it. So in this months video covers how to recognize and use all types of archiving.

Next month's video will cover DSKU. We hope to have a new Video out each month they're less only $6.00 at the meeting but you have to pay postage if we mail them. Come and see what we have.

We also have preformated disks for sale. They are 10 disks for $5.00 formatted either 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 at the meeting will receive a free ticket when they come in. We will have a drawing at intermission and the winner gets a DOM.

Remember Club members can order from the software library by phone or mail. At $3.00 per disk or if it's a set $3.00 for the 1st disk of the set and $1.00 each added disk in that set. All disks are SSSD and ready to run. The charge for shipping is $1.25 + postage per order. Send to Ted Peterson 3705 SW Stephenson St. Portland, OR 97219, and we will sent out within 2 weeks.

Remember when you buy from the library, you support PUNN. Your dues don't even cover the costs of WORDPLAY. And now that postage is $.27 each we will need even more. The main way that we have of covering costs is software sales so do your part. After all!! the library has just about all of the farmware and freeware available. It's less expensive than commercial mail order and usually quicker so what better way to support PUNN.
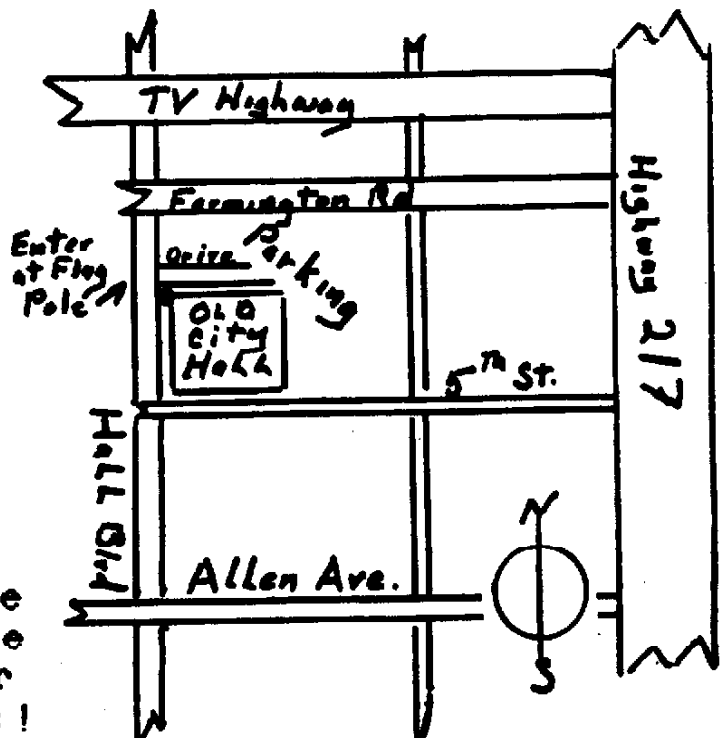
Ted Peterson

*DOM Acronym for disk of the month.

Nature abhors a vacuum,

please share your ideas !

ONE MANS VIEW OF FESTWEST
by Rich Gilbertson

I've never had so little sleep in my entire life. For all four days I was at FESTWEST, it seemed all I did was talk TI and not sleep. It all started when I arrived in Phoenix. I went directly from the airport to the Hotel where FESTWEST was being held and set up my gear. Boy were they prepared, what ever you needed even a PBoxes for us to use. Even getting set up was exciting while I was putting stuff together I met Bud Mills, Don O'Neil, and too many others to remember. After we all got set up and ready to meet the public we went to get some food and get to know one another. The members of VAST had very kindly set up a buffet for venders and others displaying at the fair. At first we introduced our selves and grazed our way thru the buffet. Then we sat in a corner and talked and talked and talked until 4AM. Then we noticed everyone was gone except the 5 of us. The most important thing we talked about was hardware. Users think everything is compatible because God made it that way but programers know different. Well anyway we finally broke up at 6AM and headed for our rooms and an hours refreshing sleep. At 9AM having gotten sleep out of the way I got up fully refreshed and went down and manned my table. I was right next to Chris Taylor of The Taylor Company. Chris does things with Forth that are really good and comes up with some very unique graphics. Bud Mills of

Horizon fame was close by and he handed me a promo on the FPM card (Floating Point Math). It uses a MC68881 processor. Bud was also showing a new Horizon Ramdisk ROS 8.14 by Gary Bowser of O.P.A. and the PGRAM card. Across from me was ESD with their new IDE HD controller card. It's not in production yet so I guess Mike C. might classify it as vapor-ware, but I was very impressed with its design. ESD has some great projects on the drawing board for the future I wish I could tell you about them but I promised not to. Next to ESD was Don O'Neil showing off the Accelerator (Its not in production yet). He also had his Mamex 4 meg memory card. Don and I had a discussion about how the Mamex could be accessed. Turns out we think alike the 4A Mamex is the ultimate memory card. You can configure it any way you want. Unfortunatly it's not battery backed but it may come out with a seperate power hookup. Across from Chris Taylor was Compudine Software. I bought $45.00 of Quinton Tormanen's game software. After years of promises I finally bought The Living Tomb, War Zone 2, and both versions of Bachsteine. They had more but my wallet was getting thin, and I still had to get home. Gary Bowser of O.P.A. was selling the Tiny T.I.M. 192K VDP card using Toshiba's 9958 chip and the S.O.B.(Son of Board) both of which mount in the console. At Chris Taylor's suggestion Gary is planning to modify

S.O.B so it will access cassettes. Another neat item he has for sale is the POP (Pile Of Programs) cartridge. Now get this. POP has 640K GROM and 512K RAM and it looks no different, than any other cartidge but believe me it's different. The POP cart sells for $220.00 and Gary burns the programs you want into the EPROM. No battery here, just EPROMs. Updates are easy he just reburns the EPROM. Be sure and ask for RICHGKXB in your POP cart. Mike Maksimik was showing off the hardware and sounds of his MIDI interface for the TI. Until I had heard it I wouldn't have beleived it. A keyboard can't be played that fast by human hands. Mike has set new standards of perfection for TI music. I had to stick close to my table and didn't get to wander around much. I was representing both NOVA users group and C.A.D.D. Electronics. I was selling Utility disks for C.A.D.D. my RXB version 2.54. Of course I was also demonstrating my Gramulator and an unfinished version of RXB 3.00 I just happened to have with me. It was fun I always had a 5 or 6 people hanging over my shoulder. About 7:30 PM Don O'Neil got a group together to discuss setting standards for programmers and hardware makers. Chris Taylor, Don O'Neil, Don Shorock, Mike Maksimik, and I pretty much dominated the conversations. I tried to keep my mouth shut, but it was hard to do in such a dynamic group. The discussion was what should

ONE MANS VIEW OF FESTWEST
(continued)

the programmer expect the user (You know user—the guy who buys the programs.) to have in his or her system. It was finally decided that programs should labeled to run on 4 levels of hardware. Level 1: Should consist of a TI 99/4A console using a tape cassette, TV and 32K of memory. Mini-Memory, XB, or EA are optional. Level 2: Will add an expansion system with DSSD disk drive and RS232. Level 3: Is Levels 1 and 2 plus an additional 16 to 128K of memory. Level 4: Is a GENEVE, or level 2 TI system with 128K or more of memory. It can also be a level 2 system with 120K of memory a GRAMULATOR, PGRAM or GRAMKRACKER. We purposely didn't mention printers, or modems, reasoning that they're like MUD FLAPS on your car. You don't really need them, but if you have them fine, if not fine. The standards were for devices that future software will require. My own system consists of a console, PBOX, RS232 card, 2 1/2 height DSDD drives, 32K memory, and GRAMULATOR. This qualifies me at level 3. I also have a PGRAM card and a 32K Super Space cart. Making my total RAM a 32K memory, 16K in PGRAM, 16K in GRAMULATOR, and 32K Super Space which

gives me 96K of RAM. Of course there's a lot of memory not being counted. I have a T.I.M. card with 192K VDP and GRAM memory of 104K in my GRAMULATOR and 160K in the PGRAM. This brings my total memory to 96K RAM, 192K VDP, and 264K GRAM. So I see my system as having 552K of memory. As you can see most of the memory in a system like mine is ignored as it is not RAM. The reason for this is most TI programmers only use available RAM. When I program I try to use all 3 forms of memory and write GPL in GRAM, as you can see in RXB. I have only run across 5 or 6 programmers and am interested in contacting anyone who still writes GPL for the TI-99/4A cleared following our discussion, I ended up with several interesting people including Berry Harmsen of Gebruikersgroep in Amsterdam. He warmed the cockles of my heart as he had seen Asgards new XB and told me not to worry. Again we broke up about 6AM planning on getting a couple of hours sleep. I finally got back to the fair at noon. Once at the faire I demoed RXB and sold out all I had with me. I found out that Chris Taylor only

programs in Forth, like I used to, so I demoed RXB to him and think I may have converted him. That evening Chris and I were invited to Gary Bowsers room. Bud Mills was there and he very generously gave me PGRAM so I could write my GRAMIT/RAMIT subroutine to work with his PGRAM. Buds says he likes the idea of running 40K of XB or Assembly from one XB program. RXB will help Assembly programmers assure product compatibily. RXB is the only XB that will run TI Basic without modification. Late in the evening Chris Taylor, myself and several others went down to the area reserved for adult refreshment where we continued to discussing TI. Chris and I discovered we both wanted the same thing in our TI's. More power! That's sure to be the basis of a new friendship for both of us. Oh! One last thing O.P.A. is offering a new package for GPL programming. That's what Gary Bowser and I discussed from 7PM to 7 am. Finally at 8AM Monday morning completely exausted I boarded my plane hoping to sleep on the way home and I couldn't.

The FPM (FLOATING POINT MATH) CARD is a new card that will put a lot of computing 'horsepower' in your Peripheral Expansion Box in 1992! The FPM card contains a Motorola 68881 floating point math coprocessor, and will allow the 99/4a or the Geneve to run scientific/mathematic programs like 'the other guys'. Texas Instruments never developed a math coprocessor chip for the TMS9900/99000 family, but the 68881 can be used as a peripheral processor to greatly speed up math operations, while increasing accuracy, and tripling the number of math operations available. Comparisons of floating point speed and available math operations between the /4a and the FPM are presented on the next page.

PROGRAMS THAT WRITE PROGRAMS
Part 2
by Jim Peterson

Last month I promised you some-thing more useful, so here it is. This routine will come in very handy for formatting screen text into neat 28-column lines, and will save the text in program lines of DATA statements. When you are ready to save, type @@@ and enter as the last line, then NEW and MERGE DSK1.LINEFILE -

```
100 !LINEWRITER to aid in fo
rmatting screen text into 28
-column format and saving it
 as DATA program lines in ME
RGE format - by Jim Peterson
110 !strings containing comm
as and quotation marks will
be ACCEPTed, and converted t
o DATA statements which RUN
correctly even though they
120 !are not enclosed  in qu
otation marks!
130 CALL CLEAR :: OPEN #1:"D
SK1.LINEFILE",VARIABLE 163 :
: LN=30000
140 FOR R=1 TO 24 :: DISPLAY
 AT(R,1)SIZE(1):" " :: ACCEP
T AT(R,0)SIZE(-28):A$ :: IF
A$="@@@" THEN 180 :: B$=B$&C
HR$(200)&CHR$(LEN(A$))&A$
150 X=X+1 :: IF X/4=INT(X/4)
THEN 160 ELSE B$=B$&CHR$(179
):: GOTO 170
160 GOSUB 210 :: LN=LN+10
170 NEXT R :: X=0 :: CALL CL
EAR :: GOTO 140
180 IF B$="" THEN 200 :: IF
SEG$(B$,LEN(B$),1)=CHR$(179)
THEN B$=SEG$(B$,1,LEN(B$)-1)
190 GOSUB 210
200 PRINT #1:CHR$(255)&CHR$(
255):: CLOSE #1 :: END
210 PRINT #1:CHR$(INT(LN/256
))&CHR$(LN-256*INT(LN/256))&
CHR$(147)&B$&CHR$(0):: B$=NU
L$ :: RETURN
```

Oh - the puzzle in last month's article? Try creating those DATA statements with this LINEWRITER program!

Now, let's get down to business and learn how to do all this. First, let's write a program that will write a program to list the token codes that you need to use to write a program that will write a program -

```
100 OPEN #1:"DSK1.TOKENLIST"
,DISPLAY ,VARIABLE 163,OUTPU
T :: FOR N=129 TO 254 :: L1=
INT(N/256):: L2=N-256*L1
110 PRINT #1:CHR$(L1)&CHR$(L
2)&CHR$(131)&CHR$(N)&CHR$(0)
:: NEXT N
120 PRINT #1:CHR$(255)&CHR$(
255):: CLOSE #1 :: END
```

Key that in, RUN it, then enter NEW, then MERGE DSK1.TOKENLIST. Now LIST it and you will see a list of ASCII codes 129 through 254 and their token meanings. Delete lines 171 through 175, 185, 198, 226 through 231, and 242. Change the definition of 199 to QUOTED STRING, of 200 to UNQUOTED STRING, and 201 to LINE NUMBER, and add line 255 !END OF FILE.

You don't need all those exclamation points, so change the program to a DIS/VAR 80 file by LIST "DSK1.TOKENLIST". Then key in this little routine.

```
100 OPEN #1:"DSK1.TOKENLIST"
,INPUT :: OPEN #2:"PIO" !or
whatever
110 PRINT #2:CHR$(27);"N";CH
R$(6)
120 LINPUT #1:A$ :: PRINT #2
:TAB(10);SEG$(A$,1,4)&SEG$(A
$,6,255):: IF EOF(1)<>1 THEN
 120 ELSE CLOSE #1 :: END
```

RUN it, and print out a list of all the token codes. Keep it handy, you'll be needing it. Notice that every Extended Basic statement has its own ASCII token code - even the ones you perhaps never heard of, such as LET and GO. Notice also that

PROGRAMS THAT WRITE PROGRAMS
(Cont.)

every keyboard symbol which affects program execution, such as + and =, has its own ASCII token code which is NOT the same as its keyboard ASCII code. And notice that the double colon, used as a separator in Extended Basic multi-statement lines, has its own token.

Now, let's take a look at how a MERGE format program is put together. This routine will do that for you - and you will also find it very useful in debugging the MERGE programs you are going to write.

```
100 DISPLAY AT(3,5)ERASE ALL
:"D/V 163 FILE READER": :"
     by Jim Peterson": : :" T
o edit a file saved or":"cre
ated in MERGE format."
110 DISPLAY AT(12,1):"Output
 to? (S/P)S":" (S)creen":" (
P)rinter" :: ACCEPT AT(12,17
)SIZE(-1)VALIDATE("SP"):Q$
120 IF Q$="P" THEN DISPLAY A
T(14,1):"PRINTER? PIO" :: AC
CEPT AT(14,10)SIZE(-18):P$ :
: D=2 :: OPEN #2:P$
130 DATA ELSE,"::",!,IF,GO,G
OTO,GOSUB,RETURN,DEF,DIM,END
,FOR,LET,BREAK,UNBREAK,TRACE
140 DATA UNTRACE,INPUT,DATA,
RESTORE,RANDOMIZE,NEXT,READ,
STOP,DELETE,REM,ON,PRINT,CAL
L
150 DATA OPTION,OPEN,CLOSE,S
UB,DISPLAY,IMAGE,ACCEPT,ERRO
R,WARNING,SUBEXIT,SUBEND,RUN
,LINPUT
160 DATA ,,,,,THEN,TO,STEP,"
","," ;",":",),(,&,,OR,AND,XOR
,NOT,=,<,>,+,-,*,/,^,
170 DATA QUOTED STRING,UNQUO
TED STRING,LINE NUMBER,EOF,A
BS,ATN,COS,EXP,INT,LOG,SGN,S
IN
180 DATA SQR,TAN,LEN,CHR$,RN
D,SEG$,POS,VAL,STR$,ASC,PI,R
EC,MAX,MIN,RPT$,,,,,,,NUMERI
C,DIGIT
190 DATA UALPHA,SIZE,ALL,USI
NG,BEEP,ERASE,AT,BASE,,VARIA
BLE,RELATIVE,INTERNAL,SEQUEN
TIAL,OUTPUT,UPDATE,APPEND
200 DATA FIXED,PERMANENT,TAB
,#,VALIDATE
210 DIM T$(126):: FOR J=1 TO
 126 :: READ T$(J):: NEXT J
:: E$(1)="LINE NOT CLOSED WI
TH CHR$(0)"
220 DISPLAY AT(16,1):"FILENA
ME? DSK" :: ACCEPT AT(16,14)
:F$
230 ON ERROR 240 :: OPEN #1:
"DSK"&F$,VARIABLE 163,INPUT
:: GOTO 250
240 DISPLAY AT(20,1):"I/O ER
ROR" :: ON ERROR STOP :: RET
URN 220
250 ON ERROR 260 :: LINPUT #
1:A$ :: X=ASC(SEG$(A$,1,1)):
: Y=ASC(SEG$(A$,2,1)):: IF X
=255 AND Y=255 THEN 410 ELSE
 270
260 PRINT #D:"FILE NOT CLOSE
D PROPERLY":"WITH CHR$(255),
CHR$(255) ?" :: STOP
270 PRINT #D:"LINE NUMBER":X
;"TIMES 256=";X*256:Y;"PLUS"
;Y;"=";X*256+Y
280 FOR J=3 TO LEN(A$)-1 ::
X=ASC(SEG$(A$,J,1))
290 IF X=201 THEN PRINT #D:X
;"LINE NUMBER" :: X=ASC(SEG$
(A$,J+1,1)):: Y=ASC(SEG$(A$,
J+2,1)):: J=J+2 :: PRINT #D:
X;"TIMES 256=";X*256:Y;"PLUS
";Y;"=";X*256+Y
300 IF X=199 THEN PRINT #D:X
;"QUOTED STRING" ELSE IF X=2
00 THEN PRINT #D:X;"UNQUOTED
 STRING" ELSE GOTO 360
310 J=J+1 :: X=ASC(SEG$(A$,J
,1)):: PRINT #D:X;"OF";X;"CH
ARACTERS"
320 ON ERROR 340 :: FOR L=1
TO X :: Y=ASC(SEG$(A$,J+L,1)
):: PRINT #D:Y;CHR$(Y):: IF
Y<32 OR Y>126 THEN PRINT #D:
"UNPRINTABLE CHAR - ERROR?"
330 NEXT L :: J=J+X :: GOTO
370
340 PRINT #D:"ERROR! INSUFFI
CIENT BYTES IN":"STRING" ::
IF ASC(SEG$(A$,LEN(A$),1))<>
0 THEN PRINT #D:E$(1)
350 ON ERROR STOP :: RETURN
250
```

The following comes from the Northern Nevada Ninety-Niner's User's Group Newsletter, Vol. 5-No. 6, June 1989 and was reprinted there from the Northwest 99'er News of Jan 89. I couldn't resist!

SOME UNUSUAL COMPUTER LANGUAGES...

Languages NOT included in the Commercial Language SIG or the Languages and Tools SIG.

by Doug Bohrer, Bohrer and Company, Near Chicago and Ted A. Bear, NCA Corporation, In the heart of Silicon Valley and A Usually Reliable Source, Digital Equipment Corporation, Somewhere in New England.

APL, BASIC, COBAL, FORTRAN, PASCAL, RPG; these programming languages are well known and (more or less) loved throughout the computer industry. There are numerous other languages, however, that are less well known yet still have ardent devotees. In fact, these little known languages generally have the most fanatic admirers. For those who wish to know more about these obscure languages - and why they are obscure - we present the following catalog;

REAGAN This language was also developed in California, but is now widely used in Washington D.C. It is the current subset of the international bureaucratic language known as DOUBLESPEAK. Commands include REVENUE_ENHANCEMENT, STOCKMAN, CAP_WEINBERGER, MALCOMB_BALDRIDGE, CABINET, CHOP_WOOD, LAXALT and SCENARIO. WATT and BURFORD have been removed from the commands while there is a current effort to add MEESE.

The operating system used is NEW_RIGHT and the designated memory is THE_RANCH. The compile SCENARIO is a compile with NANCY followed by link with BONZO resulting in a SNOOZE. COMMIES (program bugs) are removed with the GRANADA command.

A REAGAN program commences with LANDSLIDE and terminates with SENILITY.

RENE Named after the famous French philosopher and mathematician, Rene Des Caters, RENE is a language used for artificial intelligence. The language is being developed at the Chicago Center of Machine Politics and Programming under a grant from the Jane Byrne Victory Fund. A spokesman described the language as "Just as great as dis (sic) great city of ours".

The center is very pleased with progress to date. They say they have almost succeeded in getting a VAX to think. However, sources inside the organization say that each time the machine fails to think, it ceases to exist.

PROGRAMS THAT WRITE PROGRAMS
(Cont.)

```
360 IF X<129 THEN PRINT #D:X
;CHR$(X);" VARIABLE NAME" EL
SE PRINT #D:X;T$(X-128)
370 CALL KEY(0,K,S):: IF S=0
 THEN 390
380 CALL KEY(0,K2,S2):: IF S
2<1 THEN 380

390 NEXT J :: IF ASC(SEG$(A$
,J,1))=0 THEN PRINT #D:"0 EN
D OF LINE" ELSE PRINT #D:E$(
1)
400 GOTO 250
410 PRINT #D:X:X;"END OF FIL
E" :: CLOSE #1 :: STOP
```

Next month - how to do it!

TO BE CONTINUED

MARCH MARCHES IN