

PUGET SOUND 99ERS
PO BOX 6073
LYNNWOOD, WA 98036

AUGUST 85

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NEXT MEETING

DATE: THURSDAY, August 22, 1985 TIME: 7:00 PM
PLACE: Bellevue Public Library, 11501 Main St., Bellevue

AGENDA: † Graphics program demo
† More about database structures

† Using TI-Writer Formatter
† General discussion session

SEPTEMBER MEETING

DATE: THURSDAY, September 26, 1985
TIME: 7:00 PM
PLACE: Shoreline Public Library
345 NE 175th, Seattle

OCTOBER MEETING

DATE: THURSDAY, October 24, 1985
TIME: 7:00 PM
PLACE: Bellevue Public Library
11501 Main St, Bellevue

JULY MINUTES

MINUTES--Keith Mifflin

At our July meeting I announced that John Musselman had resigned as the President of th club. Per our bylaws, the E-board has made me the new President, and Phil Jordan the new Secretary.

The July meeting was opened at 7:00 PM by Ralph Devin and myself. The meeting started with a demonstration of the FORTi music synthesizer card. Phil Jordan demonstrated this card. Thanks to Security Business Machines for the use of their card.

After the demo the floor opened a discussion concerning the the format of our meetings. Some of the members felt that our meetings needed to be more structured than the low key format now used. We asked for input from the members on this subject, and over the last several weeks have been tuned into the input of our members not

just in casual conversation but also on the B.B.S. The overwhelming reply seems to be ""LEAVE IT ALONE"".

We had several good suggestions left at the meeting as a result of the above discussion. Well the word several might be a slight overstatement. We had "2", and I don't mean 2 good ones, I mean 2 total.

1. Please have everyone speak up as it is hard to hear. If this problem can not be solved could we possibly get a small P.A.?

2. Have a suggestion box that is set in plain view for all to see, it would have a pencil and suggestion forms for ease of use. Also when a new member enters the club they would be given a packet which contains a club directory and a copy of the By Laws, also a letter of introduction to the officers and the club.

Ralph Devin covered installing a new print head in his Star printer and I spoke briefly on Data Bases and what a Data Base is.

Once again we would like to thank the Dealers for their support with demonstrations and displays. THANKS!!

CIRCLE W and SECURITY BUSINESS MACHINES

Until next month Happy Computing.

BBS UPDATE

We are continuing to improve the software we are currently using on the BBS. The expert mode now runs you through the BBS at a very good clip, making the most of the available time. Call up and leave your messages and suggestions. We are interested in making the club BBS something everyone would like to use, and until we have a lot of people using it, we can't justify expending a lot of energy and money. The number is 784-4142.

Forth Graphics

Drawing a Sphere in Forth -- Phil Bogle

The following FORTH screen is quite compressed, and requires loading of 64 SUPPORT and FLOAT prior to running.

```

0 VARIABLE X 0 VARIABLE Y 0 VARIABLE X2 0 VARIABLE Y2
: SCALE 12 10 #/ 96 + SWAP 12 10 #/ 128 + SWAP ;
: FVAR 0 VARIABLE 6 ALLOT ; FVAR P2 FVAR S FVAR A FVAR B
: MOVETO SCALE Y ! X ! ; : MOVETO2 SCALE Y2 ! X2 ! ;
: DRAWTO SCALE X ROT ROT Y ROT ROT Y ! X ! X Y LINE ;
: DRAWTO2 SCALE X2 ROT ROT Y2 ROT ROT Y2 ! X2 ! X2 Y2
( sphere program--requires -FLOAT--Phil Bogle) LINE ;
: SPHERE
>F 5 PI F# >F 180 F/ S F! >F 0 B F!
BEGIN >F 0 A F! BEGIN
A F COS >F 75 F# A F SIN >F 75 F# B F COS F#
F->S >R F->S R> SWAP OVER OVER SWAP
A F F0= IF MOVETO ELSE DRAWTO ENDIF ?TERMINAL IF ABORT ENDIF
A F F0= IF MOVETO2 ELSE DRAWTO2 ENDIF
S F A F F+ FDUP A F! PI F< 0= UNTIL
S F B F F+ FDUP B F! PI F< 0= UNTIL ;

```

TOKENIZED COMMANDS

Tokenized Commands in X-Basic -- Theron Hunter

If you have a friend who has a Commodore or a Sinclair computer you might have envied their ability to press 1 or 2 keys to produce statements and commands instead of keying in the entire word. Well, envy no more because if you have Extended Basic you have that ability.

I feel that this was not an intended ability of the TI but since it's there, why not use it?

You must use these tokens in a program, as they will not work in the command or immediate mode. To use them key the token after a line number and then whatever would normally follow. When you list the program the token will be replaced by it's value.

EXAMPLE -> (KEY) 100 <CNTL> ; "HELLO". When you list line 100 it will read : 100 PRINT "HELLO"

What, you might ask, are tokens? The Hidden Powers of 'DISK FIXER' has an Excellent Explanation on page 10. Suffice it to say that storing words in tokenized format allows the computer to store a word like "PRINT" in 1 byte instead of 5.

Here is the complete list of Tokens. I hope they are of value to the club members.

TOKEN	STATEMENT	TOKEN	STATEMENT	TOKEN	STATEMENT
<CNTL> . ON		<CNTL> M LET		<CNTL> N BREAK	
<CNTL> B ::		<CNTL> V NEXT		<CNTL> C !	
<CNTL> X STOP		<CNTL> Z REM		<CNTL> A ELSE	
<CNTL> S DATA		<CNTL> D IF		<CNTL> F GOTO	
<CNTL> G GOSUB		<CNTL> H RETURN		<CNTL> J DIM	
<CNTL> K END		<CNTL> L FOR		<CNTL> ; PRINT	
<CNTL> Q UNTRACE		<CNTL> W READ		<CNTL> E GO	
<CNTL> R INPUT		<CNTL> T RESTORE		<CNTL> Y DELETE	
<CNTL> U RANDOMIZE		<CNTL> I DEF		<CNTL> O UNBREAK	
<CNTL> P TRACE		<CNTL> / AND		<CNTL> I TO	
<CNTL> 2 STEP		<CNTL> 3 ,		<CNTL> 4 ;	
<CNTL> 5 :		<CNTL> 6)		<CNTL> 7 (
<CNTL> 8 OPTION		<CNTL> 9 OPEN		<CNTL> 0 THEN	
<CNTL> = CALL		<FNCTN> ; NOT		<FNCTN> 0 XOR	
<FNCTN> / OR					

HAM RADIO AND THE TI

by Walt Taylor, W7EJZ

Hams who also have a computer (preferable a TI) find that the two hobbies fit well together. Amateurs are required by the Federal Communications Commission (FCC) to maintain logs in which are recorded all their on-the-air contacts with other hams. Log-keeping is a natural for the TI, with proper software, of course, and a program which instantly spots duplicate entries is required. If I've worked a given ham before, it is nice to be able to type his call letters into the computer and be able to respond to him by commenting when it was that we last talked.

There are many hams who like to enter contests which have, as their purpose, working the largest number of similarly minded hams in a given number of hours on-the-air; points are awarded by the contest sponsor for the most contacts, but penalties are assessed for duplicate entries so a "dupe" spotter is required. This is a simple addition to a logger program.

Like most hams, I use a "beam" antenna which looks like an overgrown TV antenna, and which is highly directional for both receiving and transmitting. I have a program which tells me which direction to point the antenna. I type in the name of the principal city in the country to which I want to talk, and the computer responds with a compass heading for my antenna rotator. Occasionally the compass heading isn't right; I've talked to Australia by pointing my antenna over the North Pole, using the reverse of the usual Great Circle compass bearing!

There is a lot of math used in radio; Ohm's law, impedances, signal filter design, antennas and their lengths, other characteristics, and the design of power supplies and signal amplifiers as well. Whenever there is computing to be done, there is a place for a computer, of course.

There is a satellite up there called "OSCAR" (Orbiting Satellite Carrying Amateur Radio). Figuring out when and where OSCAR will appear over the horizon for antenna pointing purposes is an exercise in spherical geometry easy to solve on a computer, given the orbiting and tracking characteristics of the satellite for that day and hour.

There are a number of bulletin boards which one can check in to, while on the air, assuming your computer has the software required to tie it into your transmitter and receiver. Public domain programs can be taken off BBS, but sometimes require conversion from Apple or IBM to TI format.

Of course, there is the usual feeling of great accomplishment to be able to couple the two hobbies so that they work in tandem. Use of the computer makes hamming that much more fun, and hamming with a computer as a "sidekick" to the ham rig adds a lot to the computer hobby as well.

(Editor's note: we would like to have other members tell us what they are doing with their computers. Thank you, Walt, for your input!)

CLUB DIRECTORY

FINAL NOTICE!!!! Any members that DO NOT want their address and phone numbers in the directory must notify the club by the end of August. We will be publishing the directory soon after that date.

FILE COMPARER

Basic Comparer Program -- Ralph Devin

At the last meeting someone asked if we had a utility that would compare ^{to} programs and tell you if they were the same or not. MS-DOS has a utility called DISKCOMP that makes a sector-by-sector comparison of an entire disk. This program will compare two program files that have been LISTed to disk (i.e., are in DIS/VAR 80 format). Make sure to use different names for each file. Rick Lewis gave me the basic program right after the meeting and I added a bit of fluff to it.

```

100 REM *****
110 REM # FILE COMPARER #
120 REM *****
130 X=-1
140 E=0
150 CALL CLEAR
160 PRINT "   COMPARE FILES"
170 INPUT "1ST FILE: ":F1$
180 OPEN #1:F1$,DISPLAY ,VARIABLE 80
190 INPUT "2ND FILE: ":F2$
200 OPEN #2:F2$,DISPLAY ,VARIABLE 80
210 IF EOF(1)THEN 360
220 X=X+1
230 CALL CLEAR
240 PRINT "COMPARING LINE";X
250 INPUT #1:D1$
260 IF EOF(2)THEN 420
270 INPUT #2:D2$
280 IF D1$=D2$ THEN 210
290 PRINT "NOT EQUAL":"LINE ";X;" OF LISTING"
300 E=E+1
310 PRINT
320 PRINT "1ST FILE'S LINE":D1$
330 PRINT "2ND FILE'S LINE":D2$
340 INPUT "CONTINUE?(Y/N): ":C$
350 IF C$="Y" THEN 210 ELSE IF C$="N" THEN 440 ELSE 340
360 IF EOF(2)THEN 370 ELSE 400
370 IF E=0 THEN 380 ELSE 430
380 PRINT "FILES ARE EQUAL"
390 END
400 PRINT "2ND FILE LONGER THAN 1ST"
410 GOTO 430
420 PRINT "2ND FILE SHORTER THAN 1ST"
430 PRINT "NUMBER OF UNEQUAL LINES: ";E
440 PRINT "FILES NOT EQUAL"
450 END

```

MODEM PROGRAMS- Mike Allen

XMODEM is for the TI is now available from the PUGET SOUND 99ers PUBLIC DOMAIN LIBRARY. With XMODEM you can upload and download programs four times faster than with TE2. Also, since XMODEM is the standard file transfer protocol used by many computers you can upload and download from other computers as well.

F-TERM (FAST TERMINAL) is also available in the PUGET SOUND 99ers PUBLIC DOMAIN LIBRARY. F-TERM is a more versatile program, because you can use XMODEM or fast TE2 protocol.

Both programs come with full documentation on the disk and will be available at the next meeting so don't forget to be there.

On another note..I just took a tour of COMPUSERVE and found a lot of support for the TI. As soon as I got to the first menu I entered 'GO PCS-27' and I found myself in TI FORUM. TI FORUM is an area dedicated to the TEXAS INSTRUMENTS both professional and home computers. In TI forum I found a section for trading software, a for sale area for software and hardware, a tips and tricks section and the download (DL) for uploading and downloading programs using Xmodem protocol. At that menu screen I typed 'DL3' and then another menu screen came up. Since, through a rather complicated procedure, I previously downloaded Xmodem, I was able to download F-term and several other programs. First I downloaded the directory (DIR) of programs and then picked out the programs that sounded interesting. Once that was done I browsed (BRO) the list I had. The browse feature gives a more complete description of the file. If the program is the one you want you simply press enter for the disposition menu which gives you several download procedures. If you are using the Xmodem program press FCTN-N, type in YOUR filename then press enter. after that type '1' then enter. The other system will then say "STARTING XMODEM TRANSFER" when that happens press CTRL-X then R and enter twice.(The documentation that comes with the Xmodem program will explain that) The file transfer is now in progress.

It is easy to get on CompuServe all you do is go to a computer store and get a CompuServe starter kit. With it you get a free hour on the System and the chance to sign up on-line.

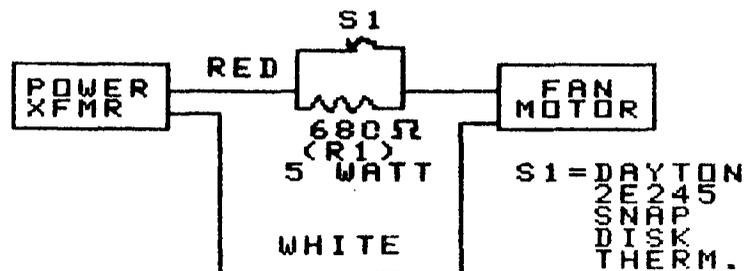
Happy Computing!!!

Mike Allen

Fan Speed Reducer with Thermostat -- from Iowa UG 07/88

Here is a circuit to cut down on that jet engine in your box. Although I personally have not built it, I believe it will do the trick. Mount the thermostat at the top of the cage housing the power supply. Let us know how you like it. If I get around to it, I'll most likely install it in my PEB. I don't know at this time what the on temperature is.

Chuck Wynne



THIS DIAGRAM DONE WITH
GRAPHX

FORTH INTEREST GROUP- Tom Wynne

The FORTH Interest Group has been meeting every other Sunday. The turnout still has been very low because of the summer and SeaFair. I know that a lot of you have FORTH and would like to learn more about it. The next meetings are as follows.

Sunday, August 18 2:00 PM

Sunday, September 1 2:00 PM

The meetings are free so stop by Security Business Machines on those dates. If you would like more information, please call me at 745-3249.

ASSEMBLY LANGUAGE INTEREST GROUP- Alan Weidenheimer

Wednesday, August 28 7:00 PM

Place: Bothell Public Library
9654 NE 192nd
Bothell, WA

If you have any questions call Alan: 481-3205
or call the Bothell Library: 486-7811

FREWARE PROGRAMS

We have freeware programs on disk in our library.
They include:

Neatlist, Screen Dump, Disk Manager 1000,
TK-Writer, and F-Term (Terminal emulator XModem)

THE WYNNÉ UTILITIES

The WYNNÉ UTILITIES feature 3 programs for word processing, graphics, and file management.

* The COLUMNIZER is a utility that will take an ordinary document made with TI-Writer and format it into as many columns as you wish, just like a newspaper! It automatically adjusts for page size and can switch into and out of columnizing with one command!

The FILE READER utility will read any file (except for a program file) and print it to printer or to disk. This is handy for converting any file into a Display 80 file.

The GRAPHICS PROCESSOR uses the TI Extended BASIC graphics to enable you to create great pictures with ease. It works the same as a word processor with full screen cursor controls and text movement.

Only \$15.00 gives you all three utilities, and a disk cataloger along with documentation explaining each utility!

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Tom Wynne
16223 78th Pl N
Edmonds, WA 98020
Phone: 745-3249

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A collection of logos and graphics. At the top is the word 'GRAPHX' in a stylized font. Below it is a logo of a winged horse (Pegasus) standing on a globe. To the right is a diamond-shaped logo with stars. At the bottom right is a dragon-like creature logo.