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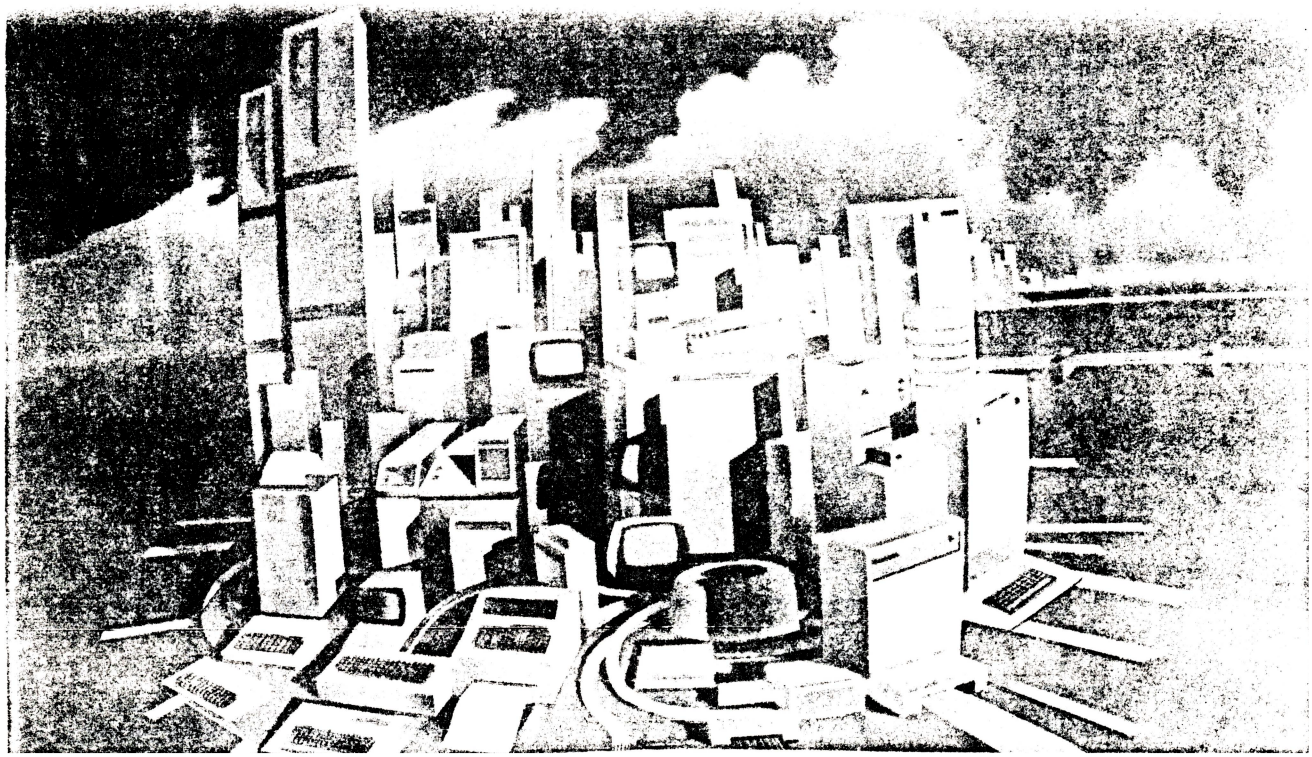
7:30pm Details On Page 20



VOICE OF THE '80

MARCH 1985

VOLUME 5 NUMBER 10

A s k A l a n

by Alan Abrahamson

Q: (1) *Are the extensions at the end of filenames of any meaning?* (2) *Can you give me some examples of their meanings?* (3) *Can understanding the extension meanings help me in running applications programs?*

A: (1) Extension on filenames should have meaning. For example, the extension "BAS" normally indicates a Basic program. Some operating systems (LDOS) use this as the default extension on programs saved from Basic, if you do not specify one. (This can be overidden.)

(3) If the extension does have meaning, it can help the application user to determine whether he should attempt to execute the file from DOS or Basic or not at all. The answer to question 2, will probably help with this.

(2) The following information will explain the general meaning of the more common filename extensions, the execution area (if any) and the execution syntax:

EXT	EXECUTION AREA	EXECUTION SYNTAX	MEANING.....
BAS	BASIC	RUN"filename/BAS	BASic program file
BA	BASIC	RUN"filename/BA	BASic program file
BAK	** NONE **	** NONE **	BAcKup of any file type
TXT	Word Processor	LOAD filename/TXT	TeXT file usually ASCII
TEX	Word Processor	LOAD filename/TEX	TEXt file usually ASCII
DOC	Word Processor	LOAD filename/DOC	DOCumentation file
DO	Word Processor	LOAD filename/DO	DOcumentation file
PCL	Word Processor	LOAD filename/PCL	Electric Pencil file
SRC	EDTASM	LD=filename/SRC	SouRCe Assembler file
ASM	EDTASM	LD=filename/ASM	Source ASseMbler file
EDT	EDTASM	LD=filename/EDT	Source EDTasm file
DAT	BASIC or Memory	OPEN"mode" file	DATa file
DTA	BASIC or Memory	OPEN"mode" file	DaTA file
SEQ	Basic or Memory	OPEN"I", file	SEQuential Data file
CMD	DOS	filename	Executable CoMmanD file
COM	DOS	filename	Executable COMmand file
CIM	DOS	LOAD filename/CIM	Core IMage file
OBJ	DOS	LOAD filename/OBJ	Memory OBJect file
CMP	DOS	filename/CMP	CoMPiled object code
COM	DOS	filename/COM	COMpiled object code
ASC	BASIC/Word Proc	LOAD"filename/ASC	ASCii file
JCL	DOS	DO filename	Job Control Log file
BLD	DOS	DO filename	BuiLD batch process file
IDO	DOS	DO filename	Build "I"DO process file
DVR	DOS	LOAD filename/DVR	DriVeR object file
PAT	BASIC	RUN"filename/PAT	Basic PATch file

EXT	EXECUTION AREA	EXECUTION SYNTAX	MEANING.....
DCT	DOS	LOAD filename/DCT	Drive Code Table object
FLT	DOS	LOAD filename/FLT	FiLTer object file
FIX	DOS	PATCH filenam/FIX	Patch FIX files
JBL	Word Processor	LOAD filename/JBL	JoB Log text files
KSM	DOS	LOAD filename/KSM	KeyStroke Multiply file
OVL	DOS	** NONE **	DOS OVerLays
OV#	DOS	** NONE **	DOS OVerlay number #
REL	Assembler	LOAD filename/REL	RELocatable object file
SCR	Word Processor	LOAD filename/SCR	SCRipsit files
SPL	DOS	PRINT filenam/SPL	SPooLer files (ASCII)
SYS	DOS	** NONE **	DOS SYStem files
SUB	BASIC	MERGE"filenam/SUB	Basic SUBroutine
SUB	DOS	** NONE **	System SUBmit file CP/M
ORC	Orchestra 80/90	G filename	ORChestra 80/90 files
HEX	** NONE **	** NONE **	HEXadecimal ASCII files
FOR	FORTRAN	LOAD filename/FOR	FORtran source file
LST	** NONE **	** NONE **	Basic Compiler LiST file
LIB	Macro Assembler	** NONE **	LIBrary file/Macro Assm.
SYM	** NONE **	** NONE **	SYMbol file (table)
TBL	** NONE **	** NONE **	TaBLe of data file
REF	Word Processor	LOAD filename/REF	REFerence table file
XRF	Word Processor	LOAD filename/XRF	Cross ReFerence file
HLP	Word Processor	LOAD filename/HLP	HeLP files (ASCII)
RPT	Word Processor	LOAD filename/RPT	RePorT file (ASCII)
LTR	Word Processor	LOAD filename/LTR	LeTteR file (ASCII)
VC	Visicalc	LOAD filename	VisiCalc template
DIF	Visicalc	LOAD filename/DIF	Data Interchange file
HIS	Games	** NONE **	HIgh Score data file
GRF	Graphics	** NONE **	GRaphics data file
INX	BASIC	OPEN"mode"file	INdeX file
IND	BASIC	OPEN"mode"file	INDex file
TST	BASIC	RUN"filename/TST	TeST Basic program file
DEM	BASIC	RUN"filename/DEM	DEMo Basic program file
ADV	BASIC	RUN"filename/ADV	ADVenture Basic Game
CFG	DOS	** NONE **	ConFiGuration DOS file
CHN	DOS	BRUN filename	BASCOM CHaiN file
M1	DOS or BASIC	filename or RUN	Model 1 version
M3	DOS or Basic	filename or RUN	Model 3 version
M4	DOS or Basic	filename or RUN	Model 4 version
K32	DOS or Basic	filename or RUN	32K version
K48	DOS or BASIC	filename or RUN	48K version
PIC	DOS	PRINT filenam/PIC	PICture ASCII file
BAT	DOS	filename	BATch file (MS-DOS)
PR	DotWriter	BF"filename/PR	PRoportional font file
PRI	DotWriter	BF"filename/PRI	PRoportional Italic font
LC	DOS	filename/LC	Lower Case Scripsit
UC	DOS	filename/UC	Upper Case Scripsit

NOTE: On executable object code the extension may be omitted when called from DOS. The CMD extension is assumed and added. If the extension is other than CMD, it must be typed; i.e. SCRIPSIT/LC

NEW MEMBERS

by Alan Abrahamson

The following list of members is compiled from the membership roles over the last six months. Let me take this opportunity to welcome all these new members to the Fairfield County Computer Users Group. You may note that many of these new members are out of the area, so perhaps some of you "older" members would like to establish a contact. The full addresses may be obtained from me directly, by mail or phone.

First Name	Last Name	City	State
Patrick	Anderson	Issaquah	WA
Roz	Belinkie	Bridgeport	CT
James L.	Blankenship	Martinsville	VA
Almora L.	Caldwell	Chicago	IL
Andy	Chakires	Ventura	CA
P. Wardham	Collyer	Stamford	CT
Jerry	Crawford	Saginaw	MI
Jo-Ann	Dalton	Milford	NH
James & Sandra	DeLane	Texarkana	TX
Anthony	DiMeglio	Norwalk	CT
Joseph A.	Dunnell	Trumbull	CT
Warren	Dycus	Riverside	CA
Edward P.	Evans	Shelburn	IN
Marty	Ford	Danbury	CT
Thomas T.	Fraher	Stamford	CT
David L.	Gelder	Portville	NY
Dan	Gelman	Bedford	NY
Ricky	Giampaolo	Mount Vernon	NY
Lucien	Greif	Chappaqua	NY
David C.	Harrison	Annapolis	MD
Samuel	Himelstein	New York	NY
William	Jecusco	Derby	CT
Charles	Lee	Stamford	CT
Lester D.	Little	Asheboro	NC
Robert	Marsh	Wilton	CT
Ann L.	Minihane	Boonton Twp.	NJ
David	Spiceland	Abilene	TX
Jay	Thorstensen	Milpitas	CA
Carland B.	Whitaker	Wanaque	NJ

Murphy's Laws — And Other Truths

To know yourself is the ultimate form of aggression.

Friends come and go, but enemies accumulate.

If your feeling good, don't wory, you'll get over it.

A short cut is the longest distance between two points.

Don't mess with Mrs. Murphy!

Never eat prunes when you are famished.

When in doubt, mumble. When in trouble, delegate.

Never argue with an artist.

Nature always sides with the hidden flaw.

An ounce of image is worth a pound of performance.

If you try to please everybody, nobody will like it.

It is morally wrong to allow suckers to keep their money.

Beauty is only skin deep, ugly goes to the bone.

In case of doubt, make it sound convincing.

The other line always moves faster.

All warranties expire upon payment of invoice.

A bird in hand is safer than one overhead.

You will always find something in the last place you look.

What I don't understand is how I got over the hill without ever being on the top.

If you fool around with a thing for very long, you will screw it up.

A $300 picture tube will protect a 10 cent fuse by blowing first.

The repairman will never have seen a model quite like yours before.

When a broken appliance is demonstrated for the repairman, it will work perfectly.

A pipe gives a wise man time to think and a fool something to stick in his mouth.

Everybody should believe in something -- I believe I'll have another drink.

Build a system that even a fool can use and only a fool will use it.

Everyone has a scheme for getting rich that will not work.

Leakproof seals -- will.

Self starters -- will not.

Interchangeable parts -- won't.

Where you stand on an issue, depends on where you sit.

No good deed goes unpunished.

Nature is a Mother.

90% of everything is crud.

You will remember that you forgot to take out the trash, when the garbage truck is two doors away.

The race is not always to the swift, nor the battle to the strong, but that's the way to bet.

There's never time to do it right, but there's always time to do it over.

Anything good in life is either illegal, immoral or fattening.

Murphy's GOLDEN RULE: Whoever has the gold, makes the rules.

The light at the end of the tunnel is the headlamp of an oncoming train.

Celibacy is not hereditary.

Never play leapfrog with a Unicorn.

If everything seems to be going well, you obviously don't know what the hell is going on.

If more than one person is responsible for a miscalculation, no one will be at fault.

Never argue with a fool, people might not know the difference.

Never sleep with anyone crazier than yourself.

Murphy was an optimist.

Roger's Ramblings # 1

MS-DOS column by Roger Giler

INTRODUCTION:

Before you ride me out of town on a rail or do me some assorted dastardly deeds, allow me to state that I am still the proud owner of a TRS-80 machine. It seems only yesterday when a - long since then departed - Radio Shack store manager showed me this 4K computer, complete with audio cassette, and explained how he had this fantastic demonstration program dealing with a car inventory. He could not figure out how to get the program from the cassette to the computer and after some struggling, he suggested that I come back another day. And it came to pass that, at great expense to the family budget, I acquired the machine, and in $299 increments added 3 sets of RAM chips to the memory. And when the first disk drive appeared, earmarked for a "corporate client", I had to cross the manager's palm with some shekels to convince him to divert it to better use (mine) for only $499 (plus tax). All alone, I struggled valiantly to master the art of programming until, one day I ran into this motley crew of fumbling amateurs now better known as FCUG, meeting once a month at Computerworks. But that must have been at least a lifetime ago.

I have no firm plan for this column, but since I started to play with an (please forgive the language) IBM a year and a half ago, I have learned a few things; and most of them the hard way. I hope to compare features, show some of the tricks, review software and utilities and maybe even answer questions. Well so much for the preamble.

OPERATING SYSTEMS:

Unlike the TRS-80, there are only 2 main operating systems available for the new machines, CP/M and MS-DOS (also called PC-DOS). MS-DOS, written by Microsoft, seems to be taking over, but since a good operating system must be transparent to the user, most people neither know nor care about what they have. With some exceptions, you will find a different type of user, one who has little curiosity and mainly wants his computer as a tool to perform a specific task by employing a program that he has bought because it was heavily advertised or recommended by a friend. Would you believe that many people are perfectly happy with a single program and I personally know some who use a spreadsheet as a word processor? I hope that as more of us get involved with the new machines we will learn to be as creative with the Tandy 1000, 1200, IBM's, etc..., as we have been with our TRS-80's.

As an aficionado of Newdos-80, and familiar with most other DOS'ses for the TRS-80, it is most disconcerting to find that the DOS for the new machines is greatly inferior for the hacker or for the average person who likes to write programs. The BASIC command CMD" is nonexistent and a poor substitute was recently made available officially in IBM's DOS 3.0 BASIC under the SHELL name. Use that command at your risk and only with the greatest caution. This means, for instance, that the sorting routines available in all TRS-80 operating systems, (Ed note: except TRSDOS 6.x), even TRSDOS, has no equivalent in MS-DOS. My only solution to that problem has been to use routines written in BASIC and slow as the proverbial molasses. To be fair, I must say that there is a SORT (of sorts) that will sort a file (ASCII) and put it into another file. But that happens in DOS, not in my BASIC program where I need it.

One very good point for the new machines (and this has nothing to do with the hardware) is the concept of Freeware, or public domain software that is available on a very large scale. For instance, the best communication package, PC-TALK is free, you are encouraged to copy it, and the author asks that you keep his name on the program and send him a $35 contribution if you find that his program is of value to you. The documentation is on the same distribution disk and in the case of PC-WRITE, a word processing package, is, at last count, 98 pages long. The authors encourage feedback, extensive copying but insist that charges be limited to the cost of copying and handling.

Bit Manipulation

by Bill Weil

Reprinted from San Francisco IBM PC User Group

All computer languages, data base management systems and even spreadsheets have logical operators. Logical operators such as AND and OR are examples of Boolean algebra and are fundamental to the architecture of all computer systems. This article contains ways to determine the change switch settings using PEEKs and POKEs and Boolean algebra. The actual workings of logical operators are hidden when used in programs such as Visicalc, but are obvious in programming statements that manipulate individual bits. I will attempt to explain how these statements work so you can make up your own when needed. This information should help you handle switch setting in any language, including assembler.

To set keyboard states in a BASIC program, the following values apply:

To turn on a condition:

```
DEF SEG = 0 : POKE &H417,(PEEK(&H417) OR param)
```

To turn off a condition:

```
DEF SEG = 0 : POKE &H417,(PEEK(&H417) AND param)
```

Table of Parameters (param)

	ON	OFF
INSERT	&H80	&H7F
CAPS LOCK	&H40	&HBF
NUM LOCK	&H20	&HDF
SCROLL LOCK	&H10	&HEF
ALT	&H08	&HF7
CTRL	&H04	&HFB
LEFT SHIFT KEY	&H02	&HFD
RIGHT SHIFT KEY	&H01	&HFE

Many have tried this and know that it works without knowing why. Let's see if we can follow it step-by-step.

The DEF SEG = 0 and &H417 simply mean that we are dealing with byte number 417 in hexadecimal. It is important to use hex numbers when using specific addresses because that is the way it is referenced in IBM documentation, in program listings and when using DEBUG. Byte 417 contains eight bits, each of which is an individual switch setting. Note that there are exactly eight keyboard setting in the above table. Each bit is used to indicate the condition of one of the settings and is totally independent of the other bits in the byte. The INSERT status is the high order bit and the RIGHT SHIFT KEY status is the low order bit.

If the appropriate bit has a value of one, it is said to be on. If the bit is zero, it is off. Byte 417 has eight on-off switches that can be tested and manipulated separately.

The PEEK statement has the form PEEK(n) and can be read "the contents of the byte at the address n", in this case 417. The POKE statement has the form POKE n,m and can be read "put the one byte of data m into the byte at address n". In the first example above, the data to be put into byte 417 is the result of the expression (PEEK(&H417) OR param).

With that out of the way, we can now look at how to actually manipulate the single-bit switch settings.

You cannot address an individual bit. You can only refer to the entire byte. However, each individual bit has a different value in the byte and this can be used to access a single bit. The bit values from the low-order bit to the high-order bit (right hand side to left hand side) are 1, 2, 4, 8, 16, 32, 64 and 128. These decimal values are too confusing when you are really dealing with bits so let's look at them in hex: 1, 2, 4, 8, 10, 20, 40 and 80. Each one of these numbers represents values that contain exactly one bit on and the rest of the bits off. What is needed now is a way to isolate one bit at a time and ignore the other bits.

The OR logical operator compares two bytes bit-by-bit. For each pair of bits tested, if either bit is on, the result is TRUE and the resultant bit is on. If both bits are off, the result is FALSE and the resultant bit is off. For example, if

RESULT = 10000100 OR 00000101, the RESULT is 10000101. Note that it is easy to see the results when you show the actual bits or binary numbers. Using decimal numbers, the same operation would read: if RESULT = 132 OR 5, the RESULT is 133. You can see that using decimal numbers is confusing but that is exactly how logical operators are explained in the BASIC manual.

Here are some more example of OR operations: 00100101 OR 00010010 results in 00110111, 00111001 OR 00010010 results in 00111011.

The AND logical operator also compares two bytes bit-by-bit. The difference is that both bits tested must be on for the result to be TRUE and the resultant bit to be on. Repeating the above examples: 10000100 AND 00000101 results in 00000100; 00100101 AND 00010010 results in 00000000; 00111001 AND 00010010 results in 00010000. Some additional examples are: 00110101 AND 11111011 results in 00110001; 00111001 AND 11111101 results in 00111001.

You typically OR or AND a byte with unknown contents against a byte that you define specifically to control certain bits. This second byte is sometimes called a mask byte.

If you look at the examples you can see that whenever you OR a byte against a mask byte, any zero bits in the mask byte cause no change to those bits in the resultant byte. Any one bits force those bits to be ones (on) in the resultant byte. Because of this property, the OR operator is used to turn bits on.

Whenever you AND a byte against a mask byte, any one bits in the mask byte cause no change in the resultant byte and any zero bits force those bits to be zero (off) in the resultant byte. Because of this property, the AND operator is used to turn bits off.

The parameter to turn on INSERT is &H80, which is 10000000 in binary. The parameter to turn off INSERT is &H7F, which is 01111111 in binary. Each parameter to turn on a condition has one bit on and the rest of the bits off. Each parameter to turn off a condition has one bit off and the rest of the bits on.

It should now be clear that to turn on CAPS LOCK, NUM LOCK and SCROLL LOCK the parameter is 01110000 or &H70. To turn off CAPS LOCK, NUM LOCK and SCROLL LOCK the parameter is 10001111 or &H8F. The best way to figure out parameters is to do it in binary and then convert it to hexadecimal. With a little practice you can look at a hexadecimal number and see the bit pattern in your head.

I hope this is of some help the next time you are trying to manipulate switch settings or other bits.

Ramblings

by George Saladino

Last month I told you about the Axonix Screen that connects with the 100. It is an 80 character by 25 line screen. Well, I found it costs about $600 and is not very clear. In fact I hear that the Data General with its big screen is the same.

See, someone else is writing an article for the newsletter other than I and Alan. Last month's newsletter had a fine article by Herman Parks, with a program. Bet you can do it also. You have a computer, so why not slip in a word processing program and write away?

I am now the PC coordinator for my office. My job duties in that title are setting up the PC's (IBM's) and training the people how to use them. Also, I have to keep track of what software we have and who uses it. I keep a list on a computer of this software. At my desk, I am building up a group of computer cartoons, some of which have been in this newsletter. These are not a part of my job, but add a little interest. See how starting on a Radio Shack Model 1, many years ago, can lead to a job!

Well,I have not given you anything much new in the way of the Model 100 in this article so far. I have been so busy, that I have not explored much new software or products for the 100. However, the print utility I use for the 100 to print out text files, now has a patch that allows it to print page numbers. There also has been other patches for various printers since this print program has come out. The print program I speak of is available from the Model 100 board on CompuServe. When I sign on CompuServe, I always check to see what new software there is available from the Model 100 board. There is so much wonderful software available on Compuserve. CompuServe not only has free software and a board for the 100, but most computers. No matter what computer you have, you can find something that interests you on CompuServe.

My PG Ram is still working well. I thought I would put in the short program this month to show you how you switch banks. Peter, the person who developed the Ram addition, has not come out with his software yet for allowing one to switch programs from bank to bank or having a program write data it produces in the second bank. The short bank switch program is below.

```
10 A$ = "" : B = VARPTR(A$) : POKE B,211 : POKE B+1,128 :
   POKE B+2,199 : CALLB
```

He defines A$ as a null. Then he finds out where it is with the "VARPTR" function. Pokes the location and two after it with the values shown above and then calls that location. It works like a charm. The same program is used to switch to either bank. I keep it in the menu of each bank.

Any of you out there have any idea on how to get a computer more in line with the Lotto numbers of the States of Conn., NY, or NJ? I have been having mine produce random numbers, but with little luck. If I could get it to talk with the ping pong balls used to pick the numbers in the NY lotto, I could win some money.

I bring this up to point out that one can "talk" with many computers if the right software is used. In my office, we have some software developed by the computer people of my home office that lets an agent or some customers use their PC's to talk with our mainframes and find out information that will be interest to him. I must mention that I work for Home Insurance. The agent can hook up and find out loss information on his clients by using his PC and our software. The agent or customer calls an 800 number and the computers talk at 1200 baud. I was trying out some for the Coca Cola Company this last week and it is quite interesting the information they can obtain. To guard against others getting on, a password has to be used.

Well, enough of this rambling this month. To end, I predict that soon you will see portable computers that will use the new phone advances that will let you be out in the middle of 5th Ave, not near a phone, and call up your favorite computer. There are phones you can carry now on the street that you can use. They do not have to be in your car or hooked by wires to a central office. Why not put one of these phones in a portable computer?

P.S. Try this on your Model 100. Go into the text mode and when it asks for the file name, hold down the "GRPH" key and push "U" and hit enter. After you are though typing your text file, go back to the menu and see what you have as the name of that file! You can save Basic programs also that way!

SPECIAL NOTICE

Next months issue of the "Voice" will contain a listing of the paid up membership of the Fairfield County Computer Users Group, Inc. The list will include addresses and telephone numbers, if we have them, as well as the names. If you do not wish to be included in this listing, drop a post card to me, by March 10th, at the address below:

Alan Abrahamson
10 Richlee Road
Norwalk, CT 06851

TRS-80 Model III Library as of 01/20/85

By popular request, here is the library software list many of you have been clamoring for. So without further ado.

==========

Disk: Busn

CASHFLOW	* Investment minus draw with inflation calculated.
CHANGE/MKR	* Instructs on how to give the correct change.
DEPRECI/DDB	* Annual depreciation by double declining balance
DEPRECI/STR	* Straight Line Depreciation (monthly)
DOWJONES/IND	* Projects DJI for major stocks and inflation rate. 60 inputs
INTERMOD	* Calculates frequencies for radios
INVENTRY	* Retail inventory using stock #'s, base & order amt.
INVENTRY/TPE	* Keeps records of mailing names & addresses
PAYROLL	* Keeps records of time & calculates pay
REAL	* Real estate analysis program
RECIEPTS	* Tally daily cash reciepts
SALES/RPT	* Sales analysis aid.

Disk: BUSN2

CREATOR/BAS	* Program and file creator - program generator
DEMO/BAS	* CREATOR demo
ELECTRIC/SEC	* Text editor.
GRAPH/BAS	* Generates a video graph with your inputs.
INVEST/BAS	* Calculates reinvestment potential.
PAYMENT/SIZ	* Calculates payments of loan.
PERCENT/RAT	* Calculates % on loan.
RDEMO/BAS	* CREATOR's report generator (REPORTER) demo.
REPORTER/BAS	* Report generator for CREATOR.
UTERM/SRC	* Terminal program (model I) needs Editor/Assembler.

Disk: BUSN3 Runs only on NEWDOS 80

KANPAY	* Commission based payroll system by Herb Kanter

Disk: BUSN4

LISTS/BAS	* Private school mailing list program.
PRINTOUT	* Billing module for above program. Does not retain amounts or total due. Just prints bills.
REPAIR	* Repairs, clean out graduates, organizes file for LIST
LOT13	* Sorts checks (in DATA statements) into departments for a building project. 300 checks in memory.

Disk: EDUC1

CAPITALS	* Memory test for state capitals (text only)
FACTORIAL	* Find factoral of positive number
LOGICAL/ARG	* Logical operator usage.
LOGICAL/DEM	* " " "
LOGICAL/EX2	* " " "
LOGICAL/EXP	* " " "
LOGICAL/MTH	* " " "
MATHOMNI/BAS	* Formula by the step method
MATHPROB	* Drills in +, -, x, & /.
SPELLING/EDU	* Practice your spelling
STATECAP/EDU	* Another version of CAPITALS
TIMES/EDU	* Drill on multiplication
VARPTR/TST	* Demos of VARPTR function

Disk: EDU2 - Whitby School Disk by Bob Jackson

ANIMAL2/BAS	* Game of guess my animal - disk based
ARRAYDEM	* Tutorial of arrays - good
CONTRACT	* Drill in contractions
FRCLASS1	* French Drill program
FRCLAS2	* Drill in French onths, days, seasons
GRAMMAR	* Simple drill program on verb tenses.
GRAPHTUT	* BASIC tutorial on Graphics and animation.
IMAGE	* String packed images for merging into your
IMAGE2	* programs.
LCGAE/BAS	* Drill in upper/lower case matching.
LEMONADE/BAS	* Game of running lemonade stand.
MAN/BAS	* identify body parts for small children.
NWGRTUT	* Second part to GRAPHIC TUTOR.
SHAPE	* Shape identification program for pre-K.

Disk: GAME1

BATTSHIP	* Search Game using coordinate strategy
BINGO	* Picks,sorts and keeps track of bingo numbers
BOMBER/WW2	* Your side against the enemy.. you choose side.
BOUNCING/DOT	* Graphic pong type game
CHASE/GM	* Maze type game with sound and graphics
GRANDPRIX	* Graphic car race with levels of difficulty
HANGMAN	* Guess the letters- a favorite with graphics
LLANDER	* Land on the moon
MASTMIND	* Logic game
MINITREK	* Compact version of startrek.
NUMGUESS	* Guess a number from 1 to 100
PILOT	* 2000 mile simulation, requires some skill to master
QUEEN	* Use the queen to put the 80 in checkmate
REDBARON	* Graphic WWI dogfight
ROCKSCI/PAP	* Classic game of rock, scissors, paper.
SEEK	* Uses planer geometry for location of target.
STARTREK/I	* Your army against the enemy, you assign troops
TICTACTO	* Classic 2 player game with graphics.
WHEEL/FOR	* Wheel of fortune.
XMAS/ASC	* ASCII version of Merry Christmas poster
XMAS/PIC	* Scripsit file for Merry Christmas poster.

Disk: GAME2

ABADOWNS	* Horse races, with graphics.
ABADOWNS/SND	* Same as above with sound
BATTLE/SHP	* Classic battleship game
LLANDER/II	* More advanced version of moon landing
MISHMASH	* Word Scrambler
MISSLES	* Missle attack, with graphics and sound
PASSWORD	* Security subroutine for password protection - mergable.
QUEST/BAS	* Adventure type game
SLALOMRN/BAS	* SKI the giant slalom
TARGET	* Target practice for two players
TERMITES	* Watch the termites in action

Disk: GAME3

ABCMMD/BAS	* Graphic missle attack with sound
APPLE/SRC	* Apple theme song for MUSICED/DSK
ARCADE/RUT	* Choose graphic character display
CIRCLE/BAS	* Draws a circle of various sizes.

```
COVER/PIC     * Etch a picture
CYCLES/BAS    * Dot generator
DEALME/IN     * Hand of cards
DOMINOES/BAS  * Wathc the dominoes fall.
ELAPSED/TIM   * Make the computer into a stop watch
MUSICED/DSK   * Music editor
MUSICED/TAP   * Tape version of above.
QUEENS/MNY    * Money qive away.
RANDOM/WLK    * Random graphic display
ROSE/BAS      * Draws a rose.
SHOW/OFF      * Fast adder
SNOOPY/GRF    * Animated snoopy
TOKENS/BAS    * Generates various values.
-----------------------------------------------------------------
                Disk: GAME5
ANIMATE/BAS   * Animation of men jumping.
ANTIAIR/BAS   * Sound activated game.
BLIMP/BAS     * Blimp marquee.
CARJUMP/BAS   * Barrel Jump.
GAME/APR      * Collision type game.
MISSLES/BAS   * Missles vs flying machine.
ROMAN/NUM     * Roman to Arabic & visa versa.
SHORT/PRT     * Mickey Mouse greeting
SKYLINE/BAS   * Draw a skyline.
SNAKE/RAC     * Snake in a maze
SNAKE/SND     * Same as above with sound
THREEDEE/BAS  * Follow the eyes
TIRED/BAS     * Explains why you are tired.
WITCH/BAS     * Ask the witch
WORLDMAP/BAS  * Flat map or revolving globe.
-----------------------------------------------------------------
            Disk: HOME1
AMORTIZE/LN   * Calculate repayment for a small loan.
BIORHYTM      * Graphic representation of your monthly Biorythm
CHECKSORT     * Categorize and sorts your checks.
DECISION/MKR  * Helps make organized decisions on an action.
DIETPLAN      * Calculates caloric intake.
EASTER        * Calculates what day Easter will fall on.
ETCHSKET      * Graphic scratchpad
MORTGAGE/CAL  * Computes monthly payments.
REVCHG/ACT    * Calculates interest on revolving charge accoutns.
SNOWEVE       * Graphic scene for Christmas
SPEEDREA      * Improve your reading skill.
TELELIST      * File system for telephone numbers.
TELELIST/BAS  * Searchs for telephone numbers.
TELETIMER     * Calculates telephone charges.
TEXT2/EDT     * Text Editors
TRADECAR/BAS  * Evaluation program for trading your car.
-----------------------------------------------------------------
             Disk: Util1
ASCII/BAS     * ASCII conversion in BASIC
BINARY/SRC    * Binary search routine in machine source code
BLINKEY/V2    * Input subroutine for $$
BLINKEY1      *  "      "          "   "
BUMP          * DIR selection program.
CALENDAR/PTL  * Perpetual calendar
DATE/SUB      * Date subroutine
DISASSEM      * Dissassembler
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```
DRIVE/BAS     * Patch for Scripsit to use FORM command.
ERRORS/TRP    * Error trap routine
FCUGDATA/FFF  * - BUG - graphic display
FILE          * unknown
FINDLRS/BAS   * Find the logical record length of a file.
FSORTREV      * Sort routine to sort up to 1000 arrays.
GRAPH         * Displays to video investment data in bar format.
GAIN/DAT      * Data for above
HEXTODEC/BAS  * Hex to Decimal conversion program.
INTRUCT/LDR   * Needs INSTRUCT/TXT ????
LPRINT/BAS    * A format utility for the line printer.
MENU2/BAS     * Another menu program. ?????
MX80/BAS      * Requires EPSON printer - Demo of graphics
NEWDOS/FF     * NEWDOS 'FF' file format demo/subrt.
PRODAT        * Demo data for PROFILE/BAS
PROFILE/BAS   * Program to access Profile data from BASIC
SCREEN/BAS    * Input routine using screen.
SORT48        * Sort routine - similar to FSORTREV
SUPBLNK1      * Input routine with blinking cursor.
SUPBLNK2      * Formats dollars as $44,444,444.00.
SUPBLNK3      * Variation of above.
SUPBLNK4      * Variation of SUPBLNK1.
SUPERMENU     * Deluxe menu program to run programs with 1 key.
SYSDUMP/UTL   * Dumps systems to tape.
VARSCROL      * Locks lines of the screen and allows scrolling.
VOICECOV/LP   * Prints to the printer the FCUG cover.
```

Disk: UTIL2

```
APPEND/BAS    * appends (joins) one file to another.
BEEPBEEP/SND  * beeps when you press a key.
BIGLETRS/BAS  * Large graphic characters to merge into your programs.
BITS/BAS      * Bit manipulation demonstration.
BLINKEY/V3    * Input subroutine.
BORDER/BAS    * Creates a border & blinking sign.
BUZZER/BAS    * Buzzes the reed switch in cassette relay. Noisemaker.
CONCATEN/ATE  * Concatenates (combines) strings. - Join strings.
COVER/BAS     * FCUG Newsletter cover emblem.
DATAMAKE/BAS  * Creates files.
DATAPOKE/BAS  * Pokes data into strings.
DEMON/FIX     * Modifies DANCING DEMON to operate from disk.
DIRECT/FIX    * Corrects DIRECT STATEMENT IN FILE errors.
DOSPLUS/DEMO  * Requires DOSPLUS Oper Syst- Demo of DOSPLUS.
FIELDING/BAS  * Demos the fielding of a Random Access file.
FILEF80/BAS   * Demo of NEWDOS 80 'FF' file format.
HXDCHART/BAS  * Chart of Hex to decimal conversion.
INKEY/BAS     * Subroutine of single key press routine.
INPUT/SBR     * Subroutine of the INPUT routine.
LEADER/BAS    * Beginning of a game subroutine.
LINERS/BAS    * Line demo program.
LINERS/CIM    * Core image of above.
LINERS/SRC    * Machine language version of LINERS/BAS.
LOADPCL/BAS   * Modifies CMD files for PENCIL word processor.
LOGO/COV      * LPRINTs FCUG Logo.
LRL/BAS       * Demo of Logical Record Lengths in DOS.
MEMSIZ/BAS    * How to change/check the memsize from within BASIC.
MENU/DEM      * Menu program.
MINIDB/BAS    * Mini data base program.
MINIS/BAS     * Error trap subroutine.
```

PEEKPOKE/LST * List of ROM routines through Peek and Pokes.
POKEY/BAS * Pokes machine code into memory and shows how.
PROGMENU/VR2 * Another program menu program.
PRT3/CMD * Printer driver routine for Mod III.
PRT3/SRC * Source for PRT3/CMD.
QUICK/LN * Line printer subroutines.
ROMCHECK/BAS * Checks out ROM.
SQUARE/VPT * Animated square.
STRIP/BAS * Subroutine to strip off blanks in a string.
TEST1 * Data tester.
UNIKEY/BAS * Single Key function - not tested on Mod III/

Disk: UTIL3

BORDER/RND * Produces random border designs.
CHAINFIL/BAS * Creates a chain file - similar to BUILDing a DO file.
CONVERT/BAS * Number conversion.
CURSOR/BAS * tricks with the cursor.
CURSORS/DOC * Documentation for above.
DATAMAKR/BAS * Creates a file from DATA.
FASTSTAR/BAS * Draws a fast star on the screen for those who need it.
FILESPLT/BAS * Splits a file.
HASH/BAS * Decodes HASH codes for directory repair.
INK/BAS * INKEY subroutine.
KSM/CMD * Key Stroke Multiplier.
MESSAGE/BAS * Prepares messages for transmission over BBS.
POS/ZER * Demo of the POS statement in BASIC.
PRINTER/BAS * Printer setup.
QUICKIES/BAS * Quick routines for BASIC, Reverse input, etc.
REVERSE/NUM * Reverse number entry.
ROWCOL/VID * Defines video location as rows and columns.
SCREEN/PRT * BASIC subroutine to print screen to printer.
SETUP/BAS * Setup TABs.
SELECTIV/RST * - BUG -.
SLOWLIST/SRC * Source code for slowing a video listing.
SORT32/K * Generates and sorts an array.
SORT48/K * Same as above.
STROBE/BAS * Strobes screen at selected intervals.
STRING/PAK * Packs strings.
TABFUN/BAS * Tabbing demo.
TIME/SET * Subroutine to set the time.
TIMEINKEY/BAS* Timed INKEY (single key press) subroutine.
TITLE/FIX * Title subroutine.
TITLE/FN * Title function subrte
VARPTR/SRT * Machine language integer array sort.
VISICALC/PRP * Prepares VC files for up and down loads.
WHO/BAS * List computer.

Some of these program will not run on the Model III/4 but are included for example of programming technique. Some programs are from other user groups across the country.

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The following is a list of new public domain programs which we have received from other TRS-80 clubs. These are contained on seven Model I diskettes and four Model III/4 diskettes.

Disk: BUSN4

LISTS - 3 module mailing list program for private schools. Has a module to printout bills.

STUDENT/DAT - holds student data
INDEX/DAT - holds a sorted index file.
PRINTOUT - Printsout bills. Does not retain info in file.
REPAIR - Repairs file and allows quick resort/delete
LOT13 - Program to keeptrack of a building project using data statements

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Disk: BUSN5

MICROINV - This is a complete inventory control and parts flow system for a manufacturer. It is well written in BASIC and has 5 modules. INV 2-6
This program requires printer and 2 drives.

PGRMLSTZ/BAS - reads directory and produces a sorted index.
Associated files - OPINSTR/ASM and MACHSRTZ/OBJ
Will not work on TRSDOS, NEWDOS 1.0 or 2.0.

DIRECTRY/BAS - is a program to store disk directories (900) but it only works with TRSDOS 1.3 and CMD"O function.

ABCD/SOU - is a database management program. This program has 5 help files, 4 modules, one sample files and two utility files. Very slick.
ABCD/SOU - Main source module. Run this first.
ABCD/CRU - Crunch out dead space in file.
ABCD/PAC - Packs lines of 56 characters
ABCD/EXP - Explanation of subprograms.
HELP/E - General instruction file.
HELP/J - What's good about it.
HELP/M - Master Menu
HELP/V - Edit inputs easily.
HELP/Z - More comments
SAMPLE/DAT - Sample data file to work with.
SAMPLE/DDD - Sample file definition.
SORT/REL - Relocatable sort routine.
TESTING/DDD- Tests ways to check input.
TRANSFER/ABC - moves programs to another disk.
WORKPLAN/ABC - Creates planning/layout forms.

DATABASE/MGT - is a complete, excellent database program written by Dr. Hubert S. Howe who placed it in the public domain. The documentation was in the Computronics magazine.

COLOR 1 for the Color Computer

VIDEOAID/BAS - For downloading programs into the Color Computer.
VIDPREP/BAS - Sets up memory allocation for above program.
COCODNLD/BAS - Instructions for VIDEOAID and VDIPREP. Rename with TXT
DLINSTR/BAS - Instructions for above. Rename with TXT
ATARI08/BAS - From ANTIC Magazine - game require joy-sticks.

Disk: GAME 6

MATHWORD/BAS - Game to solve math word problems.
HANGMAN/BAS - Fair hangman game. Contains all the prompts.
CRASH/BAS - Non-graphic lunar lander program - boring.
LIFE1/BAS - Slow moving game of LIFE. Poor instructions
HANGMAN2/BAS - Good instructions and prompts. Has sound (Mod 1).
ELIZA/BAS - Slow BASIC version of the ELIZA game- computer Pysch.
DEPTH1/BAS - Submarine game - good.
GUNNER/BAS - Shoot down the spaceships.
DODGE/BAS - Maneuver a space ship. Has sound(Model I).
FROG/BAS - HIPPITY HOP- Good instructions.
HUSTLE/BAS - Graphic Line game: You try to hit the boxes when they

appear. Each box contains a number which causes your tail to grow. You must not run over your growing tail or backtrack.

FLIP1/BAS - Flip O's and X's.
JURY4/BAS - Help choose a jury.
LEARNA/BAS - Tutorial in associated files. Determines types of files.
BOGGLE/BAS - No Instructions to this famous game.
HANGMAN/BAS - Another Hangman game. Has built in instructions.
DISSASSEM/BAS - Dissembler - printer optional.

Disk: Games 7

AMERICA/BAS -
ARENA/BAS -
BLACKJACK - The original blackjack game with some modifications.
AZDIST - Find the distance to several cities.
BEESWARM/BAS - Game in which you must defend the country against killer bees.
BATTLESHIP/BAS - Game of battleship where the computer simply keeps track of the hits and kills.
ALIENMAS/BAS -
AWARI/BAS - Computer version of the ancient bead game.
ALIEN/BAS -

Disk: GAMES7

The programs on this disk are short graphic demo programs.

BLOCKS/BAS	VIEW3D	PATTERNS/BAS
CROSSART	TERMITES	SPIRALS/BAS
MEANDER/BAS	ROCKETS/BAS	KALEIDOS/BAS
WINDMILL/BAS	SNOOPY/BAS	CARTOON/SND
SNOOPY1/BAS	QUADART/BAS	SKETCH/BAS
SNOWFLAKE/BAS	COMPUART/BAS	CITYLIGHT/BAS
ONELINERS/BAS	DRAWER/BAS	

RECOVERING FILES FROM A CLOBBERED DIRECTORY DISK

by F. E. Vanslager

Reprinted from Dynamic Memories (SBUG), September, 1984

If, as sometimes happens, you've totally destroyed the directory of one of your disks, don't despair; there's a simple method of recovering any file off the disk, IF, and it's a big if, you can vaguely recognize what's in your lost file, and you have access to NEWDOS80 and SUPER UTILITY+ (or HYPERZAP, or any other utility which lets you load disk sectors into memory). The method is as follows:

Boot up SUPER UTILITY+ (or HYPERZAP or other), and start examining the sectors of the damaged disk to find your lost file. If you can remember anything at all that's in your lost file, the string search capability of SU+ will let you do a rapid search of all the remaining undamaged sectors. Once you find any portion of your lost file, just page backwards until you find the usual textural discontinuity that marks the beginning sector of your file; it will be on one of the 5*N sector boundaries (or the 3*N boundaries on a Model III TRSDOS

disk). On the original disk your lost file occupied some multiple of 5 sectors (or 3 on a Model III TRSDOS disk), starting precisely at the beginning byte of the first sector, and with some garbage filling out the last sectors to make it a multiple of 5 sectors long. Don't worry about the garbage at the end: the trick is to restore it with garbage and all!

Once you have located the beginning sector of your lost file, guess at its length in multiples of 5 sectors. (It shouldn't hurt to guess 5, 10, 15, etc. sectors to large, just as long as the file is contiguous. I'll discuss non-contiguous files later). Then use SU+'s sectors-to-memory facility to load these sectors into high memory (e.g. 50001 decimal). Write down the first two bytes of the first sector, and then depart SU+ and return to NEWDOS80. Then use its DUMP UTILITY to dump the file from high memory onto a good disk as follows:

DUMP your-lost-file, start-addr + 2, end-addr, 65535 where:

"your-lost-file" = the original name of the file,

start-addr = start of the file in memory + 2 (e.g. 50003),

end-addr = end address in memory (e.g. 50001 - 1 + 5 * N * 256),

and the 65535 at the end tells DUMP to save an exact image of memory, EXCEPT for two entry location bytes it will add into the beginning.

Therefore, you'll now have 5*N*256 bytes stored in 5*N sectors under the name "your-lost-file". If you now use a utility to change those first 2 bytes back to the original bytes which you wrote down (but didn't dump) you're done: You exactly restored your lost file!

Most files occupy contiguous sectors, however, sometimes a file may have two or more EXTENTS--which may reside in any order on the disk. Nevertheless, each of these EXTENTS must be a multiple of 5 sectors long. Therefore, it's a matter of finding out how many multiples of 5 sectors there are in each memory location, and then DUMPing the entire file as one piece as described earlier. If your file is in 2 pieces, you may have to try twice to get the pieces in the correct order. If it's in 3 pieces, you may have to try 6 times to get the correct order. You should be able to make these tries rapidly--and then just test to see which one works.

The President's Page

Next Meeting of FCUG

DATE : March 5, 1985 (Tuesday)

TIME : 7:30pm

PLACE: New Canaan Country School

"Neither sleet, nor snow, nor .....". Well you and I are not postal workers, so when I heard that the snow was going to change to ice "sometime that night", I envisioned fifty cars sliding around New Canaan roads at midnight. So when Sid Gross called and said, "What do we do, chief?", I uttered the word - "CANCEL".

Now, this has never happened to FCUG, Inc., to my knowledge, so the next question was HOW? (Ed. note: Once before, about 3 years ago.) Using our highly developed computer logic Sid started calling all those people to the north and I called all the regulars to the south. The message went on the BBS within ten minutes, and soon people were calling each other from New Haven to Newark. Until further notice, if the weather is really foul and you want to find out if the meeting is still on, call me (203) 869-1934 or any of the other officers.

This month we are going to repeat the two fantastic speakers from the aborted meeting. SID GROSS will give us a talk on S.L.O.B. - Simple Lesson On Boolean. Ever seen a statement: IF SL THEN GOTO 8000 ? If SL = what I asked. How could that be a legal statement? Come and find out.

Larry Gilberti will demonstrate his integrated office system while balancing three insurance underwriters on his head.

We must keep in mind that we should be looking for nominations for club officers soon. See you at the meeting.

Bob Jackson

Voice of the '80
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FCUG

FIRST CLASS

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