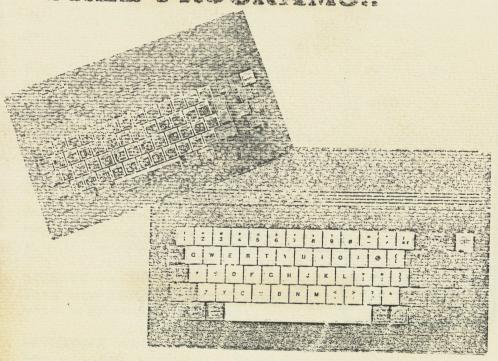
T.T.S. SEGA THA HARE

FEBRUARY 85 Issue#02 0 U.S.A. \$4.50 N.Z. \$6.00

FREE PROGRAMS!!



MACHINE CODE part II

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More talk from the Hippie!

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PRINTED BY: T.T.S. PUBLICATIONS

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EDITORIAL

WOW!! YEP!! That's right! This issue is out on time!

In this months issue we have a few improvements. Firstly, the magazine has a new size! To make up for this size we now have more pages (heaps of pages! full of fun and learning for you and your SEGA!). Secondly, we have a new printing format for all of our program listings!, (Which will make them easer to read and type into your SEGA computer). Also, we now have a few new articles such as: DISKIES this article is for people who have the SF-7000 Disk Drive/Control station.

Entertainment Section this features crosswords and any competitions that we may be running.

Also now available is a cassette to save you from having to type in any of the programs listed in the program section, If you don't feel up to typing, then just send us \$9 and tell us which issue you want. For further details on this tape see page 3 and also the centre insert.

And now I would like to thank everyone out there for your support of this magazine. The last issue sold so well that we ended up having to get a reprint done! Don't forget that this is the last month that you will be able to enter the competition. The deadline is the 25th of feb. 85. All winners will be published in the next issue. SO, Good Luck everyone!

PS: Feel free to send any sugestions that you have that may improve this magazine to : BIGGER & BETTER, C/- TTS,

P.O. Box 486, COOGEE, NSW. 2034.

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For the person who does not have the time or gets sore fingers. Instead of typing in all of those programs in the back of T.T.S. Sega Magazine, you now can get them all on cassette every month!

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For Order Form see centre pages.

MARKET PLACE

SEGA USER CLUBS information.

T.T.S. SEGA USER'S CLUB (NSW),
73 New Orleans Crescent,
Maroubra. NSW. 2035.
Enquires: (02) 344-8783
Next Meeting:
Sunday the 24th of FEBRUARY, 1985.
Commencing at 1 PM.

1544 DATE (1554 DATE COLUMN DATE COLUMN DATE (1554 DATE COLUMN DAT

SEGA USER's CLUB (QLD),
93 Verney Road,
Graceville, QLD. 4075.
Enquires - Contact: Mr Robert Horkings
(07) 525-603 or
Mr Keith Zuch
(07) 288-3115

Next Meeting: Sunday the 3rd of MARCH, 1985. Commencing at 2 PM.

Could the SEGA USER's CLUB for SA & WA please contact the EDITIOR with details!!!

BUSINESS SOFTWARE for Sega.

A new range of business software will soon be available for the Sega. This new release includes:

HuCAL: A very complex Spread Sheet which can do all sorts of calulations and update any new data instantly. It also save your data to disk and gives you over 50K bytes free.

When released it will retail for around \$129.00 on disk.

DATA-FILE MANAGEMENT SYSTEM: This program is for disk only and will hold over 600 pages of information! When first using the program, you may format you page any way that you would like to by use of the cursor keys. You may set up to any number of fields as you wish. The program features:

<A>dd data command

<S>ort data into desired order

<D>isplay/Edit data, with multi-search
commands

<P>rint data to printer, print options
<F>ormat printer display output

So now you can throw away your old bulky file cabinet and place all your information onto a 3 1/2 inch disk!!!

This program will be available by the end of February and will retail for \$49.00.

Other business and general use programs soon to be available is a WORD PROCESSER called MC WORD PROCESSER, (the MC stands for Machine Code), this will be a full scale word processer with very fast key entry and inbuilt jusification commands! This program will soon be available (Some time in March we hope!) for around \$49.00 for Disk Only.

John Sands Electronics will soon be releasing the famous LOGO langauge on disk for the Sega computer Which will retail for around \$129.00

MSX machines soon to come into Australia. The introduction of the MSX computers to the Australian Market should boost Sega sales as the Sega is very close to an MSX machine!!

To everyone out there who has submitted a program or whatever to us, we will soon get around to replying to you. (We received more then we could handle, But keep sending it in!!)

PROGRAM DISSECTION

- 5 REM Under & Over by Grant Ellis 1984
- 10 REMOREM = REMARK) THE COMPUTER WILLNOT RUN ANYTHING PAST (REM).
- 15 SCREEN 1.1:CLS:COLOR1.2:COHSOLE0.24
- 20 REM THIS LINE ORDERS THE COMPUTER TO THE TEXT SCREEN CLEARS THE SCREEN ADDS COLOR-SETS CONSOLE (SCROLL) TO 1 THE WHOLE PAGE.
- 25 CN=INT(RND(1)*1000)+1
- 28 REM RANDOM NUMBER IS SELECTED FROM 1-1888 (INT=WHOLE NUMBER no decimal)
- 35 CHROORIGHT: PRINT" UNDER AND OVER."
- 40 REMTHIS PRINTS AT 10 SPACES OUT ANDONE SPACE DOWN.
- 4S PRINT:PRINT
- SO REMTHIS PRINTS HOTHING ON TWO LINES
- SS PRINT" THE COMPUTER WILL PICK A RANDOM NUMBER BETWEEN 1 AND 1000."
- 66 REM PRINTS BELOW LAST CHROOK POSITION.
- 65 PRINT:PRINT
- -75 PRINT" ALL YOU HAVE TO DO IS TO CHOOSE THAT NUMBER- EASY !!"
- 85 CURSORS, 20 PRINT" (PRESS ANY KEY WHEN READY)"
- 95 IF INKEY\$=""THEN95
- 188 REM THIS CHECKS FOR ANY INPUT FROMTHE KEYBOARD, IF NONE THEN IT STAYS ONTHE CAME LINE. IF THERE IS IT GOES TO THE NEXT LINE.
- :05 CLS:COLOR1.7
- 115 CURSOR10,1:PRINT"UNDER AND OVER, ":BEEP
- 125 CONSOLES, 10
- 135 CLS:CURSOR2,10:INPUT"WHICH NUMBER DO YOU CHOOSE 2";P
- 140 REM INPUT ASKS YOU A QUESTION AND WON'T GO PAST THE LINE UNTIL IT HAS AMANSW EP. (P = AMSWER)

145 N=N+1

150 REM EACH TIME THE COMPUTER GOES . PAST HERE IT ADDS 1 TO THE VALUE OF \overline{N} (N \approx AMOUNT OF TURNS IT TAKES TO GUESSTHE NUMBER)

155 IF P<10RP>1000THENBEEP2: G0T0125

100 REM IF YOUR ANSWER (P) < IS SMALLER THAN 1 OR (P) > BIGGER THAN 1000 IT WILL BEEP TWICE AND SEND YOU TO 125

165 IFP

170 REM IF P < RANDOM NUMBER THEN WE GO TO 195

175 IFP>CNTHEN215

180 REM IF P > RANDOM NUMBER THEN WE GO TO 215

185 IFP=CNTHEN235

190 REM IF P = RANDON NUMBER THEN WE GO TO 235

195 CONSOLE10,10:CLS:CURSORS,15:PRINT"SORRY YOUR GUESS IS LOW."

260 REM

205 GOTO 125

210 REM WRONG GUESS, TRY AGAIN.

215 CONSOLE10,10:CLS:CURSORS,15:PRINT"SORRY YOUR GUESS IS HIGH."

220 REM

225 GOTO 125

230 REM WRONG GUESS, TRY AGAIN.

235 COLORI, 13: CONSOLES, 15: CLS: CURSOR15, 5: PRINTCH

240 REM RIGHT GUESS, PRINTS NUMBER.

245 CURSOR4,7:PRINT"CONGRATULATIONS THAT IS CORRECT."

250 REM

255 CURSOR3,9:PRINT"YOU GUESSED THE CORRECT NUMBER IN"

260 REM

265 CURSOR13,11:PRINT;N;" TURNS."

270 REM N=NUMBER OF TURNS

GAMING AROUND

This month we have a new list and some high scores to go with them!! Send in your high scores here!

GAMING AROUND,

C/- T.T.S.,

P.O. Box 486,

Coogee, NSW. 2034.

GAME .	SCORE	
Border Line	120,800	
Champion Golf	-4	i in a da Ministra
Congo Bongo	18,600	
Demon Gobbler	38,400	
Exerion	68,900	

Star Jacker	58,900
Vermin Invaders	14,400
Vortex Blaster	128,920
Orguss	36,600
Safari Race	44,720
reach as it is word no as	
Zippy Race	473,600
13.67 L	
Sega Galaga	103,050
Champion Baseball	11 - 2
Pacar 1	15,850

INPUT/OUTPUT**

To send letters to the Editor mark them;

ATTN: The Editor,

C/- T.T.S.,

P.O. Box 486,

Coogee, NSW. 2034.

Dear Editor,

I would like to know if it is possible for me to scan if any sprites have hit without having to check all of the X and Y co-ordinates.

C. L. QUIN. (SA)

EDITORS REPLY:

Yes it is possible. To do this use the following statements:

100 IF (INP(&HBF) AND 32)=32 THEN GOSUB500

500 REM If a sprite collision has happened then line 100 will transfer control to - this line

Dear Editor,

I think that your TTS Sega Magazine is very good, and is something that has long been overdue, as it is very hard to find any information on the Sega.

D. N. DAVIS

EDITORS REPLY:

Thank you for you comments, we have received well over 300 letters, congratulating the Magazine. Also it may be of interest to you to know that we have just released a new book of programs for the Sega which is available for \$9.95. For further details see the centre pages.

Well it's BASIC TIPS time again for all of the basic freaks that read this column with interest and let me tell you that there are quite a few of you out there.

Some of the problems that people are having are small and then there are the more difficult ones, here are some of them;

Question: Is there any way at all to scroll the second screen in the same maner that you can with the first ? S.T

Answer: I am afraid this is not possible in basic. However in a future Machine Code Editorial we should be able to give you details on a routine to do this.

Question: I am having trouble understanding the full useage of the RESTORE command. Please explain how to use this command to RESTORE only part of the DATA in a program ? D. Gower

Answer: To RESTORE only part of your DATA you put the line number after the RESTORE command. Example; 10 DATA 1,2,3,4,5,6,7,8 20 DATA 8,7,6,5,4,3,2,1 30 RESTORE 20

Question: I can't seem to find any way of saving or retrieving the value of variables to or from tape ? S.Bauk

Answer: We will go into this in more detail in another issue as you also need a Machine Code routine for this and we havn't invented it as yet.

Question: Is there any way at all to clear variables from memory ? D. Gower

Answer: There is no way of clearing all

Question: Could you explain in detail the mathematical term MOD ? D. Gower

Answer: The MOD command returns the remainder value which is left over when one number is divided b another. For example if we divide 240 by 10, the remainder is 0. If we divide 240 by 7, the remainder is 2. Example; 7/240 = Quotient of 34 (7*34=238)

Remainder of 2 (240-238=2)

Now for all the people out their that have been initializing SCREEN 2 like this:

10 SCREEN 2,2:COLOR 2,2,(0,0)-(255,191),1

Now to do this more efficiently, (a lot faster), and to save your fingers a bit of typing you can do it this way;

10 SCREEN 2,2:COLOR 2,2,,1:CLS

The Video Ram.

and so on.

The Video Ram (VRAM) is only accessible to the computer via the VDP which uses port &HBE. The computer can read or write to the VRAM by using the commands INP and OUT.

There are areas in VRAM which are reserved for for certain portions of the screen (refer page 148 of the Basic Manual).

We shall concentrate on the text screen, as it is the easiest to follow. Each character displayed on the text screen is stored in a location in VRAM, the next character is stored in the next location

Looking at the text screen the first character is stored at &H3C00. The second character thus will be stored at location &H3C01, and so on for the 960

characters that the text screen can display (24*40).

The user can use the Sega commands VPOKE to place a character on the screen, or VPEEK to read the value of the character at any position on the screen.

The VPOKE Command.

The VPOKE command places the specified character value on to the screen at the specified location. The format of the VPOKE command is.

VPOKE address, character value

where address for the text screen is in the range 3000 to 3FBF, and value is in the range 20 to FF (32-255).

Now for a Demonstration of moving a character across the top of the screen.

10 SCREEN 1,1:CLS

20 FOR X=&H3C00 TO &H3C00+40

30 VPOKE X,64

40 FOR Y=1 TO 20:NEXT

50 VPOKE X.32

60 NEXT

Line 20 1st character is 3000,40 characters in the line.

Line 30 POKE the character to the screen.

Line 40 A small delay.

Line 50 Erase the character.

If you need to poke a character or graphic to a specific location ,ie X columns across, and Y rows down, then use the formula on page 144 of the Basic Manual.

Further examples: You require to poke the "little ship" to the cursor position 25,10. Look up page 155 of the manual, and find the code to poke. (It's 250)

Now let's work out the address required. Page 144 tells us to use the following formula.

address =Y*40+X+&H3C00

In this case Y is 10 and X is 25. However, the note appended to the formula states that the character position actually deviates by two positions, so the real formula is,

address = (Y*40+X+&H3C00)+2

so to poke the little ship we type,

VPOKE(10*40+25+&H3C02),250

and the little ship appears exactly where it's meant to.

The same method of adding two to the address must be used when VPOKE is carried out on the text screen. The reason for the extra two is that the the text screen is actually 40 characters wide but 38 of them are used by the commands CURSOR and PRINT, but VPOKE and VPEEK actually use the full 40 characters available.

Well that's all from BASIC TIPS, so until next time farewell.

P.S. For the people who's questions were not answered you will be answered next issue. If only Machine Code was as easy as Basic. Keep those questions coming in and if any people out there has any tips that He or She would like to share just send them in.

Graham

OPPo!

Opps, ew did ti dna ti saw ylno ruo tsirf noitide. Opps those misprints are always there somewhere. No it wasn't in the programs, they were all tested before they went out.

It was in the Basic Tips, through a clerical error (In otherwords it was the Editor's fault but he is a Genius and he can get away with it), line 30 should read;

30 CURSOR 20,20:PRINT Z

CARTRIDGE REVIEWS Champion Golf.

This is probably the most realistic golf game ever written for a computer. The objective of this one or two player game is to get around all nine holes of the very demanding golf course. This is not as easy as it sounds as you have many obstacles in your way.

Try to imagine an aerial view of a 375 metre hold with a strong cross wind, a large lake right in the middle of the fairway with trees around it, with two bunkers infront of the green and two bunkers in front of the lake. (And this a a PAR 4 hole!)

The rules of golf apply in almost all instances. When you hit a ball into the lake there is a realistic splash and the computer gives you another ball. You are also penaliised. It is also possible to lose your ball out-of-bounds by hitting it off the screen. This results in a penalty and you have to start again.

you finally reach the green computer automatically gives HOU HOUR putter. The green is magnified so that it takes up the entire screen. You now have to with the slope of the green which may be in any one of eight directions. This putting a real art as every time you hit the ball you have to be careful to take account the slope of the green. (fortunately this does not change with every shot).

Underworld of Kragon.

Underworld of Kragon is of similar quality as Time Capsule but with a slightly refined inkey routine that makes for faster input. There has been an horrific accident and now the whole Universe is threatened by a killer virus!! Two interplanetary cargo vessels collided just half a light year from the largest planet in the Universe! One of them was carrying the deadly chemical Zulimenaneom and you have just 48 microns in which to find the mineral Zippanium so the virus can be contained by scientists!

This game is for intermediate to advanced Adventurists.

Vermin Invaders.

Vermin Invaders is based on the old favourite Space Invaders, (No computer is complete without one!), however Vermin Invaders features color graphics and sound. You may use a joystick or the keyboard. The game starts off easy, however before you know it you will be Invaded in the higher frames by the Aliens. There is also a Mystery Bonus UFO which shoots across the top of the screen, and when hit will give you a very good score. Each frame gets harder then the last. As you shoot the aliens down they speed up, until you just have one aliens left to hit, which is running across the screen so fast that he is hard to hit. Vermin invaders is written in Z-80 machine code and is a very fast game.

MACHINE CODE p2

Welcome back to machine code part III Firstly, the monitor I talked about last month is not a TV set!! It is a program which enables one to type machine code information into a computer!! Also, the special offer has now ended and the new price is \$20.00 for the MC Monitor. For those of you who do not have a monitor, you will not be able to try out the sample sub-routines supplied this month.

This month we will see some machine code in action, so load your monitor program into your Sega. Please note that all of these routines do not work on disk as the memory addresses are different, however next month the DISKIES column will tell you how to place these routines onto a disk.

The program listed here will flash random graphics all over the screen at high speed.

Enter the following code into the Sega using the EM (Edit Memory) Command. Don't forget to press the (CR) key after each entry!!

08 E5 7 D D3 BF 7 C E6 3F F6 . 40 D3 BF E1 8 0 0.9 ADD ADDRESS = 8000 F3 F3 CD 90 3 D 06 64 05 21 00 00 CD 00 AF 01 00 18 ED 5F D3 BE 0B 78 BI 20 F7 21 00 20 CD 00AF 01 0.0 18 ED 5F 81 D3 BE 08 78 BI 20 F6 0.1 10 D7 C9 END 20

ADDRESS = AFOO

TECHNOLOGICAL BREAH-THROUGH!!!



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**Arcade style

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T.T.S. Title Software as follows; TAF	PE Disk
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Vermin Invaders (Arcade Action)\$19	9.95 N/A
Demon Gobbler (Arcade Action)\$19	9.95 N/A
Transylvania Castle of Horror (*)\$19	9.95 \$26.50
Time Capsule (*)\$19	9.95 \$26.50
Underworld of Kragon (*)\$19	9.95 \$26.50
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The Orb of Power (Graphic Adventure)\$19	9.95 \$26.50
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Great Progams (voll #1)\$9	.95
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*= Text Adventure

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Make sure that all of the entries are correct.

Once you have entered all of the code than use the CA Command, when CA command is on enter Address BOOO and press the (CR) key. If you have done everything correct then the graphics screen will be printing random graphics and colors everywhere. This will do so for about 30 seconds and then return back to the T.T.S. MC Monitor program. Fast!!

AF00		00010		ORG	OAFOOH	
AF00	08	00020	SCP	EX	AF, AF	
AF01	E5	00030		PUSH	HL	
AF02	7 D	00040		LD	A,L	
AF03	D3BF	00050		OUT	(OBFH),	Α
AF05	7C	00060		LD	A,H	
AF06	E63F	00070		AND	3FH	
AF08	F640	00080		OR	40H	
AFOA	D3BF	00090		OUT	(OBFH),	A
AFOC	E1	00100		POP	HL .	
AFOD	08	00110		EX	AF, AF	
AFOE	C9 .	00120		RET		
0000	*##X 1 1 2 4 0	00130		END		
00000	TOTAL ER	RORS				
34914	TEXT AR	FA RYT	ES LEET			

SCP AF00 00020

AF00	00005 SCP	EQU ORG	0AF00H 0B000H
B000 B000 F3	00010 00020	DI	00000
B000 F3	00020	CALL	3D90H
B004 0664	00030	LD	B,100
B004 C5	00050 LOOP	PUSH	BC
B007 210000	00060	LD	HL,0
BOOA CDOOAF	00070	CALL	SCP
B00D 010018	0800	LD	BC,1800H
B010 ED5F	00090 LOOP2	LD	A,R
B012 D3BE	00100	OUT	(OBEH),A
B014 0B	00110	DEC	BC
B015 78	00120	LD	A,B
B016 B1	00130	OR	С
B017 20F7	00140	JR	NZ,LOOP2
B019 210020	00150	LD	HL,2000H
B01C CD00AF B01F 010018	00160 00170	CALL LD	SCP BC,1800H
B01F 010018	00170 00180 LOOP3	LD	A,R
B024 81	00100 20013	ADD	A,C
B025 D3BE	00200	OUT	(OBEH),A
B027 0B	00210	DEC	BC
B028 78	00220	LD	A,B
B029 B1	00230	OR	С
B02A 20F6	00240	JR	NZ,LOOP3
B02C C1	00250	POP	BC
B02D 10D7	00260	DJNZ	LOOP
BO2F C9	00270	RET	
0000	00290	END	
00000 TOTAL			
34688 TEXT	AREA BYTES LEFT	-	

LOOP	B006	00050	00260	
LOOP2	B010	00090	00140	
LOOP3	B022	00180	00240	
SCP	AF00	00005	00070	00160

DISKIES

Hello, welcome to the DISKIES column, this column is especially written for all of you computer freaks out there with a SF-7000 Super Control/Disk Station!!

This month we don't have much room to do anything really good, however next month this column will feature a Basic program to save the graphics screen onto disk and how to load it back onto the screen from the disk, so now we will be able to all draw artistic works of art and keep them on disk.

Type in this program and save it to your disk. When run it will change a few basic function key commands. These are as follows;

FUNC + * gives you FILES

FUNC + 0 gives you CURSOR

FUNC + D gives you PEEK(

FUN€ + L gives you TAB(

FUNC + + gives you POKE

FUNC + B gives you LEN(

FUNC + < gives you THEN

FUNC + 5 gives you PATTERNS#

FUNC + C gives you INKEY\$

FUNC + 8 giives you PSET(

FUNC + V gives you STEP

FUNC + 7 gives you LINE(

```
10 DATA FILES, 24213, CURSOR, 24123
```

20 DATA PEEK(,24143,TAB(,24118

30 DATA POKE, 24162, LEN(, 24249

40 DATA THEN, 24073, PATTERNS#, 24224

50 DATA INKEY\$,24262,PSET(,24356

60 DATA STEP,24197,LINE(,24295,END,0

70 CLS:READ R\$,A:IF R\$="FILES" THEN R\$=R\$+CHR\$(13)

80 PRINTR\$:BEEP:IF R\$="END" THEN END

90 FORJ=1TOLEN(R\$):POKEA-1+J,ASC(MID\$(R\$,J,1))

100 NEXT J: GOTO 70

ADVENTURE MANIA!

Adventure mania has hit the Sega and in the same way it has hit most other popular computers, and there are a lot of you out there that have your problems with your favourite T.T.S. adventure.

In this column we will listen to all of your problems and help you out as we just love, (snicker, snicker), to hear you are pulling your hair out!! (HE! HA! HA!). No we are not really happy to see you do that. (HA! HA! HE! HAW!).

Transylvania Castle Of Horror

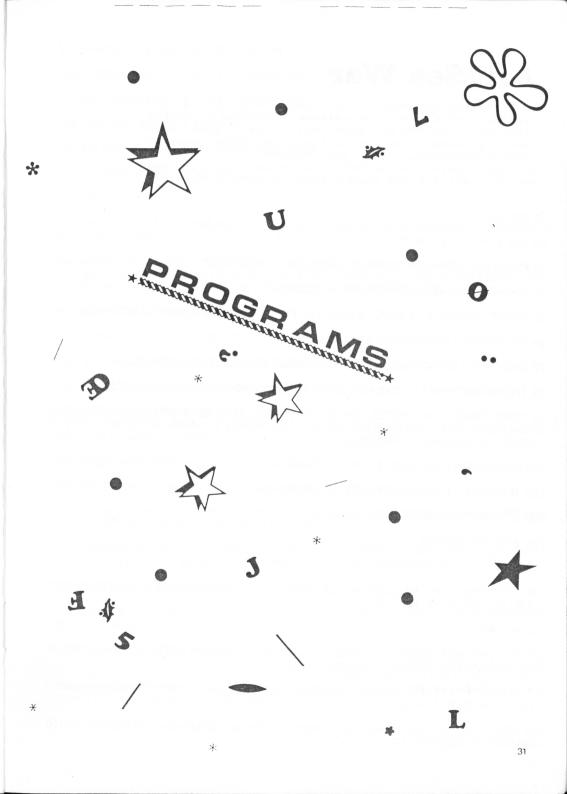
This program is not for the faint at heart or totally for the beginner, but if you do like a challenge then this is the one for you.

It was devised by someone who is just warped in the head, ME! So for all you lovely people out there that have been sending in all that fan mail saying that they will get even with me, Now is your chance.

You can train all that vocabulary to writting a few brain teasers and send them in, `so when you turn your computer on and load in Transylvania, Time Capsule or Underworld of Kragon then you can think of me (ARRRRGH!!).

All brain teasers sent in will be published with a small comment from me so PLEASE keep those nasty little words out of the script.

Yours regretting I ever did this Warped in the Head.



Air/Sea War

In this game you must shoot the enemy ships and planes. There are two options, UNGUIDED or GUIDED missiles. You may not move until your guns have been reloaded. Use the left & right cursor keys to control movement. Press the SPACEBAR to fire. If you are playing the GUIDED missile game then you may use the left & right cursor keys to control it.

- 10 GOT0890
- 20 REM * THIS MUST BE HERE
- 30 K\$=INKEY\$:IFK\$=CHR\$(28)ANDGX(144THENGX=GX+4:GOSUB220
- 40 IFK\$=CHR\$(29)ANDGX>10THENGX=GX-4:GOSUB220
- 50 IFK\$=" "THENSS=SS-1:FX=GX:SOUND4,1,8:FY=172:GOSUB320:GOSUB170:SOUND4,1,0
- 60 BY=INT(RND(1)#8)+135:GOSUB70:GOTO30
- 78 BX=BX-4:SX=SX+2:GOSUB230:PX=PX+5:GOSUB250:GOSUB300:IFSX>163THENSX=0
- 80 IFDB=OTHENIFRND(1)>.8THENDB=1:DD=PY:DX=PX:IFRND(1)>.3THENDD=BY:DX=BX-8
- 90 IFDB=1THENDD=DD+0:SPRITE2,(DX,DD),32,1:IFDD>165THENDB=0:SPRITE2,(DX,DD),32,0: IFDX+12>GXANDDXKGX+4THENSPRITE8,(DX,DD),16,9:SOUND4,2,15:FORA=0T050:NEXT:SPRITE8,(DX,DD),16,0:SOUND4,2,0:GOT0390
- 100 IFM=1ANDFYK170ANDINKEY\$=CHR\$(29)THENFX=FX-1
- 110 IFM=1ANDFY<170ANDINKEY\$=CHR\$(28)THENFX=FX+1
- 120 IFBXK4THENBX=150
- 130 IFPX>163THENPX=0
- 140 TEFY 170 AND FY > 10 THEN GOT 0170
- 150 IFFY<12THENFY=172:GOSUB280:COLOR1:CURSOR188,165:PRINT"MISS":FORA=0T080:NEXT: BLINE(182,165)-(250,175),.BF
- 160 RETURN
- 170 FY=FY-P:GOSUB270:IFFX+12>SXANDFX<SX+15ANDFY+1>SYANDFY-15<SYTHENFX=SX:FY=SY+1
 2:SX=0:SC=SC+120:GOSUB280:GOSUB290:FY=172
- 180 IFFX+12>PXANDFX<PX+15ANDFY<PY+15ANDFY+1>PYTHENFX=PX:FY=PY+8:PX=0:SC=SC+220:G
 0SUB280:GOSUB290:FY=172
- 190 IFFX+12>BXANDFX<BX+15ANDFY<BY+15ANDFY+1>BYTHENFX=BX:FY=BY+12:BX=150:SC=SC+20:GOSUB280:GOSUB290:FY=172

- 210 DB=0:SPRITES/(DX/DD)/32/0:RETURN
- 220 SPRITE8, (GX, 172), 0, 10: RETURN: REM GUN
- 230 SPRITE3, (SX, SY), 4, 14: RETURN: REM SHIP
- 240 SPRITE3,(SX,SY),4,0:RETURN
- 250 SPRITES, (PX,PY), 12, 14: RETURN: REM PLANE
- 260 SPRITE5,(PX,PY),12,0:RETURN
- 270 SPRITE4,(FX,FY),8,1:RETURN
- 280 SPRITE4,(FX,FY),8,0:BLINE(174,20)-(250,30),0,BF:COLOR13:CURSOR175,20:PRINTCH R\$(17);SC:RETURN
- 290 CURSOR182,165:PRINT"*HIT*":FORA=15TO6STEP-1:SPRITE7,(FX,FY-16),16,A:SOUND4,2,15:NEXT:FORA=0T05:FORA=15TO6STEP-1:SPRITE7,(FX,FY-16),16,A:NEXTAA:NEXTA:SPRITE7,(FX,FY-16),16,0:SOUND4,2,0:BLINE(182,165)-(250,175),,BF:RETURN
- 300 SPRITE6, (BX, BY), 28, 15: RETURN
- 310 SPRITEG,(BX,BY),28,0:RETURN
- 320 IFSS(1ANDSC)HSTHENHS=SC:SC=0:SS=25:GOSUB390:GOTO20
- 330 A=140:AA=9S-20:IFSSK20THENA=130:AA=SS-15
- 340 IFSSK15THENA=120:AA=SS-10
- 350 IFSSK10THENA=110:AA=88-5
- 360 IFSSK5THENA=100:AA=SS
- 370 AA=175+(AA*12):BLINE(AA,A)-(AA+10,A+14),.BF:RFTURN
- 380 COLOR13:CURSOR175,90:PRINT"SHOTS":COLOR8:FORA=100T0140STEP10:FORAA=175T0223S TEP12:CURSORAA,A:PRINT"";:NEXT:NEXT:RETURN
- 390 GOSUB820:SOUND0:COLOR1:CURSOR20,5:PRINT"GAME OVER":CURSOR10,140:PRINTCHR\$(16); "PRESS (SPACE) FOR REPLAY":PRINTCHR\$(17)
- 400 K\$=INKEY\$:IFK\$<>" "THEN400
- 410 BLINE(20,5)-(150,15),,BF:BLINE(10,140)-(160,150),,BF:BEEP:FORA=8T0100:IFSC>HSTHENHS=SC
- 420 SC=0:SS=25:GOTO890
- 430 SCREEN2,2:CLS:COLOR6,5,(0,0)-(175,70),7:COLOR6,4,(0,70)-(175,191),3:COLOR1,1
 ,(175,0)-(255,191),1:MAG1:CIRCLE(80,191),80,2,.2,.5,1,BF:SCREEN2,2:GOSUB450:PRIN
 TCHRΦ(17):COLOR7:CURSOR175,10:PRINT"SCORE"

- 440 GOSUB380:GOSUB220:COLOR1,14,(180,155)-(245,180),12:SPRITE0,(168,20),20,1:SPRITE1,(168,70),24,1:BLINE(168,50)-(250,70),BF:COLOR3:CURSOR168,50:PRINT"HISCORE"
 :CURSOR174,60:PRINTHS:GOTO30
- 450 PATTERNS#0,"30303030303030307B"
- 460 PATTERNS#1, "7AFAFFFFFF7F3F07"
- 470 PATTERNS#2,"0000000000000000000000
- 480 PATTERNS#3,"5E5FFFFFFFFEFCE0"
- 490 PATTERNS#4,"0000000000000000000"
- 500 PATTERNS#5,"00000001FF40607F"
- 510 PATTERNS#6,"000000000000008080"
- 520 PATTERNS#7, "COCOEOEOFF0206FC"
- 530 PATTERNS#8,"2020202020505050"
- 540 PATTERNS#9,"00000000000000000
- 550 PATTERNS#10,"0808080808141414"
- 560 PATTERNS#11,"0000000000000000000
- 570 PATTERNS#12,"00000080CCAEBF87"
- 580 PATTERNS#13, "FF0F0E1C18000000"
- 590 PATTERNS#14,"0000000000000F0DC"
- 600 PATTERNS#15, "FE0000000000000000"
- 610 PATTERNS#16, "000000003071717B"
- 620 PATTERNS#17, "F6F4DDDCC676767F"
- 630 PATTERNS#18,"0008181090900000"
- 640 PATTÉRNS#19, "DEF2E60ECE8EFEFE"
- 650 PATTERNS#20, "FFFFFFFFFFFFFF"
- 660 PATTERNS#21, "FFFFFFFFFFFFFF"
- 670 PATTERNS#22, "FFFFFFFFFFFFFF"
- 680 PATTERNS#23, "FFFFFFFFFFFFFF"
- 690 PATTERNS#24, "FFFFFFFFFFFFFF"
- 700 PATTERNS#25, "FFFFFFFFFFFFFFFF"

- 710 PATTERNS#26, "FFFFFFFFFFFFF"
- 720 PATTERNS#27, "FFFFFFFFFFFFFF"
- 730 PATTERNS#28, "00000000000000408"
- 740 PATTERNS#29, "181FFF7F3F1F0000"
- 750 PATTERNS#30,"000000000000000000"
- 760 PATTERNS#31, "0080E0FEFFFF0000"
- 770 PATTERNS#32,"000000000000000000"
- 780 PATTERNS#33, "000000000000000000"
- 790 PATTERNS#34, "000000000000000000"
- 800 PATTERNS#35,"282838383838383810"
- 810 RETURN
- 820 GOSUB870
- 830 FOR I=1 TO 11:SOUND1,A1(I),15
- 840 FOR T=1 TO AT(I): NEXT T:SOUND0
- 850 NEXT
- 860 RESTORE: RETURN
- 870 ERASE:DIM A1(11),AT(11):FOR I=1 TO 11:READ A1(1).AT(1):NEXT
- 880 DATA 141,30,141,30,141,15,141,60,175,30,157,30,157,30,141,30,141,30,133,30,1
- 890 SCREEN1,1:CLS:PRINT"** 1) GUIDED MISSILES | **":PRINT:PRINT"** 2) UNGUIDED MISSILES | **"
- 900 PRINT:PRINT"CHOOSE PLEASE"
- 910 IFINKEY\$="1"THENM=1:BEEP:GOT0940
- 920 IFINKEY\$="2"THENM=2:BEEP:GOT0940
- 930 GOT0910
- 940 SCREEN2,2:0=INT(RND(1)*4)+7:P=INT(RND(1)*3)+5:BX=150:BY=140:SS=25:SY=64:PY=2 0:GX=75:GOTO430

Boat Race

In this game, you control a boat (USING THE CURSOR KEYS). You must try and run over as many flags as possible. But beware: you must avoid the wave and any reefs, as these will sink your boat. Each frame gets harder. If you make it through any frame without get sunk then you will receive a bonus!

10 MAG 1:GOSUB 870:GOSUB 760

20 HC=0

30 WA=1:SC=0:PL=3:RC=30:SW=0:RM=200:S=1:P=1:FR=50:FC=0

40 RM=200:MX=0:MY=16:S=1:P=1:SW=0:FR=50:FC=0:H0=2

50 GOSUB 600

60 K#=IAKEY#

70 IF K\$=CHR\$(28) THEN HO=2

80 IF K\$=CHR\$(29) THEN H0=4

90 IF K\$=CHR\$(30) THEN HO=1

100 IF K\$=CHR\$(31) THEN HO=3

110 IF HO=2 AND MXK240 THEN MX=MX+16

120 IF HO=4 AND MX>15 THEN MX=MX-16

130 IF HO=1 AND MY>31 THEN MY=MY-16

140 IF HO=3 AND MYK160 THEN MY=MY+16

150 SPRITE 1,(MX,MY),0,12

160 IF S>2 THEN S=1

170 ON S GOSUB 280,290

180 V=VPEEK(INT((MY+6)/8)*256+INT(MX/8)*8+(MY+6)MOD8)

190 IF V=8 THEN GOSUB 300

200 IF VK>8 AND VK>0 THEN GOSUB 420

210 IF PL=0 THEN GOTO 510

220 IF SW=0 THEN WX=MX:WY=0:SW=1

230 IF P>2 THEN P=1

240 IF SW=1 THEN ON P GOSUB 360,390

250 IF MX=WX AND MY=(WY-16) THEN GOSUB 420%

- 260 IF MX=240 AND MY=160 THEN GOSUB 470
- 270 RM=RM-1:GOTO 69
- 280 SPRITE 0,(MX,MY),4,10:S=S+1:RETURN
- 290 SPRITE 0,(MX,MY),8,5:S=S+1\RETURN
- 300 FOR I=1 TO 5:BEEP 1:BEEP 0:NEXT I
- 310 SC=SC+FR:FR=FR+50:FC=FC+1
- 320 BLINE(40,0)~(79,7),1,BF
- 330 CURSOR40,0:COLOR15:PRINT SC
- 340 BLINE(MX,MY)-(MX+15,MY+15),1,BF
- 350 RETURN
- 360 SPRITE 2,(WX,WY),12,7:P=P+1
- 370 WY=WY+16:IF WY>191 THEN SW=0
- 380 RETURN
- 390 SPRITE 2,(WX,WY),16,5:P=P+1
- 400 WY=WY+16:IF WY>191 THEN SW=0
- 410 RETURN
- 420 FOR I=1 TO 120:BEEP 1:BEEP 0:NEXT I
- 430 BLINE(MX,MY)-(MX+15,MY+15),1,BF
- 440 PL=PL-1:FR=50:FC=0:MX=0:MY=16
- 450 BLINE(178,0)-(185,7),1,BF
- 460 COLORIS: CURSOR 175.0: PRINT PL;: RETURN
- 470 FOR I=1 TO 10:BEEP NEXT
- 480 BLINE(100,80)-(155,87),1,BF
- 490 CURSOR 100,80:COLOR 8:PRINT "Nice Sailine!" *FOR I=1 TO 100:NEXT I
- 500 SC=SC+RM*FC:RC=RC+2:WA=WA+1:GOTO 4A
- 510 SCREEN 2,2:COLOR 15,1:CLS

- 520 IF SC>HC THEN HC≃SC
- 530 CURSOR 95,50:PRINT "GAME OVER"
- 540 CURSOR 80,66:COLOR 10:PRINT "HI-SCORE "):COLOR 15:PRINT HC
- 550 CURSOR 80,80:COLOR 5:PRINT "YOUR SCORE ";:COLOR 3:PRINT SC
- 560 CURSOR 80,100:COLOR 7:PRINT "PLAY AGAIN Y/N ?"
- 570 K#=INKEY#: IF K#="Y" THEN GOTO 30
- 580 IF K#="N" THEN END
- 590 GOTO 570
- 600 SCREEN 2,2:COLOR 1,15:CLS
- 610 COLOR1,1,(0,0)-(255,191),1
- 620 FOR I≃0 TO 250 STEP 12:CURSOR I,176:COLOR12:PRINT "#\$":CURSOR I,184:PRINT "% %":NEXT
- 630 CURSOR 10,0:COLOR 4:PRINT "SCORE "J:COLOR11:PRINT " HI-SC "J:PRINT " MEN "J:PRINT" WAVE ";
- 640 CURSOR 40,0:PRINT SC:CURSOR 115,0:PRINT HC
- 650 CURSOR 175,0:PRINT PL:CURSOR 220,0:PRINT WA
- 660 FOR I=1 TO RC:X=INT(RND(1)*16)*16
- 670 Y=INT(RND(1)*10)*16+16
- 680 BLINE(X,Y)-(X+15,Y+15),1,BF:COLOR 8:CURSOR X,Y:PRINT "#\$":CURSOR X,Y+8:PRINT "%%":NEXT I
- 690 FOR I=1 TO 10
- 700 X=INT(RND(1)*15)*16:Y=INT(RND(1)*10)*16+16
- 710 BLINE(X,Y)-(X+15,Y+15),1,BF
- 720 COLOR 4:CURSOR X,Y:PRINT "'(":CURSOR X,Y+8:PRINT ")*":NEXT I
- 730 BLINE(224,144)-(255,175),1,BF
- 740 CURSOR 228,168:COLOR 7:PRINT "GOAL"
- 750 BLINE(0,16)-(31,47),1,8F:RETURN
- 760 SCREEN 2,2:COLOR4,15:CLS

770 COLORI,1,(0,6)-(255,191),1:COLOR 12

780 COLOR12:PRINT " BOAT RACE"

790 SPRITE1,(18,104),0,121SPRITE0,(18,104),4,10;COLOR10

800 CURSOR36,112:PRINT "= YOU - "::COLORS:PRINT "EMOVE = CURSOR KEY1"

810 CURSOR18,120:PRINT "##";:CURSOR18,128:PRINT "%%";:COLOR10:PRINT " = ROCK ";:COLOR8:PRINT "EDANGERD"

820 COLOR4:CURSOR18,136:PRINT "'(":CURSOR18,144:PRINT ")* "; COLOR10:PRINT "= FL AG "::COLOR8:PRINT "EMYSTERY3"

830 SPRITE2,(18,152),12,7:COLOR10:CURSOR30,162:PRINT " = WAVE ";:COLOR8:PRINT "E DANGER1"

840 COLOR 4: CURSOR166, 41: PRINT "HIT ECRI KEY!"

850 IF INKEY\$=CHR\$(13) THEN RETURN

860 GOTO 850

870 FOR I=35T042:READ AS:PATTERNC#1.AS:NEXT I

880 FOR I=0 TO 19:READ A\$:PATTERNS#1,A\$:NEXT 1

890 RETURN

900 DATA 0000041C1C74FCFC,0000C0E0F0FCF4FC,DCEC7CF46000000,DCFCD4CC34000000

910 DATA 10000C0C0C080308,80E0F0F3F0300000,0308080303307360,0000000000000000000

920 DATA 070F1E0203010003,070F0F0F0F000000,F0F8BCA0E1C287E8,F0F8F8F8F8000000

960 DATA 0400200283277FFB.8FFFFBSFCFFFFFFF,04006100143EFEF7.7DD9FFF6FFFDFFF

Flight Zone

In this program you must fly a plane within the bounds of the flight zone! If your craft should overlap one of the lines, the game will end. At the end of a game the computer will tell you your score. The longer you can remain in the flight zone, the higher your score will be (and the harder it will get to stay within the flight zone!). A score of over 800 is very good. To keep your craft within the flight zone use the cursor keys.

10 SCREEN1,1:CLS:PRINTTAB(9);"FLIGHT ZONE":GOSUB 140:SCREEN2,2:COLOR15,1:CLS:X=1 00:Y=100:R=90:S=0

20 CLS:LINE(100,X)-(130,Y),2:LINE-(115,80),2:LINE-(100,X),2:SOUND4,2,15:S=S+10

30 LINE(110,95)-(120,105),2,B:LINE(A,0)-(A,50),15:LINE-(10,180)

40 LINE(A+40,0)-(A+40,50):LINE-(220,180):C=INT(RND(1)#2):IF C=0 THENA=A+20

50 LINE(115,100)-(115,80),2:IFC=1THENA=A-20

60 IF A)160 OR A(30 THEN100

70 IF INKEY\$=CHR\$(28) THENX=90:Y=110:A=A-15

80 IF INKEY\$=CHR\$(29) THENX=110:Y=90:A=A+15

90 601020

100 COLOR 15:CURSOR 75,118:PRINT"YOUR SCORE IS";S:CURSOR90,120:PRINT"GAME OVER": SOUNDO:CURSOR80,130:PRINT"ANOTHER GAME Y/N"

110 IFINKEY\$="Y"THEN10

120 IFINKEY\$<>"N"THEN100

130 END

140 CURSOR 5,15:PRINT"PRESS ANY KEY TO PLAY"

150 IF INKEY\$="" THEN 150

160 RETURN

Graphics Demo.

- 10 SCREEN 2,2
- 20 COLOR 1,15,,15
- 30 CLS
- 40 B=INT(RND(1)*6)
- 50 IF B(1 OR B)5 THEN 40
- 60 C=INT(RND(1)*6)
- 70 IF CK1 OR C>5 THEN 60
- 80 FOR A=0 TO 1000 STEP PI/30
- 90 X=INT(80*COS(A))
- 100 LINE (X+127,X+91)-(120*C08(A/B)+127,90*SIN(A/C)+91)
- 110 NEXT A
- 120 IF INKEY\$="" THEN 120
- 130 GOTO 10

ENTERTAINMENT

Q F П T \bigcirc R K Ι В P 0 R Х G T S S T () 0 Υ N X E T S 0 N Ι \Box A K G M R R (0 Γ 0 R F M S J D \Box E 7 0 M \bigcirc Ι F Υ Α H C U R S 0 R) M À E J O P S \Box Ō Ι T S T R R Α G P Α Ι N T S F G Z V N T X Y R Q F K E S E M D Х H Z 8 () Y T T K J Q S J R G I 0 F M P U T RF A \Box 9 M S Χ D E J F R H \Box B I T J -T F G H В $\overline{()}$ T М M M () R M F D G T T T D В S K H Y S R B R R T E R U 0 0 S T K M T F G I M Α R Ι N E R T 8 \Box T R G E M V D S Q Ι F N N S J G G E Ε T H R M Υ F Ė G T D 10 В \Box N Ι T K M Υ F R S À Ι A R R À K X S Z A 0 K H R G \Box L M M E Α V F N F D H Υ \bigcirc G J A T () R E S T B E R Х А T E F T T N X \bigcirc

Word Find

Here is the list of words.

CARTRIDGE

CASSETTE

COMPUTER

CURSOR

DISKDRIVE

EDITOR

EXERION

FOR

GET

JOYSTICK

LINE

LOAD

MAGAZINE

MONITOR

NEW

PACAR

PRINTER

PROGRAM

SAFARI RACE

SAVE

SEGA

SYNTAX

VORTEX BLASTER

YAMATO

Happy Hunting.

PAINT

COMPUTER HIPPIE!!

Arrrrrrgh! These letters I love'em. Thankyou all those people who wrote to me. Hey I'm not ahead on that name change I sought, but it's nice to be writing this section so let's push on regardless. A few banabenders wanted to know where they can get Vortex Blaster. Well all the games you see in the magazine can be purchased from Trident Technological Systems and thier address is in this magazine, (somewhere).

I've also a message for a couple of ladies in S.A. We're all looking forward to seeing some of your work after all there's not many programs around written by the fair sex.

REMEMBER.... If you don't put your name all over everything you won't get the credit for your work so Pleeeeeease put your name in REM statements with the title O.K.?

Nobody seems to be having trouble with the hi-res grahpics article.

PSSSSST! There's some good news I previewed a few new games about to be released, (1) features a motorcycle and is called Highway Pursuit. The graphics are excellent and it's written in machine code.

(2) is a Graphic Adventure called the Orb of Power. Every location has almost a full half screen of colourful graphics.

It's the first episode of a trilogy.

- (3) is another Graphic Adventure along the linesof Lord of The Rings, called The Shadow of The Overlord.ptl and it will be using a whopping 180k bytes of memory, yes you do have that much memory on line if you own a Disk Drive.
- (4) is Castle of Fear. This is another Graphical Adventure based on Transylvania Castle of Horror.

Well that's all the room we have so Bye Bye. Computer Hippie.

