T.T.S. SEGA ★ MAGAZINE

MARCH 85 | Issue# 03 | U.S.A. $4.50 N.Z. $6.00 | Australia $4.00

FREE PROGRAMS!!

AUSTRALIA'S TOP SELLING

SEGA

MAGAZINE

MACHINE CODE part III

Contents

PLEASE NOTE
New address for T.T.S.

4 ROTA PLACE
MARAYONG
N.S.W. 2148

PHONE (02) 831-1150

EDITORIAL.....page 2
A word from the Editor.

MARKET PLACE.....page 4
For Sale.

BUGS BUGS.....page 5
How to fix some of the bugs.

INPUT/OUTPUT.....page 6
Readers write.

BASIC TIPS.....page 7
More basic tips.

GAMING AROUND.....page 8
Some more high scores.

ADVENTURE MANIA.....page 10
Solving the problems.

DISKIES.....page 12
Save graphics to disk.

MACHINE CODE.....page 14
Part three of this series.

ENTERTAINMENT.....page 26
The winners of the competition.

PROGRAMS.....page 27
More programs for you.

EDITORS :
Graham Gaskell
Thomas Bernard

CONTRIBUTORS :
Peter Reece
Rick Byass
Les Kelly
Susan Doel

OFFIICE :
T.T.S.,
73 New Orleans-cres,
Maroubra,
2035.

POSTAL ADDRESS:
T.T.S.,
P.O. Box 486,
Coogee, 2034.

PHONE :
(02) 344-8783

No material may be reproduced in part or whole without written consent from T.T.S.

Editorial

Well here we are again with another edition but we are a little late with this one and the reason, we decided to update our offset printing machine so we can keep up with all the quantity of magazines and books etc. There are a few teething problems at present so if you can be a little patient we will have everything under control here very shortly. With all these improvements we will be able to do the magazine more efficiently, therefore you will end up with a better all round magazine. Also at the moment T.T.S. is in the process of writing a new language for the SEGA which includes the third screen, YES, this screen utilises multi-color characters, sprites and can also be used as a text screen, at the moment all addressing has to be done in machine code. Also this new language (LIGHTNING), will be on an average about 20 times faster than basic III. Now you have heard the good news well it's time for the bad, for some people anyway, it will only be available for the SF7000 which will give the user well over 40000 bytes free!!!

SUBSCRIBE

NOW

T.T.S. Sega Magazine 1 Year
(12 issues) $48.00

T.T.S. Sega Magazine and MagPro
cassette 1 Year
(12 issues of each) $120.00

T.T.S. MAGPRO CASSETTE

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!

Single issues $9.00 (Spec. issue #)

3 Months Subscription	$24.00
6 Months Subscription	$42.00
9 Months Subscription	$58.50
12 Months Subscription	$72.00

Back Issues:

Dec/Jan Magazine #01	$5.00
MAGPRO CASSETTE #01	$9.00

For Order Form see centre pages.

Market Place

MARKET PLACE
==========

FOR SALE
----

1 Soft keyboard SEGA plus approx $100.00 software! $150.00 phone 831-1150 item #1

1 Soft keyboard SEGA plus 1 SF7000 Disk Drive plus books and approx $350.00 software! $650.00 phone 831-1150 item #2

Special Offer to readers.
==========

1 only SF7000 SUPER CONTROL STATION full warranty $519.00 phone 831-1150 item #3

BUGS - BUGS - BUGS

SOLAR CONQUEST

In the first issue of this magazine we spoke of a bug in the Solar Conquest game and explained how to fix it. It appears there is another and if you follow instructions as follows you will have no problems. PLEASE NOTE this is for the earlier version and should only be done if (R) is used to RETURN you to the list of COMMANDS. On the later version they use the GRAPH key to do this.
(CR)= PRESS CR KEY

First of all type :

LIST 183 (CR)

Now look along the line until you come to the word Rassa. If you change the R to a Y this will enable you to go to all the 20 planets instead of only 19 as was the case. Before if you tried to go to Rassa it would RETURN you to the list of COMMANDS. From now on Rassa will be known as Yassa. O.K. now you can press (CR) then press (HOME/CLR) key then type in (RUN) then (CR). I hope you enjoy this great game even more.

Inp/Out

Dear Editor,

Just a short note to draw your attention to a small inaccuracy on the masthead of your excellent publication.

You claim to be the first SEGA Magazine published in Australia, but as you can see from the enclosed copies of "SEGACIOS" - although you can claim to be the biggest and, arguably, the best - you missed being FIRST by just one month.

We forgive you and ask only that you make the appropriate correction in some future issue.

Yours fathfully,
John E. McLennan,
for the staff of SEGACIOS

Well John that is a surprise for us but as you will note our last 2 issues havn't mentioned the fact. And as for being the biggest and the best I am sure no one would dispute the matter having already supplied readers with 18 programs not including the Machine Code tutorial or any of the other valuable information in just 3 issues. THE ED

Basic Tips

It's that time again for all those people that need a little help with there problems and for me to help others with short cuts to help there programs run a little better.

People who have written in programs that have a number of LINE statements that draw the next LINE from the previous X,Y position can be made shorter such as follows.

```
10 SCREEN2,2:COLOR15,1,,1:CLS
20 LINE(10,10)-(100,100)
30 LINE(100,100)-(50,50)
40 LINE(50,50)-(10,10)
```

This can be shortened to...

```
10 SCREEN2,2:COLOR15,1,,1:CLS
20 LINE(10,10)-(100,100)
30 LINE-(50,50)
40 LINE-(10,10)
```

I hope this helps some people out there.

Gaming Around

This month we have a new list and some high scores to go with them!! Please note that some games which are listed are not availiable for sale yet! ZIPPY RACE, SEGA GALAGA

Post all of your scores to..

GAMING AROUND,

C/- T.T.S.,

P.O. Box 486

Coogee, N.S.W. 2034.

GAME	SCORE	NAME
BORDER LINE	120,800	TOM B
CHAMPION GOLF	-4	GRAHAM G
CONGO BONGO	32,400	JAMIE T
DEMON GOBBLER	38,400	TOM B
EXERION	74,100	GRAHAM G

MONACO GP	98,350	GREG H
STAR JACKER	65,800	LES K
VERMIN INVADERS	15,150	KEN S
VORTEX BLASTER	135,310	DAVE G
ORGUSS	45,200	JEFF L
SAFARI RACE	44,720	TOM B
ZIPPY RACE	473,600	GRAHAM G
SEGA GALAGA	220,560	TOM B
CHAMPION BASEBALL	11 - 2	GRAHAM G
PACAR	115,850	GREG H
N-SUB	45,350	DAVE G
SEGA FLIPPER	999,999	ROBERT B
POP FLAMER	76,000	GRAHAM G
SINDBAD MYSTERY	35,860	JOE F
YAMATO	145,340	IAN P
SAFARI HUNTING	33,230	KEN S

Any new scores will be put into the following edition so get cracking and go for it. Thankyou for the people who sent in there scores!

Adventuremania

This column looks like it's here to stay after the responce I received from the people out there which have small problems. The most asked about adventure was Transylvania Castle of Horror which is not surprising as I said in the last issue that this adventure is for the slightly more experienced adventurists.

Now I will answer the most asked questions about Transylvania Castle of Horror.

(1) How do I get out of the first room, I have tried everything I know including killing the demon and finding the hole in the floor and going down it but every time I try to go any further I end up being killed?

Try the window after killing the demon, if you had noticed he had been stopping you from going out it before but when he is dead you are O.K. to use it.

(2) I have reached the pit but I can't get across it without being killed, thankyou for the help?

This is probably the easiest of the lot. What do you want to jump!!

(3) When ever I try to get across the bridge I end up breaking my neck, how do I get across without breaking my neck?
You sure are persistant so I would say just maybe that you could try another direction!!

Now for all the people out there that haven't gotten as far as some of the others, keep on trying !!

The riddle of the month had me a bit worried but I think I may have the answer. It was sent in by 13 year old Paul Mannion from Casula in N.S.W and it goes like this.....

Brothers 3 Sisters have I none but this mans father is my fathers son.

Could it be HIMSELF!! If I am wrong could you please write to me and make me feel dejected and beaten or if I'm right then write me another so I don't think I am better than everyone!!

Well that's all from ADVENTURE MANIA
signed Warped in The Head
(Graham)

Diskies

This month we have our Basic/Machine code program to save and load graphics from the disk to screen 2. The machine code is in lines 220 to 340. Make sure that there are no typing errors as this may cause the program to self-destruct!!

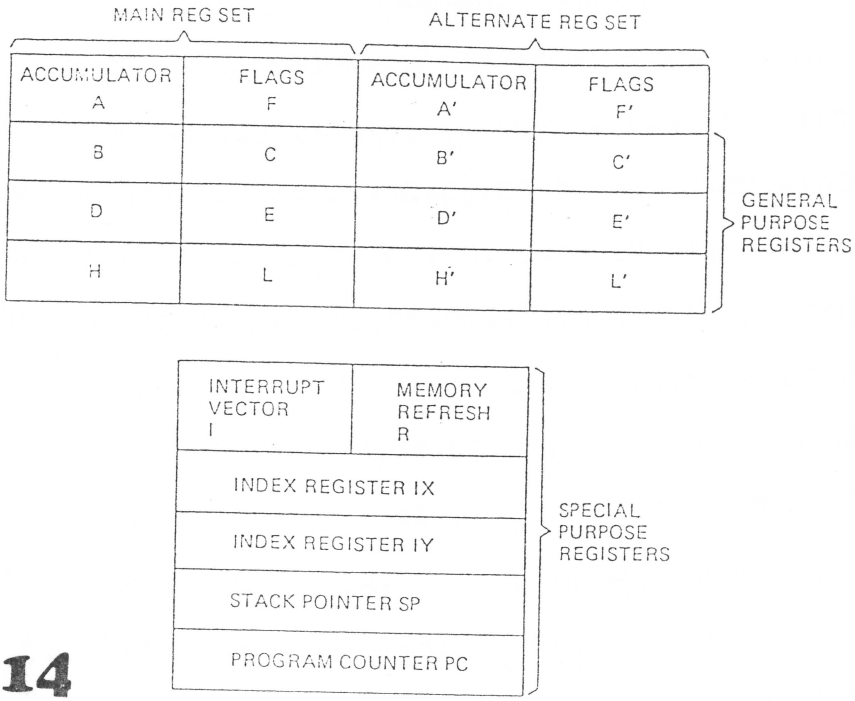
Draw up your graphics on screen two and then load in this program to save the screen onto a disk. The program is very fast at loading the graphics. So start typing.....
See you next month.

```
10 GOSUB220

20 CLS:PRINT"<S>AVE SCREEN"

30 PRINT"<L>OAD SCREEN"

40 PRINT"<D>ISPLAY SCREEN"

50 INPUT":";A$:IFA$="S"THEN90

60 IFA$="L"THEN140

70 IFA$="D"THEN190

80 BEEP:GOTO20

90 INPUT"FILENAME 8 letters MAX. :";A$

100 SCREEN2,2:B$=A$+".COL":A$=A$+".DAT"

110 CALL&HFF1C:SAVEMB$,&HE500,&HFD01

120 CALL&HFF21:SAVEMA$,&HE500,&HFD01
```

```
130 SCREEN1,1:GOTO20
140 INPUT"FILENAME 8 letters MAX. :";A$
150 SCREEN2,2:B$=A$+".COL":A$=A$+".DAT"
160 LOADMB$:CALL&HFF00
170 LOADMA$:CALL&HFF05
180 SCREEN1,1:GOTO20
190 SCREEN2,2
200 IFINKEY$<>" "THEN200
210 SCREEN1,1:GOTO20
220 LIMIT&HE4FF
230 FORZ=&HFF00TO&HFF48:READD$
240 POKEZ,VAL("&H"+D$):NEXTZ:RETURN
250 DATA 21,FF,1F,18,03,21,FF,FF
260 DATA CD,3A,FF,21,00,E5,01,01
270 DATA 18,7E,D3,BE,23,0B,78,B1
280 DATA 20,F7,FB,C9,21,00,20,18
290 DATA 03,21,00,00,CD,3A,FF,21
300 DATA 00,E5,01,01,18,DB,BE,77
310 DATA 00,00,23,0B,78,B1,20,F5
320 DATA FB,C9,F3,7D,D3,BF,7C,E6
330 DATA 3F,F6,40,D3,BF,DB,FB,F3
340 DATA C9
```

Machine Code

This month we list all of the Z-80 instruction set, next month we will start using these instructions to write sample programs and to explain what and how these instructions make your Sega work. Below is a listing of the register set. The LD commands are used to load these registers with the required data.



Numeric List of Z-80 Instructions

OBJECT CODE	SOURCE STATEMENT	
00	NOP	
018405	LD	BC,NN
02	LD	(BC),A
03	INC	BC
04	INC	B
05	DEC	B
0620	LD	B,N
07	RLCA	
08	EX	AF,AF'
09	ADD	HL,BC
0A	LD	A,(BC)
0B	DEC	BC
0C	INC	C
0D	DEC	C
0E20	LD	C,N
0F	RRCA	
102E	DJNZ	DIS
118405	LD	DE,NN
12	LD	(DE),A
13	INC	DE
14	INC	D
15	DEC	D
1620	LD	D,N
17	RLA	
182E	JR	DIS
19	ADD	HL,DE
1A	LD	A,(DE)
1B	DEC	DE
1C	INC	E
1D	DEC	E
1E20	LD	E,N
1F	RRA	
202E	JR	NZ,DIS
218405	LD	HL,NN
228405	LD	(NN),HL
23	INC	HL
24	INC	H
25	DEC	H
2620	LD	H,N
27	DAA	
282E	JR	Z,DIS
29	ADD	HL,HL
2A8405	LD	HL,(NN)
2B	DEC	HL
2C	INC	L
2D	DEC	L
2E20	LD	L,N
2F	CPL	
302E	JR	NC,DIS
318405	LD	SP,NN

OBJECT CODE	SOURCE STATEMENT	
328405	LD	(NN),A
33	INC	SP
34	INC	(HL)
35	DEC	(HL)
3620	LD	(HL),N
37	SCF	
382E	JR	C,DIS
39	ADD	HL,SP
3A8405	LD	A,(NN)
3B	DEC	SP
3C	INC	A
3D	DEC	A
3E20	LD	A,N
3F	CCF	
40	LD	B,B
41	LD	B,C
42	LD	B,D
43	LD	B,E
44	LD	B,H
45	LD	B,L
46	LD	B,(HL)
47	LD	B,A
48	LD	C,B
49	LD	C,C
4A	LD	C,D
4B	LD	C,E
4C	LD	C,H
4D	LD	C,L
4E	LD	C,(HL)
4F	LD	C,A
50	LD	D,B
51	LD	D,C
52	LD	D,D
53	LD	D,E
54	LD	D,H
55	LD	D,L
56	LD	D,(HL)
57	LD	D,A
58	LD	E,B
59	LD	E,C
5A	LD	E,D
5B	LD	E,E
5C	LD	E,H
5D	LD	E,L
5E	LD	E,(HL)
5F	LD	E,A
60	LD	H,B
61	LD	H,C
62	LD	H,D
63	LD	H,E

Numeric List of Z-80 Instructions

OBJECT CODE	SOURCE STATEMENT		OBJECT CODE	SOURCE STATEMENT	
64	LD	H,H	96	SUB	(HL)
65	LD	H,L	97	SUB	A
66	LD	H,(HL)	98	SBC	A,B
67	LD	H,A	99	SBC	A,C
68	LD	L,B	9A	SBC	A,D
69	LD	L,C	9B	SBC	A,E
6A	LD	L,D	9C	SBC	A,H
6B	LD	L,E	9D	SBC	A,L
6C	LD	L,H	9E	SBC	A,(HL)
6D	LD	L,L	9F	SBC	A,A
6E	LD	L,(HL)	A0	AND	B
6F	LD	L,A	A1	AND	C
70	LD	(HL),B	A2	AND	D
71	LD	(HL),C	A3	AND	E
72	LD	(HL),D	A4	AND	H
73	LD	(HL),E	A5	AND	L
74	LD	(HL),H	A6	AND	(HL)
75	LD	(HL),L	A7	AND	A
76	HALT		A8	XOR	B
77	LD	(HL),A	A9	XOR	C
78	LD	A,B	AA	XOR	D
79	LD	A,C	AB	XOR	E
7A	LD	A,D	AC	XOR	H
7B	LD	A,E	AD	XOR	L
7C	LD	A,H	AE	XOR	(HL)
7D	LD	A,L	AF	XOR	A
7E	LD	A,(HL)	B0	OR	B
7F	LD	A,A	B1	OR	C
80	ADD	A,B	B2	OR	D
81	ADD	A,C	B3	OR	E
82	ADD	A,D	B4	OR	H
83	ADD	A,E	B5	OR	L
84	ADD	A,H	B6	OR	(HL)
85	ADD	A,L	B7	OR	A
86	ADD	A,(HL)	B8	CP	B
87	ADD	A,A	B9	CP	C
88	ADC	A,B	BA	CP	D
89	ADC	A,C	BB	CP	E
8A	ADC	A,D	BC	CP	H
8B	ADC	A,E	BD	CP	L
8C	ADC	A,H	BE	CP	(HL)
8D	ADC	A,L	BF	CP	A
8E	ADC	A,(HL)	C0	RET	NZ
8F	ADC	A,A	C1	POP	BC
90	SUB	B	C28405	JP	NZ,NN
91	SUB	C	C38405	JP	NN
92	SUB	D	C48405	CALL	NZ,NN
93	SUB	E	C5	PUSH	BC
94	SUB	H	C620	ADD	A,N
95	SUB	L	C7	RST	0

Numeric List of Z-80 Instructions

OBJECT CODE	SOURCE STATEMENT
C8	RET Z
C9	RET
CA8405	JP Z,NN
CBnn	see below
CC8405	CALL Z,NN
CD8405	CALL NN
CE20	ADC A,N
CF	RST 8
D0	RET NC
D1	POP DE
D28405	JP NC,NN
D320	OUT (N),A
D48405	CALL NC,NN
D5	PUSH DE
D620	SUB N
D7	RST 10H
D8	RET C
D9	EXX
DA8405	JP C,NN
DB20	IN A,(N)
DC8405	CALL C,NN
DDnnnnnn	see below
DE20	SBC A,N
DF	RST 18H
E0	RET PO
E1	POP HL
E28405	JP PO,NN
E3	EX (SP),HL
E48405	CALL PO,NN
E5	PUSH HL
E620	AND N
E7	RST 20H
E8	RET PE
E9	JP (HL)
EA8405	JP PE,NN
EB	EX DE,HL
EC8405	CALL PE,NN
EDnnnnnn	see below
EE20	XOR N
EF	RST 28H
F0	RET P
F1	POP AF
F28405	JP P,NN
F3	DI
F48405	CALL P,NN
F5	PUSH AF
F620	OR N
F7	RST 30H
F8	RET M
F9	LD SP,HL

OBJECT CODE	SOURCE STATEMENT
FA8405	JP M,NN
FB	EI
FC8405	CALL M,NN
FDnnnnnn	see below
FE20	CP N
FF	RST 38H
CB00	RLC B
CB01	RLC C
CB02	RLC D
CB03	RLC E
CB04	RLC H
CB05	RLC L
CB06	RLC (HL)
CB07	RLC A
CB08	RRC B
CB09	RRC C
CB0A	RRC D
CB0B	RRC E
CB0C	RRC H
CB0D	RRC L
CB0E	RRC (HL)
CB0F	RRC A
CB10	RL B
CB11	RL C
CB12	RL D
CB13	RL E
CB14	RL H
CB15	RL L
CB16	RL (HL)
CB17	RL A
CB18	RR B
CB19	RR C
CB1A	RR D
CB1B	RR E
CB1C	RR H
CB1D	RR L
CB1E	RR (HL)
CB1F	RR A
CB20	SLA B
CB21	SLA C
CB22	SLA D
CB23	SLA E
CB24	SLA H
CB25	SLA L
CB26	SLA (HL)
CB27	SLA A
CB28	SRA B
CB29	SRA C
CB2A	SRA D
CB2B	SRA E

OBJECT CODE	SOURCE STATEMENT	
CB2C	SRA	H
CB2D	SRA	L
CB2E	SRA	(HL)
CB2F	SRA	A
CB38	SRL	B
CB39	SRL	C
CB3A	SRL	D
CB3B	SRL	E
CB3C	SRL	H
CB3D	SRL	L
CB3E	SRL	(HL)
CB3F	SRL	A
CB40	BIT	0,B
CB41	BIT	0,C
CB42	BIT	0,D
CB43	BIT	0,E
CB44	BIT	0,H
CB45	BIT	0,L
CB46	BIT	0,(HL)
CB47	BIT	0,A
CB48	BIT	1,B
CB49	BIT	1,C
CB4A	BIT	1,D
CB4B	BIT	1,E
CB4C	BIT	1,H
CB4D	BIT	1,L
CB4E	BIT	1,(HL)
CB4F	BIT	1,A
CB50	BIT	2,B
CB51	BIT	2,C
CB52	BIT	2,D
CB53	BIT	2,E
CB54	BIT	2,H
CB55	BIT	2,L
CB56	BIT	2,(HL)
CB57	BIT	2,A
CB58	BIT	3,B
CB59	BIT	3,C
CB5A	BIT	3,D
CB5B	BIT	3,E
CB5C	BIT	3,H
CB5D	BIT	3,L
CB5E	BIT	3,(HL)
CB5F	BIT	3,A
CB60	BIT	4,B
CB61	BIT	4,C
CB62	BIT	4,D
CB63	BIT	4,E
CB64	BIT	4,H
CB65	BIT	4,L
CB66	BIT	4,(HL)
CB67	BIT	4,A
CB68	BIT	5,B
CB69	BIT	5,C
CB6A	BIT	5,D
CB6B	BIT	5,E
CB6C	BIT	5,H
CB6D	BIT	5,L
CB6E	BIT	5,(HL)
CB6F	BIT	5,A
CB70	BIT	6,B
CB71	BIT	6,C
CB72	BIT	6,D
CB73	BIT	6,E
CB74	BIT	6,H
CB75	BIT	6,L
CB76	BIT	6,(HL)
CB77	BIT	6,A
CB78	BIT	7,B
CB79	BIT	7,C
CB7A	BIT	7,D
CB7B	BIT	7,E
CB7C	BIT	7,H
CB7D	BIT	7,L
CB7E	BIT	7,(HL)
CB7F	BIT	7,A
CB80	RES	0,B
CB81	RES	0,C
CB82	RES	0,D
CB83	RES	0,E
CB84	RES	0,H
CB85	RES	0,L
CB86	RES	0,(HL)
CB87	RES	0,A
CB88	RES	1,B
CB89	RES	1,C
CB8A	RES	1,D
CB8B	RES	1,E
CB8C	RES	1,H
CB8D	RES	1,L
CB8E	RES	1,(HL)
CB8F	RES	1,A
CB90	RES	2,B
CB91	RES	2,C
CB92	RES	2,D
CB93	RES	2,E
CB94	RES	2,H
CB95	RES	2,L
CB96	RES	2,(HL)
CB97	RES	2,A

OBJECT CODE	SOURCE STATEMENT
CB98	RES 3,B
CB99	RES 3,C
CB9A	RES 3,D
CB9B	RES 3,E
CB9C	RES 3,H
CB9D	RES 3,L
CB9E	RES 3,(HL)
CB9F	RES 3,A
CBA0	RES 4,B
CBA1	RES 4,C
CBA2	RES 4,D
CBA3	RES 4,E
CBA4	RES 4,H
CBA5	RES 4,L
CBA6	RES 4,(HL)
CBA7	RES 4,A
CBA8	RES 5,B
CBA9	RES 5,C
CBAA	RES 5,D
CBAB	RES 5,E
CBAC	RES 5,H
CBAD	RES 5,L
CBAE	RES 5,(HL)
CBAF	RES 5,A
CBB0	RES 6,B
CBB1	RES 6,C
CBB2	RES 6,D
CBB3	RES 6,E
CBB4	RES 6,H
CBB5	RES 6,L
CBB6	RES 6,(HL)
CBB7	RES 6,A
CBB8	RES 7,B
CBB9	RES 7,C
CBBA	RES 7,D
CBBB	RES 7,E
CBBC	RES 7,H
CBBD	RES 7,L
CBBE	RES 7,(HL)
CBBF	RES 7,A
CBC0	SET 0,B
CBC1	SET 0,C
CBC2	SET 0,D
CBC3	SET 0,E
CBC4	SET 0,H
CBC5	SET 0,L
CBC6	SET 0,(HL)
CBC7	SET 0,A
CBC8	SET 1,B
CBC9	SET 1,C

OBJECT CODE	SOURCE STATEMENT
CBCA	SET 1,D
CBCB	SET 1,E
CBCC	SET 1,H
CBCD	SET 1,L
CBCE	SET 1,(HL)
CBCF	SET 1,A
CBD0	SET 2,B
CBD1	SET 2,C
CBD2	SET 2,D
CBD3	SET 2,E
CBD4	SET 2,H
CBD5	SET 2,L
CBD6	SET 2,(HL)
CBD7	SET 2,A
CBD8	SET 3,B
CBD9	SET 3,C
CBDA	SET 3,D
CBDB	SET 3,E
CBDC	SET 3,H
CBDD	SET 3,L
CBDE	SET 3,(HL)
CBDF	SET 3,A
CBE0	SET 4,B
CBE1	SET 4,C
CBE2	SET 4,D
CBE3	SET 4,E
CBE4	SET 4,H
CBE5	SET 4,L
CBE6	SET 4,(HL)
CBE7	SET 4,A
CBE8	SET 5,B
CBE9	SET 5,C
CBEA	SET 5,D
CBEB	SET 5,E
CBEC	SET 5,H
CBED	SET 5,L
CBEE	SET 5,(HL)
CBEF	SET 5,A
CBF0	SET 6,B
CBF1	SET 6,C
CBF2	SET 6,D
CBF3	SET 6,E
CBF4	SET 6,H
CBF5	SET 6,L
CBF6	SET 6,(HL)
CBF7	SET 6,A
CBF8	SET 7,B
CBF9	SET 7,C
CBFA	SET 7,D
CBFB	SET 7,E

OBJECT CODE	SOURCE STATEMENT
CBFC	SET 7,H
CBFD	SET 7,L
CBFE	SET 7,(HL)
CBFF	SET 7,A
DD09	ADD IX,BC
DD19	ADD IX,DE
DD218405	LD IX,NN
DD228405	LD (NN),IX
DD23	INC IX
DD29	ADD IX,IX
DD2A8405	LD IX,(NN)
DD2B	DEC IX
DD3405	INC (IX+IND)
DD3505	DEC (IX+IND)
DD360520	LD (IX+IND),N
DD39	ADD IX,SP
DD4605	LD B,(IX+IND)
DD4E05	LD C,(IX+IND)
DD5605	LD D,(IX+IND)
DD5E05	LD E,(IX+IND)
DD6605	LD H,(IX+IND)
DD6E05	LD L,(IX+IND)
DD7005	LD (IX+IND),B
DD7105	LD (IX+IND),C
DD7205	LD (IX+IND),D
DD7305	LD (IX+IND),E
DD7405	LD (IX+IND),H
DD7505	LD (IX+IND),L
DD7705	LD (IX+IND),A
DD7E05	LD A,(IX+IND)
DD8605	ADD A,(IX+IND)
DD8E05	ADC A,(IX+IND)
DD9605	SUB (IX+IND)
DD9E05	SBC A,(IX+IND)
DDA605	AND (IX+IND)
DDAE05	XOR (IX+IND)
DDB605	OR (IX+IND)
DDBE05	CP (IX+IND)
DDE1	POP IX
DDE3	EX (SP),IX
DDE5	PUSH IX
DDE9	JP (IX)
DDF9	LD SP,IX
DDCB0506	RLC (IX+IND)
DDCB050E	RRC (IX+IND)
DDCB0516	RL (IX+IND)
DDCB051E	RR (IX+IND)
DDCB0526	SLA (IX+IND)
DDCB052E	SRA (IX+IND)
DDCB053E	SRL (IX+IND)

OBJECT CODE	SOURCE STATEMENT
DDCB0546	BIT 0,(IX+IND)
DDCB054E	BIT 1,(IX+IND)
DDCB0556	BIT 2,(IX+IND)
DDCB055E	BIT 3,(IX+IND)
DDCB0566	BIT 4,(IX+IND)
DDCB056E	BIT 5,(IX+IND)
DDCB0576	BIT 6,(IX+IND)
DDCB057E	BIT 7,(IX+IND)
DDCB0586	RES 0,(IX+IND)
DDCB058E	RES 1,(IX+IND)
DDCB0596	RES 2,(IX+IND)
DDCB059E	RES 3,(IX+IND)
DDCB05A6	RES 4,(IX+IND)
DDCB05AE	RES 5,(IX+IND)
DDCB05B6	RES 6,(IX+IND)
DDCB05BE	RES 7,(IX+IND)
DDCB05C6	SET 0,(IX+IND)
DDCB05CE	SET 1,(IX+IND)
DDCB05D6	SET 2,(IX+IND)
DDCB05DE	SET 3,(IX+IND)
DDCB05E6	SET 4,(IX+IND)
DDCB05EE	SET 5,(IX+IND)
DDCB05F6	SET 6,(IX+IND)
DDCB05FE	SET 7,(IX+IND)
ED40	IN B,(C)
ED41	OUT (C),B
ED42	SBC HL,BC
ED438405	LD (NN),BC
ED44	NEG
ED45	RETN
ED46	IM 0
ED47	LD I,A
ED48	IN C,(C)
ED49	OUT (C),C
ED4A	ADC HL,BC
ED4B8405	LD BC,(NN)
ED4D	RETI
ED4F	LD R,A
ED50	IN D,(C)
ED51	OUT (C),D
ED52	SBC HL,DE
ED538405	LD (NN),DE
ED56	IM 1
ED57	LD A,I
ED58	IN E,(C)
ED59	OUT (C),E
ED5A	ADC HL,DE
ED5B8405	LD DE,(NN)
ED5E	IM 2
ED5F	LD A,R

TECHNOLOGICAL BREAK-THROUGH!!!

THE TALKING ARCADE ACTION GAME!

VORTEX BLASTER

SUPER SOUND EFFECTS

FANTASTIC GRAPHICS

ONLY $24·50

21

THE ULTIMATE SEGA PROGRAMS BOOK

BY G.GASKELL & T.BERNARD

Arcade style

Music

Strategy

Learn how to write your own adventure!

Machine Code Routines including;

Screen Scrolling

PUBLISHED BY T.T.S.

$9.95

AUSTRALIAS BIGGEST SEGA MAGAZINE

ADVERTISING RATES

FULL PAGE ADD.....$75.00
1/2 PAGE ADD.....$45.00
1/4 PAGE ADD.....$25.00
CLASSAFIEDS 1st 15 words.....$2.50
THEREAFTER per word.....$0.10
SPOT COLOUR AVAILIABLE AT 50% EXTRA
OUTSIDE BACK COVER 20% EXTRA
N.B.
Spot color choice of RED, GREEN, BLUE
Circulation approx 1600 and increasing

Send all artwork to ;
T.T.S.
73 New Orleans cres,
Maroubra,
N.S.W. 2035.

THIS SPACE COULD BE YOURS

T.T.S. Title Software as follows;	TAPE	Disk
Vortex Blaster (Talker Arcade Action)	$24.50	N/A
Vermin Invaders (Arcade Action)	$19.95	N/A
Demon Gobbler (Arcade Action)	$19.95	N/A
Transylvania Castle of Horror (*)	$19.95	$26.50
Time Capsule (*)	$19.95	$26.50
Underworld of Kragon (*)	$19.95	$26.50
Kingdom (Strategy)	$14.50	$21.00
Trade Winds (Strategy)	$12.50	N/A
Gone Fishing (Strategy)	$12.50	N/A
Castaway (Graphic Adventure)	$19.95	$26.50
Castle of Fear (Graphic Adventure)	$19.95	$26.50
The Orb of Power (Graphic Adventure)	$19.95	$26.50
Machine Code Monitor (Utility)	$20.00	N/A

Books For Your SEGA

	Price
Great Progams (voll #1)	$9.95
The Ultimate Programs Book (voll)	$9.95
The T.T.S. SEGA Magazine	$4.00

*= Text Adventure

POST TO ; T.T.S., P.O. Box 486, Coogee, NSW. 2034.

NAME :.....

ADDRESS :.....

.....

POSTCODE :.....

QTY	DESCRIPTION	PRICE	TOTAL
	POSTAGE	$2.00	
	TOTAL		

I enclose:
Cheque or Money Order
or Debit my Bankcard or Master Card

..... exp.date.../...

Signature :.....

OBJECT CODE	SOURCE STATEMENT
ED60	IN H,(C)
ED61	OUT (C),H
ED62	SBC HL,HL
ED67	RRD
ED68	IN L,(C)
ED69	OUT (C),L
ED6A	ADC HL,HL
ED6F	RLD
ED72	SBC HL,SP
ED738405	LD (NN),SP
ED78	IN A,(C)
ED79	OUT (C),A
ED7A	ADC HL,SP
ED7B8405	LD SP,(NN)
EDA0	LDI
EDA1	CPI
EDA2	INI
EDA3	OUTI
EDA8	LDD
EDA9	CPD
EDAA	IND
EDAB	OUTD
EDB0	LDIR
EDB1	CPIR
EDB2	INIR
EDB3	OTIR
EDB8	LDDR
EDB9	CPDR
EDBA	INDR
EDBB	OTDR
FD09	ADD IY,BC
FD19	ADD IY,DE
FD218405	LD IY,NN
FD228405	LD (NN),IY
FD23	INC IY
FD29	ADD IY,IY
FD2A8405	LD IY,(NN)
FD2B	DEC IY
FD3405	INC (IY+IND)
FD3505	DEC (IY+IND)
FD360520	LD (IY+IND),N
FD39	ADD IY,SP
FD4605	LD B,(IY+IND)
FD4E05	LD C,(IY+IND)
FD5605	LD D,(IY+IND)
FD5E05	LD E,(IY+IND)
FD6605	LD H,(IY+IND)
FD6E05	LD L,(IY+IND)
FD7005	LD (IY+IND),B
FD7105	LD (IY+IND),C
FD7205	LD (IY+IND),D

OBJECT CODE	SOURCE STATEMENT
FD7305	LD (IY+IND),E
FD7405	LD (IY+IND),H
FD7505	LD (IY+IND),L
FD7705	LD (IY+IND),A
FD7E05	LD A,(IY+IND)
FD8605	ADD A,(IY+IND)
FD8E05	ADC A,(IY+IND)
FD9605	SUB (IY+IND)
FD9E05	SBC A,(IY+IND)
FDA605	AND (IY+IND)
FDAE05	XOR (IY+IND)
FDB605	OR (IY+IND)
FDBE05	CP (IY+IND)
FDE1	POP IY
FDE3	EX (SP),IY
FDE5	PUSH IY
FDE9	JP (IY)
FDF9	LD SP,IY
FDCB0506	RLC (IY+IND)
FDCB050E	RRC (IY+IND)
FDCB0516	RL (IY+IND)
FDCB051E	RR (IY+IND)
FDCB0526	SLA (IY+IND)
FDCB052E	SRA (IY+IND)
FDCB053E	SRL (IY+IND)
FDCB0546	BIT 0,(IY+IND)
FDCB054E	BIT 1,(IY+IND)
FDCB0556	BIT 2,(IY+IND)
FDCB055E	BIT 3,(IY+IND)
FDCB0566	BIT 4,(IY+IND)
FDCB056E	BIT 5,(IY+IND)
FDCB0576	BIT 6,(IY+IND)
FDCB057E	BIT 7,(IY+IND)
FDCB0586	RES 0,(IY+IND)
FDCB058E	RES 1,(IY+IND)
FDCB0596	RES 2,(IY+IND)
FDCB059E	RES 3,(IY+IND)
FDCB05A6	RES 4,(IY+IND)
FDCB05AE	RES 5,(IY+IND)
FDCB05B6	RES 6,(IY+IND)
FDCB05BE	RES 7,(IY+IND)
FDCB05C6	SET 0,(IY+IND)
FDCB05CE	SET 1,(IY+IND)
FDCB05D6	SET 2,(IY+IND)
FDCB05DE	SET 3,(IY+IND)
FDCB05E6	SET 4,(IY+IND)
FDCB05EE	SET 5,(IY+IND)
FDCB05F6	SET 6,(IY+IND)
FDCB05FE	SET 7,(IY+IND)

Now for what most of you have been waiting for and that is the winners of the competition!!!!!

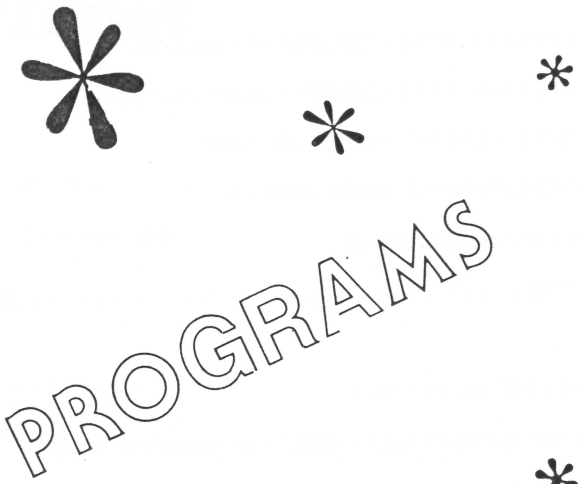
FIRST PRIZE $250.00 GIFT VOUCHER
D. Harper (NSW)
SECOND PRIZE $100.00 GIFT VOUCHER
G. LANCE (QLD)
THIRD PRIZE $50.00 GIFT VOUCHER
P. REED (TAS)
4-10 PRIZES $25.00 GIFT VOUCHER
G. SHUFFLEBOTHAM (SA)
D. GARDNER (WA)
S. KENDAL (WA)
P. SMITH (NSW)
J. McEVOY (VIC)
C. DALE (NSW)
S. TAYLOR (NSW)

All prize winners will be notified by post within 14 days. Please note that the prizes can be used as a discount on items which cost more than the prize value! eg. SF 7000 $549.00 less prize value $50.00 would cost only $499.00!!

We are sorry you all couldn't be winners but we will run more competitions in the future !! And for the people who didn't write in, you have to be entered to win!!

MAILING LIST.
==========

Anyone wanting to be on our mailing list Just write to T.T.S. P.O. Box 486, Coogee, 2034.


PROGRAMS

Gobbler

```
10 CLS:PATTERNC#253,"3030CCB4B43048CC"
20 COLOR1,3:A=15443:CURSOR1,0:PRINT"SCORE"
30 CURSOR13,0:PRINT"HI-SCORE";HS
40 CURSOR29,0:PRINT"GOBBLER"
50 FORZ=1TO21:CURSOR0,Z
60 PRINT"■.....■"
70 NEXT
80 FORZ=0TO36:CURSORZ,1
90 PRINT"■":CURSORZ,21:PRINT"■":NEXT:GOTO130
100 B$="●":IFRND(1)*2>1THENB$="."
110 CURSORRND(1)*35+1,RND(1)*19+2
120 PRINTB$:A$=INKEY$:IFA$="" THEN 100
130 L=(A$=CHR$(29))-(A$=CHR$(28))+((A$=CHR$(30))
 -(A$=CHR$(31)))*40
140 I=VPEEK(A+L):IFI<165THEN240
150 IFI=229THEN100
160 IFI=236THENFORZ=1TO100:BEEP1
170 BEEP0:NEXT:CLS:PRINT"Score";S:GOTO190
180 A=A+L:VPOKEA-L,32:VPOKEA,253:GOTO100
190 IFHS<STHENHS=S:S=0
200 CURSOR5,21:PRINT"PRESS <SPACE TO CONT>"
210 IFINKEY$=""THEN210
220 IFINKEY$=" "THENBEEP:GOTO10
230 FORI=0TO50:BEEP1:BEEP0:NEXTI:GOTO210
240 IFI=32THEN180
250 BEEP1:BEEP0:S=S+1:CURSOR7,0:PRINTS:GOTO180
```

Ice Planet

```
1 REM *** DEMO The Ice Planet **
2 REM START IN ROOM ONE
3 R=1
4 RESTORE
5 FOR I=1 TO R
6 READ N$,D$,R$
7 NEXT
8 PRINT
9 PRINT N$
10 PRINT
11 PRINT D$
12 PRINT
13 O$=""
14 PRINT "Enter Direction [N,E,S,W]"
15 INPUT A$
16 IF A$="N" THEN O$=MID$(R$,1,2)
17 IF A$="E" THEN O$=MID$(R$,3,2)
18 IF A$="S" THEN O$=MID$(R$,5,2)
19 IF A$="W" THEN O$=MID$(R$,7,2)
20 IF O$="" THEN 12
21 IF O$<>"--" THEN 24
22 PRINT "Can't go that way from here"
```

```
23 GOTO 12

24 R=VAL(O$)

25 GOTO 4

26 DATA TRANSPORTER ROOM,You are in orbit around an ice
covered planet,--02----

27 DATA PLANET SURFACE,You are on an icy plain with a b
lizzard blowing,--030401

28 DATA FROZEN LAKE,You are by the edge of a frozen lak
e.A sign says THIN ICE,--04--02

29 DATA CAVE ENTRANCE,The cave is dark and forboding,02
0506--

30 DATA INSIDE CAVE,There is a little light from the en
trance,----0604

31 DATA BACK OF CAVE,You are at the rear of the cave,05
07--

32 DATA TOP OF ICE MOUNTAIN,You are on the peak of an i
cy mountain,--01--06

33 DATA TOILET BOWL,You have fallen into a giant toilet
,--01--07
```

Moving Things

```
10 REM *** DEMO 2: MOVING THINGS ***
20 REM
30 DIM N$(10),N(10),D$(10)
40 RESTORE 690
50 B=6
60 FOR I=0 TO B
70 READ N$(I),N(I)
80 NEXT
90 D$(0)="is a":D$(1)="is some":D$(2)="are some"
100 E$(0)="A":E$(1)="Some":E$(2)="Some"
110 REM
120 REM *** initialisation complete
130 R=1
140 GOSUB 590: REM DESCRIBE ROOM
150 PRINT "Move, Get, Drop or Inventory"
160 INPUT A$
170 IF A$="" THEN 150
180 A$=LEFT$(A$,1)
190 A=ASC(A$)
200 A$=CHR$(A AND 95)
210 IF A$<>"M" THEN 260
220 PRINT "Which Room Number"
230 INPUT R
240 IF R<1 OR R > 10 THEN 220
```

```
250 GOTO 140

260 IF A$<>"G" THEN 340

270 PRINT "Enter Object Name"

280 INPUT A$

290 GOSUB 530:REM SEE IF OBJECT EXISTS

300 IF I=99 THEN PRINT "I can't see one of those!":GOTO
140

310 IF N(I)<>R THEN PRINT "I can't see that here!":GOTO
140

320 N(I)=-1

330 PRINT "OK":GOTO 140

340 IF A$<>"D" THEN 420

350 PRINT "Enter Object Name"

360 INPUT A$

370 GOSUB 530:REM SEE IF OBJECT EXISTS

380 IF I=99 THEN PRINT "I don't know that object!":GOTO
140

390 IF N(I)<>-1 THEN PRINT "You are not carrying that!"
:GOTO 140

400 N(I)=R

410 GOTO 330

420 IF A$<>"I" THEN 140

430 PRINT "You are carrying :"

440 C=0:REM C used to count objects

450 FOR I=0 TO B

460 IF N(I)<>-1 THEN 500

470 C=C+1
```

```
480 A=VAL(LEFT$(N$(I),1))
490 PRINT E$(A);" ";MID$(N$(I),2,99)
500 NEXT
510 IF C=0 THEN PRINT "Nothing"
520 GOTO 140
530 I=0
540 IF LEFT$(A$,4)=MID$(N$(I),2,4) THEN RETURN
550 I=I+1
560 IF I<=B THEN 540
570 I=99
580 RETURN
590 PRINT
600 PRINT "You are in room";R
610 PRINT
620 FOR I=0 TO B
630 IF N(I)<>R THEN 660
640 A=VAL(LEFT$(N$(I),1))
650 PRINT "There ";D$(A);" ";MID$(N$(I),2,99);" here"
660 NEXT
670 PRINT
680 RETURN
690 DATA "0KNIFE",2,"0GUN",1,"1GOLD",6,"2SILVER BARS",3
,"1FOOD",9,"0BOTTLE",7,"0LAMP",5
```

Boga II

```
20 PRINT TAB(16);"BOGA II"
30 PRINT
35 PRINT "DO YOU WANT INSTRUCTIONS";
38 INPUT Q$
40 PRINT :PRINT
50 IF LEFT$(Q$,1)<>"Y" THEN 220
70 PRINT "  THE BOGA IS HIDING ON A GRID (YOU"
75 PRINT "SPECIFY THE LENGTH AND WIDTH).TRY TO"
80 PRINT "GUESS HIS POSITION USING THE HINTS I"
85 PRINT " GIVE YOU.EACH GUESS IS TWO NUMBERS "
90 PRINT "SEPERATED BY A COMMA.PLEASE KEEP IN "
95 PRINT "MIND THAT THE BOGA IS ALSO SEARCHING"
100 PRINT "                FOR YOU!"
110 PRINT :PRINT
220 U=0
240 K=1
250 F=0
260 PRINT "HOW BIG SHOULD THE GRID BE(20 UNITS MAXIMUM)
";
265 INPUT G
270 IF G>20 THEN PRINT :GOTO 260
275 IF G<1 THEN PRINT :GOTO 260
280 S=G
290 REM PRINTING GRID
```

```
300 PRINT "WOULD YOU LIKE A SAMPLE GRID";
302 INPUT Z$
305 IF LEFT$(Z$,1)="N" THEN 380
310 PRINT
318 A$=""
320 IF G<10 THEN 332
322 FOR X=10 TO G
324 X1=INT(X/10)
326 A$=A$+CHR$(X1+48)+" "
328 NEXT X
330 PRINT TAB(25);A$
332 A$=""
334 FOR X=0 TO G
336 X1=X-INT(X/10)*10
338 A$=A$+CHR$(X1+48)+" "
340 NEXT X
342 PRINT TAB(5);A$
344 A$=""
346 FOR X=0 TO G
348 A$=A$+"* "
350 NEXT X
352 FOR X=0 TO G
354 PRINT X;TAB(5);A$
356 NEXT X
380 PRINT
390 H=1
400 INPUT "CHOOSE YOUR POSITION ";X1,Y1
```

```
411 IF X1>G THEN PRINT :GOTO 400
413 IF X1<0 THEN PRINT :GOTO 400
415 IF Y1>G THEN PRINT :GOTO 400
417 IF Y1<0 THEN PRINT :GOTO 400
420 PRINT "THE BOGA PICKS HIS POSITION!"
440 X2=INT(RND(1)*G)
450 Y2=INT(RND(1)*G)
460 PRINT "GUESS # ";K
470 INPUT X3,Y3
471 IF X3>G THEN PRINT :GOTO 460
473 IF X3<0 THEN PRINT :GOTO 460
475 IF Y3>G THEN PRINT :GOTO 460
477 IF Y3<0 THEN PRINT :GOTO 460
480 K=K+1
490 F=F+1
500 IF K=10 THEN 1040
510 IF ABS(X3-X2)+ABS(Y3-Y2)=0 THEN 1010
520 PRINT "YOU GUESSED ";X3;",";Y3
530 PRINT
540 PRINT "HE'S MORE TO THE ";
550 IF X2=X3 THEN 620
560 IF X2>X3 THEN 600
570 PRINT "NORTH";
590 GOTO 620
600 PRINT "SOUTH";
620 IF Y2=Y3 THEN 700
630 IF Y2>Y3 THEN 670
640 PRINT "WEST";
```

```
660 GOTO 700
670 PRINT "EAST";
690 REM BOGA'S BRAIN!
700 PRINT "":IF H=0 THEN 730
710 X4=INT(.5*S)
720 Y4=INT(.5*S)
730 PRINT "THE BOGA GUESSES ";X4;",";Y4
740 U=U+1
750 PRINT ""
760 Q=ABS(Y1-Y4)+ABS(X1-X4)
770 IF Q=0 THEN 980
780 H=0
790 IF Y4=Y1 THEN 880
800 A=1
810 IF ABS(Y4-Y1)<2 THEN 830
820 GOSUB 1140
830 IF Y4<Y1 THEN 860
840 Y4=INT(ABS(Y4-A))
850 GOTO 880
860 Y4=INT(ABS(Y4+A))
870 IF Y4>G THEN 1110
880 IF X4=X1 THEN 970
890 A=1
900 IF ABS(X4-X1)<2 THEN 920
910 GOSUB 1140
920 IF X4<X1 THEN 950
930 X4=INT(ABS(X4-A))
940 GOTO 970
```

```
950 X4=INT(ABS(X4+A))

960 IF X4>G THEN 1130

970 GOTO 460

980 PRINT "THE BOGA GUESSED YOUR POSITION IN ";U;" GUES
SES!"

990 PRINT

1000 GOTO 1050

1010 PRINT "YOU GUESSED THE BOGA'S POSITION IN ";F;" GU
ESSES!"

1020 PRINT

1030 GOTO 1050

1040 PRINT "YOU USED UP ALL OF YOUR GUESSES."

1050 PRINT "THE BOGA WAS AT ";X2;",";Y2

1060 PRINT

1070 PRINT "DO YOU WANT ANOTHER GAME (Y/N)";

1075 INPUT Q$

1080 IF LEFT$(Q$,1)="Y" THEN 220

1100 GOTO 1160

1110 Y4=.5*G

1120 GOTO 980

1130 X4=.5*G

1140 A=2

1150 RETURN

1160 PRINT "END":GOTO 1160
```

Chase

```
5 COLOR1,11
10 PRINT TAB(16);"CHASE"
20 PRINT
40 PRINT "YOU ARE WITHIN THE WALLS OF A HIGH "
42 PRINT "VOLTAGE MAZE.THERE ARE FIVE SECURITY"
43 PRINT "ROBOTS TRYING TO DESTROY YOU.YOU ARE"
44 PRINT "<▚>,THE INTERCEPTORS ARE<▚>.THE AREAS"
50 PRINT "MARKED<▚> ARE HIGH VOLTAGE.YOUR ONLY"
60 PRINT "CHANCE FOR SURVIVAL IS TO MANEOUVER "
70 PRINT "EACH ROBOT INTO A <▚>."
80 PRINT
82 PRINT "▬▬▬
```

```
220 FOR C=1 TO 20
230 X=INT(10*RND(1))
240 IF X=5 THEN 270
250 A(B,C)=ASC(" ")
260 GOTO 280
270 A(B,C)=ASC("田")
280 NEXT C
290 NEXT B
300 FOR D=1 TO 10
310 A(D,1)=ASC("国"):A(D,20)=ASC("国")
320 NEXT D
330 FOR F=1 TO 20
340 A(1,F)=ASC("国"):A(10,F)=ASC("国")
350 NEXT F
360 GOTO 410
370 H=INT(2+8*RND(1))
380 I=INT(2+18*RND(1))
390 IF A(H,I)<>ASC(" ") THEN 370
400 RETURN
410 GOSUB 370
420 A(H,I)=ASC("人")
430 J=H:K=I
440 FOR N9=1 TO 5
450 GOSUB 370
460 A(H,I)=ASC("△")
470 L(N9)=H:M(N9)=I
```

```
480 NEXT N9

490 FOR B1=1 TO 10:FOR B2=1 TO 20:A1(B1,B2)=A(B1,B2):NE
XT B2:NEXT B1

500 FOR B1=1 TO 5:L1(B1)=L(B1):M1(B1)=M(B1):NEXT B1

520 J1=J:K1=K

530 Y9=0

540 FOR D2=1 TO 10

550 FOR B2=1 TO 20

560 N$=CHR$(A(D2,B2))

570 PRINT N$;

580 NEXT B2

590 PRINT

600 NEXT D2

610 IF Y9<>10 THEN 640

620 PRINT

630 GOTO 890

640 INPUT Y9

645 CONSOLE 11,12,1,0:CLS

650 J2=J:K2=K

660 IF Y9=0 THEN 860

670 IF Y9<0 THEN 1230

680 IF Y9=10 THEN 1070

690 ON Y9 GOTO 820,800,780,840,890,760,700,720,740

700 J=J-1:K=K-1

710 GOTO 890

720 J=J-1

730 GOTO 890

740 J=J-1:K=K+1
```

```
750 GOTO 890
760 K=K+1
770 GOTO 890
780 J=J+1:K=K+1
790 GOTO 890
800 J=J+1
810 GOTO 890
820 J=J+1:K=K-1
830 GOTO 890
840 K=K-1
850 GOTO 890
860 PRINT "BEAM ME UP,SCOTTY!"
870 J=INT(2+8*RND(1))
880 K=INT(2+18*RND(1))
890 IF A(J,K)=ASC("■") THEN 1260
900 A(J2,K2)=ASC(" ")
910 A(J,K)=ASC("■")
920 GOTO 1070
930 REM INTERCEPTOR MOVEMENT
940 IF A(X,Y)=ASC("■") THEN 1040
950 X2=X:Y2=Y
960 X=SGN(J-X):Y=SGN(K-Y)
970 X=X+X2:Y=Y+Y2
980 IF A(X,Y)=ASC("■") THEN 1050
990 IF A(X,Y)=ASC(" ") THEN 1020
1000 A(X2,Y2)=ASC(" ")
1010 RETURN
```

```
1020 A(X,Y)=ASC("A")
1030 A(X2,Y2)=ASC(" ")
1040 RETURN
1050 G9=99
1060 RETURN
1070 FOR N9=1 TO 5
1080 X=L(N9):Y=M(N9)
1090 G9=0
1100 GOSUB 940
1110 IF G9<>0 THEN 1240
1120 L(N9)=X:M(N9)=Y
1130 NEXT N9
1140 FOR N9=1 TO 5
1150 IF A(L(N9),M(N9))<>ASC(" ") THEN 1170
1160 A(L(N9),M(N9))=ASC("A")
1170 NEXT N9
1180 FOR N9=1 TO 5
1190 IF A(L(N9),M(N9))<>ASC("▦") THEN 540
1200 NEXT N9
1210 CLS:PRINT "YOU HAVE DESTROYED ALL 5 INTERCEPTOR"
1215 PRINT "ROBOTS-THE GAME IS YOURS."
1220 GOTO 1290
1230 CLS:PRINT "GIVE UP,EH?"
1240 CLS:PRINT "YOU HAVE BEEN DESTROYED BY THE ROBOTS."
1250 GOTO 1290
```

```
1260 CLS:PRINT "HIGH VOLTAGE!!!!!!!!!!!!"

1270 PRINT "***** ZAP ***** YOU'RE DEAD!"

1290 PRINT "ANOTHER GAME (Y/N)";

1300 INPUT N9$

1310 IF N9$<>"Y" THEN 1400

1320 PRINT "SAME SET UP (Y/N)";

1330 INPUT N9$

1335 PRINT

1340 IF N9$ <>"Y" THEN 190

1350 FOR B1=1 TO 10:FOR B2=1 TO 20:A(B1,B2)=A1(B1,B2):N
EXT B2:NEXT B1

1360 FOR B1=1 TO 5:L(B1)=L1(B1):M(B1)=M1(B1):NEXT B1

1380 J=J1:K=K1

1390 GOTO 530

1400 GOTO 1400
```