

digital group software systems inc.

MAXI-BASIC Game Set 2

After having loaded the MAXI-BASIC Interpreter into your computer and selected the appropriate option (i.e. TV-only or HARDCOPY) start your audio cassette playing at the proper point and then type

LOADcr

Then wait until the

READY

message appears on the screen.

The programs on this tape are recorded in the following order:

- #1 WORD
- #2 GUNNERY
- #3 WOMBAT
- #4 SUNSIGN
- #5 COMPOUND INTEREST

Once the READY Message appears after the load; Type

RUNcr

to start the program running.

All programs on this tape are self documenting in terms of execution instructions, or there are instructions provided in the documentation. In addition the directions, where applicable, can be read in the source listings as well as in the run examples.

Since BASIC is a character and line oriented language these programs should run equally well with either a 32 or 64 character video display. However, there is the possibility that minor changes in some of the PRINT statements might make the output more appealing to an individual user; such changes are left to the discretion of the user since complete source and run listings have been provided.

4
16
30
40
50
6
16
24
30
42

Maxi BASIC Game #2

READY
LIST

```

2#"":##":#TAB(13);"WORD"
3#:#:#:#
5 DIM S(7),A(7),L(7),D(7),P(7)
10# I AM THINKING OF A WORD -- YOU:#"GUESS IT. I WILL GIVE YOU CLUES"
15# TO HELP YOU GET IT. GOOD LUCK!
20#:#:#:#
30#"":##":#"YOU ARE STARTING A NEW GAME...."
35 RESTORE
40 READ N
50 LET C=INT(RND(0)*N)+1
60 FOR I=1 TO C
70 READ S$
80 NEXT I
90 LET G=0
150 INPUT "GUESS A FIVE-LETTER WORD ",L$
165 LET A$="-----"
166 LET P$=""
170 LET G=G+1
172 IF L$=S$ THEN 500
180 LET L=LEN(L$)
182 IF L=0 THEN 400
184 IF L$(1,1)="?" THEN 300
186 IF L<>5 THEN 400
205 LET M=0 :LET Q=1
210 FOR I=1 TO 5
220 FOR J=1 TO 5
230 IF S$(I,I)<>L$(J,J) THEN 260
231 LET P$(Q,Q)=L$(J,J)
232 LET Q=Q+1
233 IF I<>J THEN 250
240 LET A$(J,J)=L$(J,J)
250 LET M=M+1
260 NEXT J
265 NEXT I
290#"THERE WERE";M;" MATCHES AND THE":#"COMMON LETTERS WERE...":#"
291#TAB(12);P$
292#"":##":#"FROM THE EXACT LETTER MATCHES,":#"YOU KNOW....."
294#TAB(12);A$
295 IF A$=S$ THEN 500
297 IF M>1 THEN 299
298#"":#" IF YOU GIVE UP, TYPE '?' FOR":#"YOUR NEXT GUESS."
299#"":GOTO 150
300 REM PLAYER GAVE UP
310#"THE SECRET WORD IS ";S$:#""
320 GOTO 30
400#"":#"YOU MUST GUESS A 5-LETTER WORD.":#"START AGAIN"
410 #"":LET G=G-1 :GOTO 150
500#"YOU HAVE GUESSED THE WORD.":#"IT TOOK";G;" GUESSES!":#"
510 INPUT "WANT TO PLAY AGAIN? ",Q$
520 IF Q$="YES" THEN 30 ELSE IF Q$="NO" THEN 9999
530# PLEASE TYPE YES OR NO":GOTO 510
600 DATA 102
700DATA "DINKY","SMOKE","WATER"
710DATA "GRASS","TRAIN","MIGHT"
720DATA "FIRST","CANLY","CHAMP"

```

```

730DATA "WOULD","CLUMP","DOPEY"
740DATA "PRINT","GUESS","YACHT"
750DATA "LEAST","STEAL","SLATE"
760DATA "STALE","TEALS","TALES"
770DATA "HORSE","STALL","BARNS"
780DATA "YACHT","SAILS","OCEAN"
790DATA "ERIE","ERROR","WEIRD"
800DATA "WHICH","WITCH","BUILT"
810DATA "PLACE","COMMA","VALUE"
820DATA "MICRO","BYTES","BELOW"
830DATA "ABOVE","BEGIN","POINT"
840DATA "RIGHT","DIGIT","RADIO"
850DATA "RADAR","PIANO","OPERA"
860DATA "INPUT","DOING","ARRAY"
870DATA "INDEX","START","CAUSE"
880DATA "SEVEN","EIGHT","LIMIT"
890DATA "LARGE","SMALL","SHORT"
900DATA "EXTRA","BEING","GIVEN"
910DATA "OTHER","TAKEN","BLANK"
920DATA "UNTIL","STATE","ALPHA"
930DATA "OMEGA","USUAL","QUOTE"
940DATA "LINES","LINEN","THERE"
950DATA "THEIR","MAYBE","ARGUE"
960DATA "METER","LOCAL","TOTAL"
970DATA "TOKEN","WORDS","COLON"
980DATA "GROUP","BASIC","PLAIN"
990DATA "VERSE","TEACH","PAGES"
991DATA "EVERY","TYPED","OCCUR"
992DATA "ADDED","LEGAL","RANGE"
993DATA "MATCH","NEWLY","EXIST"
994DATA "ARROW","UNDER","THIRD"
9999 END
READY

```

'WORD'

I AM THINKING OF A WORD -- YOU
GUESS IT. I WILL GIVE YOU CLUES
TO HELP YOU GET IT. GOOD LUCK!

YOU ARE STARTING A NEW GAME....
GUESS A FIVE-LETTER WORD YACHT
THERE WERE 2 MATCHES AND THE
COMMON LETTERS WERE...

TA

FROM THE EXACT LETTER MATCHES,
YOU KNOW.....

GUESS A FIVE-LETTER WORD TABL_ E
THERE WERE 4 MATCHES AND THE
COMMON LETTERS WERE...

TALE

FROM THE EXACT LETTER MATCHES,
YOU KNOW.....
---LE

GUESS A FIVE-LETTER WORD STALE
YOU HAVE GUESSED THE WORD.
IT TOOK 3 GUESSES!

WANT TO PLAY AGAIN? NO
READY

READY
RUN

Maxi BASIC Game #2

10 SHOTS LATER

GUNNERY

RADAR SHOT FALL REPORT
RANGE OF SHOT 26033.036 YARDS
SHORT BY 103.964 YARDS
DISTANCE OF POINT OF IMPACT FROM TARGET 138.76938 YARDS
TIME OF FLIGHT = 145.24773 SECS
X - COORD OF IMPACT= 12936.996
Y - COORD OF IMPACT= -22590.996

ENTER ANGLES IN DEGREES
ENTER FIRING AZIMUTH 299.6
ENTER FIRING ELEVATION 77

THIS IS A SIMULATION OF A RADAR CONTROLLED ARTILLERY BOMBARDMENT
YOU ARE THE GUNNER. IT IS YOUR TASK TO DESTROY AN ENEMY BASE.

YOU HAVE DESTROYED YOUR TARGET
YOU USED 11 SHELLS

WOULD YOU LIKE TO TRY AGAIN? NO
READY

WOULD YOU LIKE TO TRY? YES

THE GRID SYSTEM AND AZIMUTH ANGLES FOR GUNNERY ARE:

90 DEG
Y
Y
Y
Y
180 DEG X X X X O X X X X 0 DEG
Y
Y
Y
Y
270 DEG

(RETURN)

RADAR TARGET REPORT
RANGE TO TARGET= 26137 YARDS
AZIMUTH OF TARGET= 300 DEGREES
X - COORD OF TARGET= 13068.501
Y - COORD OF TARGET= -22635.306

WIND CONDITIONS REPORT
DIRECTION= 47 DEGREES
VELOCITY = 2 MPH

ENTER ANGLES IN DEGREES
ENTER FIRING AZIMUTH 300
ENTER FIRING ELEVATION 80

RADAR SHOT FALL REPORT
RANGE OF SHOT 20296.855 YARDS
SHORT BY 5840.145 YARDS
DISTANCE OF POINT OF IMPACT FROM TARGET 5842.2221 YARDS
TIME OF FLIGHT = 146.80363 SECS
X - COORD OF IMPACT= 10267.074
Y - COORD OF IMPACT= -17508.556

READY
RUN

Max1 BASIC Game #2

WHO AM I TALKING TO?CHUCK

YOU ARE WORKING ON A 10 BY 10 GRID.
HOME BASE IS POSITION 0,0
ANY GUESS YOU MAKE MUST BE 2 NUMBERS, EACH BETWEEN 0 AND 9, INCLUSIVE

THE FIRST NUMBER IS THE DISTANCE TO THE RIGHT OF HOME BASE.
THE SECOND NUMBER IS THE DISTANCE ABOVE HOME BASE.
YOU GET 10 TRIES. AFTER EACH TRY
I WILL TELL YOU HOW FAR YOU ARE
FROM WOMBAT

** GRID MAP **

9.....
8.....
7.....
6.....
5.....
4.....
3.....
2.....
1.....
0.1.2.3.4.5.6.7.8.9

YOUR MISSION, IF YOU DECIDE TO ACCEPT IT, IS TO CAPTURE 4 WOMBATS!!
THIS PROGRAM WILL SELF DESTRUCT IF YOU AREN'T CAREFULL!!

GOOD LUCK CHUCK

TURN NO. 1 WHAT IS YOUR GUESS 75,5
YOU ARE 2.2 UNITS FROM WOMBAT 1
YOU ARE 4.1 UNITS FROM WOMBAT 2
YOU ARE 3.0 UNITS FROM WOMBAT 3
YOU ARE 1.0 UNITS FROM WOMBAT 4

TURN NO. 2 WHAT IS YOUR GUESS 75,6
YOU ARE 3.1 UNITS FROM WOMBAT 1
YOU ARE 4.4 UNITS FROM WOMBAT 2
YOU ARE 3.1 UNITS FROM WOMBAT 3
YOU ARE 1.4 UNITS FROM WOMBAT 4

TURN NO. 3 WHAT IS YOUR GUESS 76,5
YOU ARE 2.0 UNITS FROM WOMBAT 1
YOU ARE 3.1 UNITS FROM WOMBAT 2
YOU ARE 2.0 UNITS FROM WOMBAT 3
YOU HAVE FOUND WOMBAT 4

TURN NO. 4 WHAT IS YOUR GUESS 78,5
YOU ARE 2.8 UNITS FROM WOMBAT 1
YOU ARE 1.4 UNITS FROM WOMBAT 2
YOU HAVE FOUND WOMBAT 3

TURN NO. 5 WHAT IS YOUR GUESS 76,8

YOU ARE 5.2 UNITS FROM WOMBAT 1
YOU ARE 5.0 UNITS FROM WOMBAT 2

TURN NO. 6 WHAT IS YOUR GUESS 76,4
YOU ARE 1.0 UNITS FROM WOMBAT 1
YOU ARE 3.0 UNITS FROM WOMBAT 2

TURN NO. 7 WHAT IS YOUR GUESS 76,3
YOU HAVE FOUND WOMBAT 1
YOU ARE 3.1 UNITS FROM WOMBAT 2

TURN NO. 8 WHAT IS YOUR GUESS 79,4
YOU HAVE FOUND WOMBAT 2

YOU GOT THEM ALL IN 8 TURNS!

THAT WAS FUN! LETS PLAY AGAIN.....
FOUR MORE WOMBATS ARE NOW IN HIDING.

TURN NO. 1 WHAT IS YOUR GUESS ?

Maxi BASIC Game #2

READY
LIST

```

10 REM SUN SIGN DESIGN
20 REM T.H. 12/76
30 FOR I=1 TO 8:PRINT "":NEXT
40 G$="SUN SIGN"
50 FOR I=1 TO 8:PRINT TAB(13);G$(I,I):NEXT
60 PRINT "":PRINT TAB(10);G$
70 DIM A$(72),B$(26)
80 B$="ABCDEFGHIJKLMNOPQRSTUVWXYZ"
90 FOR I=1 TO 72:A$=A$+"":NEXT
100 PRINT
110 INPUT "DO YOU NEED INSTRUCTIONS? ",A$
120 PRINT
130 IF A$(1,1)="N" THEN 200
140 PRINT "THIS PROGRAM PRINTS DESIGNS"
150 PRINT "BASED ON A PERSON'S NAME AND"
160 PRINT "SUN SIGN. THE PROGRAM ASKS FOR"
170 PRINT "A FIRST, MIDDLE, AND LAST NAME."
180 PRINT
190 PRINT
200 REM GET STRING PARAMETERS
210 PRINT
220 PRINT
230 INPUT "FIRST NAME? ",A$
240 GOSUB 1010
250 V0=X
260 PRINT
270 INPUT "MIDDLE NAME? ",A$
280 GOSUB 1010
290 V2=X
300 PRINT
310 INPUT "LAST NAME? ",A$
320 GOSUB 1010
330 V4=X
340 PRINT
350 INPUT "SUN SIGN? ",A$
360 GOSUB 1010
370 V6=X
380 PRINT
390 PRINT
400 PRINT
410 REM
420 REM COMPUTE NUMERIC PARAMETERS
430 V=V0
440 Q=9
450 GOSUB 1150
460 V1=M
470 V=V2
480 GOSUB 1150
490 V3=M
500 V=V4
510 Q=7
520 GOSUB 1150
530 V5=M
540 V=V6
550 Q=5
560 GOSUB 1150
570 V9=M
580 C=0

```

```

590 FOR J=- (V9+3) TO V9+2..
600 A$=
610 V0=V0-J
620 V2=V2-J
630 K0=2*V5+2
640 FOR K=-K0 TO K0
650 K1=K0+K+1
660 FOR I=1 TO 72:A$=A$+"":NEXT
670 V0=V0-K*V5
680 V=V0
690 Q=9
700 GOSUB 1150
710 V7=M
720 V2=V2-K*V3
730 V=V2
740 Q=7
750 GOSUB 1150
760 V8=M
770 IF K<>0 THEN 790
780 V8=-1
790 ON SGN(V9-V7)+2 GOTO 820,800,840
800 A$(K1,K1)="0"
810 GOTO 850
820 A$(K1,K1)=" "
830 GOTO 860
840 A$(K1,K1)="*"
850 C=C+1
860 NEXT K
870 K=1
880 IF C=0 THEN 940
890 PRINT A$(K,K);
900 IF A$(K,K)=" " THEN 920
910 C=C-1
920 K=K+1
930 IF K<=LEN(A$) THEN 880
940 PRINT
950 NEXT J
960 REM ASK FOR ENCORE
970 PRINT
980 INPUT "ANOTHER? ",A$
990 IF A$(1,1)="Y" THEN 200
1000 GOTO 1180
1010 REM
1020 X=0
1030 J=1
1040 IF J>LEN(A$) THEN 1130
1050 K=1
1060 IF K>26 THEN 1110
1070 IF A$(J,J)=B$(K,K) THEN 1100
1080 K=K+1
1090 GOTO 1060
1100 X=X+K+192
1110 J=J+1
1120 GOTO 1040
1130 RETURN
1140 REM
1150 REM
1160 M=V-INT(V/Q)*Q+1
1170 RETURN
1180 END
READY

```

S
U
N

S
I
G
N

SUN SIGN

DO YOU NEED INSTRUCTIONS? YES

THIS PROGRAM PRINTS DESIGNS
BASED ON A PERSON'S NAME AND
SUN SIGN. THE PROGRAM ASKS FOR
A FIRST, MIDDLE, AND LAST NAME.

FIRST NAME? DIANNE
MIDDLE NAME? DISNEY
LAST NAME? HOWERTON
SUN SIGN? ARIES

```

* *
** * 0 ** 0 * **
* ** ** ** *
**** ****
* * **
* * **
**** ****
* ** ** ** *
** * 0 ** 0 * **
* *
ANOTHER? NO
READY

```

Maxi BASIC Game #2

READY
LIST

```

10 REM COMPOUND INTEREST PROGRAM
20#TAB(8);"COMPOUND INTEREST"
30#"THIS PROGRAM COMPUTES THE VALUE" :# "OF AN ACCELERATING SAVINGS"
40#"PLAN. YOU SPECIFY A STARTING" :# "AMOUNT, AN ANNUAL INTEREST RATE"
50#"A PERIODIC SAVINGS AMOUNT, AND" :# "THE NUMBER OF PERIODS; AND THE"
60#"COMPUTER WILL FIGURE A SCHEDULE" :# "SHOWING YOUR BALANCE AT THE END"
70#"OF EVERY PERIOD."
75 INPUT "(RETURN)",A$
80 FOR X=1 TO 8 :# " " :NEXT
100#"SELECT INTEREST PERIOD!"
110#" D=DAILY"
120#" W=WEEKLY"
130#" M=MONTHLY"
132#" Q=QUARTERLY"
135#" S=SEMI-ANNUALLY"
140#" Y=YEARLY"
150 INPUT "INTEREST PERIOD=" ,P$
160 LET D=0
170 IF P$="D" THEN LET D=365
180 IF P$="W" THEN LET D=52
190 IF P$="M" THEN LET D=12
192 IF P$="Q" THEN LET D=4
195 IF P$="S" THEN LET D=2
200 IF P$="Y" THEN LET D=1
210 IF D=0 THEN 80
220# " :#"
230#" ENTER ANNUAL INTEREST RATE"
240#" EXAMPLE 6.5 PERCENT = 6.5"
250 INPUT "ANNUAL INTEREST RATE = " ,I
255 LET I1=I/100
257 LET I2=((1+I1)^(1/D))-1
260# " :#"
270#" ENTER STARTING AMOUNT"
280 INPUT "STARTING AMOUNT = " ,S
290# " :#"
300#" ENTER PERIODIC SAVINGS AMOUNT"
310 INPUT "PERIODIC SAVINGS = " ,A
320# " :#"
330#" ENTER NUMBER OF PERIODS"
340 INPUT "NUMBER OF PERIODS = " ,P
350 FOR X=1 TO 14
360 #
370 NEXT X
380 # PERIOD STARTING INTEREST SAVINGS ENDING"
400 FOR P1 = 0 TO P
410 # %I;P1;X10F2;S;
420 LET I9=I2*S
430 # %10F2;I9;X10F2;A;
440 LET E=S+I9+A
450 # %10F2;E
460 LET S=E
470 NEXT P1
500 FOR X=1 TO 10
510 #
520 NEXT X
9999 END
READY

```

READY
RUN

```

COMPOUND INTEREST
THIS PROGRAM COMPUTES THE VALUE
OF AN ACCELERATING SAVINGS
PLAN. YOU SPECIFY A STARTING
AMOUNT, AN ANNUAL INTEREST RATE
A PERIODIC SAVINGS AMOUNT, AND
THE NUMBER OF PERIODS; AND THE
COMPUTER WILL FIGURE A SCHEDULE
SHOWING YOUR BALANCE AT THE END
OF EVERY PERIOD.
(RETURN)

```

```

SELECT INTEREST PERIOD!
D=DAILY
W=WEEKLY
M=MONTHLY
Q=QUARTERLY
S=SEMI-ANNUALLY
Y=YEARLY
INTEREST PERIOD= Y

```

```

ENTER ANNUAL INTEREST RATE
EXAMPLE 6.5 PERCENT = 6.5
ANNUAL INTEREST RATE = 6.0

```

```

ENTER STARTING AMOUNT
STARTING AMOUNT = 0

```

```

ENTER PERIODIC SAVINGS AMOUNT
PERIODIC SAVINGS = 1200

```

```

ENTER NUMBER OF PERIODS
NUMBER OF PERIODS = 59

```


PERIOD	STARTING	INTEREST	SAVINGS	ENDING
0	.00	.00	1200.00	1200.00
1	1200.00	72.00	1200.00	2472.00
2	2472.00	148.32	1200.00	3820.32
3	3820.32	229.22	1200.00	5249.54
4	5249.54	314.97	1200.00	6764.51
5	6764.51	405.87	1200.00	8370.38
6	8370.38	502.22	1200.00	10072.61
7	10072.61	604.36	1200.00	11876.96
8	11876.96	712.62	1200.00	13789.58
9	13789.58	827.37	1200.00	15816.95
10	15816.95	949.02	1200.00	17965.97
11	17965.97	1077.96	1200.00	20243.93
12	20243.93	1214.64	1200.00	22658.57
13	22658.57	1359.51	1200.00	25218.08
14	25218.08	1513.08	1200.00	27931.16
15	27931.16	1675.87	1200.00	30807.03
16	30807.03	1848.42	1200.00	33855.46
17	33855.46	2031.33	1200.00	37086.78
18	37086.78	2225.21	1200.00	40511.99
19	40511.99	2430.72	1200.00	44142.71
20	44142.71	2648.56	1200.00	47991.27
21	47991.27	2879.48	1200.00	52070.75
22	52070.75	3124.24	1200.00	56394.99
23	56394.99	3383.70	1200.00	60978.69
24	60978.69	3658.72	1200.00	65837.42
25	65837.42	3950.24	1200.00	70987.66
26	70987.66	4259.26	1200.00	76446.92
27	76446.92	4586.82	1200.00	82233.74
28	82233.74	4934.02	1200.00	88367.76
29	88367.76	5302.07	1200.00	94869.83
30	94869.83	5692.19	1200.00	101762.02
31	101762.02	6105.72	1200.00	109067.74
32	109067.74	6544.06	1200.00	116811.80
33	116811.80	7008.71	1200.00	125020.51
34	125020.51	7501.23	1200.00	133721.74
35	133721.74	8023.30	1200.00	142945.04
36	142945.04	8576.70	1200.00	152721.74
37	152721.74	9163.30	1200.00	163085.04
38	163085.04	9785.10	1200.00	174070.14
39	174070.14	10444.21	1200.00	185714.35
40	185714.35	11142.86	1200.00	198057.21
41	198057.21	11883.43	1200.00	211140.64
42	211140.64	12668.44	1200.00	225009.08
43	225009.08	13500.55	1200.00	239709.63
44	239709.63	14382.58	1200.00	255292.21
45	255292.21	15317.53	1200.00	271809.74
46	271809.74	16308.58	1200.00	289318.32
47	289318.32	17359.10	1200.00	307877.42
48	307877.42	18472.65	1200.00	327550.07
49	327550.07	19653.00	1200.00	348403.07
50	348403.07	20904.18	1200.00	370507.25
51	370507.25	22230.44	1200.00	393937.69
52	393937.69	23636.26	1200.00	418773.95
53	418773.95	25126.44	1200.00	445100.39
54	445100.39	26706.02	1200.00	473006.41
55	473006.41	28380.39	1200.00	502586.80
56	502586.80	30155.21	1200.00	533942.01
57	533942.01	32036.52	1200.00	567178.53
58	567178.53	34030.71	1200.00	602409.24
59	602409.24	36144.55	1200.00	639753.79