

ISSUE NO: 7

AUGUST 1984

Hi,

At the last meeting, on 23rd July 1984, there were 61 people present. This is a new record, it was marvellous to see so many people turn up.

A number of things were discussed, and some more software pages were handed round; these are reprinted in this newsletter.

The Technical Manual is now available, at \$12.00 per issue. This manual is very good, contains 71 A4 pages, and is full of useful information.

Re: New Roms These are now available from your user group for \$25.00 per complete set of 4 roms, plus your old roms in exchange! These roms come from a Christchurch firm, and were originally purchased from England. They have been modified to suit the New Zealand Colour Genies which has necessitated a number of changes, i.e. colour differences between England and New Zealand. The disk commands have also been improved on. The \$25.00 mentioned includes supplementary pages to be fitted into your Technical Manual (which of course, everyone has ordered!!) Other changes are as have already been discussed in the last two newsletters. Do get in touch with us if you need any further explanation on anything.

Allan Clarke demonstrated the software that he now has available. Prices are as per the software pages further on. The word processor was found to have a couple of bugs in, which Allan has since fixed, and seems to be working well. Already orders have been coming in for his programs. I can vouch that the word processor works on the new roms too.

Talking about orders, software orders have been fantastic. Over \$1000.00 worth of software and technical manuals have been ordered. These orders are all being copied by Andy and Ken so if you don't receive your order within a day or two (if you have paid postage) don't worry. With having to hold down a daytime job, this only leaves the evenings for copying the software. And, in two weeks, they have managed to copy nearly \$1000.00 worth of tapes, which is pretty good. Of course, all Auckland people who put in orders at the meetings will not get their tapes until the next meeting, unless they have enclosed an extra \$1.00 to cover postage. As all country members so far have included this \$1.00 their orders will be sent off as soon as they are complete.

A lot of correspondence is going on with overseas software houses. We now have the sole New Zealand rights to all Gumbout Software, which means that no-one else but ourselves is allowed to sell their tapes in New Zealand. And, they are producing more and more software. They also now have JDTronics, D.C. Kent and a few other companies' software available from them. As these companies don't seem inclined to answer my letters themselves, it looks as though we will have to get their software from Gumbout too, and I have written to Gumbout to find out royalty costs etc. from these other companies. We have also sent off an order to E.A. Jackson (Superb Software) - we get one master tape with all his programs on it (Genie Calc, etc) for the total amount of Pds 30.00. This is a saving of over 20 Pds if we had to buy each tape separately. This should be on the way to us now.

Blank C10 computer tapes are now available from us at a cost of \$1.50. We would prefer country members to order more than one tape at a time, and enclose postage, otherwise the Group make nothing on getting them from the supplier and posting them out. We pay \$1.26 each, basic cost, for the tapes. This does not include labels, these, if required are an extra 10c each, and are completely blank.

Keith McGill has put into the Genie, the Easycode program that has been published in Computing Today over the last few months. A listing of this program is enclosed in this newsletter, and if anyone wants the complete tape, please send \$3.50 to us, and it will be sent to you, or delivered at the next meeting.

This goes for all the tapes in the newsletters from #1 to date. They are all available at \$3.50 each, from the Goldie family, whose address is in the members list. Please get in touch with them, and they will send the tapes to you. They will also have available, G-Mon and Haunted House. Haunted House is a graphic adventure that has been taken from the Usborn book 'How to Write Adventure Programs', and had graphics added to it. Andy has turned this into a great program.

Another program that I really like is 'Owari'. This is another one that Keith McGill has converted on to the Colour Genie, and has both a hard level (where the computer takes a long time to think) and a not-so-hard level. A very enjoyable game. This too is available on tape from us.

Two Christchurch companies have been busy producing Disk Drives for the Colour Genie, and both are apparently nearly ready for distribution. We will let you know further when we hear more.

We have an updated list of members in this newsletter, and as you can see, we have 82 members now. I intend to put an 'ad' in the papers shortly, but at the moment I have all the work I can cope with, so it can wait until I catch up a bit.

Those of you that are thinking of purchasing printers over the next twelve months, please note that Rakon have only got about 4 printer interfaces left now. At \$68.40 each, these are fairly reasonable, although one member (Ron Burton, Te Aroha), has said that he has seen interfaces from \$40.00 upward. Once the small stock that is available has gone, it will be very hard to get any more.

Well, that's it from me until next month. See you at the next meeting, which is on:

20th August, 1984 at 7.30pm

- Nola Huggins

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Here's a program that is based on an article from the back cover of 'Schmidtke Electronics' brochure of software. I am including a photocopy of the programme as printed, with a translation (or rather, a precis) of the accompanying text.

#### Hi Res Graphics

Here's a trick to increase Colour Genie resolution from 160 x 96 to 320 x 192. You can mix text and graphics in 16 colours.. The program uses the memory space for the 128 programmable graphics characters, it can be modified and included in your own programmes - the programme following is an example, plotting a mathematical function. It works like a charm!!

Explanation

Line #	Note
50	Disables keyboard for a slight increase in speed. Leave it out until you've saved the programme on tape -if you have made an error in typing in the programme and the keyboard is disabled, you've got problems!
60	Wipes programmable graphics memory.
80	Characters for co-ordinate lines defined.
100-110	Co-ordinates drawn.
120	Titles for co-ordinates. Translate Achse to axis.
130	x is defined.
140	The function to be defined is stated.
150-260	The trick! Just type it in, and have faith!
280	Keyboard enabled.

Don't press both reset buttons while the programme is running, or it'll crash. Have fun!!  
Bernd Drechsel.

Any of you who have the interest and knowledge, might like to experiment with this to produce original programmes mixing FGR and LGR. It seems to have many possible applications.

- Keith McGill

```

10 * Hochauflösende Graphik (320x192)
20 *
30 * Bernd Drechsel (20.05.1983)
40 *
50 POKE16406,82
60 FORX=&HF400TO&HF7FF:POKEX,0:NEXT
70 CLS:CHAR1:DIMA(15):J=-3049:K=130

80 FORX=0TO15:READA(X):POKE&HF400+X,A(X):NEXT
90 DATA255,0,0,0,0,0,0,0,1,1,1,1,1,1,1,1
100 PRINT$B10,STRING$(30,128)
110 FORA=0TO19:PRINT$9+40*A,CHR$(129):NEXT
120 PRINT$B73,"x-Achse";:PRINT$0,"y-Achse";:PRINT$920,"f(x)=SQR(X)";
130 FORX=0TO230
140 Y=INT(SQR(X*100))
150 A=INT(X/8)+1:B=INT(Y/8)+1:S=809+A-B*40
160 IFS<>HTHEN J=J+B:K=K+1
170 A1=(X/8-A+1)*8:B1=(Y/8-B+1)*8
180 IF A1=0THENPOKEJ-B1,128
190 IF A1=1THENPOKEJ-B1,64
200 IFA1=2THENPOKEJ-B1,32
210 IFA1=3THENPOKEJ-B1,16
220 IFA1=4THENPOKEJ-B1,8
230 IFA1=5THENPOKEJ-B1,4
240 IFA1=6THENPOKEJ-B1,2
250 IFA1=7THENPOKEJ-B1,1
260 H=S:PRINT$H,CHR$(K)
270 NEXTX
280 POKE16406,227
290 END
    
```

GENIE DATA

Software Lists - Page Four

ADVENTURE GAMES

DOUBLE AGENT A very good 3-D adventure game, with sound and graphics.	\$15.00
COLOUR QUEST 1 - FIND THE DIAMOND OF DALMARLON	\$10.00
COLOUR QUEST 2 - THE VEGAN INCIDENT	\$10.00
COLOUR QUEST 3 - ENCIANTED GARDENS	\$10.00
COLOUR QUEST 4 - CAMELOT There are two versions of this, one for old roms, one for new roms.	\$10.00
COLOUR QUEST 5 - SHIPWRECK There are two versions of this, one for old roms, one for new roms.	\$10.00
COLOUR QUEST 6 - FISHING QUEST	\$10.00

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A big THANK YOU to those people who let us borrow their tapes to make masters of for selling. This has saved the group money because we have not had to purchase the tapes from overseas, and will only have to pay royalty costs to the owners.

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Stirling Barr (address in members list) has PRINT@ grids for sale at 50c each. These were shown at the meeting, and a number of people purchased them. They consist of a printed screen layout with the positions down the side and a clear layer over the top. These grids are very professional-looking, and extremely useful. Please order direct from Stirling, and remember to enclose at least 30c postage.

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OTHER NEW SOFTWARE TO BE ADDED TO THE GAMES SECTION - PAGE FIVE

FROIDS - PART 1 \$12.00  
Quite interesting game this. You have to go through lines, eating as many dots as is stated at the bottom of the screen, and avoiding the bomb that runs through one of the lines at the same time. There is a time limit too, so you have to be quick. You start off with say, three dots to eat per line at first, then after the first screen is cleared, the number of dots increases to say, nine. And so on, with each screen cleared. My daughter got up to 29 dots, but wasn't able to clear the screen on this one, as the time ran out.

FROIDS - PART 2 \$12.00  
Haven't had time to look at this game yet, will review it in the next magazine.

MUSIC \$12.00  
There are 4 options available on this tape:  
a) Piano with three octaves  
b) Compose a tune and save it to tape  
c) Music testing of notes  
d) 'Play that Tune' - a 'Simon Says' game  
Again, I haven't had time to review it properly yet, and a fuller description will be available in the next magazine.

FLYING BYTES \$14.00  
This is a 'flight simulator' available for 32k ROM machines. It needs the new ROMs and will not work on the old ROMs that most of us have got. This is a very involved program, and without really sitting down and learning it, I can tell you that I found it quite difficult to remember where everything was, and not being a pilot, I had trouble remembering what I was supposed to be doing i.e. when to put my flaps down, when to lift them, when to turn, etc. You get a map of the airport, then you go back to the instrument panel and work from that, until you need to see whether you are way off course, when you go back to the map again.

BACKGAMMON \$12.00  
Same as the game. The computer does not learn by its mistakes though. Good graphics.

PUCKMAN \$12.00  
Good game - 'Pacman' style. Loads as two separate programs.

MICRONOPOLY \$12.00  
Same as the game. Program did have a couple of bugs in, but we hear that these may have been fixed.

SOFTWARE THAT ALLAN CLARKE NOW HAS AVAILABLE

RS232 DRIVER

\$15.00

This has been mentioned before, and is now up and running. It will be demonstrated at the meeting. Unfortunately, country members won't get to see this program in action.

DISASSEMBLER

\$15.00

This is working well, and I have used it on my machine with success.

WORD PROCESSOR

\$15.00

This program is in basic, but has fast machine code routines in it. According to Allan, it saves data 'in the twinkling of an eye'. For the price this will probably be the cheapest word processing program we will have. Allan assures me it leaves 'Worp-1' for dead. (This is the word processor I have on my Genie and is also the one that Rakon have let out to a couple of dealers (mainly in Wellington and Christchurch I think).

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GRAPHICS GENERATOR

SOME OF YOU MAY HAVE TRIED THIS PROGRAM  
MOST OF YOU HAVING FOUND THAT THE SCREEN DISPLAY  
LOOKED STRANGE WILL HAVE WIPED IT FROM MEMORY  
FOR THOSE WHO KEPT IT SOME EXPLANATION IS  
NECESSARY.

THE PROBLEM LIES IN THE PRINTER NOT ACCEPTING  
MODSEL CHRS.

```
40 A$="■1234567812345678■"  
550 IF K$=" " THEN ?@C,"■"  
570           :?@C,"." "  
580           :?@C,"." "  
590           :?@C,"." ?           • IS MODSEL/SHIFT Q  
600           :?@C,"." "           ■ IS MODSEL @  
730 ?" BY (.)"  
750 ??:?" PRESSING THE SPACE BAR WILL PRODUCE ■"  
780 ??:?" IF YOU GO OVER A ■ THEN • WILL APPEAR"
```

LINES 850-1480 ARE A BIT TEDIOUS BUT AS A FIRST TRY AT  
PEEK & POKES I HAD TROUBLE PUTTING IT IN A LOOP. IF YOU  
CAN DO IT GOOD LUCK...

LINES 1950,1960,1990 THE MODSEL CHR IS MODSEL/SHIFT S

FINALLY LINE 2310 WAS A SPECIAL VERSION FOR OUR EDITOR  
IT SHOULD READ "NICE"

REGARDS

Chris

## COLOUR GENIE SNIPITS!

FOR THE MACHINE CODE PROGRAMMER: INPUT AND OUTPUT PORTS.

There are three Ports on the Colour Genie that can be used for talking to the outside world. I shall try to show you how to use them.

### 1. P.S.G. (Programmable Sound Generator).

The P.S.G. contains two I/O Ports but they are not so simple to Program. The P.S.G. is located at I/O addresses 0F8 hex and 0F9 hex. These Ports are used as follows:

- 0F8h. Points to the Control Register and there are 16 of these. The ones that are used for I/O are 07h, 0Eh and 0Fh.
- 0F9h. This is the Data Register ie. the information you want to input or output to the Parallel Port.

There are only two bits of Control Register 07h that are used, they are 6 and 7. If bit 6 is 0 then Port A (Register 0Eh) is set to input data. If it is set to 1 then YES it will output the data.

AH! you might say, that's simple. Hold on, not so fast, before you can send that data out you have to set the Control Register to 0Eh so that it will go to the Output Port.

TO RECAP: To send data out to Port A:

```
SET      0F8h to 07h
         0F9h to 04h
         0F8h to 0Eh
```

Now any data you send to 0F9h will be sent to the Parallel Port.

As you can see we have only used one Port. The other Port is excessed in a simaler manner.

Bits 6 and 7 of Control Register 7 are used as follows:

- Bit 6. This is used to turn Port A into either input or output. If it is 0 it is Input or if it is 1 it will be Output.
- Bit 7. This operates in the same way as Bit 6. Controlling Port B instead of Port A.

To input or output the data you must select the Port you are going to excess. This is done by selecting Register 0Eh for Port A or 0Fh for Port B ie.

```
SET      0F8h to 0Eh for Port A
         0F8h to 0Fh for Port B
```

That's all for now as I don't know any more. ZLI BOE.

alias Keith Dix

1 'THIS IS A PROGRAM SENT TO US BY HERMAN PHILIPSEN

```

2 '
3 '
4 GOTO3000
5 GOSUB2000
100 COLOUR2:PRINT@10,"THE GAME OF MASTERMIND":COLOUR1
110 POKE16410,96
180 C(0)=A
190 FORN=1TOA
200 C(N)=INT (RND(6)+1)
210 NEXTN
220 FORN=1TOA
230 X=C(N)
240 GOSUB230
250 C(N)=X
260 NEXTN
270 P$=""
275 FORX=1TOA
275 P$=P$+CHR$(C(X))
277 NEXTX
280 FORP=1TO10
290 T=T+40
295 PRINT@78," "
300 COLOUR1:PRINT@764,"WHAT DO YOU GUESS ":
310 INPUTG$
315 PRINT@78("G$")
320 COLOUR1:PRINT@71+T,G$
340 B$(P)=G$
350 GOSUB250
360 IFE=ATHEM1010
370 GOSUB260
380 PRINT@158+T,B
390 Y(P)=B
400 PRINT@155+T,W
410 Z(P)=W
420 NEXTP
440 PRINT@72,P$
450 PRINT@844,"WANT TO PLAY AGAIN":
460 INPUTA$
490 IFA$="Y"THEN T=0:CLS:GOTO3030
490 PRINT
500 END
510 REM COMPUTE BLACK PEGS
520 FORX=1TOA
525 G(X)=ASC(MID$(G$,X,1))
525 NEXTX
530 B=0
540 FORK=1TOA
550 IFG(K) = D(K) THEN S70
560 B=B+1
570 NEXTK
580 RETURN
590 REM COMPUTE WHITE PEGS
600 FORX=1TOA
605 R(X)=ASC(MID$(P$,X,1))
605 NEXTX
610 W=0
620 FORI=1TOA
630 FORJ=1TOA
640 IFG(I) = R(J) THEN S80
650 W=W+1

```

```

660 R(J)=0
670 GOTO690
680 NEXTJ
690 NEXTI
700 W=W-B
710 RETURN
720 REM TRANSLATE COLOUR CODES TO NUM.
730 IFX<1 THEN 760
740 X=89
750 RETURN
760 IFX<2 THEN 790
770 X=82
780 RETURN
790 IFX<3 THEN 820
800 X=80
810 RETURN
820 IFX<4 THEN 850
830 X=79
840 RETURN
850 IFX<5 THEN 860
860 X=71
870 RETURN
880 X=66
890 RETURN
1010 PRINT@884,"YOU WIN!"
1020 GOTO450
2000 COLOUR1:REM SETTING UP BOARD AND PEGS
2010 CHAR4:CLS:FORM=B10B1STEP40:PRINT@M,CHR$(213):NEXT
2020 FORM=72T0597STEP40:PRINT@M,CHR$(212):NEXT
2030 FORM=198T0588STEP40:PRINT@M,CHR$(212):NEXT
2035 PRINT@114,"B:W"
2040 FORM=B2T0598:PRINT@M,CHR$(209):NEXT
2050 FORM=B3T0158:PRINT@M,CHR$(202):NEXT
2060 FORM=B4T072:PRINT@M,CHR$(210):NEXT
2070 FOR T3=1TO12:T4=RND(15):COLOUR4
2075 READT$:PRINT@322+T3,T$:NEXT
2077 DATA O,L,O,U,R, ,G,O,E,E,S
2080 COLOUR3: PRINT@402,"R =RED":COLOUR3
2085 PRINT@414,CHR$(230)
2090 COLOUR2:PRINT@442,"G =GREEN":COLOUR2:PRINT@454,CHR$(230)
2100 COLOUR5:PRINT@482,"O =ORANGE":COLOUR5:PRINT@494,CHR$(230)
2110 COLOUR6:PRINT@522,"B =BLUE":COLOUR6 :PRINT@534,CHR$(230)
2120 COLOUR4:PRINT@562,"Y =YELLOW":COLOUR4:PRINT@574,CHR$(230)
2130 COLOUR8:PRINT@602,"P =PURPLE":COLOUR8:PRINT@614,CHR$(230)
2140 RETURN
3000 CLS:PRINT@170,"THE GAME OF MASTERMIND"
3010 PRINT"THE OBJECT OF THE GAME IS, TO GET 4 OR 6"
3020 PRINT"PEGS IN THE RIGHT POSITION."
3030 PRINT@360,"YOU HAVE 2 OPTIONS 4 OR 6 PEGS."
3040 CLEAR100:INPUT"WHICH OPTION DO YOU TAKE:"K
3050 IFK=4 THEN T1=148:T2=108:A=4:B=67:B1=547:B2=537:B3=147:B4=67:GOTO
3060 T1=146:T2=106:A=6:B=65:B1=545:B2=565:B3=145:B4=65:GOTO5

```



```

1 REM      THIS IS A VERSION OF HANGMAN FOR THE COLOUR GENIE.
2 '-----
4 SENT TO US BY HERMAN PHILIPSEN OF HAVELOCK NORTH
5 '-----
10 GOTO930
20 NW=100
30 FORN=1TORND(NW)
40 READW$:NEXT
50 COLOUR1
60 GOSUB680
70 GOSUB670
80 GOSUB170:PRINT:PRINTIN$:PRINT
90 PRINT@886,"ABCDEFGHIJKLMNPOQRSTUVWXYZ"
100 G=0
110 COLOUR1:GOSUB370:G=G+1:GOSUB460:GOSUB560
120 IFIP<NANDIP<=1THEN110
130 GOSUB590:GOSUB740
140 GOTO80
170 GOSUB770
180 PRINT:PRINTTAB(18)"HANGMAN"
190 PRINT:INPUT"DO YOU WISH TO USE YOUR OWN WORD (Y/N)"K$
195 IFK$="N"THENH$=W$:N=LEN(H$):GOTO260
200 PRINT:PRINT:PRINT"TYPE A WORD OF NO MORE THAN 14 LETTERS"
210 PRINT:PRINT
220 PRINT"MAKE SURE THE OTHER PLAYER "
230 PRINT"IS 'NT LOOKING.":PRINT:PRINT
240 INPUT"HIDDEN WORD":H$:N=LEN(H$)
250 IFN=0ORND<MXTHEN240
260 WG=5000
270 IN$="GUESS ONE LETTER OR THE WHOLE WORD"
280 GL=1:IP=0
290 NG=99:VG=5
300 GOSUB770
310 FORZZ=0TO127:HT(ZZ)=0:NEXTZZ
320 FORZZ=1TON:HH=ASC(MID$(H$,ZZ,1))
330 GS(ZZ)=ASC("-")
340 HT(HH)=HT(HH)+20(ZZ-1):NEXTZZ
350 RETURN
360 PRINT@886,"ABCDEFGHIJKLMNPOQRSTUVWXYZ"
370 REM
380 PRINT@800,"WHAT DO YOU GUESS ":FORZZ=1TON:PRINTCHR$(GS(ZZ)):NEXTZZ
390 INPUTG$
400 A$=G$:PRINT@821+ASC(A$).CHR$(32)
410 IFLEN(G$)=NTHENRETURN
420 IFLEN(G$)<>GLTHENPRINTIN$:GOTO380
430 FORZZ=1TOGL
440 GC(ZZ)=ASC(MID$(G$,ZZ,1)):NEXTZZ
450 RETURN
460 IFLEN(G$)<>NTHEN470
470 IFG$=H$THENIP=N:RETURN
480 WG=WG-1:RETURN
490 IX=0:FORZZ=1TOGL:HH=HT(GC(ZZ))
500 IFHH=0THEN530
510 FORYY=1TON:IFHH<>2*INT(HH/2)THENIP=IP+1:IX=IX+1:GS(YY)=GC(ZZ)
520 HH=INT(HH/2):NEXTYY
530 NEXTZZ
540 IFIX=0THENWG=WG-1:GOTO780
550 RETURN

```

```

560 IFIP=NTHENPRINT"THAT'S RIGHT! "':GOTO580
570 IFG=MGORWG<0THENPRINT"TOO MANY GUESSES--YOU LOSE!"
580 RETURN
590 IFIP<0NTHEN640
600 IFG=1THENCLS:PRINT"YOU MUST BE PSYCHIC.":GOTO645
610 CLS:PRINT@720,"YOU GOT ":H$:" IN ":G:"GUESSES."
620 IFG<=VGTHENPRINT:PRINT"VERY GOOD."
630 GOTO645
640 CLS:PRINT@720,"YOU COULDN'T GET ":H$
645 PRINT@200,"PRESS Y!! FOR AN OTHER GAME"
650 C$=INKEY$:IFC$=""THEN650
650 IFC$="Y"THEN10ELSEEND
670 GOSUB770:RETURN
680 DJMHT(255)
690 E2=20:DIMG$(E2)
700 DIMG$(20)
710 MX=20:DIMG$(MX),H$(20)
720 L=ASC("0")
730 RETURN
740 GOSUB750:NK$=X$:RETURN
750 X$=INKEY$:IFX$=""THEN750
760 RETURN
770 CLS:RETURN
780 P=P+1
790 COLOUR4:IFP=1THEN870
800 IFF=2THEN890
810 IFF=3THEN900
820 COLOUR3:IFP=4THEN910
830 COLOUR8:IFP=5THENPRINT@188,H1$:GOTO550
840 COLOUR6:IFP=6THEN1110
850 COLOUR2:IFP=7THEN1160
860 COLOUR2:IFP=8THEN1170
882 COLOUR4:IFP=9THEN1190
885 COLOUR4:IFP=10THEN1200
870 PRINT@696,CHR$(205):FORX=697TO706:PRINT@X,CHR$(202):NEXTX
880 PRINT@707,CHR$(224):GOTO550
890 FORX=661TO141STEP-40:PRINT@X,CHR$(202):NEXTX:GOTO550
900 FORX=142TO148:PRINT@X,CHR$(202):NEXTX:GOTO550
910 PRINT@302,CHR$(205):PRINT@263,CHR$(205):PRINT@224,CHR$(205)
920 PRINT@185,CHR$(205):PRINT@262,CHR$(226):PRINT@223,CHR$(226):PRINT@184,CHR$(2
26):GOTO550
930 CLEAR500:ST=-3072
940 FORAD=STTOST+63
950 READD:POKEAD,D:NEXT
960 H1$="":FORN=1TO18
970 READX:H1$=H1$+CHR$(X):NEXT
980 GOTO20
990 DATA60,24,24,60,24,24,60,24
1000 DATA0,0,0,1,3,4,24,16
1010 DATA31,96,129,0,0,226,20,101
1020 DATA193,32,16,12,2,228,35,35
1030 DATA16,8,4,2,1,0,0,0
1040 DATA12,224,0,96,48,144,64,63
1050 DATA4,8,16,8,16,32,64,129
1060 DATA12,63,63,12,63,63,12,12
1070 DATA128,26,8,8
1080 DATA129,130,131,26,8,8,8
1090 DATA132,133,134,26,8,8
1100 DATA135
1110 PRINT@347,CHR$(205):CHR$(202):CHR$(202):CHR$(224)
1120 PRINT@387,CHR$(204):CHR$(233):CHR$(204):CHR$(204)
1130 PRINT@427,CHR$(204):CHR$(233):CHR$(204):CHR$(204)

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1140 PRINT@467,CHR$(204):CHR$(204):CHR$(204):CHR$(204)"
1150 GOTO550
1160 PRINT@385,CHR$(202):CHR$(202):PRINT@425,CHR$(202):PRINT@464,CHR$(202):CHR$(
202)
1165 GOTO550
1170 PRINT@312,CHR$(202):CHR$(202):PRINT@352,CHR$(202):PRINT@391,CHR$(202):CHR$(
202)
1180 GOTO550
1190 PRINT@509,CHR$(202):PRINT@548,CHR$(202):PRINT@586,CHR$(202):CHR$(202):CHR$(
202)
1195 GOTO550
1200 PRINT@510,CHR$(202):PRINT@550,CHR$(202):PRINT@590,CHR$(202):CHR$(202):CHR$(
224)
1205 FORS=1TO1000:NEXT
1210 GOTO640
1220 DATAMOUTH,RIGHT,DEAD,WORM,CHEST,ROW,SORT,TRUE,CHEER,SON,SUN,RUN,RAT,WORK,PI
E,FENCE,PAPER,PEOPLE,MOTOR,BUSY,STIFF,IT
1230 DATAPLEASE,DANCE,FRONT,MONTH,YEAR,DAY,HIGH,LOW,TODAY,WEATHER,LADDER,BABY,CH
ALK,HEAVY,CLOSE,YOUNG,FIELD,EASY,TASTE,IN,RADIO,FRIEND,PAST,WONDER,SUGAR,KNOT,LA
MB,VOICE,TOUCH,KNIFE,RICE,GIANT,CLOTH,BRIDGE,FRESH,OF
1240 DATAPIN,HEALTH,WEALTH,MISTAKE,NOTHING,COUNTRY,RED,BLUE,OCEAN,SKIN,TOE,WORK,
SPORT,BEAUTIFUL,UNDERSTAND,SOMWHERE,EVERYTHING,EVERYBODY,YESTERDAY,SOMETHING,BET
WEEN,A
1250 DATAANYTHING,BREAKFAST,CHILDREN,ALMOST,SUMMER,AFTERNOON,SHUT,CARPENTER,AMBU
LANCE,MEDICINE,MISERABLE,DAMAGE,ACCIDENT,MACHINE,BATTERY,MONKEY,HORSE,PROTECTED,
RESTAURANT
```

MULTISORT

from Keith McGill

Sorts up to 100 items:

- |           |           |
|-----------|-----------|
| 1). A-Z   | 2). Z-A   |
| 3). 1-100 | 4). 100-1 |

(From 55 Advanced Programs in Basic,TAB)

```
10 CLS
12 COLOUR1
15 PRINT@134,"* MULTISORT *"
16 PRINT:PRINT:PRINT"ADAPTED FOR COLOUR GENIE BY A.K.McGill FROM '55 ADVANCED
COMPUTER PROGRAMS IN BASIC'(WM.SCOTT WATSON,TAB)"
17 PRINT:PRINT:PRINT"THIS PROGRAMME WILL SORT SEQUENTIALLY OR ALPHABETICALLY /
LIST OF DATA"
18 PRINT" YOU MAY SAVE THE RESULTS IN NORMAL OR REVERSE ORDER"
20 CLEAR 1000:PRINT:INPUT"NUMBER OF ITEMS":NUMBER
30 DIM S(NUMBER):DIM S$(NUMBER)
40 PRINT:PRINT"TYPE OF SORT":PRINT:PRINT"(1) NUMERIC,LOWEST TO HIGHEST"
50 PRINT"(2) NUMERIC,HIGHEST TO LOWEST":PRINT"(3) ALPHANUMERIC,ALPHABETIZED":PR
INT"(4) ALPHANUMERIC,REVERSED"
60 INPUT "ENTER SORT CHOICE (1,2,3,4)":DIR
70 IF DIR<2 GOTO 90
80 FOR INDEX=1 TO NUMBER:PRINT"ITEM NO.":INDEX:" ":INPUT S(INDEX):NEXT INDEX:G
OTO 100
90 FOR INDEX=1 TO NUMBER:PRINT"ITEM NO.":INDEX:" ":INPUT S$(INDEX):NEXT INDEX
100 OLD=1
110 OLD=2*OLD:IF OLD<NUMBER THEN 110
120 OLD=INT((OLD-1)/2)
130 IF OLD=0 THEN 290
140 LIMIT=NUMBER-OLD
150 FOR INDEX= 1 TO LIMIT
160 HOLD=INDEX
170 KEEP=HOLD+OLD
180 IF DIR=1 THEN 190 ELSE IF DIR=2 THEN 210 ELSE IF DIR=3 THEN 230 ELSE IF DIR=
4 GOTO 250 ELSE PRINT"ILLEGAL SORT CHOICE":GOTO 40
190 IF S(KEEP)<S(HOLD) THEN HANG=S(HOLD):S(HOLD)=S(KEEP):S(KEEP)=HANG:HOLD=HOLD-
OLD:IF HOLD>0 THEN 170
200 GOTO 260
210 IF S(KEEP)>S(HOLD) THEN HANG=S(HOLD):S(HOLD)=S(KEEP):S(KEEP)=HANG:HOLD=HOLD-
OLD:IF HOLD>0 THEN 170
220 GOTO 260
230 IF S$(KEEP)<S$(HOLD) THEN HANG$=S$(HOLD):S$(HOLD)=S$(KEEP):S$(KEEP)=HANG$:H
OLD=HOLD-OLD:IF HOLD>0 THEN 170
240 GOTO 260
250 IF S$(KEEP)>S$(HOLD) THEN HANG$=S$(HOLD):S$(HOLD)=S$(KEEP):S$(KEEP)=HANG$:H
OLD=HOLD-OLD:IF HOLD>0 THEN 170
260 NEXT INDEX
270 GOTO 120
280 INPUT"SORT COMPLETE...PRESS RETURN FOR SORTED LIST ":A$
290 INPUT"SORT COMPLETE...PRESS RETURN FOR SORTED LIST ":A$
300 CLS:FOR INDEX=1 TO NUMBER
310 IF DIR<2 GOTO 340
320 PRINTS(INDEX)
330 GOTO 350
340 PRINTS$(INDEX)
350 NEXT INDEX
355 INPUT"ANOTHER SORT - Y/N":C$
356 IF LEFT$(C$,1)="Y" THEN 20 ELSE 360
360 PRINT:PRINT:PRINT"END OF PROGRAMME":END
```

```

10 THIS IS A GAME OF NOUGHTS AND CROSSES FOR THE COLOUR GENIE
20 -----
30 SENT TO US BY GEOFF MITCHELL, OF MANGAWHAI
40 -----
100 DIM C (9), W(72,5)
120 CLS :PRINT "THIS IS A GAME NAUGHTS AND CROSSES.":PRINT
130 PRINT :PRINT "I'M 'O',YOU'R 'X'.":PRINT
135 PRINT:PRINT"THE POSITIONS ARE:":PRINT
140 PRINT "1 2 3"
150 PRINT "4 5 6"
160 PRINT "7 8 9"
165 PRINT :PRINT" HIT -RETURN TO BEGIN...":INPUT Z:CLS
170 G=G+1
180 IF G<72 THEN 190 ELSE G=1
190 FOR I=1 TO 9:C(I) =0:NEXT I:C=0:C1=0
200 RESTORE:IF RND(0) <.5 THEN 220
210 PRINT "I'LL GO FIRST.":PRINT:GOTO 300
220 PRINT "YOU GO FIRST.":PRINT
225 FOR Z=1 TO 500:NEXT Z
230 PRINT : INPUT "WHAT IS YOUR NEX T MOVE": M:CLS
240 GOSUB 650
250 IF E=0 THEN 270
260 PRINT "ILLEGAL MOVE."230
270 C(M)=2:GOSUB 780:C=C+1
280 C1=C1+1:W(G,C1)=M
290 IF E=1 THEN 540 ELSE IF C=9 THEN 540
300 M =1
310 IF C(M)<>0 THEN 330 ELSE C(M)=1: GOSUB 780
320 IF E=1 THEN 500 ELSE C(M)=0
330 M=M+1:IF M>10 THEN 310
340 M=1
350 IF C (M) <>0 THEN 370 ELSE C(M)=2: GOSUB 780
360 IF E=1 THEN 490 ELSE C(M)=0
370 M=M+1:IF M>10 THEN 350
380 IF G=1 THEN 450 ELSE I=1
390 E=0:FOR M=1 TO C1
400 IF W(I,M)=W(G,M) THEN 410 ELSE E=1
410 NEXT M:IF E=1 THEN 440
420 M=W (I,M+1):IF M=0 THEN 440
430 IF C(M)=0 THEN 490
440 I=I +1:IF I>G THEN 390
450 IF RND (0)<.4 THEN 480
460 READ M:IF C(M)<>0 THEN 450 ELSE 490
470 DATA 5,7,3,9,1,6,8,4,2
480 M=INT (9+RND(0))+1:IF C(M)=0 THEN 490 ELSE 480
490 C (M)=1
500 PRINT "MY MOVE IS:":M
510 PRINT :GOSUB 690:GOSUB 780
520 IF E=1 THEN 550
530 C=C+1:IF C=9 THEN 550 ELSE 230
540 PRINT :GOSUB 690
550 PRINT:IF G=0 THEN 580 ELSE IF G>1 THEN 570
560 PRINT "I WON!!!":Y1=Y1+1:GOTO 590
570 PRINT "YOU WON!!!":X1=X1+1: GOTO 600
580 PRINT "IT'S A TIE!!!":X2=X2+1
590 FOR I=1 TO 5:W(G,I) =0:NEXT I:G=G-1
600 PRINT:PRINT "ANOTHER GAME? (Y=YES)":INPUT A#
610 CLS:IF A#="Y" THEN 130
620 PRINT:PRINT "FINAL SCORE:":PRINT
630 PRINT "YOU"X1" ME"Y1" TIE(S)"X2
640 PRINT:PRINT:GOTO 910
650 E=0:IF M<1 THEN 670 ELSE IF M>9 THEN 670

```

```

660 IF C(M)=0 THEN 680
670 E=1
680 RETURN
690 FOR I=1 TO 9
700 PRINT " " : IF C(I) <> 0 THEN 720
710 PRINT "-":GOTO 740
720 IF C(I) <> 1 THEN 730 ELSE PRINT "0":GOTO 740
730 PRINT "X":
740 IF I/3<>INT(I/3) THEN 760
750 PRINT :GOTO 770
760 PRINT " " :
770 NEXT I:RETURN
780 E=0:G=C(5):IF G=0 THEN 840
790 IF C(1)<>G THEN 810 ELSE IF C(9)<>G THEN 810
800 E=1:RETURN
810 IF C(3)<>G THEN 820 ELSE IF C(7)=G THEN 800
820 IF C(2)<>G THEN 830 ELSE IF C(8)=G THEN 800
830 IF C(4)<>G THEN 840 ELSE IF C(6)=G THEN 800
840 G=C(1): IF G=0 THEN 870
850 IF C(2)<>G THEN 860 ELSE IF C(3)=G THEN 800
860 IF C(4)<>G THEN 870 ELSE IF C(7)=G THEN 800
870 G=C(9):IF G=0 THEN 900
880 IF C(3)<>G THEN 890 ELSE IF C(6)=G THEN 800
890 IF C(7)<>G THEN 900 ELSE IF C(8)=G THEN 800
900 G=0:RETURN
910 END

```

\*\*\*\*\*

DUE TO LACK OF SPACE THERE IS NO LIST OF MEMBERS THIS MONTH

ALSO MISSING IS THE EASY CODE LISTING  
THIS IS A VERY GOOD PROGRAM BUT HAS OVER 3000 LINES AND WOULD HAVE  
TAKEN 9 PAGES (HALF THE NEWSLETTER). SO IF YOU WOULD LIKE THIS LISTING  
PLEASE SEND A SELF ADDRESSED ENVELOPE TO

THE EDITOR  
6 JENANNE PLACE  
GLENFIELD  
AUCKLAND 10

ED

AND REMEMBER WHEN PROGRAMING

RUBBISH IN

OBIS!H OOT

11 PRINT#7,"DESIGNED BY A.K.McGILL,1984"

12 '  
13 '  
14 '  
15 '  
16 '  
17 PRINT#40,"M O R S E T R A I N E R"  
18 '  
19 '  
20 '  
21 '

MORSE PRACTICE from Keith McGill

Words per minute variable - you select.  
All alphanumeric A-Z, 0 - 9. Plays the  
sounds, prints out simultaneously. This  
is an original program.

```
30 PRINT#600,"A PROGRAMME TO HELP YOU LEARN THE MORSE CODE BY EAR TRAINING. IT IS A SOUND IDEATO KEEP THE INDIVIDUAL CHARACTERS UF  
O A GOOD SPEED,"  
32 PRINT"AND LENGTHEN THE PAUSES IF YOU NEED TO"  
40 PRINT  
50 PRINT"INPUT YOUR SPEED. 20 IS FAST,100 IS SLOW"  
60 INPUT"SPEED":S  
70 N=0  
75 CLS  
80 PRINT#640,"TYPE A LETTER"  
90 L$=INKEY$:IF L$="" THEN 90  
100 IF L$="A" THEN TD=S:GOSUB 510:TD=S *3:GOSUB 510  
110 IF L$="B" THEN TD=S*3:GOSUB 510:TD=S:GOSUB 510:GOSUB 510:GOSUB 510  
120 IF L$="C" THEN TD=S*3:GOSUB 510:TD=S:GOSUB 510:TD=S*3:GOSUB 510:TD=S:GOSUB 510  
130 IF L$="D" THEN TD=S*3:GOSUB 510:TD=S:GOSUB 510:GOSUB 510  
140 IF L$="E" THEN TD=S:GOSUB 510  
150 IF L$="F" THEN TD=S:GOSUB 510:GOSUB 510:TD=S*3:GOSUB 510:TD=S:GOSUB 510  
160 IF L$="G" THEN TD=S*3:GOSUB 510:GOSUB 510:TD=S:GOSUB 510  
170 IF L$="H" THEN TD=S:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510  
180 IF L$="I" THEN TD=S:GOSUB 510:GOSUB 510  
190 IF L$="J" THEN TD=S:GOSUB 510:TD=S*3:GOSUB 510:GOSUB 510:GOSUB 510  
200 IF L$="K" THEN TD=S*2:GOSUB 510:TD=S:GOSUB 510:TD=S*3:GOSUB 510  
210 IF L$="L" THEN TD=S:GOSUB 510:TD=S*3:GOSUB 510:TD=S:GOSUB 510:GOSUB 510  
220 IF L$="M" THEN TD=S*3:GOSUB 510:GOSUB 510  
230 IF L$="N" THEN TD=S*3:GOSUB 510:TD=S:GOSUB 510  
240 IF L$="O" THEN TD=S*3:GOSUB 510:GOSUB 510:GOSUB 510  
250 IF L$="P" THEN TD=S:GOSUB 510:TD=S*3:GOSUB 510:GOSUB 510:TD=S:GOSUB 510  
260 IF L$="Q" THEN TD=S*3:GOSUB 510:GOSUB 510:TD=S:GOSUB 510:TD=S*3:GOSUB 510  
270 IF L$="R" THEN TD=S:GOSUB 510:TD=S*3:GOSUB 510:TD=S:GOSUB 510  
280 IF L$="S" THEN TD=S:GOSUB 510:GOSUB 510:GOSUB 510  
290 IF L$="T" THEN TD=S*3:GOSUB 510  
300 IF L$="U" THEN TD=S:GOSUB 510:GOSUB 510:TD=S*2:GOSUB 510  
310 IF L$="V" THEN TD=S:GOSUB 510:GOSUB 510:GOSUB 510:TD=S*3:GOSUB 510  
320 IF L$="W" THEN TD=S:GOSUB 510:TD=S*3:GOSUB 510:GOSUB 510  
330 IF L$="X" THEN TD=S*3:GOSUB 510:TD=S:GOSUB 510:GOSUB 510:TD=S*3:GOSUB 510  
340 IF L$="Y" THEN TD=S*3:GOSUB 510:TD=S:GOSUB 510:TD=S*3:GOSUB 510:GOSUB 510  
350 IF L$="Z" THEN TD=S*3:GOSUB 510:GOSUB 510:TD=S:GOSUB 510:GOSUB 510  
360 IF L$="1" THEN TD=S:GOSUB 510:TD=S*3:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510  
370 IF L$="2" THEN TD=S:GOSUB 510:GOSUB 510:TD=S*3:GOSUB 510:GOSUB 510:GOSUB 510  
380 IF L$="7" THEN TD=S*3:GOSUB 510:GOSUB 510:TD=S:GOSUB 510:GOSUB 510:GOSUB 510  
390 IF L$="3" THEN TD=S:GOSUB 510:GOSUB 510:GOSUB 510:TD=S*3:GOSUB 510:GOSUB 510  
400 IF L$="8" THEN TD=S*3:GOSUB 510:GOSUB 510:GOSUB 510:TD=S:GOSUB 510:GOSUB 510  
410 IF L$="4" THEN TD=S:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510:TD=S*3:GOSUB 510  
420 IF L$="9" THEN TD=S*3:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510:TD=S:GOSUB 510  
430 IF L$="5" THEN TD=S:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510  
440 IF L$="0" THEN TD=S*3:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510  
450 IF L$="6" THEN TD=S*3:GOSUB 510:TD=S:GOSUB 510:GOSUB 510:GOSUB 510:GOSUB 510  
460 IF L$="-" THEN TD=S*3:GOSUB 510:TD=S:GOSUB 510:GOSUB 510:GOSUB 510:TD=S*3:GOSUB 510  
470 IF L$="." THEN TD=S:GOSUB 510:TD=S*3:GOSUB 510:TD=S:GOSUB 510:TD=S*3:GOSUB 510:TD=S:GOSUB 510  
480 N=N+1  
490 PRINT#40+N,L$  
500 GOTO 80  
510 PLAY(1,4,4,15):FOR D=1 TO TD:NEXT:PLAY(1,4,4,0)  
520 RETURN
```

```

10 CLS: CLEAR 1000
110 X=-12:Y=1
120 PRINT:PRINT " * * * MESSAGES * * * ":PRINT:PRINT
130 PRINT:PRINT "AN ELECTRONIC NOTICEBOARD"
140 PRINT "by A.K.McGill, CGUS, Auckland, 1964"
150 PRINT:PRINT:PRINT "PRESS ANY KEY TO CONTINUE"
160 K$=INKEY$: IF K$="" THEN 160
170 CLS
210 PRINT "TYPE A LETTER - IT WILL APPEAR!"
220 PRINT:PRINT "WHEN THIS MESSAGE DISAPPEARS, YOU MAY START TYPING"
230 PRINT:PRINT:PRINT "WHEN YOU TYPE BEYOND THE END OF THE FOURTH LINE, THE SCREEN WILL CLEAR AND YOU CAN START AGAIN"
240 PRINT:PRINT:PRINT "TO ABORT THE PROGRAM AND START AGAIN, PRESS THE UP ARROW (^)":PRINT:PRINT
250 PRINT:PRINT "YOU'LL HEAR A 'BEEP' AS YOU TYPE THE LAST LETTER IN A LINE!"
260 PRINT:PRINT
300 PRINT "PRESS ANY KEY TO CONTINUE"
305 K$=INKEY$: IF K$="" THEN 305
410 FOR FOLS=FOUR4
510 L$=INKEY$: IF L$="" THEN 510
520 G=PEEK(-1984): IF G=8 THEN FOLS=LGR:CLS: CLEAR 300 TO 110
510 G=G+1: IF G>13 THEN Y=16
600 IF G=13 OR G=26 OR G=39 OR G=52 THEN 630 ELSE 710
630 FOR G=1 TO 10: CALL 3570: FOR TD=1 TO 30: NEXT TD: NEXT G
710 IF G>26 THEN Y=33
810 IF G>39 THEN Y=50
910 IF G>52 THEN FOLS=LGR:CLS: G=0: GOTO 110
1010 X=X+12
1110 IF X>149 THEN X=0 AND Y=33
1210 IF L$="A" THEN GOSUB 2110:GOTO 510
1310 IF L$="B" THEN GOSUB 2560:GOTO 510
1410 IF L$="C" THEN GOSUB 3570:GOTO 510
1510 IF L$="D" THEN GOSUB 3580:GOTO 510
1610 IF L$="E" THEN GOSUB 3590:GOTO 510
1710 IF L$="F" THEN GOSUB 3600:GOTO 510
1810 IF L$="G" THEN GOSUB 3610:GOTO 510
1910 IF L$="H" THEN GOSUB 3620:GOTO 510
2010 IF L$="I" THEN GOSUB 3630:GOTO 510
2110 IF L$="J" THEN GOSUB 3640:GOTO 510
2210 IF L$="K" THEN GOSUB 3650:GOTO 510
2310 IF L$="L" THEN GOSUB 3660:GOTO 510
2410 IF L$="M" THEN GOSUB 3670:GOTO 510
2510 IF L$="N" THEN GOSUB 3680:GOTO 510
2610 IF L$="O" THEN GOSUB 3690:GOTO 510
2710 IF L$="P" THEN GOSUB 3700:GOTO 510
2810 IF L$="Q" THEN GOSUB 2510:GOTO 510
2910 IF L$="R" THEN GOSUB 2510:GOTO 510
3010 IF L$="S" THEN GOSUB 2510:GOTO 510
3110 IF L$="T" THEN GOSUB 2710:GOTO 510
3210 IF L$="U" THEN GOSUB 2910:GOTO 510
3310 IF L$="V" THEN GOSUB 3110:GOTO 510
3410 IF L$="W" THEN GOSUB 3410:GOTO 510
3510 IF L$="X" THEN GOSUB 3520:GOTO 510
3610 IF L$="Y" THEN GOSUB 3530:GOTO 510
3710 IF L$="Z" THEN GOSUB 3540:GOTO 510
3810 IF L$=" " THEN GOSUB 3550:GOTO 510
3910 IF L$="^" THEN GOSUB 3710:GOTO 510
4010 IF L$="?" THEN GOSUB 3720:GOTO 510
410 GOTO 510
2110 PLOT X,Y TO X,Y+13: PLOT X+9,Y TO X,Y+7 TO X+9,Y+13
2210 RETURN
2310 PLOT X-9,Y TO X,Y TO X,Y+13 TO X+9,Y+13: PLOT X,Y+7 TO X+9,Y+7
2410 RETURN
2510 PLOT X+5,Y TO X+5,Y+13
2610 RETURN
2710 PLOT X,Y TO X+9,Y: PLOT X+4,Y TO X+4,Y+13

```

### LARGE LETTERS from Keith McGill

Print a message from keyboard to screen. Four lines of up to 13 letters each line. Each letter about 5 spaces high. On HGR screen. Includes A-Z, space, !,?. This is an original program.



70 RETURN  
910 PLOT X,Y TO X,Y+13:PLOT X+9,Y TO X+9,Y+13:PLOT X,Y+7 TO X+9,Y+7  
9010 RETURN  
9110 PLOT X,Y TO X+7,Y TO X+7,Y+1 TO X+8,Y+2 TO X+9,Y+3 TO X+9,Y+4 TO X+9,Y+5 TO X+8,Y+6 TO X+7,Y+7 TO X,Y+7  
9210 PLOT X+7,Y+7 TO X+8,Y+8 TO X+9,Y+9 TO X+9,Y+11 TO X+8,Y+12 TO X+7,Y+13 TO X,Y+13 TO X,Y  
9310 RETURN  
9410 PLOT X,Y+13 TO X,Y TO X+5,Y+8 TO X-9,Y TO X+9,Y+13  
9510 RETURN  
9520 PLOT X+9,Y TO X+3,Y TO X+2,Y+1 TO X+1,Y+2 TO X,Y+3 TO X,Y+10 TO X+1,Y+11 TO X+2,Y+12 TO X+3,Y+13 TO X+9,Y+13  
9525 RETURN  
9530 PLOT X,Y+13 TO X,Y TO X+7,Y TO X+8,Y+1 TO X+9,Y+2 TO X+9,Y+6 TO X+8,Y+7 TO X+7,Y+8 TO X,Y+8  
9532 PLOT X+7,Y+8 TO X+9,Y+13  
9535 RETURN  
9540 PLOT X,Y+13 TO X,Y TO X+9,Y-13 TO X-9,Y  
9545 RETURN  
9550 PLOT X+9,Y TO X+3,Y TO X+2,Y+1 TO X+1,Y+2 TO X,Y+3 TO X,Y+4 TO X+1,Y+5 TO X+2,Y+6 TO X+2,Y+7 TO X+6,Y+7 TO X+7,Y+8 TO X+8,Y+9 TO X+9,Y+10 TO X+9,Y+11 TO X+8,Y+12 TO X+7,Y+13 TO X,Y+13  
9555 RETURN  
9560 PLOT X+8,Y+8 TO X+8,Y+2 TO X+7,Y+1 TO X+6,Y TO X+9,Y TO X+2,Y+1 TO X+1,Y+2 TO X,Y+3 TO X,Y+11 TO X+1,Y+12 TO X+2,Y+13 TO X+6,Y+13 TO X+7,Y+12 TO X+8,Y+11 TO X+8,Y+5  
9562 PLOT X+9,Y-8 TO X-7,Y+8  
9565 RETURN  
9570 PLOT X,Y TO X,Y+13 TO X+9,Y+13  
9575 RETURN  
9580 PLOT X,Y+13 TO X-5,Y TO X+9,Y+13  
9582 PLOT X+3,Y+8 TO X+6,Y+8  
9585 RETURN  
9590 PLOT X+9,Y TO X,Y TO X,Y+13  
9592 PLOT X,Y+8 TO X+8,Y+8  
9595 RETURN  
9600 PLOT X,Y TO X,Y+11 TO X-1,Y+12 TO X-2,Y+13 TO X+5,Y+13 TO X+7,Y+12 TO X+8,Y+11 TO X+7,Y+10 TO X-9,Y  
9605 RETURN  
9610 PLOT X,Y TO X+6,Y TO X+7,Y+1 TO X+8,Y+2 TO X+9,Y+3 TO X+9,Y+10 TO X+8,Y+11 TO X+7,Y+12 TO X+6,Y+13 TO X,Y+13 TO X,Y  
9615 RETURN  
9620 PLOT X,Y+8 TO X,Y-11 TO X+1,Y+12 TO X+2,Y+13 TO X+7,Y-13 TO X-3,Y+12 TO X-9,Y+11 TO X+9,Y  
9625 RETURN  
9630 PLOT X+3,Y TO X+6,Y TO X+7,Y+1 TO X+8,Y+2 TO X+9,Y+3 TO X+9,Y+10 TO X+6,Y+11 TO X+7,Y+12 TO X+6,Y+13 TO X+3,Y+13 TO X+2,Y+12 TO X+1,Y+11 TO X,Y+10 TO X,Y+3 TO X+1,Y+2 TO X+2,Y+1 TO X+3,Y  
9635 RETURN  
9640 PLOT X,Y+13 TO X,Y TO X-7,Y TO X+6,Y+1 TO X+9,Y+2 TO X+9,Y+3 TO X+9,Y+6 TO X+8,Y+7 TO X+7,Y+8 TO X,Y+8  
9645 RETURN  
9650 PLOT X,Y TO X+5,Y+13 TO X+9,Y  
9655 RETURN  
9660 PLOT X,Y TO X+2,Y+13 TO X+5,Y+8 TO X+7,Y+13 TO X+9,Y  
9665 RETURN  
9670 PLOT X,Y TO X+5,Y-8 TO X+5,Y+13  
9672 PLOT X+5,Y+8 TO X+9,Y  
9675 RETURN  
9680 PLOT X,Y TO X+9,Y+13:PLOT X+9,Y TO X,Y+13  
9685 RETURN  
9690 PLOT X,Y TO X+9,Y TO X,Y+13 TO X+9,Y+13  
9695 RETURN  
9700 PLOT X+3,Y TO X+6,Y TO X+7,Y+1 TO X+8,Y+2 TO X+9,Y+3 TO X+9,Y+10 TO X+8,Y+11 TO X+7,Y+12 TO X+6,Y+13 TO X+3,Y+13 TO X+2,Y+12 TO X+1,Y+11 TO X,Y+10 TO X,Y+3 TO X+1,Y+2 TO X+2,Y+1 TO X+3,Y  
9702 PLOT X+6,Y+10 TO X+9,Y+13  
9705 RETURN  
9710 PLOT X+5,Y TO X+5,Y+10:PLOT X+5,Y+12 TO X+5,Y+13  
9715 RETURN  
9720 PLOT X+2,Y+3 TO X+4,Y+1 TO X+7,Y+1 TO X+9,Y+2 TO X+10,Y+4 TO X+9,Y+6 TO X+7,Y+7 TO X+5,Y+8 TO X+5,Y+10:PLOT X+5,Y+12 TO X+5,Y+1

9725 RETURN

```

10 ' POKER L11/16K BY STEPHEN FRANZON
20 ' 10 BRODEN RD WEST BEACH 5024
30 ' COPYRIGHT (C) JULY 1981
35 ' CONVERTED FOR COLOUR GENIE
36 ' BY DON EDWARDS
40 RANDOM:C=10:DIMA$(13):CHAR4
50 CLS:COLOUR4:PRINT$255,CHR$(23);"P O K E R ";
60 COLOUR2:PRINT$325,"DO YOU WANT INSTRUCTIONS";:COLOUR1:PRINT" <Y/N>";
70 A$=INKEY$:IF A$=""GOTO70
80 IF A$="Y"GOSUB1960:GOTO100
90 IF A$<>"N"GOTO70
100 FOR Q=1 TO 13:READ A$(Q):NEXT Q
110 DATA "ACE", "TWO", "THREE", "FOUR", "FIVE", "SIX", "SEVEN", "EIGHT", "NINE", "TEN", "JACK", "QUEEN", "KING"
120 P(0)=2:P(1)=3:P(2)=5:P(3)=7:P(4)=10:P(5)=40:P(6)=100:P(7)=400
130 FOR Q=0 TO 4:A(Q)=0:D(Q)=0:B(Q)=0:V(Q)=0:C(Q)=0:NEXT Q:Z=0:F=0
140 '***SCREEN SET UP***
150 COLOUR6:CLS:PRINT$0,"BETS = ";M;:PRINT$24,"CREDITS = ";C;:COLOUR4:PRINT$52,"PAYOUTS";
160 COLOUR2:PRINT$80,"TWO PAIR =";P(0);:PRINT$120,"3 / KIND =";P(1);:PRINT$160,"STRAIGHT =";P(2);:PRINT$200,"FLUSH =";P(3);
170 PRINT$96,"FULL HOUSE =";P(4);:PRINT$136,"4 / KIND =";P(5);:PRINT$176,"STR/FLUSH =";P(6);:PRINT$216,"RYL/FLUSH =";P(7);
180 IF Z=1 RETURN
190 FOR R=1 TO 5:F=165
200 ON R GOSUB 450,460,470,480,490:GOSUB 1560
210 NEXTR
220 '***CHOOSING CARDS***
230 S=1:FOR Q=0 TO 4
240 A(Q)=RND(13)
250 D(Q)=RND(4)
260 B(Q)=A(Q)+D(Q)*20
270 Y=0
280 IF B(Q)=C(Y)GOTO240
290 IF Y=Q THEN Y=Y+1:IF Y=5GOTO320 ELSE 280
300 IF B(Q)=B(Y)GOTO240
310 Y=Y+1:IF Y=5 THEN GOTO320 ELSE 280
320 IFS=0GOTO350
330 IFS=1 THEN NEXT Q
340 GOTO370
350 GOTO680
360 '***PLACING BETS***
370 COLOUR 5:PRINT$290,"PRESS";
380 COLOUR2:PRINT$305,"B TO PLACE BETS";
390 PRINT$345,"D TO DRAW";
400 A$=" ":A$=INKEY$:IF A$=""GOTO400
410 COLOUR4:IF A$="B"AND C>=1 THEN C=C-1:M=M+1:PRINT$7,M;:PRINT$34,C;:COLOUR5:GOTO400 ELSE IF C<=0 AND A$="B" THEN PRINT$378,"YOU CAN'T BET ANY MORE.":PRINT$418,"YOU'LL HAVE TO DRAW";:GOTO400
420 IF A$="D"AND M=0 THEN PRINT$379,"YOU MUST PLACE A BET";:FOR Q=1 TO 1000:NEXT:PRINT$379,CHR$(30) ELSE IF A$="D" GOTO1650
430 GOTO400
440 '***STARTING POINTS FOR DRAWING CARDS***
450 A=561:T=600:B=606:Y=881:Z=601:H=643:RETURN
460 A=569:T=608:B=614:Y=889:Z=609:H=651:RETURN
470 A=577:T=616:B=622:Y=897:Z=617:H=659:RETURN
480 A=585:T=624:B=630:Y=905:Z=625:H=667:RETURN
490 A=593:T=632:B=638:Y=913:Z=633:H=675:RETURN
500 '***HOLDING CARDS***
510 PRINT$305,CHR$(30);:PRINT$345,CHR$(30);:PRINT$378,CHR$(30);:PRINT$410,CHR$(30)
520 COLOUR2:PRINT$298,"1 - 5 TO HOLD CARDS";
530 PRINT$338,"C TO CANCEL HELD CARDS";
540 PRINT$378,"D TO DRAW";

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550 COLOURS:PRINT$446,"1";:PRINT$453,"2";:PRINT$460,"3";:PRINT$467,"4";:PRINT$4
74,"5";
560 A$="":A$=INKEY$:IFAS$=""GOTO560
570 IFAS$="1"THENPRINT$444,"HELD";:V(0)=1
580 IFAS$="2"THENPRINT$451,"HELD";:V(1)=1
590 IFAS$="3"THENPRINT$458,"HELD";:V(2)=1
600 IFAS$="4"THENPRINT$465,"HELD";:V(3)=1
610 IFAS$="5"THENPRINT$472,"HELD";:V(4)=1
620 IFAS$="C"THENPRINT$440,CHR$(30);:FORQ=0TO4:V(Q)=0:NEXTQ:GOTO550
630 IFAS$="D"THEN660
640 GOTO560
650 '***REPRINTING THE NEW CARDS***
660 S=0:FORQ=0TO4
670 IFV(Q)=0THENC(Q)=B(Q):GOTO240
680 IFV(Q)=0THENR=Q+1:ONRGOSUB450,460,470,480,490:F=249:GOSUB1620
690 NEXTQ
700 FORQ=0TO4
710 IFV(Q)=0THENR=Q+1:ONRGOSUB450,460,470,480,490:F=32 :GOSUB1620:GOSUB1700
720 NEXTQ
730 '***PUTTING CARDS IN ORDER***
740 FORI=1TO4
750 FORJ=0TOI-1
760 IFA(J)>A(I)THENK=A(I):A(I)=A(J):A(J)=K
770 NEXTJ
780 NEXTI
790 '***CHECKING FOR WINS***
800 T=1:V=0
810 ONTGOSUB850,890,940,1010,1050
820 IFV=0THENT=T+1:IFT<>6GOTO810
830 FORQ=1TO1000:NEXTQ:GOTO1090
840 '***FOUR OF A KIND***
850 IFA(0)=A(1)ANDA(1)=A(2)ANDA(2)=A(3)THENV=1
860 IFA(1)=A(2)ANDA(2)=A(3)ANDA(3)=A(4)THENV=1
870 RETURN
880 '***THREE OF A KIND AND FULL HOUSE***
890 IFA(0)=A(1)ANDA(1)=A(2)THENV=2:IFA(3)=A(4)THENV=V+1
900 IFA(1)=A(2)ANDA(2)=A(3)THENV=2
910 IFA(2)=A(3)ANDA(3)=A(4)THENV=2:IFA(0)=A(1)THENV=V+1
920 RETURN
930 '***TWO PAIR***
940 P=0:IFA(0)=A(1)P=P+1
950 IFA(1)=A(2)P=P+1
960 IFA(2)=A(3)P=P+1
970 IFA(3)=A(4)P=P+1
980 IFP=2THENV=4
990 RETURN
1000 '***FLUSH***
1010 IFD(0)=D(1)ANDD(1)=D(2)ANDD(2)=D(3)ANDD(3)=D(4)THENV=5:GOSUB1050
1020 IFV=6THENV=8
1030 RETURN
1040 '***STRAIGHT***
1050 IFA(0)+1=A(1)ANDA(1)+1=A(2)ANDA(2)+1=A(3)ANDA(3)+1=A(4)V=V+6
1060 IFA(0)=1ANDA(1)+A(2)+A(3)+A(4)=46THENV=6
1070 RETURN
1080 '***PRINTING UP WINNINGS***
1090 IFV=0GOTO1520
1100 CLS
1110 COLOURS:IFV=1THENE=P(5)*M:PRINT$485,"FOUR OF A KIND. COLLECT";E;
1120 IFV=2THENE=P(1)*M:PRINT$485,"THREE OF A KIND. COLLECT";E;
1130 IFV=3THENE=P(4)*M:PRINT$485,"FULL HOUSE. COLLECT";E;
1140 IFV=4THENE=P(0)*M:PRINT$485,"TWO PAIR. COLLECT";E;
1150 IFV=5THENE=P(3)*M:PRINT$485,"FLUSH. COLLECT";E;
1160 IFV=6THENE=P(2)*M:PRINT$485,"STRAIGHT. COLLECT";E;
1170 IFV=8THENE=P(7)*M:PRINT$485,"ROYAL FLUSH. COLLECT";E;
1180 IFV=11THENE=P(6)*M:PRINT$485,"STRAIGHT FLUSH. COLLECT";E;

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1190 ***COLLECT OR DOUBLE UP***
1200 COLOUR8:FORT=OT07:P(T)=P(T)*2*M:NEXTT
1210 PRINT$571,"DOUBLE UP - PRESS D";
1220 PRINT$611,"COLLECT WINNINGS - PRESS C";
1230 A$=INKEY$:IFA$=""GOTO1230
1240 IFA$="C"THENC=C+E:M=0:GOTO120
1250 IFA$(">")D"THENA$=""GOTO1230
1260 ***DOUBLE UP***
1270 Z=1:CLS:GOSUB160:COLOUR4:PRINT$7,"DOUBLE PAYOUTS";
1280 GOSUB470:GOSUB1560
1290 A(2)=RND(13)
1300 D(2)=RND(4)
1310 COLOUR6:PRINT$284,"PRESS B FOR BIG ";
1320 PRINT$300,"(LARGER THAN EIGHT)";
1330 PRINT$362,"PRESS S FOR SMALL";
1340 PRINT$380,"(SMALLER THAN EIGHT)";
1350 A$=INKEY$:IFA$=""GOTO1350
1360 COLOUR6:IFA$="B"PRINT$932,"YOUR GUESS IS BIG";:GOTO1390
1370 IFA$="S"PRINT$932,"YOUR GUESS IS SMALL";:GOTO1400
1380 GOTO1350
1390 IFA$="B"ANDA(2)>8THEN1420
1400 IFA$="S"ANDA(2)<8THEN1420
1410 GOTO1460
1420 R=3:F=32 :GOSUB470:GOSUB1620:GOSUB1700
1430 FORQ=1TO1000:NEXTQ
1440 COLOUR5:CLS:E=E*2:PRINT$440,"CONGRATULATIONS - YOU GUESSED CORRECTLY";:COLO
UR6:PRINT$520,"COLLECT";E;" DOUBLE UP AGAIN PRESS D";
1450 FORQ=OT07:P(Q)=P(Q)*2:NEXTQ:GOTO1220
1460 R=3:F=32 :GOSUB470:GOSUB1620:GOSUB1700
1470 FORT=1TO1000:NEXTT
1480 COLOUR5:CLS:PRINT$488,"YOU GUESSED INCORRECTLY";:FORT=1TO500:NEXT
1490 IFC<=0THENCLS:PRINT$480,"SORRY - YOU'VE GOT NOTHING ELSE TO PLAY WITH....";
:FORQ=1TO3000:NEXT:CLS:END
1500 FORQ=1TO2000:NEXT
1510 M=0:GOTO120
1520 COLOUR5:IFC<=0THEN1490ELSECLS:PRINT$487,"SORRY, YOU WON NOTHING";:COLOUR1:P
RINT$567,"PRESS ANY KEY TO CONTINUE";
1530 A$=INKEY$:IFA$=""GOTO1530
1540 GOTO1510
1550 ***DRAWING UP CARDS***
1560 COLOUR7:PRINT$A,STRING$(5 ,218);
1570 PRINT$Y,STRING$(5 ,211);
1580 PRINT$T,CHR$(219);:T=T+40:IFT>879GOTO1600
1590 GOTO1580
1600 PRINT$B,CHR$(207);:B=B+40:IFB>879THENF=249:GOTO1620
1610 GOTO1600
1620 COLOUR7:PRINT$Z,STRING$(5 ,F);
1630 Z=Z+40:IFZ>879RETURN
1640 GOTO1620
1650 FORR=1TO5
1660 ONRGOSUB450,460,470,480,490
1670 F=32 :GOSUB1620:GOSUB1700
1680 NEXTR
1690 GOTO510
1700 OND(R-1)GOSUB1720,1760,1790,1840:GOSUB1900
1710 RETURN
1720 COLOUR3:H=H-1:PRINT$H,CHR$(244)+CHR$(32)+CHR$(244):H=H+39
1730 PRINT$H,CHR$(238)+STRING$(3,202)+CHR$(245):H=H+41
1735 PRINT$H,STRING$(3,202):H=H+40
1740 PRINT$H,CHR$(228)+CHR$(202)+CHR$(226):H=H+41
1745 PRINT$H,CHR$(229)
1750 RETURN
1760 COLOUR6:H=H+40:PRINT$H,CHR$(244):H=H-1
1762 PRINT$H,CHR$(205)+CHR$(202)+CHR$(224):H=H+40

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1765 PRINT$H, STRING$(3,202):H=H+40
1770 PRINT$H, CHR$(228)+CHR$(202)+CHR$(226):H=H+40
1775 PRINT$H, CHR$(205)+CHR$(202)+CHR$(224)
1780 RETURN
1790 COLOUR6:PRINT$H, CHR$(244):H=H+39
1795 PRINT$H, CHR$(238)+CHR$(202)+CHR$(245):H=H+39
1800 PRINT$H, CHR$(238)+STRING$(3,202)+CHR$(245):H=H+41
1810 PRINT$H, CHR$(229)+CHR$(202)+CHR$(229):H=H+41
1830 RETURN
1840 COLOUR3:PRINT$H, CHR$(244):H=H+39
1850 PRINT$H, CHR$(205)+CHR$(202)+CHR$(224):H=H+39
1860 PRINT$H, CHR$(238)+STRING$(3,202)+CHR$(245):H=H+41
1870 PRINT$H, CHR$(228)+CHR$(202)+CHR$(226):H=H+41
1880 PRINT$H, CHR$(229)
1890 RETURN
1900 B$(R-1)=A$(A(R-1))
1910 COLOUR7:PRINT$Z-280, B$(R-1);
1920 P=LEN(B$(R-1))
1930 J=Y-35-P
1940 PRINT$J, B$(R-1);
1950 RETURN
1960 CLS:COLOUR4:PRINT$12, "** P O K E R **"
1970 COLOUR2:PRINT:PRINT" THIS GAME IS VERY SIMPLE TO PLAY. YOU START OF WITH T
EN CREDITS AND YOU BET AS MANY AS YOU LIKE ON EACH HAND. THEN YOU DRAW THE CARDS
AND SELECT THE CARDS YOU WANT TO HOLD. YOU THEN DRAW THE CARDS AGAIN AND YOU
ARE TOLD IF_
1980 PRINT:PRINT
"IF YOU WIN YOU HAVE THE CHOICE TO DOUBLE UP OR TO COLLECT YOUR MONEY. IF YOU
DOUBLE UP, YOU WAGER YOUR WINNINGS ON WHETHER A CARD IS BIG ( GREATER THA
N EIGHT ) OR WHETHER IT IS SMALL ( LESS THAN EIGHT ).";
1990 PRINT"IF YOU GUESS CORRECTLY, YOU WIN TWICE THE AMOUNT YOU ORIGINALLY WON
. THE GAME CONTINUES UNTIL YOU RUNOUT OF CREDITS. G O O D L U C K ....."
2000 COLOUR1:PRINT:INPUT"PRESS < RETURN ) TO START PLAYING.";L
2010 CLS:RETURN

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A FINAL WORD  
WHEN SENDING IN PROGRAMS (WHICH WE LOVE TO GET) IF POSSIBLE PLEASE PRINT  
THEM ON A4 PAPER AS WE HAVE TO RECOPY PROGRAMS THAT ARE ON COMPUTER PAPER  
AND THIS LEADS TO POORER REPRODUCTION AND ALSO MEANS IT TAKES LONGER SO  
YOU DON'T GET YOUR NEWSLETTER AS QUICKLY.

A4 IS THE NEWSLETTER SIZE.