

Vol 3 Issue 1

Jan/Feb 95

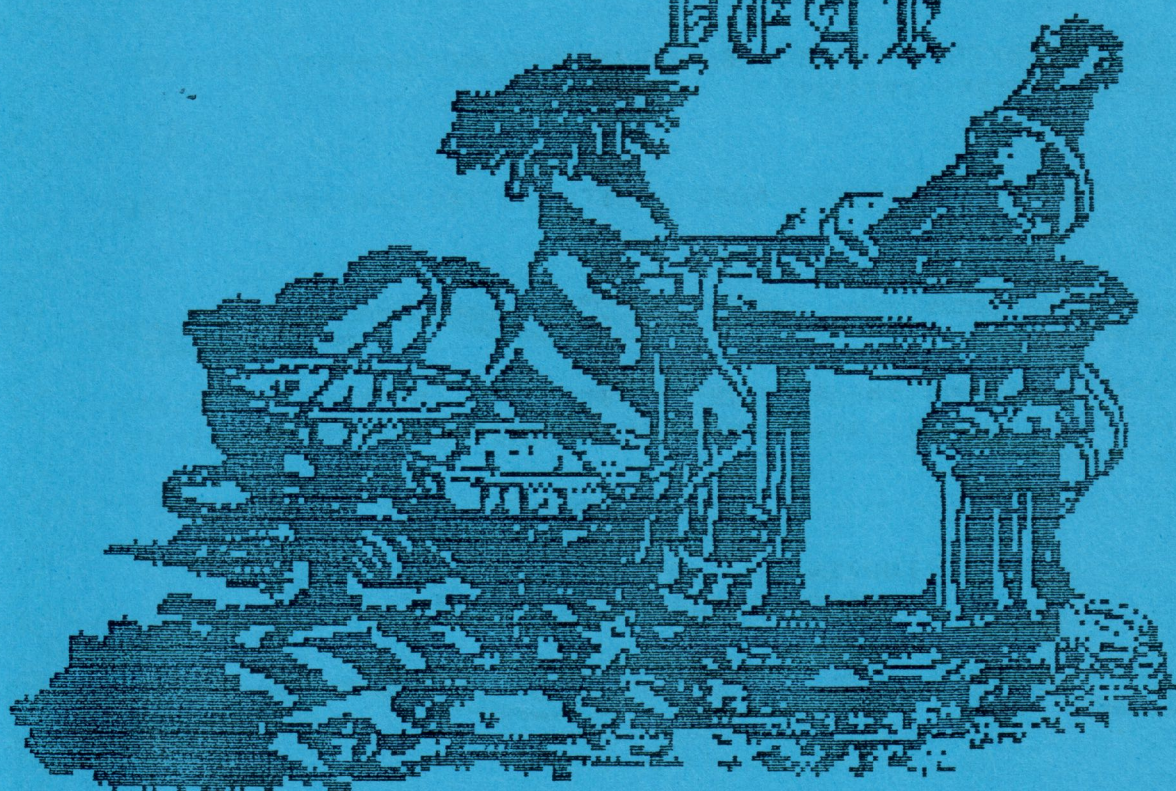
# COCO - LINK

THE COLOUR COMPUTER MAGAZINE

HAPPY

NEW

YEAR



## THIS ISSUE

Operating System 9

Graphics

Back to Basics

For Sales & Wanted

+ Heaps More





# REMCOMS

REMIN COMPUTER SOFTWARE

ARE YOU LOOKING FOR THAT HARD TO GET PROGRAMME FOR YOUR COLOUR COMPUTER?

DID YOU THINK THAT THERE WAS NO LONGER ANY SUPPORT FOR YOUR COLOUR COMPUTER SYSTEM?

HAVE YOU BEEN WONDERING ABOUT JUST WHAT IS AVAILABLE FOR THE COLOUR COMPUTER?



NOW YOU CAN FIND THE ANSWERS TO THE ABOVE QUESTIONS PLUS ANY OTHER THAT YOU MAY HAVE ABOUT THE COLOUR COMPUTER SYSTEM BY CONTACTING:

REMCOMS  
P.O. BOX 787  
THURINGOWA CENTRAL QLD 4817  
PHONE/FAX/BBS: (077) 734 884



WE ARE ALSO THE AUSTRALIAN AGENTS FOR ALL THE COMPANIES ADVERTISED IN THIS MAGAZINE.



BBS TIMINGS AND BAUD RATES ARE:  
FRI/SAT/SUN 2030 - 0500  
BAUD RATES  
1200/2400/4800/9600



# CONTENTS

## DEPARTMENTS:

Remins Ramblings	2
CoCo Shop	26
CoCo Contact List	27
Submission Information	06

## COLUMNS:

Operating System Nine	20
Back to Basics	14

## FEATURES:

Exam Marker	05
Yahtzee	07
Blocks	16
CoCo3 Emulator	03

## ADVERTISERS

REMCOMS	I/Cover	Farna Systems	I/Cover
J.W.T Enterprises	02	Alpha Products	06
P.C.C.C	22	Casino Electronics	12
Microcom	25	Rick's Enterprise	18
OS9 Public Domain	23	Radical Electronics	19

## Copyright Notice

All material in this magazine remains the copyright of the authors. It is an offence to distribute this magazine or its contents in any form or media



## Remins Ramblings

Welcome back all cocoists to this the beginning of year three of CoCo-Link for Ros and I. It is hard to believe that we have kept going for two years and that our third is looking even better.

Why is it looking better? Well over the last two weeks I have received phone calls from Tasmania, South Australia, Canberra, New South Wales and The Northern Territory from people who some years ago went across to IBM and are now coming back to the CoCo. In almost every case the reason why was because they have become bored with the IBM and miss the sense of achievement and discovery that is there when working on the CoCo.

Another reason it is looking better is because of what is happening in the field of emulators, it seems that there is now available an emulator for the CoCo 3 on an IBM machine. This is one that I will be checking out to see what the go is so to speak.

Remember the CoCo Registry that we sent out a few issues ago? Well it seems that the response to this venture was quite good all over the world and there is now available a disk with all those that participated on it, in the form of a data base of cocoists. I have ordered this disk from the states and should have it by the time the next issue is due out, I will let you know what it is all about then.

All these things plus the amount of submissions that we are receiving for the magazine lead me to believe that 1995 our third year producing

CoCo-Link is going to be a good one. It also tells me that the CoCo, which is now 14 years old, is by no means dead and gone, but continues to amaze people with it's versatility and capabilities.

The survey that we asked you to take part in is starting to trickle in and your responses are being taken particular note of. I will give it another month or two so that you can all get them back to me before I let you know what the responses were and how they will change, if indeed they do, the magazine. So far those that have been returned are happy with the way things are at the moment, however the two column, three column format, stands at about 50/50 at this time, I will need a greater percentage one way or the other before I decide what to do with that one.

Well, what do we want to see in 1995? For one heaps of submissions from you our readers. I for one would like to see someone come up with a way to use the CoCo with a fax/modem to send and receive faxes under both RSDOS and OS9. We would like to see some submissions from those of you with coco 1's and 2's, both 16 & 64K, for all the beginners out there.

I would like someone to donate a laser printer to CoCo-Link to improve the print of the magazine, lets face it, you can only do so much with a 9 pin dot matrix, (are you out there and listening fairy godmother). But most of all we would like to have you all still subscribing to CoCo-Link in January 1996.

So until next issue, keep on cocoing, and keep those submissions coming.

\*\*\*\*\*  
J.V.T ENTERPRISES  
\*\*\*\*\*

### OPTIMIZE UTILITY SET 1

-> Includes utility to check file and directory fragmentation.

-> Works alone or with Burke & Burke repack utility.

-> One stop optimization for any Level II OS-9 system.

Price: \$45 + P&P

### OPTIMIZE UTILITY SET 2

-> Check and correct any disks file and directory structure without any technical mumbo jumbo

-> Run periodically to maintain the integrity of your disks as well as the reliability of your data.

-> Especially usefull before optimizing your disks.

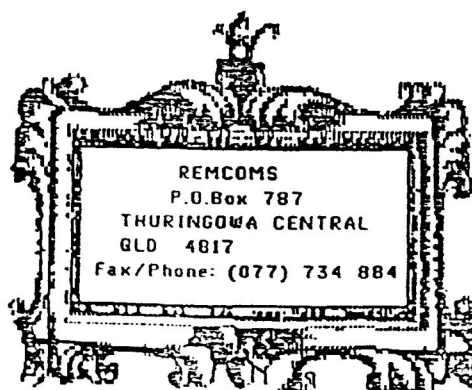
Price: \$35 + P&P

### OPTIMIZE UTILITY SET PAC

Price: \$60 + P&P

The above are available from  
REMCOMS.

\*\*\*\*\*





\*\*\*\*\*  
 -----COCO 3 EMULATOR-----  
 \*\*\*\*\*

The CoCo 3 emulator has been released and the following is all the information we have about it at the moment. I am led to believe that George McIntock has purchased the emulator, maybe when he receives it he could let the rest of us know what it is all about and how well it works.

In the mean time here is the information that we have to date;

--: Full CoCo3 Basic and OS9 Level II compatibility,

--: Sound card and PC speaker support for CoCo DAC sound generation,

--: Use of mouse or PC joystick for either or both joystick ports,

--: Can use 40 or 80Trk virtual disks in OS9 level II,

--: FULL REAL TIME MULTITASKING!!

--: That's right, real multitasking on the PC!

--: Printer fully functional in both DECB and OS9 level II,

--: All CoCo 3's colours and video modes fully functional,

--: ROM, virtual disk and virtual tape menus,

--: Improved menu driven File Port Utility can be called up and used within emulator.

There is much more. This emulator will function just like a CoCo3 and will do so right on your PC compatible! (Imagine CoCo Max III running on a PC, or MAX-10. Harvard Graphics capability for 1/4 of the price!)

# WHAT WILL YOU NEED?

--: PC compatible (286 w/640K minimum required; 386SX/16 or higher recommended; at least 384K of EMS memory required for 512K emulation - 128K without EMS; VGA graphics.)

--: PC sound card (optional - required for sound),

--: Mouse (joystick optional),

--: CoCo3 ROM and Disk Basic ROM from Disk Drive ROMPak (Instructions on getting the ROMs transferred from your disk based CoCo 3 system is included in the emulator package),

--: Some of the many programmes found to run with the emulator are:

--: King's Quest III

--: Koronis Rift

--: Rogue

--: OS-9 Level II

--: Multi-Vue

--: Deskmate 3

--: Sub-Etha's Towel & Invaders

--: Most MSDOS programmes and utilities, such as EDTASM, Colour Ventures, Backup Lightning etc.

The CoCo 3 Emulator is available only by registration. Registration info is found in the 'new' ver 1.40 release of the CoCo 2 emulator which should appear on SimTel FTP mirror sites shortly. The file is coco2-1.4.zip (\*not\* coco2-1.3.zip). One simTel site is oak.oakland.edu, the directory is pub/msdos/emulator. When you register your copy of the CoCo2 emulator, you will be sent the CoCo 3 emulator disk. Once you have checked your MSDOS system and verified that it meets the emulator requirements, you can send \$25(US) to:

Jeff Vavasour  
 c/o Department of Physics  
 6224 Agricultural Road  
 University of British Columbia  
 Vancouver, B.C  
 CANADA V6T 1Z1

Jeff's e-mail:

jeffv@physics.ubc.ca

\*\*\*\*\*  
 The above information is reprinted by permission of '68 micros.  
 \*\*\*\*\*

{ } { } { } { } { } { } { } { } { } { } { } { }

If there are enough interested parties for this product I will take steps to see about marketing it in Australia through REMCOMS. Please let us know ASAP if you would like us to take this step or if you would like to go it alone.

{ } { } { } { } { } { } { } { } { } { } { } { }





# Max-10

## THE DAZZLING WORD PROCESSOR

You probably already have a word processor, and you probably wish it had these features:

- ▶ Fully menu driven (CoCo Max style) with point and click marking of text. You don't need the arrow keys!
- ▶ True WYSIWYG (What You See Is What You Get) including variable size fonts, styles (bold, italics, etc.) and graphics.
- ▶ Can print multiple columns on a page.
- ▶ Not limited by printer capabilities: fonts up to 24 points (1/3") high, superscripts, small print, etc.
- ▶ Fully integrated spelling checker (incredibly fast), no need to exit program to check spelling.
- ▶ Graphics can be imported from just about anything (CoCo Max; MGE; BASIC; even Macintosh pictures from a BBS) and resized to fit your document.
- ▶ Full screen preview including graphics.

Max-10 has all these unique features, plus all the features you are used to in your current word processor. Even with all this, you don't give up anything. Max-10 is easier to use, more intuitive, faster and more powerful than anything else. It's not just a word processor, it's a desktop publisher.



Some of the many features of Max-10:

- Blinding speed - printing in multiple columns - online dictionary
- spell checking - graphics can be mixed with text - full justification of proportionally sized characters - bold, italic, underline
- superscript and subscript type styles - superb file support, just point and click - "Undo" lets you correct mistakes - easy to use, no commands to remember - any graphics program can be used
- pictures can be shrunk or stretched to fit - right and left alignment - centering - variable line spacing - page numbering - current page number displayed on the screen - variable tab stops - left and right margins - tabs and margins can vary in the same document
- cut and paste text and graphics anywhere in the file - page break shows on the screen - pull down menus are quick and simple to use
- lightning fast access to any point in the document with the scroll box - twenty fonts (styles and sizes), more available - any number of character sizes and styles can be mixed on the same line - up to more than 120 characters per line, depending on font size, style and letters - headers and footers, even with graphics - file compatibility with other word processors - right, left, bottom and top margins - word wrap - set starting page - type ahead - key repeat - key click - scroll up and down - ASCII file output for compatibility
- disk directory - kill files - block cut, copy and move - global search and replace - paragraph indent - clipboard - merge - show file (on disk) - free memory display - page count - paragraph count - word count - graphics can be resized and moved - multiple fonts - error recovery - true lowercase - 512K memory support (all features work with 128K too) - complete point and click cursor control - moving, clearing and changing blocks of text is ridiculously easy, just point and click at each end of the text block - onscreen ruler - preview file before loading - search and replace - disk is not copy protected - more than 35 pages of text

## CoCo Max III and Max-10 Perfect Together

You do not need CoCo Max III to insert and print graphics in Max-10. Max-10 works with any graphics creation program, and you can also use graphics downloaded from bulletin boards.

Similarly, you do not need Max-10 to create graphics with text in CoCo Max III. There are tremendous lettering capabilities in CoCo Max III, with its many fonts, styles, and sizes.

Together Max-10 and CoCo Max III are an unbeatable combination. This desktop publishing system is better than anything you've ever seen on a CoCo. We are so confident that you will use, and enjoy using the two software packages, that we offer an unconditional money back guarantee. Stop wasting your time and effort using inferior or obsolete products. Move up to the new generation of CoCo software now.

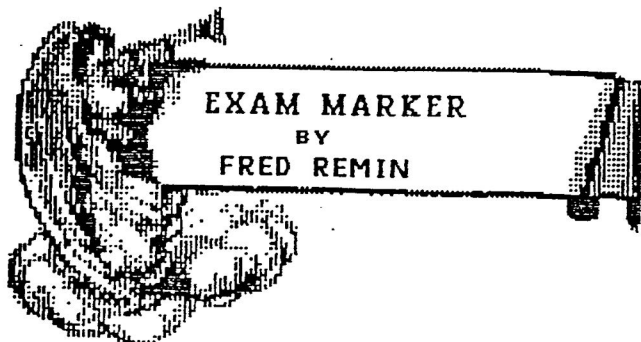
### THE SLIPPED DISK



### Max-10:

Max-10 requires a CoCo 3, at least 1 disk, & joystick or mouse  
Printer drivers included: IBM/Epson and compatibles; DMP  
105, DMP106, DMP130; CGP220 (B&W); Gemini/Star





The following programme is one that I submitted some years ago when the magazines Softgold and CoCo were still going strong. It was written on a 64K CoCo 2.

It has not been updated to the CoCo 3 as yet, although it WILL work on the CoCo 3, by updating I mean that it has not been enhanced to take advantage of the 40 or 80 column screens and the enhanced commands that go along with them, eg LOCATE or ATTR.

To take advantage of the printer routine you will need to change the POKE in line 845 to suit your baud rate, it is currently set at 9600 baud which is what I run my DMP136 at with a Blue Streak Ultima. You will need to replace the 1 in POKE150,1 to suit your baud rate where:

87=600, 41=1200, 18=2400, 7=4800 and 1=9600

The programme itself is an examination marker and annilyser, you put in the answer key and then simply input each students own answers. The programme will mark each students paper and then allow you to anilyse each question to see how the students answered. For example if a question only received 10% correct answers, then it may need to be either rephrased, removed or extra tuition given on the subject.

If any of you are involved in the marking of examination papers, as I am quite regularly, then I think you will find this programme of

some benefit.

In any case have a play around with

it and if you do take the time to update it for the CoCo3 then why not resubmit it with your enhancements to the magazine for the benefit of all.

```

0 GOTO10
1 'EXAM MARKER/ANNALYZER
2 'BY FRED REMIN
3 'TOWNSVILLE QLD
5 SAVE"292:3":END'2
10 DIM N$(200)
20 CLEAR5000:CLS
30 PRINT"QUESTIONNAIRE/EXAM
ANALYZER"
40 E$="ERROR.RE-ENTER.":
P$="PRESS A KEY"
50 Q=25:C=5:N=90
60 DIMQ$(N),C(C)'
70 PRINT
80 PRINT"ENTER ANSWER KEY OR PRESS
ENTER"
90 GOSUB650:C$=RIGHT$(STR$(C),1)
100 SOUND150,1:INPUT A$:IF
LEN(A$)=0 THEN 140
110 IF LEN(A$)<>Q THEN PRINT
E$:GOTO70
120 T$=A$:GOSUB610
130 IF T$="B" THEN PRINT E$:GOTO70
140 K=1
150 R=0:PRINT:PRINT"ENTRY
NUMBER";K:SOUND150,1
160 LINEINPUT"STUDENT NAME ";N$(K)
170 GOSUB650
180 SOUND150,1:INPUT
Q$(K):W=LEN(Q$(K))
190 IF W=0 THEN310
200 IF W<>Q THEN PRINT E$:GOTO150
210 T$=Q$(K):GOSUB610
220 IF T$="B" THEN PRINT E$:GOTO150
230 IF LEN(A$)=0 THEN 300
240 FOR J=1 TO Q
250 IF MID$(A$,J,1)=MID$(Q$(K)
,J,1) THEN R=R+1
260 NEXT
270 TR=TR+R:PRINT R;"CORRECT,";
280 PRINT R*100/Q;"PERCENT"
290 R(K)=R*100/Q
300 K=K+1:IF K<=N THEN 150
310 K=K-1:IF LEN(A$)=0 THEN 330
320 PRINT"AVERAGE=";TR*100/(Q*K)
;"PERCENT"
330 GOTO700
340 FOR J=1 TO Q:R=0:PRINT
350 PRINT"ANALYSIS FOR QUESTION
NO.";J

```



```

360 PRINT"RESPONSE COUNT PERCENT"
370 FOR L=0 TO C:C(L)=0:NEXT:M=0
380 FOR L=1 TO K:T#=MID$(Q$(L)
,J,1)
390 W=VAL(T#):C(W)=C(W)+1:NEXT
400 FORL=1 TOC:PRINT L;TAB(11);
410 PRINT C(L);TAB(18);C(L)*100/K;
420 IF LEN(A#)=0 THEN PRINT:
GOTO460
430 T#=RIGHT$(STR$(L),1)
440 IF T#=MID$(A#,J,1) THEN PRINT
"C":GOTO460
450 PRINT
460 NEXT:PRINT"BLANK";TAB(11);
C(0);TAB(18);
470 PRINT C(0)*100/K:PRINT P#
480 IF LEN(INKEY#)=0 THEN 480
490 NEXT J:GOTO700
500 L=0:GOSUB650:IF LEN(A#)=0 THEN
510
510 FOR J=1 TO K
520 PRINT TAB(2);Q$(J);"-NO.";J;
530 PRINT
540 PRINTN$(J)
550 L=L+1:IF L<4 THEN 580
560 L=0:PRINT P#:SOUND150,1
570 IF LEN(INKEY#)=0 THEN 570
580 NEXT:PRINT P#:SOUND150,1
590 IF LEN(INKEY#)=0 THEN 590
600 GOTO700
610 FOR J=1 TO LEN(T#):IF
MID$(T#,J,1)=" " THEN 630
620 IF MID$(T#,J,1)<"1" OR
MID$(T#,J,1)>C# THEN 640
630 NEXT:RETURN
640 T#="B":RETURN
650 W=Q/10:IF W<1 THEN 670
660 FOR J=1 TO W:PRINT
TAB(J*10);J;:NEXT:PRINT
670 PRINT TAB(2);
680 FOR J=1 TO Q:T#=STR$(J)
690 PRINT MID$(T#,LEN(T#),1);
:NEXT:PRINT:RETURN
700 CLS:PRINT:PRINT"NEXT ACTION:"
710 PRINT"1 -ANALYZE QUESTIONS"
720 PRINT"2 -ADD MORE ENTRIES"
730 PRINT"3 -REVIEW DATA ENTERED"
740 PRINT"4 -END PROGRAM"
750 PRINT"5 -PRINT TO PRINTER"
760 PRINT:PRINT:PRINT
770 SOUND150,2
780 PRINT"PRESS NUMBER OF YOUR
CHOICE"
790 T#=INKEY$:IF T#=""THEN790
800 IF T#<"1"OR T#>"5"THEN700
810 ON VAL(T#)GOTO 340,300,500,
830,840
820 PRINT E#:GOTO700
830 END
840 REM PRINTER ROUTINE

```

```

845 POKE150,1'CHANGE THIS POKE TO
SUIT YOUR OWN PRINTER BAUD RATE
850 PRINT#-2,CHR$(27);CHR$(31);
CHR$(27);CHR$(18)
860 FOR J=1TOK
870 B=Z*Q
880 PRINT#-2,TB(2);N$(J);R(J);"%";
890 PRINT#-2
900 NEXT J
910 PRINT#-2,TAB(15)"CLASS AVERAGE
=";TR*100/(Q*K);"PERCENT";
920 GOTO700

```

\*\*\*\*\*  
\*\*\*\*\*SUBMISSION INFORMATION\*\*\*\*\*  
\*\*\*\*\*

What do you send to COCO-LINK and how?

This is your magazine, the CoCo community. Anything of interest to CoCo users is what we are after, from programmes to articles to reviews on your favourite game, word processor or utility.

How do you send it? There are a number of ways.

1. Send it on disk with at least two saves and one of these being in ASCII format. Ensure that you also send a text file using any word processor giving some information about your programme. If you do not have a word processor

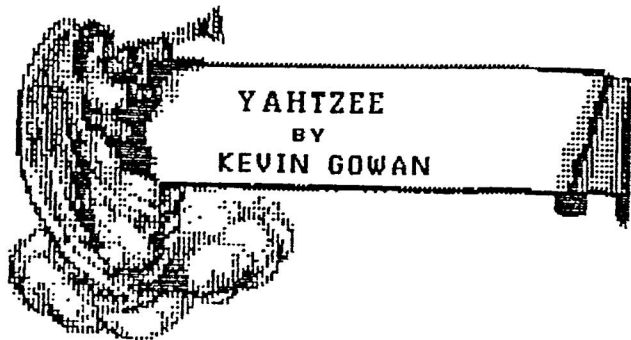
then a neatly hand written letter will do, but remember it has to be legible.

2. Using the same system as for disk but on tape.

If you are sending a programme please ensure that you have tested it to make sure it works. If you do NOT wish to have your creation submitted to the Public Domain Library then please let us know.

ABOVE ALL REMEMBER that without your submissions, this magazine will fold, so help us to help you and send in your creations so that COCO LIVES!





The following programme was written by Kevin Gowan in 86 and printed in the COCO magazine in 1987. In his introduction Kevin asked that the programme be included in a future magazine for coco users so that all may benefit. I found his programme while I was flicking through my back issues to find some ideas for the back to basics article. I decided to type it in and give it a go, liked it, and then thought why not do as Kevin asked and print it in the magazine for all to enjoy.

So here it is, a game of yahtzee for the CoCo 3 128k, type it in and enjoy.

```

1 '***** YAHTZEE *****
***** K.GOWAN *****
***** NOV '86 *****
2 GOTO10
3 SAVE"122:3":END'1
4 'COCO3 VERSION
10 HBUFF1,250: HBUFF2,250:
HBUFF3,250: HBUFF4,250:
HBUFF5,250: HBUFF6,250:
HBUFF7,250: HBUFF8,5200:
HBUFF9,80
20 ON BRK GOTO2260
30 WIDTH40
40 POKE65497,0
50 PALETTE RGB
60 FOR J=0TO15: PALETTEJ,10:
NEXT:CLS3: HSCREEN2: CLS3
70 HCOLOR2
80 PALETTE2,63: PALETTE1,54:
PALETTE3,54
90 GOTO2160
100 FOR L=1TO LEN(W$):
P$=MID$(W$,L,1): IF P$=""THEN130
110 IF ZZ=3 OR ZZ=4 THEN
ZZ=ZZELSE ZZ=2
120 HDRAW"BM"+STR$(X)+", "
+STR$(Y)+";S4C"+ STR$(ZZ): HDRAW

```

```

L$(ASC(P$)-33)
130 X=X+7:NEXT L:RETURN
140 HPUT(2,150)-(253,190),8:
RETURN
150 HLINE(XX,YY)-(XX+2,YY+2),
PRESET,BF: RETURN
160 A$=INKEY$:IF
A$=""THEN160ELSERETURN
170 IF N(J,Q9)=-1THEN RETURN
ELSEZ=Y0
180 W$=STR$(Z):W$=RIGHT$(
W$,LEN(W$)-1)
190 RHS=RHS+1: IF RHS<1.5THEN
HCOLOR3: HLINE(257,0)-(319,191),
PRESET,BF: FOR C5=1TO Q:
HPRINT(33,C5*5-3), "PLAYER":
U$=STR$(C5):
HPRINT(34,C5*5-2), "#"+
RIGHT$(U$,LEN(U$)-1):
HPRINT(33,C5*5-1), "SCORES":
HPRINT(33,C5*5+1), ".....": NEXT
C5: HCOLOR4
200 IF LEN(W$)<3 THEN W$="" + W$:
GO TO 200 ELSE GOSUB100: RETURN
210 GOSUB140: Y1=0: Y2=0: FOR
J=1TO6: Y0=N(J,Q9): IF Y0=-1THEN
Y0=0
220 Y1=Y1+Y0: X=93: Y=(J*10)+51:
GOSUB170: NEXT J: IF Y1> 63 THEN
Y1=Y1+35: X=93: Y=121:
W$="35":GOSUB100
230 X=93: Y=131:
HLINE(93,124)-(114,132),
PRESET,BF: Z=Y1: GOSUB180
240 FOR J=7TO13: Y0=N(J,Q9): IF
Y0=-1THEN Y0=0
250 Y2=Y2+Y0: X=227:
Y=((J-6)*10)+51: IFJ=14 AND
N(J,Q9)=0THEN NEXT J ELSE
GOSUB170: NEXT J
260 Z=N(14,Q9): Y2=Z+Y2: IF
Z<>0THEN HLINE(227,124)-
(247,132), PRESET,BF: X=227:
Y=131: GOSUB180
270 X=227: Y=141:
HLINE(227,134)-(247,142),
PRESET,BF: Z=Y2: GOSUB180: X=223:
Y=23: HLINE(223,16)-(244,24),
PRESET,BF: Z=Y1+Y2: GOSUB180:
TT(Q9)=Z: GOSUB290: RETURN
280 FOR J=1TO7: X=93: Y=J*10+51:
HPUT(X,Y)-(X+20,Y-6),9: NEXT J:
FOR J=1TO8: X=226: Y=J*10+51:
HPUT(X,Y)-(X+20,Y-6),9: NEXT J:
X=166: Y=23: HPUT(X,Y)-(X+20,
Y-6),9: RETURN
290 FOR T=1TOQ: X=275: Y=T*40+10:
HLINE(X,Y)-(X+20,Y-6), PRESET,BF:
ZZ=3:Z=TT(T): GOSUB180: NEXT T:
ZZ=4: HDRAW"C4": RETURN

```



```

300 M=(10+(J-1)*28): N=M+20: ON
KGOTO 310,320,330,340,350,360,370
310 HPUT(M,20)-(N,40),1,PSET:
RETURN
320 HPUT(M,20)-(N,40),2,PSET:
RETURN
330 HPUT(M,20)-(N,40),3,PSET:
RETURN
340 HPUT(M,20)-(N,40),4,PSET:
RETURN
350 HPUT(M,20)-(N,40),5,PSET:
RETURN
360 HPUT(M,20)-(N,40),6,PSET:
RETURN
370 HPUT(M,20)-(N,40),7,PSET:
RETURN
380 M=(8+(J-1)*28): N=M+24:
HLINE(M,18)-(N,42),PSET,B: RETURN
390 M=(8+(J-1)*28): N=M+24:
HLINE(M,18)-(N,42),PRESET,B:
RETURN
400 GOSUB160: IF A#="Y"THEN 410
ELSE IF A#="N"THEN GOSUB140:
VV=1: RETURN ELSE 400
410 GOSUB140:
HPRINT(2,21),"Please
choose:[ENTER] to end":SOUND200,1
420 GOSUB160:IF
A#=CHR$(13)THEN450
430 R=VAL(A#):IF R>50R<1THEN420
440J=R: GOSUB380: D(R+5)=RND(6):
GOTO420
450 GOSUB140: FOR J=1TO5:
GOSUB390: NEXTJ:
HLINE(166,16)-(187,24),
PRESET,BF: X=166: Y=23: W#=TW#:
GOSUB100: FOR J=1TO5: K=7:
GOSUB300: D(J)=D(J+5): K=D(J):
GOSUB300: NEXT J: RETURN
460 FOR J=0TO15: PALETTE J,46: IF
J=2THEN CLS3: NEXT J ELSE NEXT J:
PALETTE1,9: PALETTE2,0:
PALETTE3,54: PALETTE4,46
470 RETURN
480 FOR J=0TO15: PALETTE J,9: IF
J=2THEN CLS3: NEXT J ELSE NEXT J:
PALETTE1,54: PALETTE2,63:
PALETTE3,18: PALETTE4,9
490 RETURN
500 FOR J=0TO15:PALETTE J,45:
IFJ=2THEN CLS3:NEXT J ELSE NEXT
J:PALETTE1,54: PALETTE2,0:
PALETTE3,9: PALETTE4,45
510 RETURN
520 FOR J=0TO15: PALETTE J,24: IF
J=2THEN CLS3:NEXT J ELSE NEXT J:
PALETTE1,9: PALETTE2,0:
PALETTE3,54: PALETTE4,24
530 RETURN
540 '

```

```

550 GOSUB1490
560 X=59: Y=162: W#="HOW MANY
PLAYERS? ":GOSUB100: SOUND200,1
570 GOSUB160:IF VAL(A#)<1 OR
VAL(A#)>4 THEN 570 ELSE
SOUND150,1: Q=VAL(A#): X=3:Y=142:
W#=A#: GOSUB140: GOSUB100:IF
Q=1THEN W#="PLAYER": GOSUB 100
ELSE W#="PLAYERS": GOSUB100
580 HPRINT(2,21),"12 Letters
max:[ENTER] to end"
590 FOR J=1TOQ: X=24: Y=163:
W#="PLAYER"+CHR$(J+48) +"'S NAME
:": GOSUB100: SOUND200,1: W1#="":
VV=0
600 GOSUB160:IFA#=CHR$(8) THEN
610 ELSE IFA#=CHR$(13) THEN 630
ELSE F=ASC(A#): IF F<32OR F=64 OR
F>90THEN 600
610 IF A#=CHR$(8)THEN X=X-7:IF
X<150 THEN X=150:GOTO 600 ELSE
W1#=LEFT$(W1$,LEN(W1$)-1):
HLINE(X,Y)-(X+7,Y-7),PRESET,BF:
SOUND240,1:GOTO600
620 VV=VV+1:IF VV>12 THEN 630
ELSE W1#=W1#+A#: W#=A#: GOSUB100:
SOUND240,1: GOTO600
630 IF W1#=""THEN600
ELSEQ$(J)=W1#:
HLINE(1,156)-(254,164),PRESET,BF:
NEXT J
640 FOR X=1TO Q:FOR
J=1T=13:N(J,X)=-1: NEXTJ:
N(14,X)=0: NEXT X
650 FOR Q8=1TO13:FOR Q9=1TO
Q:GOSUB280
660 ON Q9 GOSUB460,480,500,520
670 HLINE(2,143)-(86,135),
PRESET,BF: X=3:Y=142:W#=Q$(Q9):
GOSUB100
680 X=166:Y=23:W#="#1": GOSUB100:
GOSUB210
690 IF Q9=1THEN PALETTE4,0 ELSE
IF Q9=2THEN PALETTE4,54 ELSE IF
Q9=3THEN PALETTE4,63 ELSE
PALETTE4,63
700 HPRINT(3,21),"Press [ENTER]
to throw dice": SOUND200,1
710 GOSUB160:IF A#<>CHR$(13)THEN
SOUND150,1: GOTO710
720 GOSUB140
730 FOR J=1TO5: D(J)=RND(6):
D(J+5)=D(J): K=D(J): GOSUB300:
NEXT J
740 HPRINT(4,21),"Want a 2nd
throw? (Y/N)": SOUND200,1:
TW#="#2":VV=0: GOSUB400
750 IF VV=1THEN980
760 GOSUB140: HaPRINT(3,21),"Want
another throw? (Y/N)":

```

```

SOUND200,1:TW#="#3": GOSUB400
770 GOTO980
780 XX=119: YY=57: X1=XX: Y1=YY:
HLINE(XX,YY)-(XX+2,YY+2),PSET,BF
790 SOUND200,1:GOSUB160:CK=0
800 IF A#=CHR$(94)THEN IF
YY=57THEN Y1=57ELSE Y1=YY-10:
GOTO880
810 IF A#=CHR$(10)THEN IF
YY=107AND XX=119THEN Y1=107 ELSE
IF YY=127AND XX=250THEN Y1=127
ELSE Y1=YY+10:GOTO880
820 IF A#=CHR$(8)THEN X1=119:IF
XX=250 AND YY=127OR YY=117THEN
Y1=107: GOTO880 ELSE 880
830 IF A#=CHR$(9)THEN X1=250:
GOTO880
840 IF A#=CHR$(13) THEN
SOUND240,1: GOTO870
850 IF A#<>"0"THEN790
860 SOUND240,1:CK=4
870 K=((YY-57)/10)+1:IF XX=250
THEN K=K+6:RETURN ELSE RETURN
880 GOSUB150
890 HLINE(X1,Y1)-(X1+2,Y1+2),
PSET,BF
900 YY=Y1:XX=X1:GOTO790
910 GOSUB140: X=17: Y=162:
W#="COMBINATION INVALID FOR
CATAGORY": GOSUB100: FOR
J1=1TO50: NEXT J1: GOSUB140:
GOSUB150: RETURN
920 GOSUB140:HPRINT(2,19),"Your
current turn's finished":
HPRINT(3,22),"Press [ENTER] to
continue"
930 A#=INKEY$:IF A#<>CHR$(13)THEN
LL=LL+1:J=J+1: ELSE
SOUND240,1:FOR
J=1TO5:GOSUB390:K=7:GOSUB300:NEXT
J:RETURN
940 IF J>5THEN J=1
950 IF LL=3THEN SOUND250,1:
GOSUB380 ELSE IF LL=6THEN
SOUND235,1: GOSUB390:LL=0
960 GOTO930
970 HPRINT(2,21),"You must
forfeit a
catagory":HPRINT(1,22),"ARROW
keys to select catagory":RETURN
980 GOSUB140:HPRINT(1,19),"ARROW
keys to select
catagory":HPRINT(1,21),"[ENTER]
when ready, or hit'0'":
HPRINT(1,22),"to score Zero in
that catagory"
990 GOSUB780
1000 IF CK=4AND
N(K,Q9)=-1THEN1070
1010 IF CK=4THEN GOSUB910:

```

```

GOSUB150:GOSUB140:GOTO980
1020 T=0:IF K=14THEN1060
1030 T9=0:IF N(K,Q9)=-1THEN
GOSUB1480:ON K GOSUB 1400,
1410,1420,1430,1440,1450,1130,117
0,1210,1260,1350, 1380,1390
1040 IF CK=0 THEN GOSUB910:
GOTO980 ELSE N(K,Q9)=T:
GOSUB210:GOSUB150:GOSUB920
1050 GOTO1120
1060 IF N(12,Q9)<1THEN
GOSUB910:GOSUB150:GOTO980ELSE
GOSUB1380:IF CK=1THEN
T=N(14,Q9)+100:GOTO1080ELSE1030
1070 N(K,Q9)=0:GOSUB210:
GOSUB150:GOSUB140:
GOSUB920:GOTO1120
1080 N(14,Q9)=T:GOSUB210:
GOSUB150:GOSUB140: X=45: Y=162:
W#="YAHTZEE 100 BONUS AWARDED":
GOSUB100: GOSUB970
1090 GOSUB780
1100 IF N(K,Q9)<>-1THEN
GOSUB910:GOSUB970:GOTO1090
1110 N(K,Q9)=0: GOSUB210:
GOSUB150:GOSUB920
1120 NEXT Q9:NEXT Q8:GOTO2020
1130 T=0:IF D(1)=D(2)AND
D(1)=D(3)THEN1160 ELSE IF
D(1)=D(2)AND D(1)=D(4)THEN1160
ELSE IF D(1)=D(2)AND
D(1)=D(5)THEN1160 ELSE IF
D(1)=D(3)AND D(1)=D(4)THEN1160
ELSE IF D(1)=D(3)AND
D(1)=D(5)THEN1160 ELSE IF
D(1)=D(4)AND D(1)=D(5)THEN1160
1140 IF D(2)=D(3)AND
D(2)=D(4)THEN1160 ELSE IF
D(2)=D(3)AND D(2)=D(5)THEN1160
ELSE IF D(2)=D(4)AND
D(2)=D(5)THEN1160 ELSE IF
D(3)=D(4)AND D(3)=D(5)THEN1160
1150 CK=0:RETURN
1160 T=D(1)+D(2)+D(3)+D(4)+D(5):
CK=1:RETURN
1170 T=0:IF D(1)=D(2)AND
D(1)=D(3)AND D(1)=D(4)THEN1200
ELSE IF D(1)=D(2)AND D(1)=D(3)AND
D(1)=D(5)THEN1200 ELSE IF
D(1)=D(2)AND D(1)=D(4)AND
D(1)=D(5)THEN1200
1180 IF D(1)=D(3)AND D(1)=D(4)AND
D(1)=D(5)THEN1200 ELSE IF
D(2)=D(3)AND D(2)=D(4)AND
D(2)=D(5)THEN1200
1190 CK=0:RETURN
1200 T=D(1)+D(2)+D(3)+D(4)+D(5):
CK=1:RETURN
1210 IF D(1)=D(2)AND D(3)=D(4)AND
D(3)=D(5)THEN1250 ELSE IF

```



```

D(1)=D(3)AND D(2)=D(4)AND
D(2)=D(5)THEN1250 ELSE IF
D(1)=D(4)AND D(2)=D(3)AND
D(2)=D(5)THEN1250
1220 IF D(1)=D(5)AND D(2)=D(3)AND
D(2)=D(4)THEN1250 ELSE IF
D(2)=D(3)AND D(1)=D(4)AND
D(1)=D(5)THEN1250 ELSE IF
D(2)=D(4)AND D(1)=D(3)AND
D(1)=D(5)THEN1250
1230 IF D(2)=D(5)AND D(1)=D(3)AND
D(1)=D(4)THEN1250 ELSE IF
D(3)=D(4)AND D(1)=D(2)AND
D(1)=D(5)THEN1250 ELSE IF
D(3)=D(5)AND D(1)=D(2)AND
D(1)=D(4)THEN1250 ELSE IF
D(4)=D(5)AND D(1)=D(2)AND
D(1)=D(3)THEN1250
1240 T=0:CK=0:RETURN
1250 T=25:CK=1:RETURN
1260 IF T9=1THEN T=30:CK=1:RETURN
ELSE T1=0:T=0:CK=0:IF
D(1)<>D(2)AND D(1)<>D(3)AND
D(1)<>D(4)AND D(2)<>D(3)AND
D(2)<>D(4)AND D(3)<>D(4)THEN
T=D(1)+D(2)+D(3)+D(4):GOSUB1330:I
F T1=1THEN1320
1270 T=0:IF D(1)<>D(2)AND
D(1)<>D(3)AND D(1)<>D(5)AND
D(2)<>D(3)AND D(2)<>D(5)AND
D(3)<>D(5)THEN
T=D(1)+D(2)+D(3)+D(5):
GOSUB1330:IF T1=1THEN1320
1280 T=0:IF D(1)<>D(2)AND
D(1)<>D(4)AND D(1)<>D(5)AND
D(2)<>D(4)AND D(2)<>D(5)AND
D(4)<>D(5)THEN
T=D(1)+D(2)+D(4)+D(5):GOSUB1330:I
F T1=1THEN1320
1290 T=0:IF D(1)<>D(3)AND
D(1)<>D(4)AND D(1)<>D(5)AND
D(3)<>D(4)AND D(3)<>D(5)AND
D(4)<>D(5)THEN
T=D(1)+D(3)+D(4)+D(5):GOSUB1330:I
F T1=1THEN1320
1300 T=0:IF D(2)<>D(3)AND
D(2)<>D(4)AND D(2)<>D(5)AND
D(3)<>D(4)AND D(3)<>D(5)AND
D(4)<>D(5)THEN T=D(2)+D(3)+D(4)+
D(5):GOSUB1330:IF T1=1 THEN1320
1310 T=0:CK=0:RETURN
1320 T=30:CK=1:RETURN
1330 IF T=10 OR T=140R T=18THEN
T1=1
1340 RETURN
1350 IF T9=1THEN T=40:CK=1:RETURN
ELSE T=0:CK=0:IF D(1)=D(2)OR
D(1)=D(3)OR D(1)=D(4)OR
D(1)=D(5)OR D(2)=D(3)OR
D(2)=D(4)OR D(2)=D(5)OR

```

```

D(3)=D(4)OR D(3)=D(5)OR
D(4)=D(5)THEN1370
1360 T=D(1)+D(2)+D(3)+D(4)+D(5):
IF T=15 OR T#20 THEN CK=1:T=40:
RETURN
1370 CK=0:T=0:RETURN
1380 T=0:CK=0:IF D(1)=D(2)AND
D(1)=D(3)AND D(1)=D(4)AND
D(1)=D(5)THEN T=50:CK=1:RETURN
ELSE RETURN
1390 T=0:FOR J=1TO5:T=T+D(J):NEXT
J:CK=1:RETURN
1400 T2=1:GOSUB1460:RETURN
1410 T2=2:GOSUB1460:RETURN
1420 T2=3:GOSUB1460:RETURN
1430 T2=4:GOSUB1460:RETURN
1440 T2=5:GOSUB1460:RETURN
1450 T2=6:GOSUB1460:RETURN
1460 T=0:FOR J=1TO5:IF D(J)=T2
THEN T=T+T2
1470 NEXT J:IF T=0THEN
CK=0:RETURN ELSE CK=1:RETURN
1480 GOSUB1380:IF CK=0 OR
N(12,Q9)=-1 OR N(D(1),Q9)=-1THEN
RETURN ELSE T9=1:RETURN
1490 X=159:Y=36:W$="Y:A:H:T:Z:E:E
":GOSUB100
1500 HLINE(0,0)-(255,191),PSET,B:
HLINE(0,45)-(255,45),PSET:
HLINE(0,147)-(255,147),PSET
1510 HDRAW"BM44,112;S4U8R8D8L
8BU10U8R8D8L8BU10U8R8D8L8BU
10U8R8D8L8BU10U8R8D8L8
BU10U8R8D8L8":FOR J=1TO 6:
HPAINT(48,59+((J-1)*10)),0,0:
NEXT J:FOR J=1TO 21:READ A,B:
HSET(A,B,2):NEXT J
1520 HDRAW"BM63,123;S4NR24
U10NR24U10NR24U10NR24U10
NR24U10NR24U10NR24U10R24D70":
HDRAW"BM91,134;S4NR24U11NR24U10N
R24U10NR24U10NR24U10NR24U10NR24U1
0NR24U10R24D81"
1530 HDRAW"BM196,133;S4N R24U10NR
24U10NR24U10NR24U10NR24U10NR24U10
NR24U10NR24U10R24D80":
HDRAW"BM224,144;S4NR24U11NR24U10N
R24U10NR24U10NR24U10NR24U10N
R24U10NR24U10NR24U10R24D91"
1540 HPRINT(33,1),"YAHTZEE":
HPRINT(33,2)," is a":
HPRINT(33,3),"card":
HPRINT(33,4),"game":
HPRINT(33,5),"using":
HPRINT(33,6),"dice.":
HPRINT(33,8),"Up to 4":
HPRINT(33,9),"players":
HPRINT(33,11)," Three":
HPRINT(33,12),"throws":
HPRINT(33,13)," of the "

```

```

1550 HPRINT(33,14),"dice is":
HPRINT(33,15),"allowed":
HPRINT(33,17)," 13":
HPRINT(33,18),"moves":
HPRINT(33,19)," for a":
HPRINT(33,20),"full":
HPRINT(33,21),"score":
HPRINT(33,22)," card."
1560 X=3:Y=61:W$="ACES
":ZZ=2:GOSUB100:ZZ=3:W$="ADD":GOS
UB100:ZZ=2:W$=" 3 OF KIND":
GOSUB100:ZZ=3:W$="TOT":GOSUB100
1570 X=3:Y=71:W$="TWOS
":ZZ=2:GOSUB100:ZZ=3:W$="ADD":GOS
UB100:ZZ=2:W$=" 4 OF
KIND":GOSUB100:ZZ=3:W$="TOT":GOSU
B100
1580 X=3:Y=81:W$="THREE
":ZZ=2:GOSUB100:ZZ=3:W$="ADD":GOS
UB100:ZZ=2:W$=" FULL
HOUSE":GOSUB100:ZZ=3:W$="
25":GOSUB100
1590 X=3:Y=91:W$="FOURS
":ZZ=2:GOSUB100:ZZ=3:W$="ADD":GOS
UB100:ZZ=2:W$=" SMALL
STR":GOSUB100:ZZ=3:W$="
30":GOSUB100
1600 X=3:Y=101:W$="FIVES
":ZZ=2:GOSUB100:ZZ=3:W$="ADD":GOS
UB100:ZZ=2:W$=" LARGE
STR":GOSUB100:ZZ=3:W$="
40":GOSUB100
1610 X=3:Y=111:W$="SIXES ":
ZZ=2:GOSUB100:ZZ=3:W$="ADD":GOSUB
100:ZZ=2:W$=" YAHTZEE
":GOSUB100:ZZ=3:W$="
50":GOSUB100
1620 X=3:Y=121:W$="BONUS >
63":ZZ=2:GOSUB100:ZZ=3:W$="+35":
GOSUB100:ZZ=2:W$=" CHANCE
":GOSUB100:
ZZ=3:W$="TOT":GOSUB100
1630 X=31:Y=131:W$="TOTAL =
":GOSUB100:ZZ=2:W$="BONUS":
GOSUB100:ZZ=3:W$=" 100":GOSUB100
1640 X=157:Y=141:W$="TOTAL
=":GOSUB100:ZZ=2
1650 X$="R39D10NL39D10L39U20":
HDRAW"BM156,5;S4"+X$:
HDRAW"BM212,5;S4"+X$: X=159:
Y=13:W$="THROW SCORE":GOSUB100
1660 K=1:FOR J=1TO5:GOSUB300:NEXT
J
1670 X=19:Y=12:W$="1 2 3 4
5":U9=11:GOSUB100
1680 ZZ=4
1690 RETURN
1700 REM ASSIGN VALUES
1710 FOR J=0TO30:READ
R$:L$(J)=R$:NEXT J

```

```

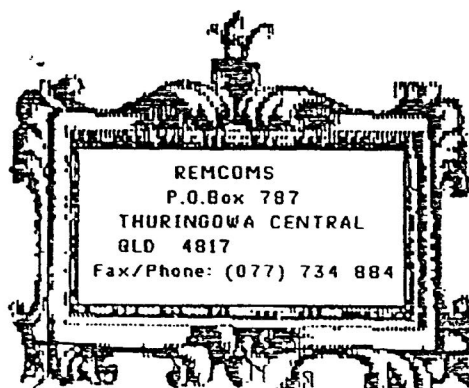
1720 DATA BR2ND1BU2U4,BR1BU4U1
BR2D1,BR1U2L1BU2R1U2BR2D2
R1BD2L1D2,BU1R2ND1R1E1H1L2H1E1R1
NU1R2,U1E4U1BL4D1BF4D1,BR4H1U1
H3E1F1G2D2F1R1E2U1,BR2BU4U2,
BR2H1U4E1,BR2E1U4H1
1730 DATA BU2E2NH2NU2NE2NF2D2,
BR2BU1U2NL2NU2R2,BR2NU1G1,
BU3R4,BR2U1,U1E4U1,BU1NE4U4E1
R2F1D4G1L2H1,R2NR2U6L1G1,NR4
E4U1H1L2G1,BU1F1R2E1U1H1NL2E1U1H1
L2G1,BR3U6G3R4
1740 DATA BU1F1R2E1U2H1L2G1U3R4,
BU3E1R2F1D2G1L2H1U4E1R3,E4U2L4D1,
BU1U1E1NR2H1U1E1R2F1D1G1F1D1
G1L2H1,BR1R2E1U4H1L2G1D2F1R2E1,
BR2U1BU2U1,BR1BD1E1U1BU2U1,
BU3NE3F3
1750 DATA BU1R4BU2L4,BR1E3H3,
BU5E1R2F1D1G1L1D1BD2D1
1760 FOR J=32TO57:READ
R$:L$(J)=R$:NEXT J
1770 DATA U4E2F2D2NL4D2,R3E1
U1H1E1U1H1L3R1D3NR2D3,BE4BU1
H1L2G1D4F1R2E1,R3E1U4H1L2NL1D6,
R4U1BU4U1L3NL1D3NR2D3,R1NR1U3
NR2U3NL1R3D1,BE2R1NR1D1ND1G1L1H1U
4E1R2D1,U3NU3R4NU3D3,BR1R1NR1U6NL
1R1,BU1NU1F1R1E1U5NL1R1
1780 DATA R1U6NL1BD3R1E2U1BD5N
D1H2,R4U1BG1BL2U6NL1R1,U6F2E2D6,
U6F4NU4D2,BU1U4E1R2F1D4G1L2H1,
R1NR1U6NL1R2F1D1GL2,BU1U4E1R2
F1D4G1D1R1BH1L2H1,U6R3F1D1G1L1
NL2F2D1,BU1F1R2E1U1H1L2H1U1E1
R2F1,BR2U6NL2R2
1790 DATA BU1NU5F1R1E1R1ND1U5,
BU3NU3F1D1F1E1U1E1U3,NU6E2F2U6,
U1E4U1BL4D1F4D1,BR1R1NR1U3H2U1
BR4D1G2,BU5U1R4D1G4D1R4U1
1800 DATA 48,58,50,66,46,70,
50,76,48,78,46,80,46,86,50,86,46,
90,50,90,46,96,50,96,48,98,46,
100,50,100,46,106,48,106,50,106,
46,110,48,110,50,110
1810 RETURN
1820 HCOLOR1
1830 A$="R20D20L20U20"
1840 B$="BR10BD9L1D2R2U2L1
BU9BL10"
1850 C$="BR16BD3L1D2R2U2L1
BU3BL12BD15L1D2R2U2L1BU15BL4"
1860 D$="BR16BD15L1D2R2U2L1
BU15BL12BD3L1D2R2U2L1BU3BL4"
1870 E$="BR10BD3L1D2R2U2L1
BD12L1D2R2U2L1BU15BL10"
1880 HDRAW"BM30,160S4"+A$:
HGET(30,160)-(50,180),7
1890 HDRAW"BM30,160S4"+ B$:
HGET(30,160)-(50,180),1

```



OCO-LINK

\*\*\*\*\*  
 \*CASINO ELECTRONICS\*  
 PO BOX 760 CASINO NSW 2470  
 OR  
 34 FARLEY ST CASINO NSW 2470  
 PHONE: 066 626 799  
 For all your business and home  
 computer repairs.  
 \*\*\*\*\*



# REMCOMS

## OPTIMIZE SETS



From JWT Enterprise comes the optimize sets 1 and 2.

These utilities are primarily for use on a hard drive under OS-9. They defragment your files and float directories in order to optimize or speed up the operation of your system.

### Optimize Set 1:

This set includes:

#### OPTIMIZE;

This utility actually modifies any disk or hard disk in order to speed disk accesses.

#### INQ;

This utility will allow you to determine the extent of fragmentation on your disk.

PRICE: \$45 + \$5 p+p

### Optimize Set 2:

This set includes:

#### DIRCHECK;

The DIRCHECK utility allows you to check the integrity of the directory structure on any device or portion of a device.

#### DAMCHECK;

The DAMCHECK utility compares the disk allocation map with the current file structure on the disk to make sure that all files in the file structure are properly logged in the disk allocation map.

PRICE: \$35 + \$5 p+p

Buy both for \$60 + \$5 p+p

## DIGITECH



Digitech Pro is an Australian produced software/hardware sound digitising system for the CoCo III.

With Digitech Pro you can connect your CoCo to any sound source including CD's, tape's, radio etc. The sound that you select and then digitise may be incorporated into your own basic programme.

Digitech Pro requires a cable for this connection which can be made by you (instructions are included) or we can supply a cable.

This software/hardware combination is VERY user friendly, in fact you will be digitising your own sounds within minutes.

Requires CoCo III with 512K + cable.

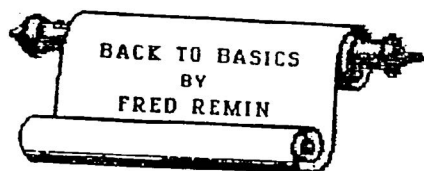
PRICE: \$35 + \$5 p+p

To order either of these products contact:

REMCOMS  
100 Whitsunday Dve  
KIRWAN QLD 4817

Phone & Fax: (077) 734 884





Well here we are into our third year producing the CoCo-Link magazine, and as I sit here at my keyboard wondering what to write about this time, I find myself in a bit of a dilemma.

I am unsure as to how well this column is being received by you the readers, you see the only feedback I have received is from a company in the USA who would like to have permission to reproduce this article over there, as far as cocoists in Australia are concerned, I need some feed back from you.

Is the article too simple, not simple enough, has it got the correct content, is there something in particular that you wish to know about, do you want the article to continue as it is or do you think it is a waste of space in the magazine. These are some of the questions that I need answered by you the subscriber in order for me to ensure you are getting what you want from this publication.

I am therefore shouting from the tree tops, HEY give me your thoughts, tell me what you want, let me know how you want this article to continue or if you want me to drop it in favour of something else, the bottom line is I need you to tell me how you consider you are getting value for money in respect to this column.

In the mean time I will continue the column this month by looking at some more of the commands available to you in BASIC on the CoCo.

If you have been diligently typing in the listings from this magazine or even another CoCo magazine, then

you will be aware of the EDIT command. This one really comes in handy for when you either make a mistake while typing in or when you run the programme and get the dreaded error message.

In a nutshell the EDIT command allows you to change or replace any mistakes that you may have made in a programme that you have been inputting to your computer. Lets start by typing in a line and deliberately making a mistake, type in the following line;

50 DABA EFFUSIVE, GIMPY NUSHY

As you can see the command DATA has been misspelt, enter the EDIT mode by typing;

EDIT 50 <ENTER>

You should see the following;

50 DABA EFFUSIVE, GIMPY NUSHY  
50

Lets start by moving up and down the line as it is, to do so press the SPACE BAR, the cursor should move one character to the right, now press the Left Arrow Key, you should have moved one character to the left, you should note that the left arrow key when in EDIT mode will only backspace one character, it will not delete that character.

Are you ready to get a little bit more adventurous, type 5 followed by the SPACE BAR, you would have moved the cursor 5 characters to the right, try the same with the left arrow key, type 5 'left arrow', you should have now moved the cursor 5 characters to the left. As you can see it makes for easier movement along a line.

What if you simply wanted to search for a particular character somewhere on the line? Well you can, press the 'S' key followed by the 'E' key. The cursor should have moved directly to the first occurrence of the letter 'E'. Now type 2 'S' 'E', the cursor should have moved to the second occurrence

of the letter 'E', pretty snazy hey!

But how do you change something on the line, well move the cursor to the incorrect letter 'B' in the word DABA, use the left arrow key to do so, now press the letter 'C' followed by the letter 'T'. The letter should now have been replaced with the letter 'T'. You see that the letter 'C' followed by any other character will 'change' the character that the cursor is sitting on to the one that you typed in after the letter 'C'.

There are many other things that you can do while in the EDIT mode, go to the pages in your manual on this versatile command and have a bit of a read and play around with it, you will find it can come in very handy.

Talking about handy little commands, lets have a look at the RENUM command. What does it do?

Well the RENUM command will renumber a basic programmes lines to your specifications. Lets say you are sitting at your computer writing a programme and that you have numbered your lines in increments of ten, that is 10, 20, 30 and so on. As you go through your programme you decide that there should be some more information or another routine between line 20 and 30, however you need 15 line numbers to do this.

By using the RENUM command you can give yourself plenty of space to insert the routine or information that you have come up with.

All you need to do is put in the command:

RENUM 10,10,20 <ENTER>

What this will do is starting at line 10 it will renumber all your lines with an increment of 20 so that you will now have line numbers 10, 30, 50 and so on. This would now give you enough room to insert that extra information or routine.

RENUM will not only renumber the programme lines for you but it will also renumber any goto or gosub commands within any line.

So you can see that the RENUM command can come in very handy not only for the accomplished programmer but the novice as well. Have a read and play around with this command and the next time you are writing a programme, keep it in the back of your mind for those times when you need to add some information or another routine between the existing line numbers or even to finally tidy up your programme when you have finished it.

Well I think that might do for this issue, remember that I need your feedback to see if it is worth maintaining this article in the magazine or if you would like to see it replaced by something else.

Until next time, READ THE INSTRUCTIONS and keep on cocoinq.

\*\*\*\*\*  
MAGAZINES  
\*\*\*\*\*

#### HOT COCO:

1984;  
Aug (1)

1985;

May (1), Jun (2), Jul (2), Sep (2),  
Oct (2), Nov (1), Dec (2).

#### AUSTRALIAN COCO:

1985;

Jun (1), Sep (2), Oct (1), Nov (1),  
Dec (1).

1986;

Jan (2), Feb (3), Mar (3), Apr (2),  
May (2), Jun (2), Jul (3), Aug (3),  
Sep (3), Oct (3), Nov (2), Dec (3).

1987;

Jan (2), Feb (2), Mar (2), Apr (1),  
May (1), Jun (1), Jul (1), Aug (1),  
Sep (1), Oct (1), Nov (2), Dec (1).

1988;

Jan (1), Feb (2), Mar (1), May (2),  
Jun (1), Jul (1), Sep (2).

#### AUSTRALIAN SOFTGOLD:

1987;

Mar (3), Apr (1), May (1), Aug (1).

1988;

May (2), Sep (1).

#### AMERICAN RAINBOW:

1984;

Feb (2), Mar (1), Apr (1), May (1),  
Jun (1), Jul (1), Aug (1), Sep (1),  
Oct (1), Nov (1), Dec (1).

1985;

Mar (1), Apr (1), May (1).

1986;

Jan (1), Feb (1), Mar (1), Apr (1),  
Jun (3), Jul (1), Aug (2), Sep (2),  
Oct (3), Nov (3), Dec (2).

1987;

Jan (2), Feb (1), Mar (1), Apr (1),  
May (1), Jun (1), Nov (1).

1988;

Mar (1), Jun (1), Sep (1), Oct (1),  
Nov (1), Dec (1).

1989;

Feb (1), Apr (1), May (1), Jun (1),  
Aug (1).

#### AUSTRALIAN RAINBOW:

1983;

Feb (1), Dec (1).

1984;

Feb (1), Mar (1), May (2), Jun (1),  
Jul (1), Aug (2), Oct (1), Dec (1).

1985;

Feb (1), Mar (1), Apr (2), May (1),  
Jun (2), Jul (3), Aug (4), Sep (3),  
Oct (3), Nov (3), Dec (4).

1986;

Jan (3), Feb (3), Mar (3), Apr (1),  
May (3), Jun (2), Jul (3), Aug (3),  
Sep (3), Oct (3), Nov (2), Dec (3).

1987;

Jan (2), Feb (2).

All these magazines MUST GO and are  
sold on the basis of FIRST COME  
FIRST SERVED.

Orders may be placed by phone.

Prices are:

Australian CoCo, Softgold and  
Rainbow \$0.50 each plus postage;

Hot CoCo and USA Rainbow \$1.00 each  
plus postage.

oooooooooooooooo

## xenion

An arcade type game  
for the CoCo III

Written by an  
Australian

and available now  
from

REMCOMS

100 Whitsunday Dv

KIRWAN QLD 4817

Phone: (077) 734 884

oooooooooooooooo

oooooooooooooooo

## RUPERT RUTHM

Another Australian  
product for the  
COCO III.

Available from

REMCOMS

100 Whitsunday Dv

KIRWAN QLD 4817

Phone: (077) 734 884

oooooooooooooooo

oooooooooooooooo

## DONUT

## DILLEMA

Another Australian  
product for the  
COCO III.

Available from

REMCOMS

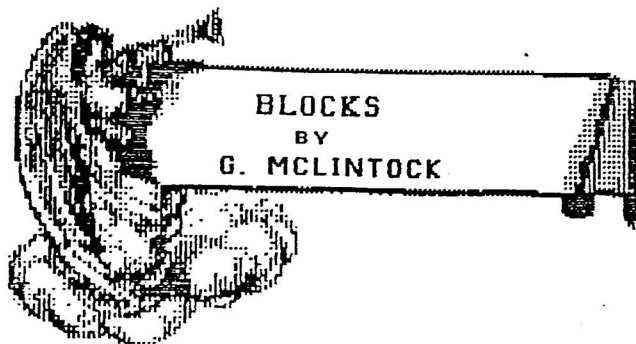
100 Whitsunday Dv

KIRWAN QLD 4817

Phone: (077) 734 884

oooooooooooooooo





The example included in the July issue (as shown below) is not a correct use of the RND function, which is why you don't get a random distribution on the screen.

```
20 HSCREEN 2
30 X=INT(RND(-TIMER)*320+.5)
40 Y=INT(RND(-TIMER)*192+.5)
50 C=INT(RND(-TIMER)*15+.5)
60 HSET(X,Y,C)
70 GOTO 30
```

It is, in fact, similar in effect to the use of the code shown below;

```
20 HSCREEN2
30 T=TIMER:X=T-INT(T/320)*320
40 T=TIMER:Y=T-INT(T/192)*192
50 T=TIMER:C=T-INT(T/16)*16
60 HSET(X,Y,C)
70 GOTO30
```

ie, there is no use of random numbers in either of the programmes, they both read the TIMER in sequence, and use the result to plot colours on the screen.

The correct use would be along the lines of:

```
20 HSCREEN 2
30 T=RND(-TIMER)
30 X=RND(319)
40 Y=RND(191)
50 C=RND(15)
60 HSET(X,Y,C)
70 GOTO 30
```

The RND function will generate a sequence of random numbers from some initial 'seed' value. With the CoCo, the initial 'seed' value is always the same, so it

will always give the same sequence of numbers after you turn it on. To vary the sequence, you can reset the seed value with any negative number. If you use the TIMER to reset the seed, you will get an 'unknown' value that will always give a different sequence of random numbers. If you change the seed on a regular basis, you won't get a random sequence. (Except possibly RND(-RND), which doesn't make sense).

The RND function on the CoCo will produce a sequence of numbers that are random in a statistical sense, however, they are not as random as sequences produced by similar functions in other computers that use more significant digits in their calculations, eg the IBM.

The only way to get a more random sequence of numbers from the CoCo is to write your own random number generator and either use more significant digits or a different algorithm.

What follows below is a little game that is a version of "Crazy Cubes", where you get four different colours on each side of four blocks.

It happens to use the RND function to randomize the initial start position for play.

Type it in and enjoy

```
10 'BLOCKS/BAS BY GEORGEMCLINTOCK
20 DIM D(4, 7), D$(8), C$(16)
30 GOSUB 410 'SETUP
40 A$ = INKEY$: IF A$ = "" THEN40
50 T = INSTR(K$, A$): IF T = 0 THEN 40
60 ON T GOSUB 230, 250, 210, 190,270, 270, 270, 270
70 FOR X = 1 TO 6: Q = (X - 1) *64 + D(P, 7)
80 PRINT@Q, C$(D(P,X));
'NEWPOSITION
90 NEXT X
100 T = 0: FOR Y = 1 TO 4: D(0,Y) = 0
```

```

110 FOR X = 1 TO 4 'CHECK FOR WIN
120 D(0, Y) = D(0, Y) + D(X, Y)
130 NEXT X
140 IF D(0, Y) = 15 THEN T = T + 1
150 NEXT Y
160 IF T <> 4 THEN 40
170 PRINT@11*32, "CONGRATULATIONS-
YOU GOT IT";
180 STOP
185 'ROTATE BLOCK
190 T = D(P, 1): D(P, 1) =
D(P, 5): D(P, 5) = D(P, 3): D(P,
3) = D(P, 6): D(P, 6) = T
200 RETURN
210 T = D(P, 1): D(P, 1) =
D(P, 6): D(P, 6) = D(P, 3): D(P,
3) = D(P, 5): D(P, 5) = T
220 RETURN
230 T = D(P, 1): D(P, 1) =
D(P, 2): D(P, 2) = D(P, 3): D(P,
3) = D(P, 4): D(P, 4) = T
240 RETURN
250 T = D(P, 1): D(P, 1) =
D(P, 4): D(P, 4) = D(P, 3): D(P,
3) = D(P, 2): D(P, 2) = T
260 RETURN
270 Q = 11 * 32 + D(P, 7)
280 PRINT@Q, " ";
290 P=T-4 'CHANGE BLOCK USED
300 Q = 11 * 32 + D(P, 7)
310 PRINT@Q, C$(7);
320 RETURN
330 'SETUP FOR GAME
340 DATA BOTTOM, 2, 8, 1, 4
350 DATA LEFT, 1, 4, 8, 2
360 DATA TOP, 8, 1, 4, 2
370 DATA RIGHT, 4, 2, 1, 8
380 DATA FRONT, 8, 4, 2, 1
390 DATA BACK, 8, 8, 2, 4
400 DATA POS, 10, 12, 14, 16
410 K$ = CHR$(8) + CHR$(9)
+CHR$(94) + CHR$(10) + "1234"
420 C$(1) = CHR$(175): C$(2)
=CHR$(207) 'COLORS
430 C$(4) = CHR$(191): C$(8)
=CHR$(159): C$(7) = CHR$(94)
440 CLS : PRINT "A LITTLE
GAMEWHERE YOU ROTATE": PRINT
"THEBLOCKS SO THAT EACH OF THE"
450 PRINT "FIRST FOUR ROWS
(IEBOTTOM, LEFT": PRINT "TOP,
ANDRIGHT) EACH HAVE FOUR"
460 PRINT "DIFFERENT COLORS
INTHEM"
470 PRINT "EG. "; C$(1); "
"; C$(2); " "; C$(4); " "; C$(8)
480 PRINT : PRINT "THE COLORS
CANBE IN ANY ORDER"
490 PRINT "THE LAST TWO
ROWS(FRONT&BACK)": PRINT

```

```

"DON'T MATTER"
500 PRINT : INPUT "PRESS ENTER
TOCONTINUE"; Z
510 FOR X = 1 TO 7: READ D$(X)
520 FOR Y = 1 TO 4: READ D(Y, X)
530 NEXT Y, X
540 CLS:PRINT "SETTING UP"
550 'RANDOMIZE THEM
560 T = RND(-TIMER)
570 FOR X = 1 TO 3: T = RND(5 - X)
580 FOR Y = 1 TO 6
590 Q = D(5 - X, Y): D(5 - X, Y) =
D(T, Y): D(T, Y) = Q
600 NEXT Y, X
610 FOR P = 1 TO 4
620 FOR Y = 1 TO RND(3):
GOSUB190: NEXT Y
630 FOR Y = 1 TO RND(3):
GOSUB250: NEXT Y, P
640 P = 1
650 CLS : FOR X = 1 TO 6: Q = (X-
1) * 64
660 PRINT@ Q, D$(X);
670 FOR Y = 1 TO 4
680 PRINT@ Q + D(Y, 7), C$(D(Y, X));
690 NEXT Y, X
700 PRINT@ 11*32+10, C$(7);
710 PRINT@ 12*32, "ARROW
KEYSROTATE BLOCKS"
720 PRINT "1-4 SELECT BLOCK
TOALTER"
730 PRINT "ENTER MOVE";
740 RETURN

```

# SELEX

Copiers Since 1923

**business machine centre**

Sales, Service & Supplies

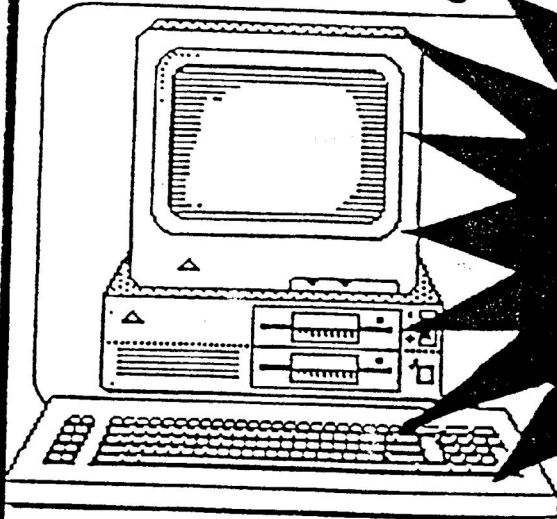
**Ph: (075) 91 8444**

Fax: (075) 31 0324 • Mobile: (018) 76 5216

17 High Street, Southport, 4215

# COCO FRIENDS DISK MAGAZINE

"The most exciting new product for the CoCo Since....?"



**COCO FRIENDS DISK MAGAZINE (CFDM)** is devoted exclusively to those who still enjoy running under RS Dos. The standard system needed to use CFDM is CoCo 3, RGB monitor, at least one disk drive, and the RS Dos which came with your CoCo 3.

CFDM is a monthly disk based publication which is produced on a "flippie" disk. When you "Run" the "magazine" side of CFDM, you'll be greeted with a beautiful cover picture by CoCo Friend James Gibbons. Pressing any key takes you to the magazine's colorful Main Menu. There you'll find 14 sections which are filled with entries. Sections Included are: About CFDM; About this Issue; Active CoCo; Advertisements; CoCo Friends Art Gallery; Articles of the Month; Family Tree; Forum; From the Editor; Letters to the Editor; Potpourri; Programs of the Month; Reviews; and Question & Answers.

Next you will enter a Section and find a number of entries written by our CoCo Friends from all over the world. Each issue of CFDM contains from 60 to 80 entries. Some sections contain documentation about the many programs and graphics found on the "flip-side" of CFDM.

The "flip-side" or "program" side of CFDM is filled with contributions of wonderful programs and graphics from our many CoCo Friends! Each issue has from 2 to 4 hi-res pics and from 8 to 15 never-before-seen programs.

**8 to 15  
never-before-seen  
programs**

The above software is available in  
Australia through REMCOMS

**RICK'S** COMPUTER  
ENTERPRISE

**PRICES:**

1 issue = \$9.00  
3 issues = \$25.00  
6 issues = \$45.00



# RADICAL ELECTRONICS INC

## COLOUR SCHEMATIC DESIGNER V 3.0

This programme is for drafting schematic diagrams for electrical circuits.

### REQUIREMENTS:

512K COCO 3

1 DISK DRIVE

MOUSE WITH TANDY (OR EQUIVALENT) HI-RES INTERFACE

### FEATURES:

Object orientated programme with 6400 symbol buffer 64K text

Postscript output (laser printer support)

Node list generator

Supports IBM graphics, Epson FX/LX and Tandy DMP Printers

Block copy, load, save - allows generation of a library of circuits

64 symbols available at once, editor built in

Line draw functions (vert/horiz lock, linking, anchor to port or other lines)

Adjustable mouse settings

Exit to basic and return without the loss of data

*(See the review on this product in CoCo-Link Jul/Aug 93 Vol 1 No 4 Page 7)*

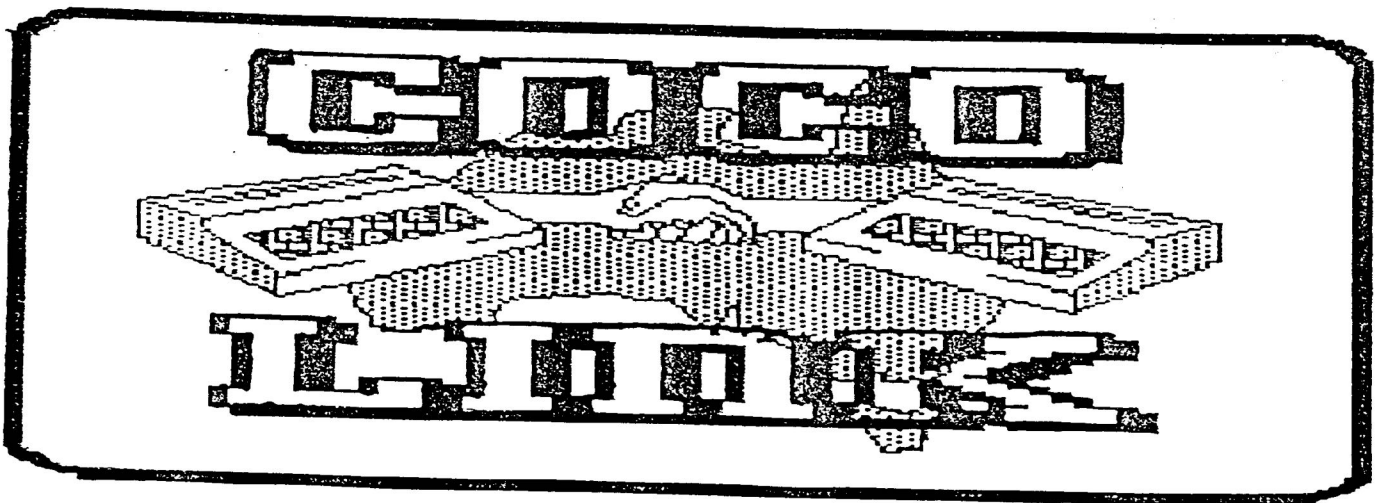
PRICE: \$60 + \$5 p+p

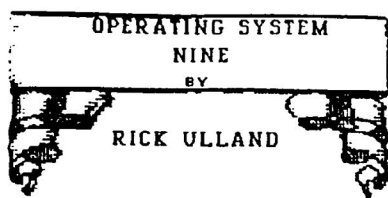
REMCOMS

100 Whitsunday Dve

KIRWAN QLD 4817

PHONE/FAX: 077-734 884





This issue, we thrash about in OS-9's security system.

Is that MultiUser or Multi-User?

OS-9 is advertised as a 'multiuser' system, and indeed it is. When most people hear the word, they envision some number of terminals connected to a powerful mainframe someplace. Truly, there are multiple users on this sort of system, but such a vision misses the point.

Multiuser could also refer to the various people who use a given machine by simply sitting at the console at different times. Each deserves a measure of privacy, and the system needs it's own protection. Not everyone has a hard disk full of National Defence projects, but a clever 9 year old working his way through the manual can be the equal of any secret agent were directory structures and system information is concerned. And is he really printing out his essay or running big sister's personal notes through the Banner Maker?

OS-9's system isn't exactly foolproof, but it's certainly unique among machines of it's class, and would take at least moderate level hacking to defeat once set up properly. The game is super user 0 vs the public. Each public user can create and destroy his own private directories (given the utilities to do so), and has limited access to public directories created by other public users or the superuser. (Limited by how the author set the public attributes). As you've no doubt occasionally cursed, this scheme

extends down to individual files. The superuser, of course, runs rough-shod over all of this. Unfortunately, so does OS-9's raw disk access path (as in /d00). (Shell+ strips the 0 out unless you are superuser - bug fixed).

The level of protection is left up to the system administrator (that's you) and depends mainly on what you leave your users. At the least, potentially damaging commands like format need their CMDS directory, containing only the programmes public users should be running. It depends on the users, there's no reason a super attr command couldn't be written in almost any language and used to defeat security, but most users won't be that sophisticated.

Remember, private data directories are secured as well. For example, attr won't change a file the user doesn't have access too and while deldir could wipe out public writeable directories, a single private file in that directory will stop the process.

The main obstacle to implementing OS-9's multiuser features is Tandy's insistence on splitting OS-9 into extra cost modules. To get the required login and optional tsmon modules, you have to buy a DevPak (#26-3032). Tandy still sells the xeroxed Software Assembly devpak for around \$50(US). Sometimes CoNect has used ones with the binder etc, for around the same price. If you aren't planning on any serious programming, this can seem kind of steep. If anyone knows of a commercial or freeware login that works well, please send the info for posting here.

The part Tandy didn't sell you is the system module that sets user numbers. Anyone who's set up terminals has seen login work, since tsmon (the terminal monitor) hands off to login when a terminal becomes active. It could just as easily jump directly into a shell, like the CoCo's boot does. We can also reverse that idea, and boot

directly into login.

The module to change is cc3go. One of it's many powers is that of invoking the first 3 process. Normally, this will be shell i=/1;startup -p:autoex. We want to change this to shell i=/1; startup -p;login. Using ded, it's a simple matter to shuffle this around, in ASCII edit mode, overwrite Autoex with Login (space). Cover the i in the phrase i=/1 with another space, exit edit and write/verify. You could change that ugly all-caps boot message while you are in there! With out ded, use secure.mpc (listing follows) to change most non-nitros9 cc3go files. As always, cc3go may be either a part of os9boot or an executable file on the boot device's root directory.

What this does is start a superuser shell to run startup and login. It can access files and run programmes the user account can't, which may be needed by your boot process. This is potentially dangerous, so unlike most shells, this one is mortal, any error will leave the machine with a dead console and prevent the clever user from erroring out the boot to get around security. Login itself then invokes a more limited user shell, after verifying the user.

An unfortunate side effect is startup can no longer be used to create additional windows at boot, since these windows will belong to the superuser and even be present before login runs. Any process run from startup will also have superuser privileges and should be chained (ex programme) else a simple error will leave a superuser owned shell open. If there is any doubt, run procs. Procs only reports the current user's procedures, worry if any user ID 0 show up (unless you are logged in as 0, of course then procs shows everybody).

Login uses the file /dd/sys/password. The superuser must create this file and it should

have no public permissions. It's a simple ASCII text file, with each field separated by commas and each line ending with a carriage return. Which means you can create and maintain password with anything, since most editors and word processors end lines with a carriage return and certainly don't mind commas.

Each user gets a line which contains the user's name, password and user number (0 to 65535). Each line also contains a few fields of startup information for this user, including CPU priority, execution and data directories, as well as the initial programme to run, usually shell. The complete line looks like this:

```
UserName,Password,User #  
,Priority,ExecutionDir,  
DataDir,Programme.
```

Username and passwords can be anything you want (even nothing, if you want), so long as a 32 character length limit is observed.

Anon (anonymous) is commonly used as a limited access account on publicly accessed machines. If one of your user terminals is really a modem, include this account and point it's data and cmds to a special subdir. In this subdir can be further info, a registration programme, perhaps access to the mail system. The usual password is foo, but we can skip it entirely.

If the password field is blank (nothing between the commas), login won't ask for a password for that user name. Usually, login insists the user enter a name, but if there is an account with a blank username field, it will be used if enter is pressed after the Name? prompt. You could give noname, anon and anonymous the same user number and startup info and catch most folks who wander into login.

The default exec dir and data dir are dot (just a period between the commas). The manual defines them as /d0 and /d0/cmds, but in fact dot will be whatever is listed in

cc3go, often patched to be /h0 and /h0/cmds. Make these anything you want. If junior mailny plays Shanghai, you might want his account's initial data directory to be /dd/usr/games. If the system has a separate user cmds directory, this is the place to chx them.

And then there is priority. Normally a user gets an initial 128 (with 255 best). A few programmes will change this, but on the whole a user keeps his starting priority, as specified by /dd/sys/password. On systems with user terminals attached, you may wish to reduce this figure some to speed up the console while the terminal is active. A terminal has it's own speed limitations, so even CoCo's get away with this, but keep it reasonable, a priority of 0 can take 5 seconds to respond to a single keypress!

OS-9 identifies files by user number, but login identifies users by name. Multiple lines with the same user number and password can be used to modify the system the user logs into. For example, one name may start Multi-Vue while another chds to some obscure data directory to run a custom point of sale system. The user could access all of his data files from either login, since both names have the same user number.

MultiVue behaves oddly when run from login. You can't specify an initial data directory, which isn't real surprising, but it's other habits are downright quirky.

If multistart is given as the programme (in /dd/sys/password), the system behaves oddly, creating two separate MultiVues in the same window. The user account gets clobbered by a second iteration running under the superuser's account, not good.

Using gshell itself as a programme works better. MultiVue will start correctly and run under the correct user number. It stays out of private directories and the shells

it spawns also belong to the correct user. There is a problem, if you exit MultiVue correctly it doesn't error! The mortal shell we started at boot still exists, since there has been no error and it still belongs to the superuser. This is the only easy way I can think of to unstack the process queue back before login, and even a simple typo will close the hole, but it exists.

I don't have the code but the patch could be limited to having gshell report an error (perhaps #2) on exiting. Better gshell chains an immortal shell under the current user number at exit. Anyone game?

#### Changing User:

From text shells, all one has to do is type login, then login as the new user. To leave the machine in a neutral state, a user could log into anon or noname before leaving the console. Simply leaving the console sitting at logins Name? prompt isn't good enough, erroring login would restart the previous users account. Another alternative is an account that runs a screen blanking programme. You could draw it in Basic09 and chain login at any keypress. It will have to run as user #0 however, so be sure to trap errors.

MultiVue is more difficult. The procedure should be exit MultiVue, type login at the shell prompt, login and prepare to click. In practice this works but moves through some dangerous territory in the process. For best security, make users start MultiVue themselves (NOT with multistart!).

A system set up as outlined above will properly handle multiple users. Other than physically replacing the boot disk, (or hitting the bug) there is no easy way for a normal user to get into the system itself, and each is capable of creating secure directories on the same mass media... in other words, multi-user. If you'd like several



folks on-line at the same time,  
that's up to you.

#### Stupid System Trick:

Say you kid is logged into a user account under MultiVue and you need to get into a system or private file. Use s to open the overlay shell and run login. What you're logging in is the overlay window itself. From there use attr to unlock the file or modify it directly. ESC kills the new user with the overlay and we go back to the original user account.

#### Stupid Sys Adm Trick:

Hide the old boot disks.

#### Startup Fix:

This modpatch file can be used to quickly modify your cc3go. If cc3go is still part of os9boot, it should be removed. Danger!! Any problem will cause the boot to fail. Use a backup!

Load cc3go;modpatch cc3.mpc;save  
cc3go cc3go.

cc3.mpc  
l cc3go  
c b9 41 6c  
c ba 75 6f  
c bb 74 67  
c bc 6f 69  
c bd 45 6e  
c be 78 20  
c d5 69 20  
v

\*\*\*\*\*  
Reprinted by permission '68 Micro  
\*\*\*\*\*

#### XPANDER

The XPANDER started out as one part of the PoCo project, it was never designed to replace the Multipak but to eliminate it entirely.

The layout of an Xpanded CoCo is the first feature to catch the eye, - a floppy and/or a hard drive case

is plugged directly into the computer. Likewise, the modem is connected directly to the CoCo. The ROMPak port is still available, and in fact a ROMPak may be inserted and run. The only external evidence of the Xpander is an aluminium case bottom.

The 'CoCo Kit' version provides a new lower case shell, moving the motherboard as far down as is practical. Still, it is a fairly crowded package! There is no easy way to install the 2 Meg upgrade when both internal slots are filled, it can be done - but it is a real challenge.

The Xpander is an excellent way to install a CoCo into a PC style case, the entire electronics package is 12"x7"x3.25" and fits nicely in a baby AT case! For such repackaging a board only version is available without the lower case half or 12/-12V power supply.

#### PRICE:

CoCo Kit;  
(Xpander, lower case shell, 12/-12V power supply).....\$230

Xpander Board Only.....\$175

(Please allow a minimum of 21 days for delivery from the USA.)

((( )))

#### MINI RS232 PORT

The Mini is CoNects low cost replacement for the Tandy Deluxe RS232 Pak. It is completely compatible with existing software and therefore is the port of choice for disk basic users. Users of more esoteric OS-9 drivers, such as the serial mouse package, will also find this unit a 'drop in' replacement.

The 'Mini' is so named because of it's size - it is housed in a ROMPak game case! Modem connection is made by a female DB25 connector on the top. This unit requires a 12V source, either the Multipak or external supply connected through a

mini plug on the units side.

#### PRICE:

Mini RS232 .....\$85

Power Supply.....\$15  
(Y cable systems)

((( )))

The above products plus more are from CONECT, one of the few remaining companies still supporting the CoCo with hardware.

All CONECT products are available through:

#### REMCOMS

P.O. Box 787  
THURINGOWA CENTRAL QLD 4817

Fax/Phone: (077) 734 884

\*\*\*\*\*

P.C.C.C.  
Peninsular Colour Computer Club

\*\*\*\*\*

The PCCC is a user group which could arguably be the longest running CoCo user group in Australia. The club has been going strong for over 12 years that I know of and is still a plethora of information on the CoCo.

The are based on the Korrington Peninsular (Frankston), and can be contacted by telephoning:

Greg MacKenzie (059) 838 991

Bob Charleston (059) 791 922

Stan Blazejewski (03) 580 4605

\*\*\*\*\*

# AUSTRALIAN OS-9 USERGROUP PUBLIC DOMAIN LIBRARY

21 Virgo Street  
INALA. Qld. 4077  
Australia.

## INTRODUCTION

Welcome to the Australian OS-9 Usergroup Public Domain Library!

### WHERE I AM:

My address you'll see at the top of the page.  
My phone number is:

(07) 2787209

Please only call me between the hours of 10:00 AM and 9:00 PM.

Also, I can be reached by FAX on:

(07) 3728325

Please mark your FAX: **ATTENTION: Bob Devries**

### WHAT I HAVE:

Currently in the PD Library I have a large quantity of OS-9/6809, OS-9/68000, OS9000, and RSDOS software. The list is made up of:

- OS-9 Community Network Library files  
approx 23MB
- Australian OS-9 Usergroup archives  
12 disks (80 trk CoCo OS-9)
- OS-9 Usergroup (USA) disks  
11 disks (80 trk CoCo OS-9)
- The OS-9 Project (TOP - OS-9/68000)  
15 disks (80 trk CoCo OS-9)
- OS-9 listserver files from Princeton  
Size unknown at this stage
- COCO listserver files from princeton  
Size unknown at this stage

Also, I will make available the file lists from the Internet sites, wuarchive, and chestnut.

There are, of course, many duplications in the libraries, except for the TOP library, which is somewhat unique. In the OCN library, there are 322 RSDOS programmes of various types, mostly BASIC, but some picture files (Pmode 4), some MUSICA files, and others.

## GETTING FILE LISTS

You can get lists of the files in the PD Library, by sending me up to four OS-9 formatted blank disks. On them I will put text files which will list the file names, and in some cases, a short description. These can be read with the OS-9 'list' command, or 'more' (which I can supply), or they can be loaded into a word processor. Listing them to a printer would work, too, however, the list is very long, so be prepared!

## WHAT DOES IT COST:

I will supply the text files FREE, except for return postage!

After that, I will charge \$2.00 PER DISK, plus return postage. You supply the disk(s), formatted on your computer.

Quantity discounts are available, please ask.

## DISK FORMATS:

I can read and write the following formats:

### COCO OS-9

80 track double or single sided, 5.25" or 3.5"  
40 track double or single sided, 5.25"  
35 track single or double sided, 5.25"

### OS-9/68000

Currently any Microware supported 3.5" format, but only double density, I can't do high-density disks.

### COCO RSDOS

35 track double or single sided, 5.25"

Other disk formats MAY be available, please ask me.

## CONCLUSION:

Membership of this PD Library is NOT restricted to members of the Australian OS-9 Usergroup, so show this letter to fellow OS-9 and CoCo users.

This is your best opportunity to get OS-9 and RSDOS PD software. Put some new life into your computer! Get some PD programmes today!

Regards, Bob Devries  
Australian OS-9 Usergroup  
PD Library



# MICROCOM TECHNOLOGIES, Inc

---

THE FOLLOWING IS A LIST OF BOOKS AND SOFTWARE STILL AVAILABLE FOR THE COCO3 FROM MICROCOM TECHNOLOGIES, Inc.

## BOOKS:-

500 POKES, PEEKS & EXECS  
SUPPLEMENT TO 500 POKES  
300 POKES, PEEKS & EXECS FOR COCO3  
UTILITY ROUTINES VOL 1

## UNIT COST:-

25.00  
15.00  
25.00  
20.00

## SOFTWARE:-

WORD POWER 3.3  
CALANDER MAKER )  
SCREEN DUMP )  
SUPER TAPE/DISK TRANSFER )  
VCR TAPE ORGANIZER )  
HOME BILL MANAGER )  
COMPUTERIZED CHECQUEBOOK )

## UNIT COST:-

55.00

25.00 EACH

BASIC WINDOWS PROGRAMME 20.00  
DISK UTILITY 2.1 20.00  
FILE TRANSFER UTILITY MULTIVUE VERSION 25.00  
MULTI EDIT 12.00  
TW-80 12.00  
VIP WRITER III 50.00  
AUTOTERM 35.00  
COCO \*OS-9 RAMDISK 20.00  
MULTIPROGRAMMING OS-9 OPERATING SYSTEM 35.00  
MEWMORY MASTER 20.00  
WILD & MV (DIRECTORY ASSISTANT FOR OS-9) 20.00  
COLOUR DEMON SEED 20.00

XT-ROM 25.00

POSTAGE TO BE CONFIRMED WHEN PLACING ORDER. PLEASE ALLOW MINIMUM OF 21 DAYS FOR POSTAGE FROM THE USA.

IF THERE IS ANYTHING HERE YOU ARE INTERESTED IN PLEASE CONTACT US ON 077-734 884 (FAX/PHONE).



Here is a list of CoCo gear that Ian Hedges has for sale:

1 x CoCo 3 (128K) with detachable keyboard (keyboard has built-in numeric pad) ..... \$25  
 1 x box full of accessories (Joysticks, leads, & all sorts of components).. \$10  
 1 x VIP Desktop & Manuals (CoCo3).. \$10  
 1 x 500 Peeks, Pokes & Exec's ..... \$5  
 1 x Supplement to above ..... \$5  
 1 x 300 Peeks, Pokes & Exec's (CoCo3) \$5  
 1 x Hi-res Interface ..... \$10  
 1 x box full of mags and books .... \$10  
 100 (approx) disks full of games, ... utilities, graphics etc.....  
 \$40 Buy separately or complete for \$75.  
 Postage is included in all prices quoted. You can get in touch with Ian by phone on: (071) 209 2921

.....ALSO.....

1 x Double 40Trk Disk drive .....\$150  
 1 x DMP106 Printer .....\$50  
 \*\*\*\*\*

#### CONSIGNMENT NO: 4

The following is another consignment available through REMCOMS. If there is anything you are interested in just drop me a line / fax or leave a message on the machine.

1 x CoCo3 (512K) ..... \$150  
 1 x Homemade floppy controller -  
 ... 40 track double sided ..... \$50  
 2 x Economy joysticks .....each \$5  
 4 x Deluxe joysticks .....each \$10  
 1 x OS9 Level 2 ..... \$50  
 1 x Pascal Compiler ..... \$40  
 1 x TRS Copy ..... \$5  
 1 x Deskmate 3 ..... \$25  
 1 x Multi-Vue ..... \$25  
 1 x CoCo Artist ..... \$5  
 1 x Phantomgraph ..... \$10  
 1 x Home Publisher ..... \$10

1 x Dynacalc ..... \$10  
 1 x Filter Kit ..... \$10  
 1 x Stylograph ..... \$10  
 1 x OS9 Level 2 (Public Domain) . \$5  
 1 x Wild & MV Utilities ..... \$10  
 1 x Disk Doctor V2.0 ..... \$10  
 1 x Hard Drive Utilities ..... \$10  
 1 x King's Quest III ..... \$10  
 1 x Zone Runner ..... \$10  
 1 x Sub Battle ..... \$10  
 1 x Microscopic Mission ..... \$10  
 1 x Rogue ..... \$10  
 1 each of Thexder, Doubleback, Tetris, Soko Ban, Malcolm Mortar, Shanghai, Colour Scripsit 2, Sprinster and Bridge Tutor (ROM PAKS)... each \$5  
 1 each of Eight Ball, King Cuthbert, Investigations into Integral, Quix, Color Compac, Calculus and Typing Tutor (TAPES) .....each \$5  
 1 x Logo (DISK) ..... \$10  
 1 x Complete Rainbow Guide to OS9 LvII . Vol 1 by D. Puckett & P.Dibble \$10  
 1 x Inside OS9 'Lv II by K.Darling \$10  
 1 x Motorola Mc6809 Microprocessor ... Programming Manual ..... \$10  
 1 x CoCo Disk System - Owners Manual ... & Programming Guide ..... \$5  
 1 x Going Ahead with Extended Color ... Basic ..... \$10  
 1 x Mc6809 Cookbook ..... \$5  
 1 x Color Computer Graphics ..... \$5  
 1 x TRS80 Color Computer Assembly ... Language Programming ..... \$5

\*\*\*\*\*

The following two items are from Ron Lidgard.

1 x 40meg hard drive to suit CoCo3  
 ... requires controller ..... \$100  
 1 x XSPELL (OS9 spell checker) .. \$40

You can ring Ron on (071) 286 2776.

\*\*\*\*\*

The next list for sale are what is left from Consignment NO: 1. Once again if anything interests you get in touch with us.

1 x Competition joystick ..... \$15  
 1 x Complete Rainbow Guide to OS9 LvII ... A Beginners Guide to Windows. \$30  
 1 x Orchestra-90\*CC ..... \$10  
 1 x The Sands of Egypt ..... \$5  
 1 x Donut Dilema ..... \$10

\*\*\*\*\*

Now for Consignment NO: 2.

1 x Multi Vue ..... \$25  
 1 x OS9 Disk Manager Tree ..... \$10  
 1 x OS9 Multi Menu ..... \$10  
 1 x OS9 Tools II ..... \$15  
 1 x OS9 Screen Print ..... \$10  
 1 x T/S SPELL ..... \$10  
 1 x T/S WORD ..... \$10  
 1 x T/S EDIT ..... \$10

As in all our consignments, give us a call if anything interests you.

\*\*\*\*\*

1 x CoCo 3 512K..... \$200  
 (Inc disk drive, controller, some Software Original box)  
 1 x CM8 RGB monitor..... \$100  
 (Inc manual & original box)  
 1 x DMP - 105 Printer..... \$100  
 (Inc manual & original box)

Package as is for \$300 + P&P

All in perfect condition.

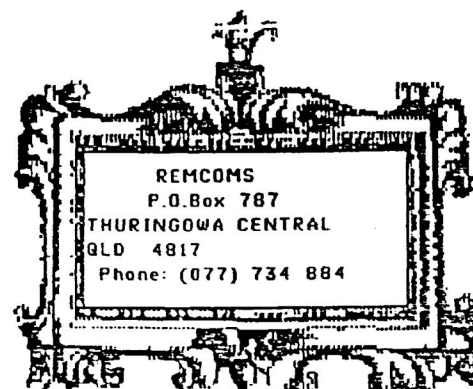
P.Morgan  
 5/18 Bere St  
 ENOGGERA QLD 4051

Ph: 07 354 1215

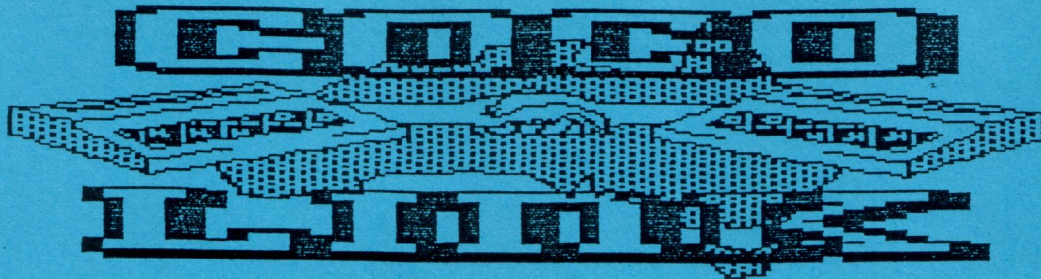
\*\*\*\*\*

Remember that if you have something for sale or you are looking for a particular product, then this is the place to put your ad.

Contact REMCOMS for further information.







Name	Street	Town/State/PC	Phone No
Alway Peter	P.O. Box 821	Boronia Park/NSW 2111	02 816 2130
Barker Bob	P.O. Box 223	Glenfield/NSW 2167	
Bentzen Gordon	8 Odin St	Sunnybank/QLD 4109	07 344 3881
Blazejowski Stan		Mordiallic/VIC	03 580 4605
Boardman William	10 Eltham Ave	Pt Lincoln/SA 5606	086 82 2385
Bye Graham	9 Airlie Bank Rd	Morwell/VIC 3840	051 34 5954
Brady Gaye	Mocatta's Corner M/S 501	Dalby/QLD 4405	076 696 241
Cameron William	2/22 Warren St	St Lucia/QLD 4067	07 371 4736
Colls Jason	46/21 Usher Ave	Labrador/QLD 4215	(015 594 627) OR 075 325 639
Cooper Len & Shirley	223 Elswick St	Leichardt/NSW 2040	
Cosier W.F	32 Argyll St	Coffs Harbour/NSW 2450	066 524 056
Cunnigham Eric	7 Nuthatch St	Inala/QLD 4077	07 372 2980
Dalzell Robbie	31 Nedland Cres	Pt Noarlunga/SA 5167	08 386 1647
Devries Bob	21 Virgo St	Inala/QLD 4077	07 278 7209
Donges Geoff	P.O. Box 326	Kippax/ACT 2615	06 254 9354
Eadsforth Jim	P.O. Box 329	Goolwa/SA 5214	
Edwards Peter	40 Davison St	Mitcham/VIC 3132	03 873 5249
Elphick Graham	26 Birch St	St Mary's/NSW 2760	02 623 8141
Gall Brian	P.O. Box 131	Cooranbong/NSW 2265	049 772 178
Hester Joseph	49 Truscott Rd	Moe/VIC 3825	051 271 158
Holder Garry	229 Esplanade	Seaford/SA 5161	08 386 1139
Hutchinson Simon	10 Ascit Court	Nth Dandenong/VIC 3175	03 790 0967
Ikin John	42 Spruce Dve	Rowville/VIC 3178	03 759 6253
Johnson Fraser	35 Robson Ave	Gorokan/NSW 2263	043 923 298
Kenny Bob	3/14 Bellingen Rd	Coffs Harbour/NSW 2450	066 51 2205
Lidgard Ron	17 Acacia St	Thornlands/QLD 4164	07 286 2776
McGrath John	93 Lemon Guns Dve	Tamworth/NSW 2340	067 618 071
McLintock George	7 Logan St	Narrabundah/ACT 2604	06 295 6590
McNabb John	P.O.Box 109	Boronia/VIC 3155	03 758 9008
Morgan Peter	5/18 Bere St	Gaythorne/QLD 4051	07 354 1215
Morris John	30/45 Lawrence Hargrave Rd	Warwick Farm/NSW 2170	02 822 4678
Munro Ron	91 Blackburn Rd	Elizabeth E/SA 5112	08 252 2616
Murrells Alan	5 Goulburn Ave	Corio/VIC 3214	052 75 3065
Quinn Stephen	2/7 Park St	Orange/NSW	063 62 4748
Rae Desmond	P.O. Box 2076	Mt Isa/QLD 4825	077 43 3486
Remin Fred	P.O. Box 787	Thuringowa Central/QLD 4817	077 734 884
Remin Fred (The older one)	3/1 Franklin St	East Doncaster/VIC	03 842 8545
Rosch Raymond	5 Euphrates Pl	Kearns/NSW 2558	02 820 7228
Schmidt Richard	5A Stephens Ave	Torrensville/SA 5031	08 354 0951
Steman John	P.O. Box 680	Windsor/NSW 2756	
Stephen Val	1 Mabel St	Camberwell/VIC 3124	03 830 5668
Vagg Johanna	9 Belah St	Forbes/NSW 2871	068 52 2943
Williams Arthur	67 High St	Harrington/NSW 2427	065 56 1517

\*\*\*\*\*  
 If you would like your name included in the above list in order to help other cocoists and to maintain contact between us, then send in the above information to me for inclusion in the magazine.

Do you know of the existence of a user group in your area or are you considering starting one up again? Let me know the detail including the contact names and phone numbers, meeting place, times etc, and I will print it in this magazine.



COCO LINK

PRINT POST APPROVED  
PP 433711 00019

P.O. BOX 782  
THURONGS-OMMA CENTRAL QLD 4817  
PH:077 734 884

SURFACE  
MAIL

REINCOMS  
POSTAGE  
PAID  
AUSTRALIA

D. RAE  
P.O. BOX 2076  
MT ISA QLD 4825