
"CUASOA"

NEWSLETTER OF THE COMMODORE COMPUTER USERS GROUP (QLD) INC.

Registered by Australia Post - Publication No. QB63958

JULY 1985

VOL.2 NO.1

CLUB ROOMS: Playground & Recreation Assocn. H.Q. Bldg.
Love Street, Spring Hill, Brisbane

CONTENTS

Diary for August	2
Regional Meetings	2
Editorial	5
Price List	5
Notes & Gossip	6
Public Domain Tape "17"	8
Annual General Meeting	9
Nomination & Proxy Forms	11
Repair Survey	13
Reviews	14
Sorting in Basic - Part 2	16
Letters to the Editor	20
Public Domain Disk "UC"	24
Beginners Corner	25
Members' Adverts	30
Modem Corner	30
Directory	31

DIARY FOR AUGUST

Group meeting on Tuesday, 6th August 1985, at 7.30 pm in our Club Rooms in Love St. (near Water St.) Spring Hill.

Rob Adamson will talk on Public Domain Disk "UB"
A Special Programming Discussion Group
The Beginners Corner will be conducted by Ray King

Workshop meeting on Sunday, 18th August 1985, from 1 pm till 5pm in the Guidance Officers Training Centre, Bayswater Street, Milton.

Bring your programming- or hardware problems, as well as your own computer equipment!

Opportunity to copy the group's Public Domain Disks.

PLEASE NOTE: Workshop Meetings are for MEMBERS ONLY!

=====

REGIONAL MEETINGS

Cannon Hill meets on the 4th Saturday of the month (7.30pm) in the Cannon Hill State School.

Contact: Barry Wilson - Ph.399 6204 or Augy Norman - Ph.399 2080, a.h.

Fine Rivers meets on the 2nd and 4th Sunday of the month (1pm - 5pm) in the Strathpine High School (rear entrance).

Contact: Clayton Lancaster - Ph.285 4157, a.h.

Redcliffe Peninsula meets on the 1st and 3rd Friday of the month (7pm) in the Redcliffe High School.

Contact: Geoff Baillie - Ph.203 5086, a.h.

Sherwood meets on the 2nd Friday of the month (7.30pm) in the Graceville State School.

Contact: Leigh Winsor - Ph.379 2405, a.h or Philip Parkin - Ph.378 5382, a.h.

Springwood meets on the 3rd Wednesday of the month (7.30pm) in the Springwood Central Primary School, Dennis Rd., Springwood.

Contact: Terry Steer - Ph.808 2424, a.h.

The Gap meets on the 3rd Wednesday of the month (7.30pm) in The Gap State School.

Contact: John Johnston - Ph.30 5240, a.h.

Wavell Heights meets on the 2nd Tuesday of the month (7.30pm) in the Wavell Heights High School (library), Brae St.

Contact: Robert Adamson - Ph.266 8353, a.h.

Killarney meets on the 2nd Monday of the month in the Killarney State School.

Contact: Roger Frazer - Ph.(076) 64 1370.

Maryborough/Hervey Bay meets on the 3rd Monday in Hervey Bay.

Contact: Terry Baade (16 Mouquet Lane, M'borough, 4650) at 21 2271 (w) or 21 5059 (h).

Would you like to start a sub-group in your local suburb or district? If so, give Terry Steer, our Sub-Group Co-ordinator, a ring on 808 2424 (a.h.) for more information.

SPECIAL INTEREST GROUPS

Business Sub-Group meets on the 3rd Tuesday of the month (7.30pm) at 28 Vulture St., West End.

Contact: Max Bean - Ph.208 1225, a.h.

Primary Education Sub-Group meets on the 3rd Tuesday of the month (7.30pm) in the Aspley State School.

Contact: Bill Weeks - Ph.208 8620 (work) or 341 2823, a.h.

Adventure Games Sub-Group meets on the 1st Tuesday of the month, (during main meeting - in our club rooms).

Contact: Trevor Mancktelow - Ph.262 4602, a.h.

CHANDLERS

43 ADELAIDE ST. BRISBANE

C-64 FAMILY PACK
AT A VERY SPECIAL PRICE
FOR C.C.U.C.O.D. MEMBERS !



SEE US ALSO FOR A
GREAT RANGE OF
SOFTWARE & PERIPHERALS

RING DREW AT 221 7822 NOW!

EDITORIAL

Herewith the first issue of year 2 of "CURSOR", and again a new format! (A-5 size). It does mean that you have to fold your own copy, but we hope that you approve.

We have also started a "Beginners' Corner" in this issue. New members are invited to write in with suggestions for this column.

Ralph De Vries

=====

PRICE LIST

PUBLIC DOMAIN DISKS \$ 6.00 ea (Postage Paid)
PUBLIC DOMAIN TAPES \$ 2.00 ea (+\$1.00 Postage *Per Order*)
BLANK DISKS \$25.00 per box of 10 (+ Postage \$2.00)

RESET SWITCHES \$ 5.00 ea
USER PORT SOCKET WITH COVER \$10.00 ea (+\$1.00 postage)

"PUBLIC DOMAIN BOOK" \$ 5.00 ea (+\$1.00 Postage)
"STARTING WITH DISK DRIVES" \$2.00 (+\$1.00 Postage)

UPGRADE CHARACTER ROM for 801/1525 Printer
(Gives Descenders on p,q,g,y, and j. Also requires the exchange of a ROM chip) - Price appr. \$25.00
Contact our Secretary for more details.

Address all orders to P.O. Box 274 - Springwood - QLD - 4127

Cheques to be made out to: C.C.U.G. (Q) Inc.

AVAILABLE FOR HIRE TO MEMBERS ONLY

1526 COMMODORE PRINTER

For details contact the Secretary on 341 5651 (after hours).

NOTES & GOSSIP

JULY MEETING

July means the start of our new financial year, and our treasurer with the assistance of the newsletter editor has been busy collecting your valuable contributions. Cliff Pottinger gave a short talk on the new F.D. disk "UC" (details in this issue), and Leigh Winsor gave a talk to the new members and beginners.

HAVE YOU PAID YOUR MEMBERSHIP DUES FOR 1985 - 1986 ?

If not please fill out the form in the June issue of "CURSOR" and return with your dues to P.O. Box 274 - Springwood - Q'ld - 4127.

After the first week in August your name will be automatically removed from our data base if your membership has not been renewed.

The Right F.O. Box!

Please address all mail destined for the Management Committee of our group to F.O. Box 274 in Springwood !!!
Use F.O. Box 384 , Ashgrove only for matters pertaining to the Newsletter!

Toowoomba Visit

On Friday 28th June Greg Ferry, Norm Chambers, and Terry Steer paid a visit, on behalf of the C.C.U.G., to the newly formed Toowoomba Users Group. One of our members, Harold Parkes, has been very active in the foundation of this group, ably assisted by Bernie Connell, who has now taken over the reigns of this new group.

We wish them all possible success in this, the early stages of establishment.

Cheap Software

Have you noticed lately the drop in prices in software, particularly Commodore software? We have actually seen Easy Script for under \$20.00! Truly at that price it is a remarkable bargain.

We have also seen 1541 drives for under \$300.00. Are Commodore clearing their ware house to make room for their new computers? However a little birdy told us that the new C-128 won't be seen till very much later this year.

An Educational Night

During June Bill Weeks of our Primary Education Sub-group organized a computer night at the Springwood Central State School. With the able assistance of several of our members the parents were shown how home computers can be used in a school environment. Roger Haigh, our technical co-ordinator, demonstrated how to access the Viatel database with Commodore computers, which was received with a great deal of interest by the attending parents, in fact most parents were very much impressed by the wide range of applications for which our Commodore computers can be used.

Maryborough/Hervey Bay Sub-Group

Their first official meeting took place on the 17th June 1985, during which they tackled Easy Script and Superbase 64. Not a bad start for a new group! Roger Haigh, our technical co-ordinator, had a meeting with our M'boro friends on the 27th June, where he told them about the benefits of owning modems and tele-communications in general. By all accounts a good time was had by all. Terry Baade is the contact. See page 2 of our newsletter for further details.

Batteries Included Software

Several members have asked us recently where they can obtain software such as "Paperclip" and "The Consultant", published by the above company. Officially "Imagineering" were (are?) the agents for these products, but dealers have great trouble obtaining stock.

I have on several occasions ordered stock directly from Batteries Included in Canada (they have a retail outlet), and have always given prompt service. They do accept VISA cards, thus no problems with bankdrafts etc.

I have just received by air an updated copy of their database program "The New Consultant" (total cost \$15.00 Can.) within 3 weeks of writing to them. Great service.

EQUIPMENT NEEDED AT MAIN MEETINGS

Again we have to make a plea for members to bring at least one piece of equipment to our main meetings. At the July meeting there was not a computer in sight - rather sad for a computer club.

Some of our members have been heard to say that the committee members should bring their equipment, but do you think that's quite fair on the hardworking committee members?

So we would like to re-iterate our previous plea: Put either a computer, disk drive, or T.V. set (monitor) in your car, and be prepared to bring it into the hall if so required. Your committee will be grateful for your assistance.

PUBLIC DOMAIN TAPE "17"

SIDE A

00	SYNTH SAMPLE	:- Plays various tunes.
125	SPACE PATROL	:- Arcade shooten up type.
175	MYSTERY MANOR	:- An adventure game.
225	FAST ADD	:- Simple maths programs.
250	Super Sprite	:- A game
290	TREASURE HUNT	:- A game
320	SPELLING CRITTER	:- A spelling game
340	ROBOT MATHS	:- A maths game
370	PROPS	:- A game
415	SNOCAT	:- A game

SIDE B

00	BALLOON BLITZ	:- A game
50	3-D TIC TAC TOE	:- 2 player o's & x's
85	WORD SCRAMBLE	:- 2 player game
105	BEE KEEPER	:- A game
130	SHAPE MATCH	:- Match simple shapes
165	BONK BARRELS	:- A game
195	LAWN	:- A game
225	BINGO 64	:- A bingo game
275	BREAKOUT	:- A game
290	GAMBLERS DELIGHT	:- A pokie machine
320	AL-KHWARIZMI	:- A game
335	SINGALONG	:- A musical game
350	MAGIC JIGSAW	:- A puzzle
370	SYMBOL MATCH	:- 2 player game
390	BOWLING CHAMP	:- A 1 to 4 player game
405	TYPING DERBY	:- Typing game

ANNUAL GENERAL MEETING

To be held in our Clubrooms
cnr. Love St. & Water Sts. Spring Hill
on Tuesday 3rd September 1985 at 7.30 pm.

Your attendance at this meeting is of vital importance!

Since this is our first Annual General Meeting since incorporation we would like to stress that we need the maximum amount of financial members present at this meeting. We would like to quote the following Excerpts from the Articles of Association:

The business to be transacted at every Annual General Meeting shall be:

- (a) the receiving of the Management's Committee report and the statement of income and expenditure, assets and liabilities and mortgages, charges and securities affecting the property of the Association for the preceding financial year;*
- (b) the receiving of the auditor's report upon the books and accounts for the preceding financial year;*
- (c) the election of members of the Management Committee; and*
- (d) the appointment of an auditor.*

MEMBERSHIP OF MANAGEMENT COMMITTEE

11. (1) The Management Committee of the Association shall consist of a President, Secretary, Treasurer, all of whom shall be members of the Association, and such number of other members as the members of the Association at any general meeting may from time to time elect or appoint.

(2) At the annual general meeting of the Association, all the members of the Management Committee for the time being shall retire from office, but shall be eligible upon nomination for re-election.

(3) The election of officers and other members of the Management Committee shall take place in the following manner:-

(a) Any two members of the Association shall be at liberty to nominate any other member to serve as an officer

or other member of the Management Committee;

(b) The nomination, which shall be in writing and signed by the member and his proposer and seconder, shall be lodged with the secretary at least fourteen days before the annual general meeting at which the election is to take place;

VOTING

(4) (a) every ordinary, country, student, pensioner, or life member present shall be entitled to one vote.

(b) every family member present shall be entitled to a maximum of two votes.

(c) every business member present shall be entitled to a maximum of two votes.

(d) associate and honorary members shall not be entitled to a vote.

(5) voting shall be by a show of hands or a division of members.

(6) a member may vote in person or by proxy or attorney.

This is an extract of the official articles of association, but for the benefit of our members here is a precis of the above in plain English:

After the reading of the President's- and Treasurer's reports there will be an election of officers for positions on the Management Committee.

These positions are:

- President - Secretary - Treasurer
- Technical Co-ordinator - Sub-Group Co-ordinator
- Chief Librarian - Newsletter Editor

Elsewhere in this issue you will find a nomination form, to be signed by the member and his proposer and seconder (all to be financial members). This form has to be in the possession of the secretary no later than Monday 19th August 1985.

You will also find on the same page a proxy form to be used by members who are unable to attend but still would like to make their vote count at the Annual General Meeting.

COMMODORE COMPUTER USERS GROUP (QLD) INC.
P.O.Box 274 - Springwood - Q'ld - 4127

ANNUAL GENERAL MEETING - 3rd SEPTEMBER 1985
Election of Management Committee Members for 1985 - 1986

NOMINATION FORM

POSITIONS PRESIDENT - SECRETARY - TREASURER
VACANT: TECHNICAL CO-ORDINATOR - SUB-GROUP CO-ORDINATOR
CHIEF LIBRARIAN - NEWSLETTER EDITOR

I hereby nominate
for the position of

Proposed by:

Seconded by:

Signature of Nominee:

This form to be in the possession of the Secretary no later
than Monday 19th August 1985.

=====

PROXY FORM

COMMODORE COMPUTER USERS GROUP (QLD) INC.:

I, of, being a member of the
abovenamed association, hereby appoint of
....., or failing him, of
....., as my proxy to vote on my behalf at the Annual General
Meeting of the Association, to be held on 3rd day of September 1985, and at any
adjournment thereof.

Signed this day of1985

Signature:

This form is to be used ~~in~~ favour of / ~~against~~ the resolution.

~~Strike out~~ whichever is not desired. (Unless otherwise instructed, the proxy may
vote as he thinks fit.)

WANTED

RELIABLE, DETERMINED INDIVIDUALS WITH A SPIRIT OF ADVENTURE!



DO YOU WISH TO CONQUER THE WORLD?!

OR

RULE A MEDIEVAL KINGDOM?!

OR

CONQUER THE AZTECS?!



IF SO, C.R.E. GAMES HAS A PLAY-BY-MAIL GAME FOR YOU.

WHY NOT TRY,

"WORLD EMPEROR" THE GAME OF SUPER-DIPLOMACY
WITH A SIMPLE PLAYING SYSTEM, BUT YOU WILL NEED ALL YOUR
MILITARY AND DIPLOMATIC SKILL TO WIN.

OR

"BLACK MOUNTAIN" THE GAME OF CONQUEST SET
IN THE HYPOTHETICAL MEDIEVAL WORLD OF BLACK MOUNTAIN.
NOT A GAME FOR THE FAINT HEARTED!

OR

"GOLD! GLORY! GOD!" THE ROLE-PLAYING GAME
WHERE YOU PLAY A CONQUISTADOR IN SEARCH OF RICHES AND FAME IN
THE NEWLY DISCOVERED AMERICAS.

IF YOU THINK YOU CAN MEET THE CHALLENGE AND WOULD LIKE MORE
DETAILS, SENT A SASE TO:

C.R.E. GAMES,
PO BOX 90,
LUTWICHE, RLD, 4030

WARNING: PLAY-BY-MAIL GAMES ARE ADDICTIVE!

REPAIR SURVEY

Two months ago we enclosed a repair survey form in "Cursor". As explained this was done to get a better idea of general repair standards in Queensland, rather than a 'witch hunt' against particular repairers.

Last month we indicated that we had a very meagre response to our survey (4 replies!). This has now slightly improved with a total of 10 replies, and our sincere thanks to those members who returned the survey form.

It must be apparent however that 10 replies hardly constitute a fair sampling, so the results are rather meaningless - but for interest sake here are a few facts:

A: 4 each repairs were to C-64's and 1541 drives.

B: 9 out of 10 replies indicated satisfaction (with certain qualifications in some cases)

C: Fats on the back were handed out to: Computer View in Riverview, Downs Office Equipment in Toowoomba, and Commodore in Brisbane.

We certainly feel, on the strength of this survey, that no action has to be taken on our part - in fact the amount of satisfied customers seems to prove that the overall repair scene in our state is not too bad at all.

We also received a letter from one of our members who complained about service in a Brisbane computer shop (NOT one of our advertisers, we would like to add!).

Generally it is group policy not to comment on individual complaints between members and retailers, although on occasion we have been able to act as mediators in a dispute.

However as our member's complaint was directed against a particular staff member of this organization, we feel that the obvious course would have been to contact the management of the company in question to obtain redress of his grievances.

The Subject of Repairs and Services is now closed.

The Management Committee

REVIEWS

Normally we like to have some software- or book reviews by our members on this and following pages. Several new books were passed on to members for review, but as yet your editor is still waiting anxiously for the reviews to arrive!

As I did not want to deprive our readers of this column I have 'borrowed' some reviews from the pages of the June '85 issue of the TFUG magazine.

Although the programs in question have not been seen in Brisbane as yet, several adventure game players amongst our members are anxious to know more about these, and the following reviews may be of interest.

Editor

Adventure Construction Set

from Electronic Arts

Graphics adventure
construction set

for Commodore 64,

1541 disk drive and joystick

Review by Marya Miller

There are two words I never want to see on my computer screen again — *Accessing Disk*.

Unfortunately, if you use **Adventure Construction Set**, you will see them a lot. You will spend long, wearisome minutes — hours, even — waiting for your computer to stop *Accessing Disk*. Most of the time, too, you can't go off and do something else while all this accessing is going on, because you have to be there to do frequent disk swaps. The only time you can leave the computer at it is when your adventure is finally being constructed. Then the screen tells you: "The adventure will be ready in about 37 minutes" or so.

Before you get to this blessed stage, however, you will have sat through so many disk swaps and accesses that your thoughts are vaguely occupied with penance, suffering and vegetation. There are lots of disk swaps and accesses merely to load the sample adventures.

The sample games *are* nicely presented, and **Rivers Of Light** and **Deep Dank Dungeons** in particular are fun to play; but when it comes to a 'tutorial', the manual has one on how to play these sample adventures, rather than on how to construct one yourself. Oh, it *is* full of information pertaining to constructing a game, but it doesn't start at A and end up at Z. It kind of flings you into a maelstrom of enthusiastic facts and leaves you to flounder your way out again.

After many hours and many odd things happening, I did manage to create a reasonable adventure game, but the process is rather like Russian roulette, if you let the ACS disk have anything to do with it. You end up with regions, characters, objects and pitfalls that you didn't expect to see in your game. Which can be rather fun, mind you; though bewildering to simple souls like me.

If you do everything yourself, the creation part is even more fun but, if you're anything like me, it won't work properly and you'll end up biting your table leg and whimpering (after all those gruelling hours of labour).

The packaging is lovely, and the illustrations in the manual are pleasing. The disk label gives the command line for loading the program — a minor point, but helpful, when you have the instructions for forty-odd different disks rolling about your mind. The graphics are okay — though the characters are a bit small and hard to see — and the available music and sound effects are excellent, but put it this way: I'll let you know how **Adventure Construction Set** and I are getting on in about six months or so.

Fun, if you can stand the length of time everything takes and the user inactivity, but definitely not for neophytes.

Adventure Writer
from CodeWriter
Text adventure
construction program
for the Commodore 64

Review by Marya Miller

Unlike **Adventure Construction Set**, **Adventure Writer** actually claims on the front page of its manual: "Your own program — the first time you try!"

Bah! Phooey! Humbug! It's table-leg-biting time again.

There is a sample adventure for you to play and one to construct. This latter comes in place of 'Steps from A to Z'. The idea, I think, is that by constructing the adventure along with the book, you learn to do it *by experience*. An excellent idea, and one of the best ways I know of learning but — alas! — it bombs out, here.

I dutifully did the sample game construction; got foggy about the status table and vocabulary action table, and did it again. Aha! Excellent! Understood it perfectly. Then I mapped out a five-location game of my own, very carefully, and tried that. I got hopelessly mixed up on the status and vocabulary action tables. Several hours later, I finally got things straight, but I certainly wouldn't have done so if I hadn't already had some experience in writing adventure games in BASIC.

I liked **Adventure Writer** better than **Adventure Construction Set** because, for one thing, there were no endless hours of disk swapping. There is more user participation here, too.

This construction set is handy if you want to save a lot of time on standard programming sections, but I found that BASIC was still my best bet, if I wanted to do anything very imaginative.

Not only that, but BASIC was also a heck of a lot quicker!

LOST OR MISLAID?

During our main July meeting our president lost a silver coloured Parker ballpoint pen, to which he is sentimentally attached. If you accidentally took this pen home would you be kind enough to return it to Greg?

At that same meeting another member accidentally took an instruction book on the Microtext 666 Viatel Terminal program. Again our president would very much like to see the safe return of this booklet.

BASIC SORTING - PART 2

For those interested, it is possible to calculate the approximate time required to sort for any number of random elements from the following. For example, the Quicksort routine takes $2.5 * N * \text{LOG}(N)$ in BASIC and $0.555 * N * \text{LOG}(N)$ in Fetspeed.

Also interesting, when compiled in Fetspeed, the different routines did not all benefit from the same increase in execution times. The speed increase ranged from 7.4 for the Exchange sort to 9.5 for the Shell-Metzner.

String Data

Any of the routines below can be changed to use string variables by changing all references to the floating point array A(I) [or A(J) or A(K) etc] to the array A\$(I) etc and changing other variables to suit. Changing the routines from floating point to string variables increases sorting times by roughly 10%. Care should be taken when sorting numbers held as strings. String comparison done by comparing the successive ASCII value of each character in a given string. The sequence from 1-20 would be sorted as 1,10,11,12,13,14,15,16,17,18,19,2,20,3,4,5,6,7,8,9. This problem can be overcome by using the VALUE statement such as VAL(A\$(I)). Unfortunately, such a change increases Quicksort times by 50%.

The Sorting Routines

The following program was used with minor variations to calculate the sorting times above. Each of the 7 sorting routines is included as a subroutine. To use in your own programs, simply renumber the routine and add it somewhere near the beginning of your program to obtain the maximum sorting speed. Note that Quicksort requires two extra arrays L() and R() to store pointers to sub-lists. At the start of the program include a line such as DIM L(10),R(10), which should provide sufficient space for up to 1000 items.

(NOTE the following programs have been formatted for easy entry by use of our HELPOUT program. If not using HELPOUT then DO NOT enter anything after the apostrophe ' or syntax

error may be generated when program is run.)

```
100 REM SORTING DEMONSTRATION'BUFB
110 REM (C) GREG PERRY, 1985'BRUA
118 : 'ABHE
119 REM INITIALIZE VARIABLES FOR MAX SPEED'BFMO
121 READ Z,T,N,TP,I,J,X,F,K,M,L,B,S,R,TY,TP,PL'BMHH
122 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0'BIOF
150 DIM A(2000),L(20),S(20),X$(8)'BADF
151 : 'ABHB
160 FOR I=0 TO 8: READ X$(I): NEXT : GOTO 215'GORH
170 DATA RANDOM,INSERT ONE,EXCHANGE,BUBBLE,
SHELL-METZNER'BVYP
171 DATA HEAPSORT,QUICKSORT,SIMPLE INSERT,BINARY INSERT'BTGO
172 : 'ABHE
180 REM CREATE THE SAME RANDOM ARRAY'BYMK
190 X=RND(-5): FOR I=1 TO N:A(I)=RND(1): NEXT : RETURN 'KSLO
200 : 'ABHV
210 REM MAIN PROGRAM'BLDA
215 PRINT "[CLR]SORTING DEMONSTRATION"'BAJJ
216 INPUT "PRINT LIST AFTER EACH SORT":A#'BDDL
217 PL=0: IF A$="Y" THEN PL=1'FJRJ
220 FOR Z=1 TO 6: READ N'EFQB
230 REM CHANGE DATA TO SET NUMBER OF ELEMENTS'BGCI
240 DATA 10,20,50,100,500,1000'BVJE
250 FOR TY=0 TO 1'DEDD
260 TP=0'BDID
270 PRINT "NUMBER"N:"TYPE "X$(TY)'BIII
280 TP=TP+1: IF TP>5-2*(TY=1) THEN PRINT : GOTO 380'KTSP
290 GOSUB 190: IF TY=0 THEN 360'EKLJ
310 GOSUB 820: GOTO 340'CHDA
340 IF TP<6 THEN A(N)=.5: GOTO 360'FNQH
350 N=N-1:X=.5'DHIF
360 TI$="000000": ON TP GOSUB 400,450,520,650,800,980,
1050:T=TI'ENPO
365 IF PL THEN PRINT : FOR I=1 TO N: PRINT A(I): NEXT 'IMTP
370 PRINT X$(1+TP) TAB(20)"TIME : "T"JIFFIES": GOTO 280'EPNN
380 NEXT TY: NEXT Z: END 'DFEH
390 : 'ABHG
400 REM EXCHANGE SORT'BMAC
420 FOR I=1 TO N-1: FOR J=I+1 TO N: IF A(I)>A(J)
THEN T=A(I):A(I)=A(J):A(J)=T'ONMR
430 NEXT : NEXT : RETURN 'DCGD
440 : 'ABHC
```

```

450 REM BUBBLE SORT'BKFG
470 FOR I=N-1 TO 1 STEP -1:F=0'HIWL
480 FOR K=1 TO I: IF A(K)>A(K+1) THEN F=1:T=A(K):
    A(K)=A(K+1):A(K+1)=T'NNNX
490 NEXT I: IF F THEN NEXT 'ECGJ
500 RETURN 'BAQY
510 : 'ABHA
520 REM SHELL-METZNER'BNNF
540 M=N'BCBE
550 M=INT (M/2): IF M=0 THEN 630'GLAK
560 K=N-M:J=1'DGTI
570 I=J'BCSH
580 L=I+M: IF A(I)<=A(L) THEN 610'GPTO
590 T=A(I):A(I)=A(L):A(L)=T:I=I-M: IF I>=1 THEN 580'JFAV
600 I=I-1: IF I>=1 THEN 580'GJGG
610 J=J+1: IF J>K THEN 550'FJIG
620 GOTO 570'BDLD
630 RETURN 'BAQD
640 : 'ABHE
650 REM HEAPSORT'BITH
670 M=N: FOR L=INT (N/2) TO 1 STEP -1:B=A(L): GOSUB 700:
    NEXT 'LVJS
680 L=1: FOR M=N-1 TO 1 STEP -1:B=A(M+1):A(M+1)=A(1):
    GOSUB 700: NEXT 'NFPW
690 RETURN 'BAQJ
700 I=L'BCUC
710 J=I+I'CDFE
720 IF J>M THEN 770'DFYG
730 IF J=M THEN 750'DFXH
740 IF A(J+1)>A(J) THEN J=J+1'GMAL
750 IF B>=A(J) THEN 770'EIFK
760 A(I)=A(J):I=J: GOTO 710'DPQM
770 A(I)=B'BFGJ
780 RETURN 'BAQJ
790 : 'ABHK
800 REM QUICKSORT : REMEMBER TO DIM L( ) AND R( )'BHIL
820 S=0:L=1:R=N'DIQI
830 M=A( INT (( RND(0)*(R-L)+.5)+L)):I=L:J=R'JYRQ
840 IF A(I)<M THEN I=I+1: GOTO 840'GMNM
850 IF A(J)>M THEN J=J-1: GOTO 850'GMQN
860 IF I>J THEN 910'DFQL
870 IF I=J THEN 890'DFYM
880 T=A(I):A(I)=A(J):A(J)=T'DUJG
890 I=I+1:J=J-1'EHWF

```

```

900 IF I<=J THEN 840'EFWG
910 IF I>=R THEN 930'EFDH
920 L(S)=I:R(S)=R:S=S+1'EPOL
930 R=J: IF L<R THEN 830'EIPK
940 IF S=0 THEN 960'DFGK
950 S=S-1:L=L(S):R=R(S): GOTO 830'FTMP
960 RETURN 'BAQJ
970 : 'ABHK
980 REM SIMPLE INSERT SORT A'BRHQ
1000 IF X>A(N) THEN A(N+1)=X: GOTO 1030'GQCA
1010 FOR J=1 TO N-1: IF A(J)=<X THEN NEXT :A(J)=X:
    GOTO 1030'LVTF
1020 FOR K=N TO J STEP -1:A(K+1)=A(K): NEXT :A(J)=X'JVFF
1030 N=N+1: RETURN : 'DFRY
1040 : 'ABHW
1050 REM INSERT SORT BINARY'BQMD
1070 M=N:L=1: IF X>A(N) THEN L=N+L: GOTO 1130'ITMJ
1080 M=INT (M/2): IF M=0 THEN 1110'GMRH
1090 IF X<A(L+M) THEN 1080'EKSG
1100 L=L+M: GOTO 1080'DIEW
1110 IF A(L)<X THEN L=L+1: GOTO 1110'GNWB
1120 FOR K=N TO L STEP -1:A(K+1)=A(K): NEXT 'IPAE
1130 A(L)=X:N=N+1: RETURN 'EKTC

```

Demonstration of using Binary Search routine to add items or inform that item already exists.

```

100 REM BINARY SEARCH DEMONSTRATION'BAFC
110 : 'ABHV
120 DIM A(100)'BGSX
130 N=10: FOR I=1 TO 10:A(I)=INT ( RND(1)*100): NEXT 'JWEI
140 FOR I=1 TO N-1: FOR J=I+1 TO N: IF A(I)<A(J)
    THEN 160'LVFK
150 T=A(I):A(I)=A(J):A(J)=T'DUJG
160 NEXT : NEXT 'CBLC
170 : 'ABHC
180 INPUT "SEARCH FOR NUMBER ":X'BCLI
190 GOSUB 290: IF F=0 THEN PRINT "NEW ENTRY ADDED":
    GOTO 210'GKWN
200 PRINT "ALREADY EXISTS"BARA
210 FOR I=1 TO N: PRINT I,A(I): IF F=I THEN
    PRINT "<<<<": 'IQVG
220 PRINT : NEXT : GOTO 180'DFBA

```



```

230 : 'ABHY
240 REM INSERT SORT BINARY' BQMF
250 REM IF ITEM EXISTS THE' BPOG
260 REM RETURNS WITH F=ITEM NUMBER' BXUJ
270 REM OTHERWISE F=0 AND NEW ITEM ADDED' BOHL
280 : 'ABHE
290 F=0;M=N;L=1: IF X>A(N) THEN L=N+L: GOTO 360' JVLQ
300 M=INT (M/2): IF M=0 THEN 330' GLWD
310 IF X<A(L+M) THEN 300' EJOC
320 L=L+M: GOTO 300' DHAC
330 IF A(L)<X THEN L=L+1: GOTO 330' GMOG
340 IF A(L)=X THEN F=L: RETURN 'FIMG
350 FOR K=N TO L STEP -1:A(K+1)=A(K): NEXT 'IPAK
360 A(L)=X:N=N+1: RETURN 'EKTI

```

Greg Perry

=====

LETTERS TO THE EDITOR

One of our members, Graham Mackay of Ft. Vernon - Hervey Bay, mentioned in a recent letter to our secretary the fact of having purchased a copy of "Simon's Basic" for \$40.00 (see "Notes & Gossip": Cheap Software). He asked if we have reviewed this cartridge, as well as the Super Expander Cartridge in past issues, to which the reply is "yes".

The Super Expander Cartridge worked very well indeed, but Simon's Basic suffered from several bugs, some of which may have been cured in the latest version.

Although program aids such as these can be extremely helpful, we have always felt that the major limitation of their use is the fact that programs written with these aids can only be used by those users who also own a copy of these programmers' aids.

That, of course, is no condemnation of these aids, but rather a major restriction on their viability. If you feel more comfortable using these aids, go right ahead. You surely save on a lot of 'Peeking and Poking'!

The soon to be released C-128 includes virtually all the commands of both these cartridges, as well as many new ones, thus eliminating the need for these add-ons.

Editor

Dear Editor,

I am writing to ask you to place an advertisement for me in the July '85 edition of "CURSOR" magazine.

There are several reasons I purchased my C.16, none of which need be discussed here. However the fact is that I have not been able to gain much benefit from the club since joining on 17/2/85. This is not the fault of the Group, but owing to the fact that as far as I am aware, there are only two C.16 owners apart from myself who are group members, and no 'material' is readily available.

I have not been able to input into the group, because I am a real beginner, and likewise, I can only ask general questions of people, because (you will be aware) my machine is not compatible with either FET, VIC or C.64, and others cannot be expected to know how my machine runs.

I guess I may choose to lay the blame with Commodore Computers, who are ready to spend money on advertisements to induce people to buy the hardware, but don't follow up as one would expect with a sufficient quantity of software and literature.

There are many things which could be said here, but I guess I will only get the best value from the group by switching to another unit - i.e. a C.64. This will enable me to speak intelligibly to other members and vice versa. I am placing the ad. in the hope that there may be some member who is already competent with his or her existing equipment and would like to try something different and inexpensive. For financial reasons I feel I must sell my C.16 before attempting to buy anything else (a C.64). A long shot? Well, I can only try. If I had been an experienced programmer, I would probably persevere and maybe provide input to the group, but, unfortunately I am a novice.
I thank you sincerely,

Kenneth H. Fisher

Dear Ken,

Thank you very much for your letter. It is very timely and has to be treated as such. We discussed it at

length during our recent management committee meeting, and although we cannot offer a simple solution, we feel that your letter needs every possible exposure.

A major part of your problem has to do with sales and marketing of high-technology products. In simple terms success depends on the "Right Product at the Right Time at the Right Price" principle.

As an example let us take the case of the Atari Games Console. Remember the days when every chain store and toy store were selling these for \$300.00, with most games cartridges at \$50.00 each? They had a ball, and made a killing. Then the cheap micro computer invasion started with the VIC as pacesetter. Very soon people discovered that games could be played just as well, and more cheaply on these computers. Result: Atari virtually went broke overnight. It was the Right Product alright, but it's days were short and sweet. The Right time was over.

Another example: some years ago Polaroid launched an Instant movie film camera. Here was really something. You take your movie and half an hour later you can show it to your guests. This was great, except for one thing; home video camers had just been released, and they did the same thing, and even better. Result: Polaroid lost millions, and lots of unhappy camera owners are stuck with useless equipment. Another case of a product hitting the market place at the Wrong Time.

As mentioned earlier on, Commodore won the first round of the cheap home computer battle with the VIC (Right product etc). When the VIC sales started to slow down they shifted their emphasis to their other home computer the C.64, which became an even greater success in the market place. Now, as we all know, towards the end of 1984 sales of the C.64 started to slow down. As we also know now, the new generation of Commodore computers (C.16 and Plus/4) have not caught on, despite what Commodore may say. Proof required? There is virtually no commercial software produced by independent software manufacturers. Please note that we are not discussing the technical advantages or disadvantages of these machines, although I feel that the non-compatibility of these machines with earlier models of Commodore machines does play a part in their non-success.

This explanation does not help you of course, but sets out to show that so-called major manufacturers/marketers make

mistakes, and sometimes fatal ones.

At this stage I would like to peer in my chrystal ball again, and make some predictions regarding Commodore.

A: The new C-128 could (and should) be a success, but it will very much depend on the Right Price.

B: The new PC-10 and PC-20 (IBM compatibles) will fail in the market place, because they are neither the Right Product, nor the Right Price at the Right Time.

For Commodore's sake I hope that I am wrong, but I have an idea that in another year or so I may have been proved wright.

Your problem (and the problem of many others no doubt) has of course has not been solved by my explanation, but imagine that you were working for one of these high-tech companies, and it was you who had made the wrong marketing decision!

We always send a copy of our newsletter to Commodore's H.O. I very much doubt if it is ever seen by the managing director, or even the sales manager. All the same we hope that in due course there may be some feedback from your letter, if not from Commodore, then hopefully from some of their distributors.

Ralph De Vries

RESET SWITCH PROBLEMS

According to Roger Haigh it appears that the well known Anthony Thyssen Reset Switches will not work with the latest batch of C.64 computers, because of internal changes to the Serial Port. This, however only seems to apply to the very latest batch of C.64 computers.

We will keep you posted as further details come to hand.

Have you paid your
1985-86 dues yet?

PUBLIC DOMAIN DISK "UC"

C.C.U.G.Q. UC

LOADME Auto loader.
HIRES WEDGE M/L program by Anthony Thyssen to enable users to more easily use High Resolution Screens.
PICTURE SAVER Makes a "Doodle" file of pictures in memory.
HIRES WEDGE INST SpeedScript file of instructions for the above two programs.
LIFE SIMULATOR Anthony Thyssen's version of the old LIFE program.
STILL LIFE.LIFE LIFE file - can be load from LIFE SIMULATOR.
PER TWO OSC.LIFE " "
MORE OSC.LIFE " "
BILLARD OSC.LIFE " "
SHUTTLES.LIFE " "
GLIDER GUN.LIFE " "
SPACE SHIPS.LIFE " "
TURBODISK INST. SpeedScript file of instructions for TURBODISK.
TURBODISK is available on CCUGQ Disk UB.
MAGFILE Filing program for magazine articles from Computes Gazette Jan 85. Slightly modified by Rob Adamson.
ARTICLES Sequential file to demonstrate MAGFILE. Load from within MAGFILE.
AIRCON By Bill Bohlen. Calculates room air-conditioner sizes.
PR/INSTR Instructions for Centronics Printer Wedge. Load & Run with printer connected.
PRINT BOOT Loader for Centronics Printer Wedge.
LIST DEMO Provides sample of printer output for non Commodore printers in LIST mode. Load & run with printer connected.
PRINT#1 Centronics Printer Wedge.
PRINT#2 " " "
FCOPY 2.2+ Latest version of fast disk copy program.
DIRECTORY SORT Sort, store and print disk directories.
DISK > TAPE COPY Backup whole disk to tape for security. The tape is not loadable, just a safe storage method.
TAPE > DISK COPY Restores the tape made with the above program to disk.
PRINTLINK Another driver program for parallel printers.
C-COPY Copy disk program to tape. You must enter start address of program to be copied. Does not copy all programs. Seems ok for BASIC programs.
NEW DIRECTORY Re-arrange disk directory in the order that you require.
C-COPY(SYS52596) Copy disk program to tape. Load,8,1. SYS52596 to run.
DISK-64 INST Instructions for program below. Load and run.
DISK-64 Adds 13 Disk commands to your C64.
SPR.EDITOR Sprite editor.
MULTI AID INST SpeedScript file of instructions for MULTI-AID.
MULTI-AID Programmers utility.
MULTI-LIST MULTI-AID with Centronics Printer driver.
PD BASIC BASIC Centronics Printer driver
LISTER 9D00 M/L " " "
LISTER C000 " " " "
SUPERMON INS Instructions for Machine Language Monitor. Load and Run.
SPEEDSCRIPT 3.0 Version 3 of Computes Gazette Word Processor.
SPEEDLOADER For using 1520 Plotter with Speedscript. Enables choice of character size and then loads Speedscript. To print press SHIFT/CTRL/P, Device Number is 6, Secondary address is 7.

BEGINNERS' CORNER

Welcome to the first issue of Beginners' Corner. It is hoped that this segment of the newsletter will be a regular feature, and already we have a substantial article in hand for the next issue.

This introductory article is mainly aimed at the recently enrolled members of our group, and tries to give them an outline of who's who and what's what in our group.

MEETINGS

Our main meeting (first Tuesday of the month) usually takes the form of an introductory talk by the President, Secretary, Treasurer etc., and often goes on a bit! We earnestly endeavour to keep it as short as possible, but somehow it does not always work! This is usually followed by questions & answers from the floor. Because a lot of all this talking is of no great interest to our new members we usually get one of our senior members to give a talk to newcomers in one of the other rooms. After the official business is out of the way it is time for coffee or tea (thoughtfully provided by our member Terry Steer - 20 cents per cup). After this break it is usually time for our guest speaker to give a lecture or demonstration. This finishes the official part of the night's proceedings.

However most of our members like to arrive early to make use of the different club facilities.

We have our book- and magazine library there, where you can borrow 1 book and 2 magazines per month. New borrowers have to lodge a \$5.00 security deposit, which is refundable on termination of the use of the library. Books and magazines can only be borrowed for a maximum of one month!

You are also able to purchase or order copies of our Public Domain Disks and Tapes. Public Domain software (=programs) is non-commercial software, mainly written by fellow computer hobbyists, or typed in from books or magazines. Once you put your program in the Public Domain, you only get the glory of seeing your name on the screen, but no financial reward! From time to time we add new disks or tapes to our library, and usually we list the contents of tape or disk in this newsletter. We have also produced a leaflet, listing all available disk software, and hope to do the same for tape software in the near future.

There is also a small selection of Commercial Software available for loan to our members.

Usually you are able to purchase Floppy Disks from the group at very reasonable prices. From time to time we also have other goodies for sale, such as disk boxes etc.

The group has also published several booklets such as an introductory guide to the use of a large selection of Public Domain Software, as well as a guide for beginners in the use of the 1541 Disk Drive.

If you are interested in word processing or program listings on paper, but have as yet not decided on which printer to buy, than it is also possible to hire a 1526 printer from the group. Contact our Technical Co-ordinator for details.

Above all, don't be intimidated by all the people at these meetings, or by the fact that some of our more advanced members use a lot of technical jargon. Most of them were beginners like you not that long ago! Remember that members of the Management Committee (they should all be wearing a name tag) are there to help you, so don't be afraid to ask!!!

If large gatherings of people do get you down though, come along to our workshop meetings. The main one is held on the Sunday, twelve days after the main meeting (see page 2 of this newsletter for more details). This is the place to come to if you have programming- or hardware problems, but remember you have to bring your own equipment to these meetings! We always advise our members to share the bringing of equipment with a friend. If one brings a computer and another one a T.V. set, there is less muscle strain. At our workshop you have usually got an opportunity as well to make copies of the Public Domain Disks, but remember: Copying of Commercial Software is not allowed, and results in loss of membership! The lending library facilities are not available at workshop meetings.

If you cannot attend our main workshop meeting you can of course attend our suburban, or country sub-groups, which you will find listed in this newsletter. Their facilities and requirements are similar to our main workshop meeting. As usually only a limited number of members attend, these meetings are quite informal, and a good way of getting to know your fellow group members.

You may also be interested in our Special Interest Groups, which are listed on page three of the newsletter. If so, give the contact number a ring, or just come along to their meeting. You will be most welcome.

PROGRAMMING

In the past the group has tried to run programming courses with limited success. If you are interested in learning about programming there are several avenues open to you:

1: Get some computer programs such as "Introduction to Basic" (Parts 1 & 2), published by Commodore.

2: Get a book on Basic Programming. There are quite a few in our library, some good, some mediocre, and (regrettably) some rather useless. I prefer the type of book that sets up problems (complete with solutions) after each chapter. Remember however to get a book that teaches Basic programming for your particular computer. It is a waste of time to learn about features in a particular computer which may not be available on your own computer.

3: Attend a Basic Programming course at the Ithaca T.A.F.E. The cost per course is only \$5.00, and they do have Commodore computers at the Ithaca T.A.F.E. (our president is one of their lecturers!). Remember it is a bit of a waste of effort to attend a programming course which is taught with Apple or Tandy computers, etc. The reason is that the Basic computer language is a bit like a normal language, which means that it has many different "dialects". Learn the wrong dialect, and you will find later on that you have to re-learn quite a substantial portion of that language.

MAGAZINES

As newsletter editor I try to keep up-to-date by reading as many computer magazines as possible. You can buy either a magazine which covers computers in general, or magazines which relate to a specific brand of computer. Currently there must be at least a dozen magazines for Commodore alone. With the devaluation of the Australian dollar the cost of magazines has sky-rocketed - some American magazines cost now six to seven dollars!

You can find quite a variety of magazines in our lending library, so that's quite a good place to start, but here are some suggestions. The American "Compute!'s Gazette" is my favourite, followed by "Run". It is rather a waste of money

to buy or subscribe to both, as sooner or later they cover the same topics. Another American magazine is called "Ahoy", but it has never been one of my favourites. Also from the U.S.A. there are the two Commodore sponsored magazines "Commodore Microcomputers" and "Commodore Power/Play". These appear in alternate months. The first one is more orientated towards computers in business use and the second one towards those people who like to play and program games. Although quite good, they are Commodore publications, so don't always expect unbiased reports!

Some years ago the best Commodore articles appeared in English magazines. There are now some three or four Commodore magazines from the U.K., but, despite the fact that they are generally cheaper than their American counterparts, I am not very impressed with these magazines. One of their worst features is their program listings. Generally they use dot-matrix printers, and they don't translate the Commodore graphics characters with meaningful descriptive listings. Too much space is usually wasted on meaningless games reviews as well.

Here in Australia we have two Commodore magazines, namely "The Australian Commodore Review" and "Commodore Magazine". The first one of these I called on it's first appearance a 'disaster', and I have not changed my mind yet! Despite the fact that people like Greg Perry and Paul Blair contribute to the second of these magazines I find it generally not much better than the first one! Just in case people think that I am suffering of some kind of Anti-Australian bias, let me put a word in for the "Australian Personal Computer" magazine. This is a general magazine, but of it's kind quite good, and a good indicator of what's available in the market place down South.

I would like to end this magazine review with a Canadian publication called "The Transactor", which is occasionally available from local newsagents. This All-Commodore magazine is of a highly technical nature, specializing in Machine Language and Interfacing applications. Definitely not a beginners magazine, but imminently suitable for advanced users.

Here's a valuable tip. If you have found a magazine that you like, and like to get it regularly, take out a subscription. But don't organize your subscription through a local newsagent or through Gordon & Gotch. Order it

directly from the publisher and you save quite handsomely on the cost of your subscription!

Once more I would like to re-iterate what I wrote earlier on: namely, if you are stuck, ASK QUESTIONS. Our committee members are a pretty helpful bunch, and they are there to assist you. If the person which you contact does not have the relevant information they are usually able to put you in touch with somebody who can help.

This applies in particular if you intend to buy new equipment. It is very easy to get talked into buying a new printer say, and then find out later that it will not perform certain functions. So, if you are not certain, contact one of our committee member before parting with your hard earned cash!

Last, but not least, remember that, on showing your current membership card, you will be able to obtain a discount from most of our advertisers.

TO DATASETTE OWNERS

Generally speaking Commodore's cassette tape system is one of the most reliable of it's type on the market. (As a former's TRS-80 cassette owner I can vouch for it!) There are however occasional problems with saving and loading. If your own programs load and save without any problems, but have an occasional commercial program that does not load, it is quite possible that the commercial program is at fault. If however most of your commercial programs will not load, then it is a fairly safe bet that your Datasette's head is out of alignment and needs re-adjusting. If your equipment is still under warranty you are entitled to have it serviced free of charge by Commodore. If you are in doubt about your Datasette try to load the offending tape on a friend's Datasette. If the program in question loads o.k. it again means alignment problems. Head alignment can be performed by the owner (don't do it while your unit is still under warrantee), but can be rather tricky.

If you are really stuck, bring your Datasette to a workshop meeting, or have a chat with our technical co-ordinator.

Watch out for more in the next issue of "CURSOR".

Ralph De Vries

MEMBERS' ADVERTS

FOR SALE

Commodore C-16 Computer c/w 1531 Datasette & handbook
Mint Condition - \$220.00 o.n.o
Contact Ken Fisher at 202 6905 (a.h.)

B.C. Basic Cartridge (c/w manual) \$50.00
International Soccer Cartridge \$20.00
Contact Tony Mitchell - Toow'ba 076 / 347113 (a.h.)

MODEM CORNER

This must be the shortest Modem Corner ever!
The good news is that by now all of the group's modems have
been sold.
Hopefully Roger Haigh will have some news in the next issue
on the 1200/75 Modem construction kit.

Ray King, our Sysop has been on a well deserved holiday, but
should be back on deck by the time you read this.

The Commodore 64 Bulletin Board in Sydney can be accessed by
dialling (02) 664 2334.

For 8032 Owners Only!

Here's another of those useless special effects. For some
reason though, this one can hold your attention for hours
(well, minutes maybe). It only runs on 8032's, since it
uses the scroll down feature unique to that machine.

```
5 SF=32768:FOR J = 0 TO 1 STEP 0:G=153-128*K:K=1-K
10 FOR I=1 TO RND (1)*15:PRINT CHR$(G);
   : POKE SF+ RND (1)*1000,46: NEXT I,J
```

(By courtesy TPUG magazine, June 1985)

DIRECTORY

MANAGEMENT COMMITTEE

President:	GREG FERRY	Ph. 38 3295
Secretary:	NORM CHAMBERS	Ph. 341 5651
Treasurer:	LESTER BENNETT	Ph. 200 1243

SECONDED TO MANAGEMENT COMMITTEE

Technical Co-ordinator:	ROGER HAIGH	Ph. 399 8037
Sub-Group Co-ordinator:	TERRY STEER	Ph. 808 2424
Chief Librarian:	CLIFF POTTINGER	Ph. 277 4520
Newsletter Editor:	RALPH DE VRIES	Ph. 30 3477

COMMITTEE MEMBERS

Vic-20 Co-ordinator:	BARRY WILSON	Ph. 399 6204
Education Officer:	DEREK FARRELL	Ph. 359 8559
Sysop:	RAY KING	Ph. 208 1409
BBS:	---	Ph. 808 2125
Librarian - Books:	CLIFF YULE	Ph. 356 7571
Librarians - Disks:	BILL BOHLEN	Ph. 208 3729
	MAX BEAN	Ph. 208 1225
Librarian - C-64: (Comm. Software)	PETER REEVE	Ph. 378 2665
Librarian - Vic-20:	JOHN JOHNSTON	Ph. 30 5240

Please address all editorial matter to: F.O.Box 384 - Ashgrove - Qld - 4060, and NOT to F.O.Box 274 - Springwood!

Deadline for any particular month is the Second Tuesday of that Month.

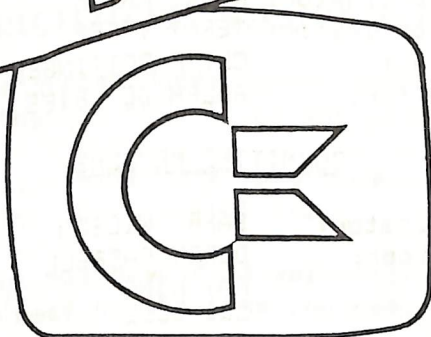
The opinions expressed herein are those of the author(s), and not necessarily those of the C.C.U.G.(Q) Inc. or the Editor.

Published by C.C.U.G.(Q) Inc., F.O.Box 274 - Springwood - Q'ld - 4127.

Printed by BRISBANE EDUCATION CENTRE, F.O.Box 84 - Spring Hill - Q'ld - 4000.

CW ELECTRONICS PTY LTD

**AUTHORISED
DEALER**



commodore COMPUTER

For professional service and support
call in to CW Electronics.

Commodore's longest established
Queensland Dealer.

Largest range of Commodore software
in Queensland.

*"Commodore Computer
and Communications"*

- VIATEL , ● "AUSTRALIAN BEGINNING"
- SMALL BUSINESS & EDUCATION SYSTEMS AVAILABLE

THE ONLY PLACE WORTH ITS SALT IN BRISBANE

416 LOGAN RD., STONES CORNER BRISBANE 397 0888

328 RUTHVEN STREET TOOWOOMBA (076) 384 2222