"CUASOR"

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

Registered by Australia Post - Publication No. QBG3958

AUGUST 1985

VOL. 2 NO. 2

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

CONTENTS

Diary for September	2
Regional Meetings	~
Editorial	5
New Fublic Domain Disks	6
Notes & Gossip	7
Reviews	10
Beginner's Corner	12
Easy Script Mail Merge	16
Error Messages	18
Price List	A. C.
Members' Adverts	26
Directory	47

DIARY FOR SEPTEMBER

Group meeting on Tuesday, 3rd September 1985. at 7.30 pm in our Club Rooms in Love St. (near Water St.) Spring Hill.

ANNUAL GENERAL MEETING % ELECTION OF OFFICERS

A Comparison of Commodore Compatible Disk Drives

Workshop meeting on Sunday, 15th September 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 Fublic 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 - Fh.379 6204 or Augy Norman - Ph.379 2080. a.h.

<u>Pine Rivers</u> meets on the 2nd and 4th Sunday of the month (1pm - 5pm) in the Strathpine High School (rear entrance). Contact: Hugh Gane - Ph.205 1176, 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 5088, 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 5383, 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 - Fh.300 5240, a.h. or Julianne Fallen - Ph.300 2982, 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.

<u>Killarney</u> 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: Treyor Mancktelow - Ph.262 4602, a.h.



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"

O VIATEL . O "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

EDITORIAL

It is good to see Julianne Fallen's name once again amongst the contributors to this newsletter.

I was prompted to mention Julianne's contribution because of a membership count I did some days ago. Out of a total of some 450 members barely 5% are women! Yes, that's right: five percent. If there was ever a male-dominated group, then it must be the C.C.U.G.(Q).Inc.!

Reasons for this may be many and varied, but I have a horrible suspicion that this figure fairly accurately represents the actual proportion of women who are interested in computers, and that is a great pity.

I don't believe that women have less 'brain power' to cope with computer technology, but I do believe that many women have been brainwashed (by men!) into thinking that all this so-called high technology is beyond them.

This of course is utter nonsense, because if women decide to tackle these high technological fields they usually come up trumps.

If you are a regular reader of publications such as 'Compute!', 'TPUG', or 'Transactor' magazines, you will have read at some stage or another articles by Elizabeth Deal. This American lady is a real technical whiz when it comes to Commodore computers, and belongs in the same league as Butterfield, Strasma etc.

This does prove that women can master high technology, but it does not answer the question why so few women are interested in computers.

I don't have the answers, but maybe some members of that 5% minority-grouping will give us their views.

Over to you ladies!

So many contributions were received this month that several good articles have to be held over till next month, but don't let that deter you from submitting your articles!

As from this month "CURSOR" will also go out to the Townsville Commodore Users Group. Welcome on board! We look forward to receiving your contributions as well!

Ralph De Vries

PUBLIC DOMAIN DISKS

C.C.U.G.Q. **U8**

MATH DUNGEON TRAP'EM/64

Games from Compute's Gazette

KABLAM/64

CHOMPER/64

CHOMPER This is loaded by the previous program

CYPHER/64 CRYPT/64 NAMETHATNOTE/64

ALPHA ANX/64

DIGGER64 DG

This is loaded by the previous program

HEAT SEEKER64 NUMBER QUEST/64

APPLE/64 POOL/64

PL LASER BOUNCE This is loaded by the previous program

More games SNAKE ESCAPE HAPPY BIRTHDAY

LUKU

Train Game WORD PROGRAM

Find the hidden words. Printer required. SCROLLER Allows scrolling up, down, left, right. CALENDARS

When was that date. SOLAR SYSTEM

Information on our Solar System Take stock of your house contents. Alter/add data statements HOME INVENTORY

to suit your requirements. Hard copy for 802 printer.

ADDRESS FILE Stores names and addresses ADDRESSES

Demo file for above program Programmers Aid. Adds 32 debugging and testing commands to METABASIC

Commodore 64 BASIC

SpeedScript file of Instructions for the above program. METABASIC INST.

SPEEDSCRIPT 3.0 ARCHIVE

SpeedScript Word Processor Version 3. Copy disks from one 1541 drive to another

Catalogue your home library. From Commodore Magazine May 85 HOMEL IB-64 COMPUTER Demo file for above program.

CALENDAR 801 Prints calendars on 801 printer

Use with 801 printer to re-ink the ribbon. It causes the INKER 801

ribbon to pass over the ink pad without printing.

CP/M USERS

2 Disks of CP/M programs are now available

CP/M UTILITIES CP/M Disk 1 CP/M DOCUMENTS CP/M Disk 2

NOTES & GOSSIF

AUGUST MEETING

This meeting was again very well attended. Our treasurer was unable to be there, but the secretary and newsletter editor took over the task of collecting membership dues. We were also pleased to add quite a few new members to our ranks.

Our president stood in at short notice for Rob Adamson, who also had to work. He gave a talk on the latest news on our Bulletin Board and explained the many fine features of the updated version of the 'VIF Terminal' program, which was very well received.

Those 'Southsiders' Col Ramsay and Ken Charters, with assistance/interference (!) of Anthony Thyssen, conducted the session for beginners and new members.

SUMMER CONSUMER ELECTRONICS SHOW

The S.C.E.S. as it is called takes place during June in Chicago, and is one of those exhibitions where electronics manufacturers trot out their new wares.

On the home computer front it was very quiet though, as Commodore and Atari were the only U.S. companies exhibiting. From foreign quarters the English Amstrad intends to establish itself in the American market later this year, with their top of the line model CPC5128. There was no mention of the Japanese MSX computers. Certainly at this stage it seems that they have missed the boat in the USA.

Commodore concentrated on their new C-128. which is now being shipped to dealers in the States. They did exhibit a new dual drive for the C-128: model 1572. This is in effect two 1571 drives in a slimline case designed to sit on top of the C-128. Frice not announced as yet.

They also showed a multi-mode dot matrix printer: model MPS1000 (and about time too!); again no price announced as yet.

From the non-American Commodore factories they put the C-128 D. a version of the C-128 with drive, the PC-10 and PC-20 (the IBM compatible available computers - not for sale USA. but in the Australia), as well 900 business as the model system.

In software Commodore had several packages for the C-128 on show. There was "Jane 2.0", an icon-based integrated package (word processor, spreadsheet, filing manager), for use in the 80-column mode of the C-128. Similarly for use in the CF/M mode they showed the FERFECT series of software, consisting of "Perfect Writer", "Perfect Calc", and "Perfect Filer".

Batteries Included had a C-128 version of the "Faper Clip" word processor on show as well, complete with spelling checker.

Broderbund showed a "Frint Shop Graphics Library: Disk 2", as well as a "Print Shop Companion" for the C-64

Everybody was certain that Commodore would exhibit their new "Amiga" computer at S.C.E.S., but they did not. The official release has been held over till July, and some of the early reports from the USA show it to be an absolutely fantastic computer, which leaves the Apple Mackintosh and IBM PC's for dead as regards features. Prices quoted in the USA vary from \$1500.00 to \$2000.00, depending on memory configuration (256K or 512K) and colour monitors etc. When we see these machines here in Australia we will probably have to double these prices, thus making them rather too expensive for the average hobbyist.

This computer is far too good to try to describe in a few mere lines, thus you can expect to read a lot more about the Amiga in future issues of this newsletter.

Suffering from Power Surges?

If you live in an area where the power supply tends to surge well in excess of 240 volts it might pay you to investigate the FORTRON SURGE SAFE which is supplied by C.W. Electronics. As sudden power surges can cause damage to computer equipment, this small plug-in unit at a R.R.F. of \$37.95 could well be a very worthwhile investment.

If you purchase the Fortron Surge Safe at the same time as your Commodore Computer at a cost of \$49.95, C.W. Electronics will extend the guarantee period of your computer to 2 years! A guarantee extension of 21 months for \$10.00 seems to be very good value indeed.

801 Printer Ribbons

The Commodore 801 printer uses a ribbon cartridge which contains a relatively short length of ribbon, which is pulled past a built-in felt pad which 'inks' the ribbon, thus giving you at all times (theoretically) a freshly inked bit of ribbon to print on.

But what happens when the ink-pad dries out? Do you throw the cartridge away and buy a new one? At appr. \$14.00 a time this becomes an expensive excercise, particularly as the ribbon itself is usually still in very good condition.

A lot of our members have been re-inking the felt pad, thus extending the life of the ribbon cartridge quite substantially. But here comes the rub! What type of ink to use? Some members have used an oil-based stamp pad ink, and in some cases they have diluted the ink with kerosene to make it run more smoothly.

Our friendly Commodore contact in Brisbane, Tony May, has advised us to buy a water-based ink (Faber-Castell - Black Pencil Ink), and not to use an oil-based ink, as this tends to gum up the pins in the print head! However, the argument of the opposite camp is that water-based inks cause the pins of the print-head to go rusty! So, who is right? Probably we need a spirit-based ink, to please all parties!

Those members who use their 801 printers fairly extensively are invited to let us have their views.

From Other User Groups

We have recently had copies of newsletters from the Albury-Wodonga Users Group, Vic-Ups Users Groups of Western Australia and the ACT VIC-20 Users Association.

We in turn send them copies of our newsletter of course, and hereby let it be known that we have no objection to other Commodore User Groups using material from our newsletter, although we would appreciate acknowledgement of the author and source.

ANNUAL GENERAL MEETING 3rd September 1985

REVIEWS

An Introduction to the Commodore 64 Adventures in Programming by Nevin.B.Scrimshaw & James Vogel - R.R.F. \$13.75

Our copy by courtesy of D.A. BOOK (Aust) P/L, Mitcham (V.)

This book takes the new programmer from the basic right through to doing his/her own programming.

The first chapter deals with a tour of the keyboard explaining the function of each key and introduces you to a very basic one line program which helps to explain the functions. Actually each chapter has at program to type in to demonstrate the point it is making. The second chapter explains basically how numbers

your computer and how to manipulate them.

Then we move on to practical examples of this and next how to edit your programs, ending with a game to type in to give you practice in manipulating the cursor keys.

We move on to loops, graphics and an explanation of how binary code works. It is here that we are also to sprites.

The next section deals with designing your own programs goes through a step by step emplanation of a program previously typed in and how subroutines work.

Moving on, we reach the section on music and the application of the SID chip. This section covers pretty well how works and explains how to set waveform controls. There

also some songs to type in.

Graphics come next with details on turning on sprites and working with strings. The program to type in. section is done in units. The first produces a triangle green, the second a tree trunk to add on in brown, the last unit turns the X-mas tree above into a tree and suggests that you figure out how to put a top . I found this sort of program good, in that, beginner, it goes step by step and you can 500 section of the program does - a step towards understanding of programming.

Then we move on to actually putting a shape to the sprites we had previously typed in as solid blocks by plotting them in the correct grid positions and poking them in. back to our sounds then and learn to do some sound effects.

To finish it all off, we return to a previous program and expand it from sprite blocks passing over one another step by step, to a rocket blasting off with flames licking from its tail with all the sound effects, until we reach hyperspace where the screen constantly changes colour, thus completing our first adventures in programming.

The book is well but simply written to enable the beginner to move at his/her own pace in an attempt to understand the workings of the machine and the procedures behind the programming. Recommended

Julianne Fallen

SUMMER GAMES II by Epyx Software - for C-64

Good news! No disk errors or loading problems on this excellent updated addition to the Olympic Sports simulations now on the market.

The game, for 1 to 8 players, challenges your competitive skills with a series of eight different events - Cycling, Equestrian, Fencing, High Jump, Javelin, Kayaking, Rowing and Triple Jump. It is compatible with Epyx's Fast Load Cartridge for very quick disk access between events. It also contains an option to include the events from Summer Games 1, should you have a copy, to make an extended competition.

Graphics are excellent, with the closing ceremony (complete with fireworks) especially pleasing to the eye. Playability very good, although keeping your horse balanced after jumping the fences is quite a difficult proposition!

A good value game at \$29.95, compared with most on the market.

revor	Mancktelow	
to the second control of the control		

BEGINNERS' CORNER

So you own a Computer! The fool thing won't work just by switching it on! You've read the books and can't understand them! You've been to the User Group Meetings, several times, and been confused by the strange language being used by the "Intellectuals" who seem to run the show.

Don't despair! Don't give up. Clean the dust off the thing and come with me to the

BEGINNERS' CORNER

Many people derive great enjoyment from using their computer to keep their family and/or small business records: helping their children with their school— and home studies: helping all members of the family understand the computer/space age we live in and children from six to a hundred and six do share many happy hours playing the large variety of games on their computer. I hope you will be able to share in this enjoyment through what you learn from this section of your Newsletter. If you have any specific beginners questions then write to Beginners Corner and we will try to answer them for you.

Computers are very obedient machines! They will always do what we tell them. Oh, I wish my kids were only as half obedient. Your computer will follow your instructions, exactly, without tiring, without making mistakes, (though it will faithfully reproduce any mistakes we feed into it!), and it can follow our instructions at a speed which can astound us.

Your computer cannot reason. It is just a box full of very small electric switches connected in banks of eight, eight wires. In some types of home computers there as many as 250,000 of these little switches. These little switches are either on or off and during the time or play on the maching some or most of these switches turned on and off many times. For instance, say your name on the keyboard of your machine and say that effects ten of these little switches and flashes what you have typed on the screen. When you press the return key the computer takes the information (in banks of eight, which switch was on and which was off) along the wires to some place in its memory and stores it . That's all a computer does. When a switch is on it is represented by the number 1

and number O for off.

So, what is a computer? It is a dumb machine which stores electrical signals which turns switches off and on and that, depending on the sequence of on and off, represents numbers. Some of these numbers are instructions telling the computer what to do with other numbers.

You do not have to know any of this to enjoy the benefits of owning a Commodore but a little snippet each month might help you interpret some of that foreign language the "intellectuals" seem to love mouthing.

WORDS FOR THIS MONTH: -

HARDWARE. Hardware is the term for gadgets that can be connected to your computer, i.e.: Diskdrive; cassette player; printer; TV or monitor; joysticks.

SOFTWARE. Software is the term given to programs for games, record keeping & handling etc., which you create or buy on disk or tape or cartridge and it seems to cover books and the like also.

THIS MONTHS TIP:-

Well, I hope it helps someone! Have you bought some Fublic Domain Disks and found a heap of stuff you didn't want or understand? Have you thought about saving the items you want onto a disk of your own?

Here is how to go about it. Fut the Domain disk in your drive then press L key then hold down the shift key while you press the O key, (that's short for LOAD) then press "\$",8 RETURN. When the screen flashes ready press the L key then hold the shift key down while pressing the I key (that's short for LIST). Now before pressing the RETURN key have your finger ready near the CTRL key. Fress the RETURN key then hold down the CTRL key untill you see the program you want near the centre of the screen then press the run/stop key (that stops the scrolling). If you miss it, or something happens and it went out of sight list it again until you get it where you want it.

(continued on page 16)

10% DISCOUNT TO USER GROUP MEMBERS (Credit Cards 7%)

You MUST present your membership card at the time of your purchase or your Club must have registered its membership list with us prior to your ordering. Discounts can NOT be back-dated.

deal with all the usual warehouses. Let us show you how prices. We directly import 100 different lines and also No games but everything else stocked at discount your 64 can become a powerful business machine.

15 or so word processors, 20 or more spreadsheets We normally have about a dozen different printers, and databases and about the same number of accounting systems, but can only list some here. Ring (03) 700 2451 at any time.

> CG4, C128 and C128D Because we have the latest versions all our C64 programs will also run on the new C128

7071. MANLEN LST/LABEL Tape \$45

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40

1014 \$40 Cartridge \$55 R. Cartridge \$39 EASYSCRIPT
EASYSCRIPT
EASYSCRIPT
SA9
EAST
EASYSCRIPT
SA9
EASYSCRIP FLEET SYSTEM 2, 40/80 cols. 5135 TOTI SPELLER works with Easyscript, Bank Street. \$45 HOMEWORD.... WORD PROCESSORS AGROUNTING DUICK BROWN FOX MSTAWRITER.

64 ACCOUNTING by Software Design Inc. . . \$125 Time/Midney Wanaacer 1017 Time Management rated 4 stars. . (VIC \$45) \$29 TOTA Thom Accounting (\$50) ABRACALC MOME MANAGER +-SPREADSHEET. \$37 PERSONAL ACCOUNTANT. \$34 PERSONAL ACCOUNTANT. CONTINENTAL Home Accounts ordional password.

STORMAGER. \$19
STORMAGER. \$419
SAS dialog TRANSACTO book feeping system \$45
dialog NAVOSTAT fervotes and statements. \$45
dialog STOCK-ALIB shock control inventory. \$45

Fazi, machine language program. Commands include IEFPLINITE mad copying the contents of one area first any other. All the BUSICALE programs can use virtually all printer ontions, inconting our 260 User Port/Controlity si Interface. Tape/Disk \$69 August 1985 version of the famous ViciCalc spreadsheet. BUSICALC 1 64/VIC 20.

TAINANO Commodore/Apple DRIVES. Switches to let you choose Device No. 8 or 9 and Normal. Write Protect or Override Write Protect. Single drive expandable to double with additional drive. Regulated 240 volt 50Hz with all plugs and 20-line parallel cables to connect to all plugs to your C64 or C128 sower supply. Serviced Australia wide by Hills

SFD1001 CBM 1,000,000 BYTE DRIVE with interface\$799 Commodore's famous IEEE drive, stores 1 megabyte on an ordinary 5½ in, floppy, Loads and saves at six times the speed of a 154.1 Complete with IEEE Quicksliver interface that doesn't use up any computer memory and has cartridge port and cable with IEEE-488. **QUASAR SUPER DRIVE (30% faster)**New high speed all-metal drive for C64/C128. Stabilised power supply Formats disks in 11 seconds Runs all software. No read errors, no head knocks. 6 months guarantee.

MSD DUAL DRIVE Ali metal, US made\$1295 64 ACCOUNTING PACKAGE (TOTL's newest), compiled......\$159

TOTL's newest lightning fast machine language version (new in May 1985) includes stock control and printing of involuces and statements. Dates, postochdes, etc. selectable for Australia or US, All programs load from a master menu. Balance-forward system, invoices. 64 the most powerful business machine available. All the new enhanced TOTL programs are exclusive to Chambers, now the ONLY authorised TOTL dealer in Australia. allow both taxable and non-taxable items and screen prompts and printed output headings can be customized to fit any business. This and the Taihaho disk drive make your

Does the whole of your final accounts if you'r using the TOTL accounting package, it automatically draws 64 TOTL GENERAL LEDGER.....\$99

TOTLWRITER d/base + word processor + spell checker...........\$99 spelling checker. Live screen editing, auto word wrap, global search or search and reptos, set labs like a typewriter and many other features. HELP menus make it easy to use even though it's the most powerful CG4/128 word processor. integrated word processing plus database with 10 user defined fields plus expandable

Digest compared its predecessor favorably with more than a dozen other programs. This is The last file you've deleted stays on the disk in case you've made an error. Automatically Help menus and one of the best and easiest to understand manuals. RUN and Writer's TOTL TEXT New Enhanced 64/20 Disk/Tape \$59 All the usual features such as headers, footers, page numbering, block move and delete. inserts up to 14 lines of footnotes on each page, which makes it popular with academics even better

TOTL INFORMASTER database.

proportional spacing. It's 1,400 words per minute (almost 11% faster than the Gemini which now sells for \$260 more). MSD Single Drive, all metal, 240 volt. \$499 MSD Double Drive, 240 volt. US made \$1295 CG4 MOTHERBOARD (w/reseq. 3-way. \$85 VIC-20 4-way motherboard \$89 G4K MEMORY EKPANSION for 64 and VIC 20 \$299 programs for talking calculator and talking alarm clock.
SUPER VOICE MASTER with voice recognition. . . . \$199
Now your 64 or 128 will do what you tell fit All of the above All the features of the famous Gemini PLUS 8 languages and EPSON NLQ w/. Commodore interface \$475 INTERFACES for 64/128/VIC....12 different from \$49 RS232 DE LUXE INTERFACE....\$99 Speech synthesiser that uses your own voice. Your 64 can sing, grunt, make animal noises or talk in any language you created by the 64's music synthesiser. Sophisticated voice editing feature makes it easy to use. Speech stored behind the operating system so memory is unaffected. Included are Digitizer NOT required for playback, which is re-PLUS Word Recognition (your 64 responds to your spoken Commedere, Apple, IBM and lots more graphics. SMITH CORONA daisy wheel Printer.... FLASH! '85 with built-in ON/OFF switch EXECUTIVE DE-LUXE dot matrix printer DOT MATRIX PRINTER LISTER. NUMERIC KEYPAD 64/VIC-20 commands) and Voice Harp. SX64 version

basic programming primer, 6502 intro, sound and sprites. RAINING KIT how to write programs. Disty Worksheet \$29

COURAGH SPEECH 64, two lones
CASSETTE MITHALE and DUPLICATOR
STO ARECO SCIECK DUMP
SHINTMOSTER/WH-6 graphics Viace.
SSO PRINTMOSTER/WH-6 graphics Viace.
SSO PRINTMOSTER/WH-6 graphics Viace.
SSO PRINTMOSTER/WH-6 graphics Courage.
SSO COMPUSIONER Plastic protective courage.
SSO COMPUSIONER Plastic protective courage.

CURRAH SPEECH 64, two tonos

Tage/Disk \$75 nualcato z 1647 b 126 August 195 version. Allows up to 999 rows and 125 columns, covering 2,500 cells (baxes). Formula printout, SAVE with REPLACE, whichow framing retains rows and column headings

July 1985 version. 3-dimensional, can access 26 other as you scroll, high speed find, etc. BUSICALC 3 C64/C128 spreadsheets, 52,000 cells. MAGPIE famous British database, now for C64.

MAGFIE famous British database, now for C64. \$99 dialog DFIE DATIBASE. \$45 dialog DATABASE + MALL LABEL. \$49 CHARITPIA 8. Pie, bar, line or scatter charts and graphs from your own data interactively — and you can change the result immediately, handles up to 4 data sets totalling 200 points. CHANTPAK 64 Create high quality graphs and charts without programming

Features include data redución, exponential smoothing, least squares and more, DIF file interchange. Can use all COMPÚTER STOCKS AND BONDS. Tape \$39 COMMODORES EASY CALC. \$85 usual printers. Big comprehensive book included.

PRINTER GRAPHICS UTILITY ... DISIV Tape \$25

1941 PHYSIGAL EXAM bask bask first (1954 WIZO) 885
ALMONT (1954 PHYZO) tracter still.

REPLY FASTLOID Carterings
BETH FARM (1954 WIZO) tracter still.

SAS ARTHOLOLOLOLORIS (1958 STILL) SAS ARTHOLOLOLOLORIS (1958 STILL) SAS ARTHOLOLOLOLORIS (1958 STILL) SAS EDURATE USIN FER. The best says RIVIN SAS EDURATE W. Pertipula VISON SAS BANKER MIGGINE makes 1009 pariettet. Trape 545
BANKER MIGGINE makes 1009 pariettet. Trape 545
BANKER MIGGINE makes 1009 pariettet. Disk \$95
PRINT SNOP carrie, logos, leftenhaads etc. Disk \$95

P/SNOP LIBRARY Hundrads of designs

same title if faulty. Some of the\$19 SOFTWARE will be exchanged for the newer programs may self-destruct if any attempt is made to copy them and NO exchange will be made in

PREIGHT, PACKING, ETC., IS \$3 PER ORDER, IRRESPECTIVE OF WEIGHT OR those curcumstances DESTINATION.

MASTERCARD OR VISA USE BANKCARD

TO ORDER, SIMPLY PHONE

APC 9/85

records. Uses all makes of printers.

records up to 2500 characters long, fields up to 245 characters, up to 100 fields per record with repeating fields. You can define your own report format with sorted and selected

JEM POOR \$22
The book alone retails for \$29,951 32 useful programs
already on disk to save you the chore of punching them in.
Book also gives you exercises in how to change them. A wital

follow on to the above or to Commodore's Introduction To

disk drive effectively, how to write your first BASIC program. 32 PROGRAMS.

SUPERBASE 64 (Enhanced version)
Just arrived. The newest improvement to this popular British program. With audio learning assettle, Up to 1000 characters per-ceord on up to four screens and up to 128 items per-ceord in files of up to 15,000 characters.

STEPPING STONES FOR Superbase......\$29 each

EDUCATION 1. (Disk or Tajel \$25
UNA BERG EDUCATION SOFTWARE \$15
UNA BERG EDUCATION SOFTWARE \$16
CG4 EDUCATION TAPES \$16 for \$200). . . Tajes \$29
CG4 EDUCATION TAPES \$16 for \$200). \$15
Ages \$5 to 10. Vount Medits, 7 to 10. Rate or 10. the Moon and Race Around The Block 7 to 8. Anagam For 10 to 12.
Anagam For 2. 6 to 9. Spelistant 1. Parimary Schoot Spelistant 2. 3, 45, ages 6 and over Word File Maker. Supermint, Middiplication, Add Subdats/Numberline, Swerve Formats your Superbase, Accountants Time Recording; Sales & Purchases Daybook Cashbook Stock Records; Soliotors Time Recording; Travel Agents, Estate Agents

accepts complex conditional statements. You can choose column width or number of rows, numerical format, etc. to suit your purpose, 2,000 cells. Full replicate facility. Data can be SAVEd or printed out. Comprehensive instructions plus practical demonstration financial planning to investment analysis, from market research to sales forecasting, from scientific or engineering calculations to technical analysis. Copes easily with trigonometrical functions, paranthesis and Boolean logic as well as totalling and averaging and program. Easily best value-for-money.

Produces 4, 5 or 6 generation family record chants to the printer or 4-generation chants to the screen plus ancestor search by name or number. Fully indexed and with easy screen editing, 664 names, plus notes on each person, fit on each disk and several clists may be used. 664-name Genealogical Program Disk \$85

ANIMAL PEDIGREE PROGRAM.

Produces 4 or 5 generation pedigree charts, ownerships, mating, breeding, shows and awards records with full indexing and easy screen editing. Search function allows easy access (IBM and Apple versions available soon)

PASSIAL by
Structured language compiler enhanced to take advantage
of the many features of the 64. Support for sequential and

relative files, procedures and function for easy string handling, sprite definition for animation, procedures for his res and muticolor graphics and for handling interrupts without machine language routinos. COLOSSUS CHESS 2.0 DISK \$39. Tape \$35 Grandmaster Disk \$39 Eprom Cattidge Caso \$39

SARGON CHESS 2 plays at seven levels

monthly stock turn on imported items and livery of scarce items. That means you always imes the air freight is delayed and a gap of a

spot cash for best prices and/or prompt deget the latest version of everything but someday or so may occur between receipt of

Sometimes we are, but only triefly, 92% of orders are sent the same day. We aim at about 10 days on local supplies, where we pay

OUT OF STOCK?

COMMODORE TYPE RIGHT.

1011 TYPING TYDR AUSTAIN PROUCED.

1017 \$25 TYPE A TAXK Lear to type while playing.

1018 \$39 TYPING TUTOR/WORD WINADERS (HOZZO).

FREF 04.

PASCAL 64 FORTH 64

Maths, Addition and Subtraction, Division, Multiplication,

Shipmaths, Invadergraph and Co-ordinates.

SSS ASTROLOGY PROGRAM.
Also for Apple II+ and IBM Pc. Based on program used world-wide by professional astrologers. Provides individual horoscopes for all times and places. Much deeper than the pop-style sun astrology you see in magazines. Basically geocentric but heliocentric is possible. Koch system of Houses and Topical Zodiac but Western Storial is an option. Student guide lets you ask the computer questions like: What does a Germin rising sign Telecom approved both here and UK.

AUTO DIAL, AUTO ANSWER MODEM 300 baud.

\$199
With VIP Terminal (usually \$99 from Commodore) included FREE Not Viate! Full half
depter. Plugs into User Port of your C64. C128 or VIC.20 and and draws its power from
there. Direct connect to the phone service. 300 baud.

Direct cormed, Plugs into User Port of your 64 and draws its power from there. (Adaptions for other computers available.) Includes 3 months sub to STARS encyclopedia and 6 weeks sub to MICRO 666 (Commodore database). Catridge software (Australian made and best of all) gives instant access, \$79 300/300 and 1200/75 modem ACME\$299 when bought with modern.

your order and its despatch. Your credit card is NOT charged, nor is your Money Order **Chambers Computer Supplies** cashed until the goods are actually sent

48-52 Monkhouse Drive, Endeavour Hills, Melbourne, 3802.

When you achieve that, hold down the shift key and the CRSR up/down key untill the flashing thing (cursor) covers the first number on the line with the program you want, then press the L key then hold down the shift key while you press the O key (thats short for load) then press the CRSR right/left key until the tursor goes one stop past the "after the programe name, then type ,8: RETURN (don't forget the colon). You will see amongst the jumble the words SEARCHING FOR then beneath LOADING. If it is not doing that then you've most likely forgotten the colon, or you have the wedge loaded. This will not work if you have the wedge loaded. If you don't know what the wedge is, don't worry; we'll come to that later.

When you see the ready flashing hold down the shift key and press the CLR/HOME key (this clears the screen so you can do some typing).

Remove the Domain disk from the drive and put one of your own in. It must be formatted. If you don't have a formatted disk you will find how to do that on page 15 under NEW of the 1541 disk drive manual. We'll explain that next month. After putting the formatted disk in the drive and closing the gate press the 5 key then hold down the shift key while you press the A key (thats short for save) then "FROGRAM NAME", 8 followed by RETURN. It will then save the program to your own disk. You can do this to every program you want to save. We'll talk about program names next time.

Reg. Campbell

ENOTE to new owners of 1541 Disk Drives:

The first edition of the 1541 Users Manual contains a fair sprinkling of errors and ambiguities. If you are confused buy a copy of "Starting with Disk Drives"by Paul Blair, available from the group.]

EASY SCRIPT MAIL MERGE

The article on the following page has been reduced in type face to allow both columns to be printed on the same page. The article was prepared by:
William T. Smith

COMMODORE 64 P.C. "EASY SCRIPT" MAIL MERGE FORMAT (# = RVS * (f3) --- (= Return)

[Load "EASY SCRIPT" ("0:*",8,1() w/- 80 cols. & tabs.] | Notes:-[Load work disk/Load Namelist w/o headings/Load letter]

(a)

(b)

(1)

(c)

(c)

(c)

(b)

(a) Name to identify letter/namelist (b) fi [] shifted. (c) Writer's address (Qld? N.S.W? Vic?) (d) Type in DATE with text (e) Block for Title, Initials and Name (f) No. & Street " Suburb & Postcode (g) " City & State (h) (or p170 or p172 as required) (j) In1 at end of each paragraph (K) 1n2 at end of LAST paragraph

Yours etc? #1n3< (1) or other as required Hon.Secty.#1n1< (1) (Type Name) To View Letter: - f1/0/v (la) To raise Text Cs. To Return to EDIT MODE: - RUN/STOP. (Sample FILL FILE) (m) Mr.H.K.Jones <

(1)

(K)

Inala 4077(BRISBANE QId. < Mr. Jones ((n) Mrs.J.N.Henry(22 Cliff St. (Toowong 40664

BRISBANE Q1d. < Mrs. Henry ((0) Mr.L.J.Griffiths (71 Long St. < Hornsby 2077(Sydney, N.S.W. (Mr.Griffiths < (P)

#nb "??letter " "??namelist " <

SUB PAGE HEADING#cn0:1n1:1m60(

(e)

(f)

(9)

(h)

#1n2:1m20(

#cn1; [PAGE HEADING]#1n1<

#1m2:rm78:p166:t1xx:ju1<

Text of letter / document#ln1<

Phone Number #1n1< No.& Street (

/ /1985.#1m2<

State, Postcode <

Suburb

Blocks

Blocks

Blocks

Blocks

#1n2:1m10< Dear Block, #1n14

64 Chubb St (

CITY

and so on ---. < (Note: - NAMELIST is Filed at "Fill (la) To move letter: - Return (---) f5/f7

(m) As many name BLOCKS as required

(n) or Harry (or other) as required

(o) or June (or other) as required

(p) or Leslie (or other) as required

To Print: - f1/o/f/c/p/Fill=(namelist-f2 twice)

If screen "locks-up" w/- OUT OF BLOCKS, it is necessary to switch Computer OFF to completely CLEAR the MEMORY of residue, then re-load EASY SCRIPT etc.

Notes: - There are 764 lines (w/- 40 col.screen; 382 lines w/- 80 col. screen) available on the screen for text, names, addresses, headings etc. There must not be any spaces in the FILL FILE list. All names and addresses MUST contain the same number of lines and they MUST equal the number of BLOCKS at (e),(f),(g),(h) and (i) combined. The NAMELIST does not have comment lines. The LETTER and NAMELIST may be continued on further disks, but care must be taken to ensure that the appropriate disk is in the drive.

,# symbol is used here because RVS.* (f3) would not print on the PRINTER. Nor ыill "Return". Use SCREEN width 80 when using TABS beyond TEXT width 40

ERROR MESSAGES

One of the most difficult skills for the new user to acquire is the ability to enter a program correctly at the first attempt without creating any extra errors. Don't worry if this happens to you occasionally, it happens to even the most experienced programmers all the time. However the experienced programmer can generally look at the offending line and rapidly find and correct the problem. For the beginner, just finding the error can be a frustrating experience.

Most beginning programmers quickly fall into the trap of trying to make the program more complicated than it actually needs be. One can always add the smart tricks once the program has done the basic job for which it was written.

A good rule is that if the program is very complicated and difficult to comprehend, then it probably is badly written program and most likely will take longer to debug than it took to write in the first place. At best it will work only for the specific job and not be readily adaptable for future problems.

One of the most difficult things to teach programming students is to plan the program carefully then write it in a series of simple, well documented, logical steps. These can be combined to solve a complicated problem. There is no point in saving program lines or making the program run 10% faster if it simply makes more errors! Flan the program, get it working correctly, the add all the frills.

One energetic person I know wrote a nice program to run the accounts of a service station. Only one problem — the program was 35K long and ran out of memory after entering two days takings! After some thought, and a lot of hard work, the program was rewritten in a more logical manner, eventually reducing to only 9K and would now keep track of all the accounts for a year!

Let's look at some of the typical errors messages encountered with Commodore BASIC programs and attempt to provide an analysis of what to look for and when. A few simple rules are also included. These provide only a rough

guide and not an absolute truth! (In any case, most good programmers define their own set of guidelines with experience.)

One further complication arises if too many statements are placed on the one BASIC line. Often it can be difficult to decide which statement contains the error. In such cases, if all else fails, divide the line up into specific statements and put them all on separate lines to find out which is incorrect.

Some of the typical errors in programs are

PSYNTAX ERROR IN XX

The most common error is often caused by a simple typing mistake when entering a line. It means that the BASIC statement is unacceptable to the computer. This may be due to several causes. First of all, one must remember and look for the normal structure of the BASIC statement.

That is

- 1. Line Number 0-63799
- 2. Command (Keyword)
- 3. Expression terminated by the end of a

line or a colon ':'

4. A new Command keyword must immediately follow the colon ':'

This is the most common typing error. Some typical examples are

- . Incorrect spelling of a BASIC keyword (PRINY instead of PRINT, or leaving spaces between commands, for example GO SUB instead of GOSUR)
- . Line does not start with keyword or the equivalent LET command. For example forgetting FRINT as in 100 "HELLO FRED"
- . Mathematical expression with incorrect number of brackets (number should always be even). For example 100 A=(5*(X+9)*(Y+2)
- . Incorrect variable name. (Variables should be kept to a

maximum of two characters with first character A-Z and second character A-Z or O-9, followed by variable type of integer '%' or string '\$' if required. Variables TI, ST, ON, FN, IF, (and DS in BASIC 4 and BASIC 7 machines) are 'reserved words' (reserved for BASIC's own use) and cannot be used for user defined variable). Typical example

215 A#=12.6 or 150 FN=9

. Parenthesis (inverted commas) or commas missing, or commas and semicolons interchanged. For example

200 INFUT "NAME", A\$ (semicolon required, not

. Incorrect matching of variable types in READ and DATA statements. If a READ command attempts to read a number and the corresponding DATA statement contains a string variable, the SYNTAX ERROR will be shown as in the DATA statement. In reality it may be in either the READ or DATA statements. For example

100 READ A 110 DATA HELLO

Where is the error? Should Line 100 contain A\$ or is there a number value missing from Line 110?

On the other hand, if a 'number' is read into a string variable, no syntax error results but the program may not work as advertised. (Difficult to find.)

TTYPE MISMATCH IN XX

A very specific error and easy to spot. Hopefully caused by typing errors and not a misunderstanding of variable types. Typical examples occur when trying to assign a string variable to a number and vice versa. As with

100 A="HELLO" (should be A#)
or 110 X#=25.697 (should be X or "25.679")

? UNDEF D STATEMENT ERROR IN AK

Caused by a GOTO, GOSUB, or RUN to a line number which does not exist. Easy to find by simply listing the program to check if the offending line is there or not. This can be difficult to correct if entering a program from a book or magazine since one has to simply make the best guess as to which line number was actually intended. In your own program, this should be easily fixed by finding the correct line number.

TREDIM'D ARRAY IN XX

An attempt has been made to re-DIMension an array that has already been DIMensioned. One trap is that an array can be DIMensioned automatically, almost without your knowledge. If, for example, the variable Q(5) is used, then the array Q is automatically DIMensioned as if you performed a DIM Q(10). Any attempt to DIMension Q at a latter date will be in error.

All arrays should be only DIMensioned once and preferably at the beginning of the program.

? BAD SUBSCRIFT ERROR IN AR

Occurs when the value of the subscript for an array variable is negative, greater that the DIM statement allows, or uses the wrong number of subscripts. Or, an array variable larger than 10 is used without being DIMensioned at all!

Examples 10 FRINT Z(25) Array Z() not DIMensioned first. 20 INPUT S\$(2,5) Array DIMensioned as S\$(10)

often this error will occur in a statement such as

10 FRINT D(J)

In such cases the value of J must be determined at this point to check if it is within the limits defined by the DIM statement. (Ask the computer with FRINT J and check if within the allowed limits.)

One other trap for beginners is the following

10 PRINT TAB (30) "HELLO"

The 'space' left between the TAB and '(' means that the line is not interpreted as a 'TAB(30)' statement at all but as the floating point array variable 'TA(30)'! Do not leave any spaces within keywords like TAB(or GOSUB etc.

? ILLEGAL QUANTITY ERROR IN

This is caused by the expression used in a function or BASIC command being outside the legal range. Typical examples are

. attempting to equate an integer variable to a value less than -32767 or greater than +32767.

as 100 A%=254 or 100 X%=A*B*C which gives a value greater than 32767

. A POKE to memory location NOT between 0 or 65535, or with a value greater than 255 or negative. This ofter happens when using variables.

as FOKE 12654, A

where A turns out to be 1256 or similar because of an

. A CHR\$ value outside 0-255.

as PRINT CHR\$(259) or PRINT CHR\$(A) where a is <0 or >255

. Attempting to find the ASCII value of a null string.

as As="": FRINT ASC(As)

This can often happen when getting information from the disk or tape. When read from disk or tape, a zero byte (a CHR\$(0)) is actually returned as a null string, that is A\$="". Therefore always use the expression

PRINT ASC(A\$+CHR\$(0))

? NEXT WITHOUT FOR ERROR IN XX

Hopefully this shouldn't happen in a well planned program. (Happened in one of mine recently!) In simple terms it may possibly be the result of bad nesting of FOR/NEXT loops or misspelling of the variable name. An example of bad nesting is

100 FOR X=1 TO 10 110 FOR J=1 TO 50 120 PRINT J*X 130 NEXT X 140 NEXT J ** error

This type of problem can be avoided by not using the variable name in the NEXT statement. But, you should only do this once you are sure that you are writing the program correctly in the first place.

There are other causes of this error which may be quite involved. One example is when the program jumps to within a FOR/NEXT loop. For example

100 FOR X=1 TO 20 110 PRINT "COUNT=";X 120 NEXT 130 GOTO 110

7 OUT OF DATA ERROR IN KK

Results from an insufficient number of items in a DATA statement when a READ statement is used. For example

10 READ A, B, C, D, E 20 DATA 5, 6, 8, 9

This often occurs in programs from magazines which contain a machine code, sound, or sprite routine where values are read and FOKEd into memory. If the program contains a few hundred DATA lines it can be very difficult not to make a typing error. All you can do is check each line carefully. One small check is to compare the end of the previous DATA line with the end of the one currently being typed and how they

appear in the original listing. For example, in the following

100 DATA 22,55,125,89,236,125,15 110 DATA 2,9,22,66,3,33,66,54,4

check if in the magazine listing that the '4' at end of line 110 is under the '1' of line 100.

Another simple cause of this error is pressing the RETURN key on the READY line. This attempts to READ Y.

? DIVISION BY ZEROR ERROR IN #X

Not always an easy one to find. As stated in the error message an attempt has been made to divide by zero. This is not allowed in BASIC. A typical case might be

100 X=A/Q where Q=0

or 100 FRINT A*(B-C)/(X-Y) where X-Y equals 0.

In such cases, the value of each variable must be determined to find which is causing the problem. However the actual cause of the problem may occur far earlier in the program.

? CAN'T CONTINUE ERROR

Occurs only when the CONT statement has been used to continue a program which was stopped by use of a STOP or END statement or by pressing the RUN/STOP key. There are five simple causes for this error.

- . The program has never been RUN in the first place.
- . The program has stopped due to a ?SYNTAX ERROR or similar and not as above.
- . The variables have been cleared by using a CLR statement after program stopped. or more likely
- . The program lines have been edited after stopping. This clears all variable.
- . Or a SYNTAX or other error has occurred in the direct mode

after the program stopped. Typically you accidentally pressed RETURN on the READY or similar.

? EXTRA IGNORED

One main cause is attempting to use a comma or colon in an input statement.

For example, assume the program contains a line

100 INPUT "ENTER ADDRESS"; N\$

Any attempt to enter something like- 12 GREY ST, ELMORE -will generate this error and everything after the comma will be ignored. (N\$ will contain 12 GREY ST.)

Don't use commas or colons with the INFUT statement. Or, uses a leading quote "" if absolutely vital.

Greg Perry

PRICE LIST [Members Only]

PUBLIC DOMAIN DISKS \$ 6.00 ea (Fostage Faid)
PUBLIC DOMAIN TAPES \$ 2.00 ea (+\$1.00 Fostage Per Order)
BLANK DISKS \$25.00 per box of 10 (+ Fostage \$2.00)
RESET SWITCHES \$ 5.00 ea
USER FORT SOCKET WITH COVER \$10.00 ea (+\$1.00 postage)
"PUBLIC DOMAIN BOOK" \$ 5.00 ea (+\$1.00 Fostage)
"STARTING WITH DISK DRIVES" \$2.00 (+\$1.00 Fostage)
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 F.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).

MEMBERS' ADVERTS

FOR SALE

Bargain of the Month!
Commodore C-64, latest version - \$200.00
Commodore 1541 Disk Drive, c/w cooling fan - \$200.00
Commodore 1701 Colour Monitor - \$225.00
Star Gemini 10-X Printer, c/w Card?+6 Interface - \$325.00
All the above in A1 condition

Contact Ralph De Vries at 300 3477

Analogue Type Joy Stick
(Emulates Koala Fad etc.) - \$25.00

Cassette Duplicating Board
(for copying from one Datasette to another) - \$20.00

Contact Barry Wilson at 399 6204

Turbo-Print GT Interface (No Graphics) - \$40.00

Contact James Joyce at 378 6467 (a.h.)

Commodore Datasette - \$30.00 Commodore 1520 Frinter/Flotter - \$100.00 Commodore Numeric Keyboard - \$50.00

Contact D.C. Morrison at 201 0454 (a.h.)

Grappler CD printer interface (almost new)

c/w Instr. & Warranty Card (not filled in) - \$100.00 c.n.o.

Contact Craig Wotton at 075 - 831 698 (a.h.)

COMMODORE COMPUTER USERS GROUP (QLD) INC.

DIRECTORY

MANAGEMENT COMMITTEE

President:	GREG PERRY	Ph. 38	3295
Secretary:	NORM CHAMBERS	Fh.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	Fh.808	2424
Chief Librarian:	CLIFF	POTTINGER	Ph. 277	4520
Newsletter Editor:	RALFH	DE VRIES	Ph.300	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	Fh.356 7571
Librarians - Disks:	BILL BOHLEN	Ph. 208 3729
	MAX BEAN	Fh. 208 1225
Librarian - C-64:	PETER REEVE	Ph.378 2665
(Comm. Software)		Contract Con
Librarian - Vic-20:	JOHN JOHNSTON	Ph.300 5240

Address for newsletter mail only: <u>F.O.Box 384 - Ashgrove - Old - 4060</u>

Deadline for any particular month is the <u>Second Tuesday of</u> that Month.

All other mail to: F.O.Box 274 - Springwood - 9'ld - 4127

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

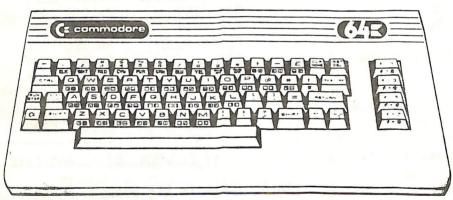
Published by: COMMODORE COMPUTER USERS GROUF (GLD) INC. - P.O.Box 274 - Springwood - G'ld - 4127. Frinted by: BRISBANE EDUCATION CENTRE, P.O.Box 84 - Spring Hill - G'ld - 4000.

CHANDLERS

43 ADELAIDE ST. BRISBANE

C.C.U.C.QQ AVATUBARS8

SEE US FOR
SPECIAL PRICES ON
OOB PRAYUMES
1540 DISK DRAYES
1702 GOLOUR AVOITORS



AND DON'T FORGET OUR
GREAT RANGE OF
G-BA SOFTWYRES

RING DREW AT 221 7822 NOW: