

EDITOR'S COMMENTS

I must first of all apologise to our Australian readers who must have thought their May issue geoNews was never going to arrive. For some reason or other it was delayed in the post for around 3 weeks. I always try to have geoNews ready for printing by the 20th day of the month. This gives me plenty of time to have the printing done and then all that is left is the folding enveloping addressing and mailing out. It also leaves 10 days to get to Oz and for Pete to get all his work done. The May issue was a little delayed and it was posted to Oz on April 23rd that still left 7 days before the end of the month deadline. I do not recall it ever being delayed so much in the post before in almost 7 years.

This month again sees quite a mixed bag. There is a review of a program written by a geoClub member, something that is not seen often enough these days. And a double helping of high quality graphics this time by Helen & Jim. I don't suppose it would be geoNews without a graphic contribution from down under. We also have an article telling us how to change a printer driver from a standard to a geoCable version. I'm sorry but it's still all double Dutch to me, I cannot help but admire those who can understand what this machine code is all about.

See you all in July -- Happy Geosing *Frank*

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In Our 6th Year of Supporting GEOS and it's users



The June Disk Review

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Hi everyone, and Welcome to the June Disk review. There's only 4 disks this month to be reviewed, although our friend in Oz, Peter Hunt, had sent me 6 (Thanks Peter), a couple of them were totally unreadable, so I couldn't salvage anything from them. Hey, this job isn't always a 'Bed of Roses' you know!! Anyway, our sincere Thanks to Peter, and through him to Malcolm Brumley and to Gordon Turrall.

There's one other thing that I've got to mention, is Sharon's address. There's a new addition to it. It's now - Sharon Chambers, 41 Albert Street, Off Newdigate Street, Crewe, Cheshire. CW1 2QD - It seems though Sharon's postman can no longer find Albert Street on it's own!!

So for this month's disks, they're all Picture disks and there's some excellent stuff amongst them -

geoCLUB BASIC 81

Just type in - LOAD""",8,1, the RUN. You then get a menu listing all the graphics on the disk, in this case - NECRIS, NEWSROOM, OCEAN SUN, ORBIT, PAPERBOY, PEGASUS, PENGUIN, PINK PANTH, PITSTOP, POLARBEAR, POLICE CAD plus 17 others. These files are in that GG Format.

geoCLUB BASIC 82

Load this disk in the same way as the previous one. Pictures on this one include - HOTSHOT, SPIDERMAN, SCREAM, SECT 90, SHAU LIN, SHILO, SIDEARMS plus 10 more. Also included on this disk is geoVIEW and a couple of picture files from Gordon

Turrall, LION KING - 4 and LION KING - 5. Really excellent stuff

geoCLUB BASIC 83

More graphics, this time it's - RUSHMORE, SPRINGTIME, BOSTON LT1, SHED, IRISH CASTLE, WINTERPINES, OLD MILL POND, PILOTMTN, CHINA, SEA ESCAPE, TWAS THE NIGHT, PEACE ON EARTH, GARDEN, CASTLE plus 9 more

geoCLUB BASIC 84

LOAD"BBCLIDE",8,1 for this disk to list and view these pictures - Some of which are - LINCOLN, PYRAMID, THE SURFER, LIBERTY, SUPER TRAIN, BRAHMS-2, TIGER TANK plus about 21 more

geoCLUB BASIC 85

Some of the pictures on this disk are - CAPT AVATAR, DAMSEL, OLD MAN, BIG GRIN, ROBIN, CORVETTE, XMAS GIRL, VIRGIN MARY, GALS ROSES, 44 MAGNUM, 45 AUTOMATIC plus 18 others.

geoCLUB BASIC 86

On this disk you'll find - EYE, FRACTAL, HACK CAT, LOST, PEGASUS, THE BRIDGE, THREATS, TITAN, TOMATO, WOODY, 136 COLOURS, BELLA DONNA, COMAL TURTLE, SKY AND WATER, SPIRAL GALAXY plus 14

others.

geoCLUB BASIC 87

On this disk are - PREDATOR, DYNAMITE, AMIGA, GAUNTLET 1 and 2, RUMBLE, FIST 1, MUSIC, DAN, W.O.W., GARFIELD, MIRROR, KEEP OUT, BUBLES, HELP MNU and THE WALL.

geoCLUB BASIC 88

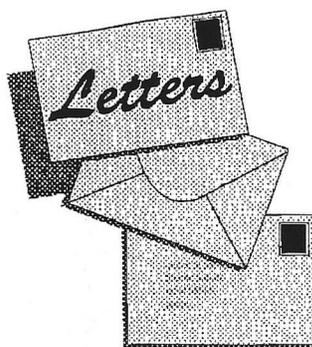
Included on this disk are - PREDATOR, ALPHA, HI CRAIG, WEAPONS, DISK KEY, NIBBLER, PALM, SLAP, LAW, BALL, FRI 13th, WARHAWK and SUB ZERO.

I must apologise that you've not got a very big choice this month. But if you're a graphics fanatic, then you'll be in your 7th Heaven!. As usual, if anyone has got anything that they'd like to be included in our library, then please send it to either Sharon or myself. The price of our double sided disks remains at £1.30, and this includes the P/P. When ordering any disks, please make the cheque or Postal Order payable to GEOCLUB, and not to Sharon or me - Thanks.

We'll both be back for the July Review, but 'till then it's time to say Good-bye for yet another month. Sharon & Terry :) :)

WANTED

Sharon Has a Panasonic KXP-P1624 24 pin multimode printer but has no manual and would like to see and read one. Anyone out there with a copy Sharon would be ever so grateful for the loan of it and/or a photocopy. Contact her at the address at the beginning of this library review. many thanks.



To The
EDITOR

Dear Frank,

Could you possibly tell me where I can get a C64 repaired. Also if one where available, what are the merits of an REU.

Yours Sincerely

E.C.Deamer

Wellington

Somerset

(Where the cider apples grow , and don't they make good use of them !)

Hi Ernie,

Many thanks for your letter.

Where can you get a C64 repaired ? these days that's anyone's guess, I am sure there are repairers but I am a little out of touch these days. Anyone who knows of a good repairer of C64's then please contact me (Frank) either by letter E-mail or phone . If I'm not in leave a message on the machine

As for an REU ; well they used to say that as far as Geos is concerned it's the difference between walking and flying in a jet and to a great extent that's quite true. Geos was originally developed with the idea in mind that it's users would run with an REU. Although they are available in the USA they are unfortunately, and always have been , as rare as hens teeth in this country. If you ever see one come onto the second user market and have the cash buy it, it's one purchase you'll never regret .

Regards

Frank

FAQ'S Frequently Asked Questions

All taken off the Internet and originally assembled by Jim Brain

(This file has been heavily edited : The reason being that much of the information was somewhat out of date, and some of it was not applicable to either Europe or Australia where our major readership reside . There will be many more to follow and it is being reproduced here mainly due to interest shown by many members who do not have access to the Internet and want to know what, if anything, they are missing)

This file is maintained by Jim Brain (brain@mail.msen.com). It is composed of information gleaned from articles in the USENET newsgroup comp.sys.cbm, the FidoNET echoes CBM and CBM-128, electronic mail messages, World Wide Web pages, and other mediums. All the authors have either directly or indirectly given their consent to use their work in this FAQ. All of the information in this file has been gathered and checked if possible for errors, but I cannot guarantee the correctness of any statement in this file. If in doubt, please bring up the subject in one of the Commodore forums.

If you have suggestions, comments, or criticisms, please let Jim Brain know by sending electronic mail to brain@mail.msen.com. Keep in mind that new questions appear on a daily basis, so there is a finite time between a new question appearing in comp.sys.cbm, and its inclusion in this file.

The latest version of this file may be obtained from the following places:

ftp sites:

<ftp://cnga.uwaterloo.ca/pub/cbm/comp.sys.cbm/cbm-main-faq.3.0>

<ftp://ftp.funet.fi/pub/cbm/faq/cbm-main-faq.3.0.gz>

ftp://rtfm.mit.edu/pub/usenet/comp.sys.cbm/main-faq/part*

ftp://rtfm.mit.edu/pub/usenet/news.answers/commodore/main-faq/part*

ftp://rtfm.mit.edu/pub/usenet/comp.answers/commodore/main-faq/part*

<ftp://bbs.cc.uniud.it/pub/c64/comp.sys.cbm/faq.zip>

World Wide Web sites:

<http://www.msen.com/~brain/faqhome.html>

Bulletin Board Systems:

COMMODORE CEE BBS (916) 395-9733,

FIDONET address: 1:203/999

VGA Cologne BBS +49-221-9808007 (ZyXel 19k2)

-9808008 (V.FC) FidoNET address 2:2450/140

I am gathering a list of Commodore reference books together. If you have a book, please send me the ISBN, Author, Title, short description, number of pages, whether it has illustrations, and whether it has

any code samples. Thanks, Jim

How do I connect my computer to the outside world?

First, we need to define what "outside world" means. In this sense, we are referring to the process of connecting the Commodore computer up to another computer or computers and exchanging textual, binary, or graphical information. To connect to another computer, one must have a Commodore computer system, a modem, a phone line, and a telecommunications program (called a terminal emulator or terminal emulation program).

While you can use this to connect to other individuals, to access great stores of online information you need to subscribe to an "online service", which can take many forms. This type of service allows you to correspond with many people with a single phone call, and may permit you to contact people out of your area without a long distance phone call.

What services can I use to get online?

The following services can be accessed by a Commodore computer and allow the user to access online information.

Bulletin Board System (BBS). -

Small system usually with one phone line operated by an individual. Fees are optional.

CompuServe Information Service. -

CompuServe has two Forums designed specifically for Commodore 8-bit computer users. CBM Applications Forum (GO CBMAPP) deals with programming, geoProgramming, applications software, telecommunications, CP/M, utilities and hardware. CBM Arts/Games/Music & GEOS Forum (GO CBMART) deals with GEOS in general, music (including SidPlayer and MIDI), games, graphics and graphics utilities. Both Forums have full message boards and extensive data libraries, and both Forums have weekly real-time conferences.

The CompuServe network is available virtually world wide. The Commodore Forums are attracting increasing membership from Europe and Australia, and have begun to tap into the vast variety of Commodore files available around the world (some of the best new Commodore programs are coming in from Europe these days). CompuServe has an extensive network of local numbers throughout the United States and Canada and is also available through supplemental networks such as SprintNet and DataPac. The number of direct CompuServe connect numbers in Europe is beginning to expand.

While there is no standalone CompuServe navigator program available for Commodore users, CBMAPP has the CIS.EXE script set that automates Dialogue 128 on CompuServe, and also VIDAUT.BIN which will virtually automate Vidtex (which is available again through Software Support International). In addition there is

OFFLIN.HLP, a text file in CBMAPP, that provides a method for semi-automating access with any standard comm program and word processor.

Internet

- The largest online service. The Internet is a collection of 4 million machines interconnected using a common protocol called TCP/IP. This service is the result of a U.S. defense experiment started in the late 1960's. Due to its distributed nature, the Internet is unlike most other online services. In some cases, as in universities, there is no cost to access the "net", as it is called, and some other online services offer access to the Internet. This is the home of all the FTP sites, the USENET and the USENET newsgroup comp.sys.cbm, Internet email, and the World Wide Web. When you use these services you are utilizing the Internet.

QuantumLink

- Q-Link was a Commodore specific telecommunications service. This service, while booming in the late 1980's, has now been discontinued. There was an effort to retrieve as many of the QuantumLink files as could be retrieved. Email Brenda G4 at b.gann1@genie.geis.com or more information.

What hardware do I need?

To access online services you will need a functional Commodore computer that is physically able to have a modem of some kind attached to the computer. The more common C64 and C128 are able to be used with a modem, but computers like the Commodore C16, C116, some PETs and some older CBM business machines may require significant investments in order to be used.

With a functional computer, you will need a modulator/demodulator (modem) unit of some kind. There are two basic kinds that can be used on the Commodore computers:

A standard RS-232 (EIA-232) external modem.

These modems are very common in today's market, as they are usable on all computer systems. They usually are constructed in a small rectangular box, have lights across the front, and have either a standard 9 or 25 pin D-style connector on the back of the unit. Speeds range from 300bps to 28,800 bps and above. This modem requires an interface cable of some kind to connect to the Commodore computer.

A Commodore compatible external modem.

These modems are much less common in today's market. Originally manufactured only by Commodore, some examples include the C1600 (300bps manual dial), C1650 (300bps, pulse dial), C1660 (300bps, DTMF dial), and C1670 (1200bps, AT commands, DTMF/Pulse dial).

Although other

companies manufacture compatible modems, it seems that the maximum speed is 2400bps for all models. This modem style plugs directly into the Commodore user port. Please note that all speeds marked are maximums. Most modems will operate at any speed up to the maximum. Most users agree that buying a Commodore compatible modem these days is an unwise move, except for special circumstances. The suggestion is to purchase a standard modem and an interface to use the modem with the CBM machine.

If you choose to purchase a standard external modem, you must also purchase or build a suitable interface. There are two major types of interfaces:

Simple Cable Interface.

This type of interface merely converts the nonstandard RS-232 pinout on the Commodore user port to the standard RS-232 pinout and performs voltage level translation as required by RS-232 specifications. This interface can be purchased for \$20 to \$40 new or built by the user.

There are a number of homemade interfaces available. The TRANSACTOR published an interface in the Nov 87 issue (V8iss3) and Commodore Hacking Online Magazine published plans for one in issue 4 (See MailServer section for retrieval instructions. These are both supposed to emulate the VIC1011A that C= put out many years ago, and you might find one at a computer "flea market". Another version is designed by Stephen Coan. Send email to fred.mueller@att.com for a copy of the schematic in ASCII format. The differences between the two is the Transactor one has switchable options for some of the leads and the Coan one is hard wired.

UART interface.

To use a modem, a Universal Asynchronous Receiver Transmitter (UART) is needed. When Commodore designed the CBM VIC-20, C64 and C128, they emulated a UART in software to keep costs down. Although this works for slower speeds, there is a limit to how fast the software UART can function. For faster access, a real UART is needed. This type of interface provides a complete UART in a cartridge that plugs into the expansion port. To utilize it, all software must be written to take advantage of the real UART. UART interfaces can be purchased from CMD (Swiftlink), HART (HART Cartridge), or built from plans (DataPump).

The decision of which interface to buy depends on the speed of your modem and the software you are using.

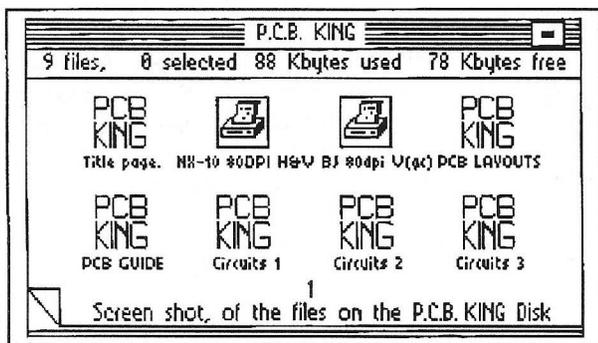
The software UART on the Commodore 64 can handle speeds at up to 2400 bps. The software UART of the Commodore 128 can handle speeds at up to 4800 for all software and 9600 bps for some very well-written software.

If you are under these maximum limits for your system, the simple interface cable will suffice, and most terminal programs can be used.

TO BE CONTINUED NEXT MONTH

P. C. B. KING, is a new Geos program that has been written by Antonio G. Mata (Tony to his friends). This program is aimed at anyone who makes their own Circuit Boards. From the novice (that's me) to the experienced user. Tony has come up with a program that works in Geos, letting you use geoPaint to produce your own printed boards. He has even found two Epson Printer Drivers, so that you get correct measurements on your printouts.

On looking through his very well thought out manual, I can see that with this program you could get some very good results. As he says in the introduction "I have always been an eager electronics enthusiast and have lost count of the amount of printed circuit boards I have had to hand draw using transfers of press-on lines, circles and intergraded circuit clusters. It is very off-putting having to copy a design bit by bit, knowing that when you have finally finished the

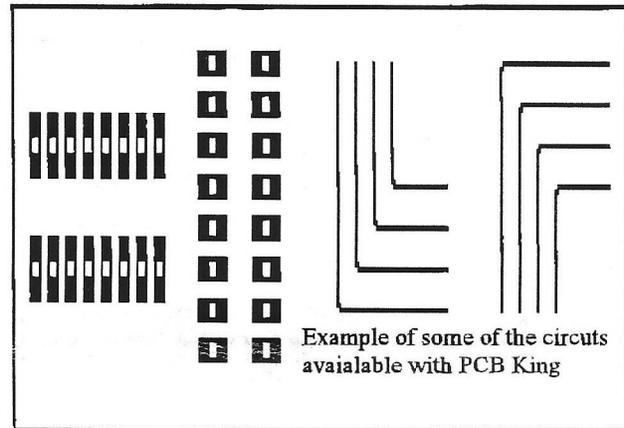


circuit track layout. It looks as if you have put it together in a couple of minutes, when in fact it has taken you hours! You are also greatly limited to the amount of transfers you can fit onto a board because, try as you might, anything which is done by hand looks manually completed. When you produce the circuit on a computer you are able to fit far more into a smaller space".

As I have said I am a novice user, so I have tried out this program not knowing that much. I opened up geoPaint and the Circuits 1 file. Tony has placed a ruler type measurement around the page to help assist with the layout of the board. I choose to copy a small circuit board from the manual. Those of you who are into making your own boards know that the first step, before you start, is planning out your board. After about an hour or so, I had done it. I had a board for a 5V regulated power supply, up to 1A (well that what it said in the manual). Tony has also supplied a

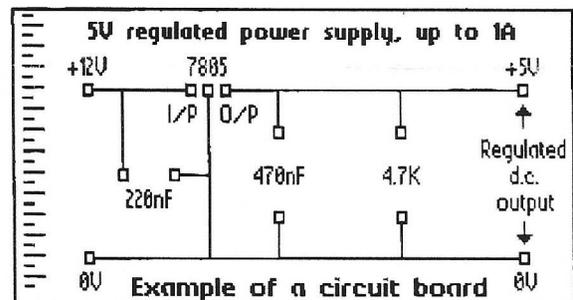
Photoalbum, full of a collection of tracks, integrated circuit clusters and other photoscrops which will come in handy when producing a circuit board.

So now that you have done the hard bit and have drawn your circuit board, the next step is to print it out onto PVC sheeting (once again Tony gives full



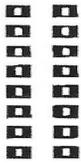
instructions on how best to do this). Once that's done you have the messy bit of transferring your design to Copper-Clad board. I have to say I didn't do this bit. But I would have no problem following Tony's very good instructions. And am sure that I would end up with a circuit board ready for adding the components.

To end with I have to say, as someone who has seen a lot of Geos programmes over the years, this is very good. Please note: this is NOT PD/Shareware, but a copyrighted program. Tony is asking just £12.00 inc p&p, which is very good value. Anyone wishing to buy this program please write to: Antonio G. Mata, 4 Hulsidale, Hamnavoe,

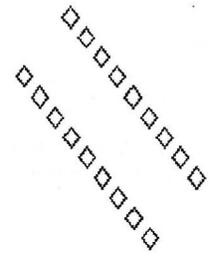


Burra, Shetland ZE2 9LF. Tony is also running a development service for those who do not have access to all the equipment needed. Phone him on 01595-859535 for further details. So for all you budding electronic enthusiasts, I hope that you will find this program interesting.

(c) Sharon Chambers 97



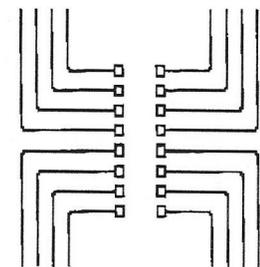
P.C.B.
KING



(c) Antonio .G. Mata 1997

Produce printed circuit boards using GEOS.

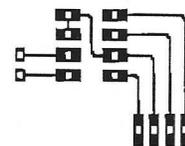
- * Correct proportions Printer drivers.
- * Grid for easy alignment of circuits.
- * Library of pre-drawn circuit layouts.
- * Sample circuits to start you off.
- * Development service available.
- * Comprehensive manual covering all aspects of printed circuit design and assembly.
- * Step by step advice for the beginner to the advanced user.



£12 cash or send cheque/postal order made payable to Mr. A. G. Mata.



4, Hulsidale,
Hamnavoe,
Burra,
Shetland.
ZE2 9LF



geoClub Pubsub Committty.

Issue One.

Venue== North Euston Hotel Fleetwood.

Time== 19.30 to kicking out.

ALL WELCOME.

PRESENT.

geoNut (acting president).

Mike Jones(assistant to geoNut).

Ian Swain(assistant to the assistant to geoNut).

The above pubsub committee meet approximately every 3 months. To discuss various issues of computing and geos. With the added attraction of some very good liquid refreshment. Ring the assistant to the assistant of geoNut on 01253 874474 for details.

As this was the first official meeting there were no minutes to discuss(there had been previous unofficial meetings) or record.

Meeting Proposals. To start the following campaigns.

1) geonut for vice-president. 2) geonut for chairman. 3) geonut for treasurer.

(ask Frank to supply and distribute ballot papers)

At this point it was deemed that 3 proposals was sufficient to start with QUESTION FROM THE FLOOR was asked by the assistant to geoNut. Why was it that only geoNut could apply for the posts required.

ANSWER FROM THE CHAIR. Rule 27,section 14A,paragraph 4,subsection 2 states that only FULL GEONUTS may make proposals unless deemed intoxicated by 2/3rds of the pubsub committee. See rule 41.

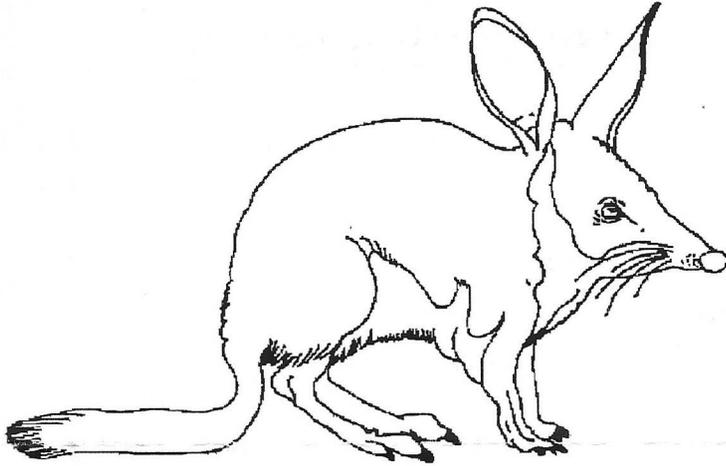
RULE 41.

This rule clearly states the following.

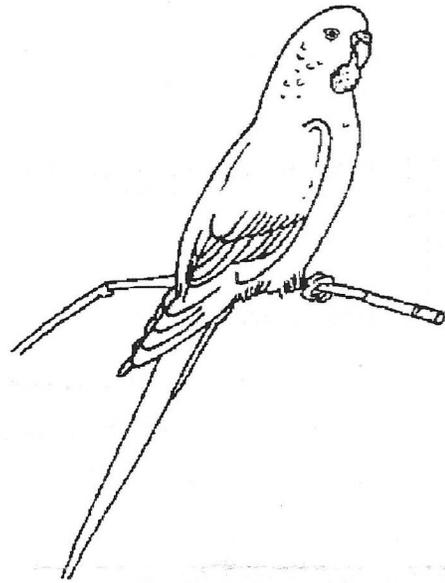
If a full geonut should be found to be completely intoxicated then any proposals over a maximum of three shall be abandoned.

See the geoNut handbook of total silly rules. Available at all good bookshops. Priced at 15 pence.

Australian Native Animals

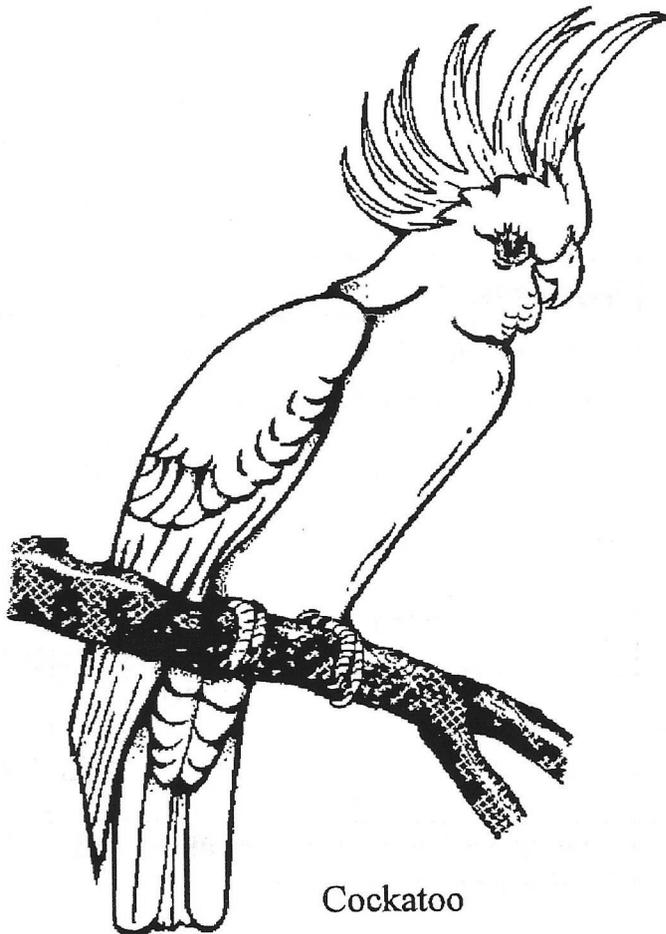


BLIBBY



BUDGERIGAR

By
Helen & Jim



Cockatoo



Koala and baby

Printer Drivers

Serial to Parallel (gc)

By Ernie Forshaw

First of all I do not profess to being a machine code expert. I am only able to break into other peoples code and change it to suit.

Applications etc. used:- Printer Edit from GeoClub disk 114, GEOSector from GeoClub disk 38, and Action Replay Mk. VI cartridge. You must first of all find out the end address of the existing printer driver. If you are lucky this can be done using 'Printer Edit'. At the end you will just come across blanks. Beware using this though as, on more than one occasion, I found that it did not show the correct end address. And it won't work with the longer LQ printer drivers supplied with 'Perfect Print'.

Another method is to use 'Action Replay'. With this method it needs a little more thought to find the end of the driver. You will also have to use Geos 64 even if you normally run Geos 128. It will make life easier if you do a printout of the driver from 'Action Replay' in any case. The end addresses will be around 7B AA for simple drivers to about 7E FF for the more complex (HQ) drivers.

Start to print some article as normal, using the printer driver you wish to edit, but with the printer turned off. The message will come up, printer not available. Press the freeze button and go to monitor. All printer drivers start at the address 7900 so start looking from there. The driver will usually end with 60 (RTS) followed by a repetition of a series of codes that don't seem to have any meaning. Do not confuse this with the breaks etc. that can occur in the middle of the driver codes. Note the end address. Make a printout of the machine code of the printer driver. Make a note of the two byte address following this. ** ?? . We will call this the listen address. We now have to enter some code at this address. Unfortunately it is unwise to do this using 'Action Replay' as it is not always possible to restart Geos directly from the freeze option.

If you were lucky enough to get the address by

using Printer Edit then it is simple to add on the code using this utility. If not then you will have to do this using a disk editor. Finding the end address by this method is far more troublesome. It would take a further article to go into all the details of this, so I am going to assume that you know how to use a disk editor.

You can normally enter the code changes using Printer Edit even if it didn't give the correct end address.

Following the end address enter the following code (not the mnemonic)

Code	Mnemonic
A9 C5	LDA #\$ C5
8D 00 DD	STA \$ DD00
A9 3F	LDA #\$ 3F
8D 02 DD	STA \$ DD02
A9 FF	LDA #\$ FF
8D 03 DD	STA \$ DD03
60	RTS

This you will be using to replace the listen and second address for the serial driver

Note the two byte address that follows this **?? (we will call this the unlisten address). If you are not using Printer Edit you will have to calculate this. Enter the following code at this address.

Code	Mnemonic
A9 00	LDA #\$ 00
8D 01 DD	STA \$ DD01
60	RTS

This you will be using to replace the unlisten command for the serial driver.

Note the two byte address that follows this **?? (we will call this the send bit address). Enter the following code at this address.

Code	Mnemonic
8D 01 DD	STA \$ DD01
A9 01	LDA #\$ 01
8D 00 DD	STA \$ DD00
A9 05	LDA #\$ 05
8D 00 DD	STA \$ DD00
AD 0D DD	LDA \$ DD0D
29 10	AND #\$ 10
F0 F9	BEQ \$...
60	RTS

This you will be using to replace the send bit command for the serial driver

Now you have to find these addresses in the serial driver. Look through the printout that you made or use the hunt in the machine code monitor.

Look in the mnemonic for
 FF B1 (this is the listen address)
 FF AE (this is the unlisten address)
 FF A8 (this is the send bit address)
 There will be more than one place where these occur.

The unlisten and send bit are the easiest to change so we will deal with these first.

At each address that you find

Address	Code	Mnemonic
	20 AE FF	JSR \$FFAE
or	4C AE FF	JMP \$FFAE

replace with	20 ?? **	JSR \$ **??
or	4C ?? **	JMP \$ **??

i.e. don't change the first byte.

The ** ?? is taken from the unlisten address that you noted earlier. Also note that you enter it low byte first, high byte last.

At each address that you find

Address	Code	Mnemonic
	20 A8 FF	JSR \$FFA8
or	4C A8 FF	JMP \$FFA8

replace with	20 ?? **	JSR \$ **??
or	4C ?? **	JMP \$ **??

i.e. don't change the first byte.

The ** ?? is taken from the send bit address that you noted earlier.

There are two things to look out for when substituting the listen address.

Find each address you find something like the following code

Address	Code	Mnemonic
	20 B1 FF	JSR \$FFB1
	A9 __	LDA __
	20 93 FF	JSR FF 93

The second line of the code is not always this. The third line sometimes starts with 4C or Mnemonic JMP

Replace the code with

Address	Code	Mnemonic
	20 ?? **	JSR \$ **??
	EA	NOP

The **?? is taken from the listen address noted earlier

If there are only two bytes in line two then you will need one less EA (Mnemonic NOP).

If the third line starts with 4C (Mnemonic JMP) then replace the start of the new code with 4C (Mnemonic JMP).

Save the amendments and give your new driver a (gc) at the end. This should complete the exercise.

To alter other codes sent to your printer is not quite so easy. You must have a certain amount of knowledge of machine code and a lot of patience finding where the codes are. Many are hidden at some obscure address. No one printer driver is exactly the same as the next, and use different methods of sending the escape codes to the printer. Also there is no absolute standard between manufacturers of printers as to which code does what. For example the Cannon Bubble Jets allow use in both IBM and Epson mode. However in IBM mode it doesn't use the escape code 1B 40 to reset the printer. In fact it objects strongly to this code. This code is used by almost all Geos drivers. It also does not allow printing 80 dpi in this mode. If you use it in Epson mode these codes are recognized but it won't allow line feeds at x/216 in. It prints with x/180 in. line spacing so you get an elongated printout.

As you can see all this could not possibly be covered in a single article. But if anyone wishes to experiment then I wish them the best of luck.

Famous Australians



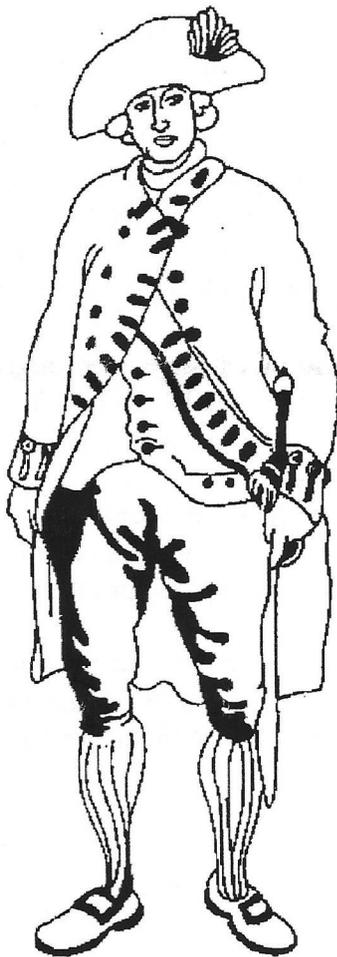
PAUL KEETING



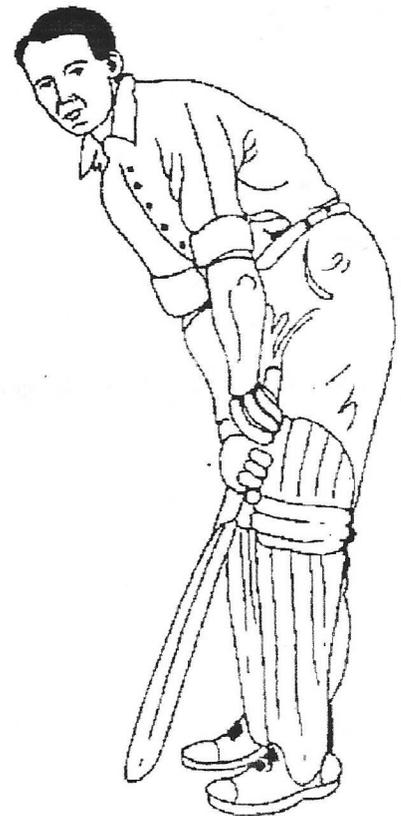
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MR. MENZIES



PHILIP



DONALD BRADMAN

By
Helen & Jim