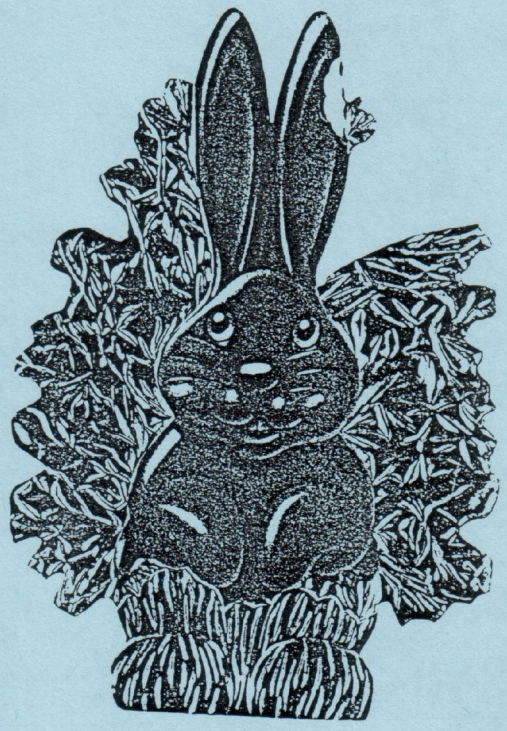
Vol 2 Issue 2 Mar/Apr 94

COCO LINK

* A NEW LOOK FOR THE FUTURE *

THE COLOUR COMPUTER MAGAZINE



I've got something sweeter than an Easter Bunny...
COCO-LINK

THIS ISSUE

NEW COMPANIES REVIEWS
VOYAGER BORDER VARIATIONS
BACK TO BASICS BEGINNING WITH OS-9

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Postage is $5 for software and actual charges for hardware, tapes are also available for the coco 1, 2 and 3.

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REMINS RAMBLING

Perhaps we should start this column off by changing it's name to Roslyn's Ramblings. (Fred says I am good at that).

Yes, time has come when I have been given the task of rambling because Fred has taken up his posting in Tully (and elsewhere in Australia the Army decide to send him).

I was given all my instructions, passed all my verbal tests, gave all the 'Yes darling I understands' (obviously before I should have) and then he walks out the door and says its all yours. GEE TA!

Well here goes.

Firstly, thanks to all you GURU's out there that have helped me, especially Stan, I am sure it's not easy teaching someone several thousands of miles away. Thanks Stan. I appreciate your patience and help.

It seems as though Fred's hard work on the magazine is paying off. We received several enquiries from overseas about the magazine, which I am sure will please Fred (when he hears about it). So the notion of letting everyone know that there is still a very strong following of CoCo users here in Australia has paid off. Quite a few programmes written by Australian authors have been sold in the States, which is something the authors should be quite proud of, they have done well.

A number of people (companies) have approached us, asking to advertise in the COCO-LINK. We are only too willing to do so because obviously it lets you all know of other companies who look after software for your system.

One such company is 'NORTHERN XPOSURE' which is based in Ottawa in Canada. This is a home based company, much like ours, whose products are based on the OS9 system. We have included their advertisement in this magazine, however it should be noted that all prices quoted are in US dollars. If anyone would like us to order on their behalf we would only be too glad to do so.

The next new addition to our group is Kala Software. They sell the ULTIMUSE III range of software, which is the Ultimate Music Editor for the CoCo3. At the time of writing this 'Rambling' they were sending over the demo disk on this and other related products for us to review. I look forward to receiving them.

I have also spoken to one of the owners of Owl Computer Software. They are sending over their catalogue as well as some promotional software. I also understand that there is another version of Window Writer (OS9), which is also on its way.

Not only do we have enquiries from companies in regards to their software, we have had enquiries from other magazines who support the CoCo community, which is great. You will find in this issue an advertisement for the "UPGRADE" Disk Magazine. They are, as they would say, a NEWS disk. Giving you all the latest news and info on the CoCo. If you mention you saw their ad in COCO-LINK you will receive a Bonus disk with your subscription.

If there is anyone who would like us to get in touch with a company in regards to their software or perhaps you are looking for a particular piece of software, then please let us know. It may be of benefit to not only yourself but to other CoCo users here in Australia.

On the subject of the magazine format now. If you haven't told us how you feel, just drop us a line. We are going to give it a trial run for a year, just to give it a fair chance. After one year we will probably do some sort of questionnaire to see how you feel.

May I also take this time to forewarn everyone that the "Back to Basics" articles may not be in every issue, obviously because Fred is now in Tully. He was working on the next issue (by hand - no computer),but we will still be continuing the segments. If anyone would like to rescue Fred by taking over I am sure he would appreciate it.

Anyway, owing to the fact I am only obviously good at RAMBLING verbally and not when it comes to writing, I am going to quit while I am ahead. Please don't forget to support the magazine because afterall that is why we are here.

Until next time,

Ros Remin

****

REVIEWS

****

If anyone out there would like to do reviews as a contribution to the magazine, please let us know.

Occasionally we get programmes that are submitted by budding programmers and we would like to give them a hand by having someone do a review on their work. I am sure that they would appreciate any criticism because it can help them to improve on something they have devoted a lot of time and energy on.

These programmes are not only from within our own community, here in Australia, but overseas as well. In fact, I have arranged for a few DEMO disks to be sent over from both Canada and America.

So if you are not into programming but would like to contribute towards the magazine let us know.

Looking for good Coco Support?

Look to The:

"UPGRADE" Disk Magazine!

From: **"Mid Iowa & Country CoCo"**

Now in it's eight year!

Three as a national Disk magazine.

With the UPGRADE National Diskmagazine, we've grown to be one of the largest CoCo outreaches"! I can say that firmly by the response from 240 members in over 40 states and 5 provinces of Canada; with others in Australia & England, we expect to be around for a long, long time.

The "UPGRADE" Disk Magazine:

Does not support OSK, or Computers not compatible to Coco.
That we leave to those more qualified.
Is not hard copy though it can dump to your printer.
Displays first rate 16 color H2 graphics, with articles.
Does keep you informed with news from around the country.
Including ads and recomendations of better dealers.
Does have OS-9 articles concerning the CoCo. We've just started an excellant level II tutitorial series.
Does have Basic program technique Article & tutitorials.
Does carry a full variety of indepth articles and reviews.
Recently adding "Marty's Memos" column by Marty Goodman!
We carry tips on where to buy printers, drives & hardware.

This is a News disk, not a software disk.
That we leave to the "Mid Iowa & Country CoCo" library, available where ever you are. Where you can select from a variety of the Best available, Public Domain, Shareware, & Orphanware for a filing & backup fee $3.00 per disk. Plus a Christian software sub-chapter. We've done "All of this for 8 consecutive years"!

Join the largest CoCo reach out. Join with those who write: "Here's my renewal, I don't want to miss an issue"! Let just $16 keep you in touch with the "entire" CoCo Community.

Your UPGRADE subscription includes:

1. 1 year membership in MI&CC and
2. UPGRADE Diskmagazine subscription

Req: 128K CC3, W/1 drive, RGB, or TV
$16.00 US $21 Canada $31 Foriegn Air

Say you "saw it in COCO-LINK" and receive...
An UPGRADE plus a surprise bonus disk, via return mail!

"Mid Iowa & Country CoCo" (non-profit)
Terry Simons Editor/ Treasurer
1328 48th Des Moines, IA 50311
Include your Phone & System information

Letters to the Editor

Dear Ed

Thanks for the encouragement award for my darts programme, it certainly was a surprise to see my programme when I opened the COCO-LINK magazine.

On the new format, great, no problems for me. Keep em rolling.

A question you may like to print in the next COCO-LINK -

HELP - I have a CoCo3 512K FD-502 dble sided drives with multi-pak. I want to copy data files to a Radio Shack TRS-80 mini disk drive. The TRS-80 drive is 110v & used with my daughters 110v CoCo2 and which format is incompatible with my FD-502 drives. Through my multi-pak I can load programmes into memory from the FD-502 and then save them to the TRS-80 drive but I am unable to copy over data files as these can't be loaded into memory. Hope that makes sense?

Thanks again.

Geoff DONGES

Geoff

First of all Geoff congrats again on the encouragement award, both Fred and I look forward to seeing more programmes from you.

I am glad you also like the new format.

As far as your question is concerned, I am afraid that the COCO guru of this household has taken up his posting in Tully and I am simply not that advanced in my lessons, so perhaps someone out in COCO-LAND can help. If anyone has the answer to Geoff's problem let us know so I can pass it on and print it in the next mag so anyone with the same problem will know what to do.

Dear Ed

Just a short note about the price of subscriptions to COCO-LINK. I would prefer to pay $25 a year for COCO-LINK with the larger print. The reason being that I spend $90 a year subscription to CFDM and $25 to $90 is a big difference. Plus one day I'm going to be an old man and would still like to read the magazine and I'm sure I would find it difficult with the smaller printing.

For anybody who is interested, I pay $90 for CFDM, $18 for COCO-LINK, $20 for PCCC and $20 for the Australian OS9 User Group. TOTAL = $148, the increase for COCO-LINK from $18 to $25 is $7.

BIG DEAL!

In realistic terms this would be equivalent to 2 packets of Peter Styversant Red Cigarettes ($4.20 each).

As you can see I'm right behind you going back to the larger format.

Yours in CoCoing,

Des RAE

Des,

Thanks for the feedback on the format. We have had a few people feel the same as you do.

We have given it a lot of thought and have decided on a trial period of one year. We will then put it to our subscribers after the trial whether or not they are happy with the format or if they feel, as you do, that a rise in subscription of $7 is worth it for the larger format.

Dear Ed

THE ARCH DEVIL IN THE COCO

There is a very, very wicked Devil hiding in the COCO 6809 chip. He is a paranoid, destructive and downright psychopathic fellow. His main pastime is ruining programmes in the making. Like all careful programmers I SAVE 1, SAVE 2 every few lines in case I accidently wipe out the last two hours work.

This demon works very slyly, he is most at home when we are debugging our programmes.

We make up a segment that will work and find a bug, a misspelt word or a wrong punctuation mark.

We correct the error and list again.

We know that the programme is now correct.

Suddenly the devil operates and line 5 suddenly becomes line 8135 right at the beginning of the listing.

We type in 8135 and ENTER and relist it. It is still there! The Devil is very cunning and persistant too. We try DEL 8135 and ENTER. It is still there!

Lastly we try RENUM. Sometimes this works.

Another of his devilish tricks is whilst listing repeatedly for bugs he will alter a letter in a word. This morning GOOD was altered to GOO@.

I know it was altered as I ran the last saving and there it was correct!

BLOODY HELL!!!

The other common pastime of the COCO DEVIL is wiping out half a programme whilst listing it several times.

A programme with 5 - 700 lines will suddenly finish at 150.

Usually it leaves the number with nothing after it and COCO gives a SN ERROR. Second B----- H---!!!

Is there anyone out there in COCO-LAND that can exorcise this devil. There is a good lesson in programming that I have learnt and that is to SAVE 1 - SAVE 2 etc etc every time I programme a line. It does frustrate the COCO DEVIL, but it seems to minimise the frustration of the results of it's mischief.

A rare event in the escapades of the Devil is to wipe out a whole programme. A few weeks ago I was merrily typing out a very repetitive programme with a lot of HPRINTs one after the other and I was careless. HURRAH! HURRAH! said the Demon. I was not saving each line or two, I did about twenty lines and suddenly he struck. B------- had struck again and wiped out the lot. All I got for my efforts was an SN ERROR.

My own fault because I did not SAVE 1 - 2 every one or two lines.

Seriously though is there anyone out there who has an explanation and better still a cure?

I don't mean a hatchet or throwing my trusty???? servant out the window into the traffic!

I have tried pleading with COCO - I have tried rude words, I have even threatened it with extinction and buying an IBM but to no avail.

HELP!!!!

Val STEPHEN

Val,

I have to admit that I have not experienced the COCO DEVIL (yet), but I have heard the dramatic effect he has had on people. Many a time the boys and I were elsewhere in the house when he struck here. I knew Fred has a loud voice, but now I know what the Diggers hear when Fred is on the parade ground. FRIGHTENING!

If anyone out there can help Val, perhaps you can save us all, by writing in to enlighten us on, as Val would say, how to exorcise this Devil out of the COCO.

I have included a submission to 'Letter to the Editor' found in the 68' micros magazine because we have also been asked this question.

What Happened to Puppo Keyboard Interface Project Board?

Buzz Jones
Seattle, WA

This question came as a telephone call which my wife answered. All Buzz asked is that I print something about this project.

Well, the offer of a PC board was a bit premature. The person working on it was unable to complete due to business reasons, other projects had to be taken care of first, and an unexpected problem cropped up which meant a total redesign of a money making project, so the Puppo board had to be shelved. I did hear from another individual who was working on a board. In fact, I sent him a copy of the schematic (he had heard that I printed it and called to inquire) and asked that he write back as soon as he had a working board design.

I apologize for getting so many people's hopes up. The schematic was printed mainly to help those with the adapters in repairs. If anyone out there DOES design a new board, please let me know! I'll be happy to print an article and let everyone know where they can order bare boards (and possibly kits?) from. If I can be of assistance just call or write.

****

SUBMISSIONS

****

What do you send to COCO-LINK and how?

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

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

1. Send it on disk with at least two saves and one of these being in ASCII format. Ensure that you also send a text file using any word processor giving some information about your programme. If you do not have a word processor then a neatly hand written letter will do, but remember it has to be legible.

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

If you are sending a programme please ensure that you have tested it to make sure it works. If you do NOT wish to have your creation submitted to the Public Domain Library then please let us know, otherwise I will send it on to Robbie for perusal.

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

Northern Xposure

OSTerm 68K v2.1 for the MM/1

OSTerm 68K is an authorized update of Vaughn Cato's OSTerm Terminal Emulation program by Ken Scales and Colin McKay. This update includes both fixes, and changes to enable OSTerm 68K to better interact with the OS-9 68000 environment.

OSTerm 68K v2.1 is intended for use with the Interactive Media Systems MM/1 computer. As such, many of the features are MM/1 specific. A Termcap-based version (OSTerm 68K v3.x or higher) is planned for the future. This version should run on any OS-9 68000 based machine which supports Termcap.

Features of OSTerm 68K v2.1 include:

- optional Graphical Front End (included) for easier access may be used with mouse or keyboard
- support for External File Transfer Protocols
- Environment Variables
- Now supports /t3 and /t4 RTS/CTS handshaking for uploads and downloads
- serial port reset in case of /t0 lockup
- Improved VT100 and ANSI emulation
- Enter remote mode directly from command line
- Echo file append
- true Line Break
- improved Manual
- up to 24 digits in the auto dialer
- support for high-speed modems, including locked baud rates

TasCOM owners will want to upgrade to OSTerm 68K. TasCOM was originally released early in the life of the MM/1, before many of the techniques for programming the MM/1 were known.

OSTerm 68K v2.1 requires an MM/1 Computer with one meg or more of memory and K-Windows with WindIO v48 or higher.

OS-9 68K Software SC/ISpell/Rogue

This disk contain several popular OS-9 68000 packages, ported from Unix by Ken Scales. All three packages are termcap-based, and should run on any OS-9 68000 system that supports termcap.

These packages are freely available from Delphi and other information services. If you don't have them already, this is a convenient way to obtain all three.

Total cost for this package is $5.00, with no international shipping. Please specify disk format (3.5" high density, Microware Universal, or Atari ST)

SC - An OS-9 68000 port of the Unix SC spreadsheet

ISpell - Spell checking program, ported from Unix.

Rogue - The classic dungeon game comes to OS-9 68000!

Northern Xposure

'Quality Products from North of the Border'

January 1994 Edition

OS-9 Level II

Smash! CoCo3 Level II Arcade Game	$29.95
Thexder:OS9 CoCo3 Level II Arcade Game Send manual or rompak to prove ownership	$29.95
Matt Thompson's SCSI System	$25.00
Rusty Launch ECB Progs from OS9	$20.00

Disk Basic

Color Schematic Designer was $35.00 Reviewed 268'm premier issue	$30.00
Oblique Triad Adventure Games	
Overlord	$25.00
Seventh Link	$32.00
Caladuril I	$15.00
Caladuril II	$27.00
Caladuril I and II ($42) Save!	$35.00
Those Darn Marbles	$32.00
Studio Works v2.0 (Upgrade from 1.x $22.00)	$34.00

OS-9 68000

OSTerm 68K V2.1 for the MM/1	$50.00
Switch to OSTerm 68K from TasCOM Send manual or disk to prove ownership.	$30.00
OS-9 68K Software SC/ISpell/Rogue +	$ 5.00

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Northern Xposure

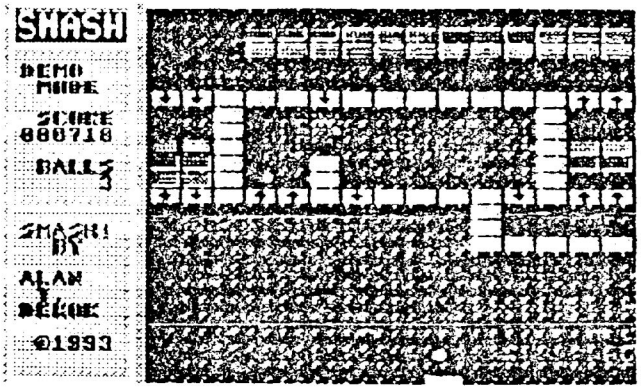
Smash!

Somebody said it couldn't be done, so Alan DeKok of Intelligent Algorithms did it. Smash! is a full-featured arcade game for OS-9 Level II, in the Breakout genre.

"You're supposed to go to bed after 2 am, aren't you?"
- Smash! addict

"How did you do that under OS-9?"
- well-known CoCo Game Programmer

"Awesome!", "WOW!", and "Cool!"
- first reactions of many to Smash!



Features include:

- 32 levels that can be modified with a text editor
- user-selectable joystick port
- passwords for each level, so you don't have to start from the beginning each time
- 320*192*16 colour graphics, sound effects
- 17 block styles, including one-way and indestructible
- multiple balls
- one or two player modes
- auto-pause when you are using another window
- fully commented source and graphics libraries are available (at extra cost) (160k source, 40k docs)

Smash! requires a 256k CoCo 3, OS-9 Level II and a joystick.

Thexder:OS-9

Thexder:OS-9 is a complete OS-9 Level II port by Alan DeKok of the popular Tandy Thexder RomPak. You must own the Thexder RomPak to use this game.

The complete Thexder game comes pre-installed on the disk, so please send your manual or cartridge to prove that you own Thexder.

Features include:

- Fully compatable with OS-9 Level II
- Uses 100% OS-9 system calls
- Many new features including Immortal mode
- auto-pause when you are using another window
- start at any level

Thexder:OS-9 requires a 256k CoCo3, and OS-9 Level II.

Northern Xposure

Matt Thompson's SCSI System

This is the registered version of Matthew Thompson's SCSI System drivers, and includes both M6809 and HD 6309 versions.

If you have a SCSI hard drive for your OS-9 Level II CoCo 3 system, then these drivers are essential.

Supports both 256 and 512 byte sectors. Included in the registered version is vastly increased speed, Turbo Cache, and technical support from the author.

Rusty

Rusty is a program that intelligently returns control of your CoCo 3 to disk basic from OS-9. Why would you want to do that? There are several popular games and programs that many people used under disk basic. With Rusty, you can store them on your hard drive under OS-9, and play them any time you want using Rusty.

Not all programs are suitable for use with Rusty, but anything that runs under Basic (both tokenized basic and machine language), and is less than 56K in length, may be used. This program is handy for people with Eliminator systems, who otherwise would have no access at all to Disk Basic programs.

Rusty also includes a set of OS-9 programs for reading and writing Disk Basic floppy disks. No special drivers are required.

Requires 256K and OS-9 Level II.

Color Schematic Designer

The Color Schematic Designer is a powerful program for the design of electronic schematics. '8 out of 10' - see the review in The NoName Magazine (Metamorphosis), August 1993 edition.

- Postscript output (laser printer support)
- IBM Graphics, Epson and Tandy DMP printer output
- node list generator

Color Computer 3, Disk Drive and hi-res joystick interface required.

Oblique Triad Games

Unavailable for the past two years, these packages are again available for the Color Computer 3 running Disk Basic. See the Rainbow reviews for details on each game.

Overlord	August 1990 p78
Seventh Link	July 1990 p74
Caladuril I	December 1987
Caladuril II	June 1989 p126
Those Darn Marbles	June 1990 p66
Studio Works	January 1990 p94

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BACK TO BASICS

by

Fred REMIN

****

Last issue I started the Back To Basics column for all beginners and maybe some not so beginners as well. The main gist of the first article was some suggestions for setting up your system to ensure that you enjoy more fully your computing time and a quick way of determining what type of system you own.

If you followed my step by step instruction and suggestions you should now be sitting in a very computer conducive environment and be fully aware as to what system that you have connected. If not then may I suggest that you again read the last article, in particular the quick methods of determining what sort of system you have, ie a 16, 32, 64, 128 or 512K machine and whether you have Colour Basic or Extended Colour Basic.

LOADING A PROGRAMME:

What I will cover now is how to load a programme into your computer and get it running. The first thing to have a look at is are you using a tape or disk based system. If you are using a tape system then first determine if the programme is in BASIC or BINARY. To do this have a look at the instructions that came with the game, the loading instructions should tell you to either CLOAD or CLOADM the file; IE

CLOAD"filename" or

CLOADM"filename".

Once the programme has loaded into your computer then one of two things will happen. If the programme has an AUTOEXECUTE capability, then it will automatically start operating without the need of further commands from you. If however you end up with your normal green screen and the word OK followed by the flashing cursor, then we need to give the computer an additional command to operate the programme.

If you used the command CLOAD to load the programme then you need to now enter the command RUN and then press the ENTER key. If you used the command CLOADM you need to now type the command EXEC and then press the ENTER key.

If using a disk based system then all the above is the same with the exception of dropping the letter C from the commands, ie LOAD or LOADM instead of CLOAD or CLOADM. To run the programmes the exact same commands are used as for a tape based system.

What does the above mean? Well basically CLOAD means cassette load and could be construed as a default for a basic programme where as CLOADM means cassette load a machine language programme. RUN means just that, run a basic programme while EXEC means execute a machine language programme. The same rules apply for a disk based system.

ERRORS in LOADING:

The most common error to occur when loading programmes from a tape based system is the dreaded IO error. This means an Input/Output error and usually occurs when you have tried to load a programme when the tape is positioned already inside the programme instead of at the very beginning of the programme. It will also occur when the heads of the tape are dirty or if you have the sound level on the tape incorrectly adjusted.

The following are some of the tried and true fixes for the problem of the IO error, firstly rewind the tape to the beginning of the programme or just before it. This can be done by having previously written down the position on the tape counter of the beginning of the programme or if you know the sequence in which the programmes are on the tape by using SKIPF"the file BEFORE the one you are after". SKIPF will SKIP over all programmes on the tape and then stop at the END of the one that you have specified, therebye putting you in the correct position to load the next programme.

If this does not allow you to load the programme then the first thing to do is clean the head of your tape with a head cleaner, (these are available in any reputable music store). If the programme will still not load then check the volume adjustment on the tape deck, it should be around the centre of the total adjustment, ie about 5 if your tape goes up to level 10 or around 2.5 if it only goes up to 5. This can take some time as it will be a bit of trial and error on your part until you find the optimum loading level for your particular tape deck.

Another fix that seems to work on some tape decks is simply turn the tape deck upside down and then load the programme, don't ask me what this does, but it has worked for me and others that I know off as well.

For a disk system the IO error usually means either a garbled programme or dirty contacts in your disk controller and or cables. To clean the controller and cables the best method is to turn your system off, disconnect the cables and controller and then clean them with an ordinary pencil eraser. DO NOT use the coarser ink erasers as these will do damage to your connections. The fix for a garbled programme I will cover in more detail at a later stage as this will involve some knowledge of the format of a disk system which is a little beyond the level of this article at this stage. In the mean time if you encounter this problem simply use your backup of the

programme. YOU DO HAVE A BACKUP DON'T YOU.

The next most common error for both tape and disk users is the FM error. This basically means a FILE MODE error. What the computer is telling you is that you have tried to load a BASIC file as a MACHINE language file or vise versa. This comes about if you try to CLOAD or LOAD a file which should be CLOADMed or LOADMed. Remember that a basic file should be CLOAD (LOAD for disk) and a machine language file should be CLOADM (LOADM for a disk).

SAVING a FILE:

The same procedure as used for loading a file is used to save a file, the only real difference is that this time instead of using CLOAD or CLOADM, you will use CSAVE or CSAVEM, of course for a disk system simply drop the letter C. For example if you were writing a programme in basic and you wished to save it to tape, you would position the tape and then use CSAVE"filename" and then press enter. For a disk system you would use SAVE"filename"and then press enter. If you wanted to save a machine language file to tape then there is some more information that you require before you can do this, that is the START address, the END address and the EXEC address.

To find this information, with the programme in memory use the following routines:

To find the START address;

```
PRINT PEEK(487)*256+PEEK(488)
--write it down--
```

To find the END address;

```
PRINT PEEK(126)*256+PEEK(127)-1
--write it down--
```

To find the EXEC address;

```
PRINT PEEK(157)*256+PEEK(158)
--write it down--
```

Now you can save the programme by:

CSAVEM"filename",start add, end add, exec add.

For a disk system use SAVE instead of CSAVE.

You should now be able to sucesfully load and save both basic and machine language programmes from and to disk or tape. If you are still having problems please do not hesitate to drop me a line or give me a call, I am more than happy to help you out.

WRITING PROGRAMMES:

Before you start feverishly typing in what you believe to be the correct code for your programme, there are a few things that you should be aware of.

Firstly, do not think that the computer is a super smart machine that can understand exactly what you would like to do, for example it would not understand a command like draw a box. In this case you would have to use a number of commands in order for the computer to do the job.

By way of explanation, lets look at a simple action like closing a door. If you were to say to someone "close the door", then they would simply go to and close the door. A computer however would need commands like;

TURN 1/2 RIGHT (to face the door)

MOVE FORWARD 3 FEET

RAISE YOUR RIGHT ARM 4 FEET

PLACE THE RIGHT HAND ON THE DOOR KNOB

CLOSE THE RIGHT HAND AROUND THE DOOR KNOB

PUSH THE DOOR 2 FEET

LOWER THE RIGHT ARM

I think you get the idea.

This does not mean that the computer is totally dumb, the manufacturers have placed a number of simple commands into the memory area of the computer which will allow you to group a number of actions together to obtain a desired result.

With the above information in our memory banks we must now decide what we want the computer to do. This decision is as important for a game as it is for any other thing that we are trying to acheive. By way of explanation lets have a look at a very simple programme and then disect it into the decisions that we will be requireing the computer to make.

Lets say that we want the computer to ask for our names and then to clear the screen and then write our name on the screen. To acheive the desired result we would brake down the computers actions into a logical sequence and then write the code to follow this "computer path of decision".

EG;
1. clear the screen
2. ask for a name
3. remember the name
4. clear the screen again
5. print the remembered name.

This is a very simple decision process and you should be aware that in a more complicated programme the break down of the computers actions could run into quite a few pages worth of information or decisions. In the mean time lets now write the code for our simple one above.

By looking through the manual you will see that for the computer to clear the screen we use the command CLS. Therefore the first line of code to go along with what we have done above would be;

```
10 CLS
```

This would clear the screen to the default green background and black

writing, at this stage take some time to read and absorb what the CLS command can do for you from the manual. You can change colours and all sorts of things depending on the system that you have.

The next thing we wanted the computer to do was ask for a name, again looking through the manual we see that we can use the command INPUT or LINE INPPUT, so our next piece of code would be;

```
20 INPUT "what is your name"; A$
```

or

```
20 LINE INPUT "what is your
name";A$
```

Again at this stage you should read the information in the manual about these two commands to see the difference between them and exactly how they work.

By reading the manual you would have discovered that the next requirement that we wanted from the computer, that is remember the name, has already been done. That is line (20) has asked for your name and then assigned it to a variable called A$. This information will remain in the computer as A$ until you either turn the computer off or change the information in A$ with another command.

Your code after looking at the decision process now looks like this;

```
10 CLS
20 INPUT"what is your name";A$
```

The next thing that we decided needed to be done is to clear the screen, we have done this already with line 10, but we need to do it again, therefore our next piece of code will be a repeat in the form of;

```
30 CLS
```

Now our "code" looks like this;

```
10 CLS
20 INPUT"what is your name";A$
30 CLS
```

Now we are going to get the computer to print on the screen the remembered name, that is the name that we have assigned to the variable A$.

To do this we use the code;

```
40 PRINT A$
```

Now our complete programme looks like this;

```
10 CLS
20 INPUT"what is your name";A$
30 CLS
40 PRINT A$
```

You can see now that we have firstly broken down into logical steps what we want the computer to do, then we have gone to the book and determined what commands we need for the computer to carry out these actions and then we have writen the code for the programme, ending up with;

```
10 CLS
20 INPUT"what is your name";A$
30 CLS
40 PRINT A$
```

Let me at this stage point out that this is not the only process that can be used to determine the code required for a programme, there are other methods like the flow chart, but I beleive that this is the simplest one to use until you become familiar with flow charting and the commands available to you from the manual.

Well I think I have given you enough to think about for this little segment so I will give it a rest for now. Just remember that out of all that I have given you so far, nothing can replace you physically going through the manual supplied with yuor system and learning what each command can do for you.

If you have any questions please feel free to drop me a line and I will do my best to answer them for you.

Until next time, happy computing.

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NATIONAL OS-9 USER GROUP

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The National OS-9 User Group is based in Brisbane Queensland and caters for those CoCo users who are well into OS-9/OSK. They produce a monthly newsletter and have an extensive library for the use of members.

Subscriptions to the newletter are $18 per year (the same as CoCo-Link), and at this price is well worth it if you wish to keep up to date in the world of OS-9.

The National OS-9 User Group can be contacted by phone or mail as follows:

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COCO FRIENDS DISK MAGAZINE

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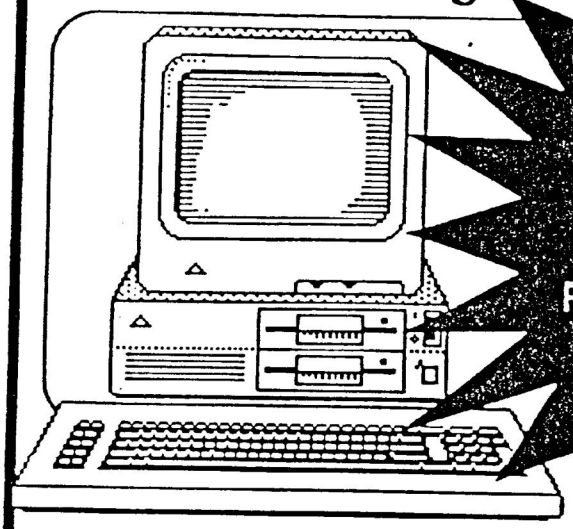

COCO FRIENDS DISK MAGAZINE (CFDM) is devoted exclusively to those who still enjoy running under RS Dos. The standard system needed to use CFDM is CoCo 3, RGB monitor, at least one disk drive, and the RS Dos which came with your CoCo 3.

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

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

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BEGINNING WITH OS-9

Last month, we started with OS-9's shell, and began working our way through the utilities. We'll get that done, then pick up a few odds-n-ends in preparation for next months dive into MultiVue.

LIST: Copies the contents of a specified path (or paths) to stdout(standard output). It's up to you to decide if this is a good thing to do. For instance, there is a good chance an executable file will contain codes used to control the window system. Listing one of these files can do interesting things.

Incidentally, careful study of this command's manual page illustrates why the Tandy manual must be taken with a grain of salt. First it says list lists the contents of a textfile. On the same page, their own example shows that this isn't exactly true, when the device/term is listed to printer!

LOAD: Looks into the file specified in the pathlist, and loads anyOS-9 modules it finds there in memory. This isn't what the manual says, and the difference is important - a file may have more than one module in it, the types can be mixed within a file, and last the name of the file doesn't need to have anything to do with the name of any of the modules included. In other words, you CAN'T specify the module to load! (see merge)

The only time the filename and a module name have to match is when you DO NOT load it - typing a command that isn't in memory causes OS-9 to look for a disk file with that name, which should contain a module of the same name.

Think of MDir as your commands RAM-disk. The extended version adds much more info, but takes a bit of work to decipher. One easy to read bit of news is a modules link count, which tells you how firmly it's attached. Sometimes. If a block of utilities is loaded from one file, the entire block lives and dies together. Only the first module in the block gets a count.

If it's not copy and it's not list, it must be merge! It's not as picky as copy and it doesn't add characters like list, so sometimes it's used to replace one or the other. It's biggest claim to CoCo fame is as a way to work around the GIME's 8k memory block size by combining smaller modules into files which more neatly fill them. For instance, almost all of the floppy disk utilities fit in a 16K file vs 96K loaded separately.

MFREE: Refers to total RAM left. It cannot comment on how much of each process 64K remains! Even if the process is OS9 itself - which explains those system full errors with 200k free. You might be lucky enough to face this bug someday - MFREE (even most patched ones) freaks out when it finds a 512K block open. It's been fixed, or just fire up a few extra things at boot to fragment RAM some.

MODPATCH: Is the most basic patch utility one can imagine. Bang on the RAM in real time!

MONTYPE: Is OK as far as it goes. Replacements include setype, which adds mouseport/reset, and control, which does everything. If you were wondering, setype comes from Color Computer Artist, and control from MultiVue. Both can be used seperately, and their changes can be cobblered home.

OS9GEN: We have done to death.There are two faster/better alternatives, from B&B and Gale Force, but this one's $25 cheaper. That's half a word processor.

PROCS: Fatal omission is the device the procedure is connected to. Frankly, if I'm looking at procs I'm thinking of killing somebody. It's hard to tell which of the 7 shells shown is the one to die without knowing the window it owns.

PWD/PXD: I dumped. Sometimes wish I hadn't, but not often.

RENAME: Breaks the command line mold of utility pathlist pathlist....followed by most. The second entry is just the name you now want. Any path info, it robs from the first file's path.

SETPR: Is your main control over the OS-9 virus that has infected @your CoCo. By selecting how much cpu time each process gets, you can influence your silicon.

(Editors note: NO, there is not an OS-9 virus!! Rick is just refering to OS-9 itself here, so do not get alarmed.)

TMODE and XMODE: Are closely related. Since OS-9 could really care less about the machine, it counts on device descriptors for specifics. These utilities allow negotiating them. Think of the "t" as meaning temporary - tmode works on open paths, and it's effect goes away once they are closed. Xmode changes the master copy (still in RAM, but more permanent than tmode)

Any software timed port like the bit-banger should make allowances for cpu/programme speed. By using tuneport you can, by inserting 0-255 delay counts in there.

WCREATE: Is an attempt to make the window system a little more friendly. The catch - all display codes can do this faster, but use hex input. So what? Memorise 80=50 and 24=18, then use display 1b 20....

That's basically the supplied Tandy utilities, less a few that didn't inspire comment. There are gaping

holes, like SAVE(a module to a disk file), and some third party utilities work better than the stockers - but these are owned by all. In the future I will attempt to reduce any procedure to this level.

There are a few more 'official' Microware commands and utilities available as part of the "Development System". Of course, the big ticket items in this package are the assembler (RMA) and debug, but there are a few other goodies in there. The Development System was rather expensive (last sold by Tandy for $99.95 and is hard to find today. Luckily, the assembler and debug from Level I work fine with Level II. A few of the Development System utilities are:

BINEX: (and its cousin EXBIN) convert binary data into text, or back. These text files (motorola S Record files) can be sent through text-only telecom links. Also handy if you don't own a CoCo specific EPROM programmer. Lots of other RS232 linked toys (logic analyzers and the like) understand them also.

DUMP: Is the safe way to list a binary file.

LOGIN: Provides the security needed when allowing a second user to log onto your CoCo, by accepting a user name and password, then setting the new users priority, startup directories, and suchlike. Obviously there is more that needs to be done to make your system truly secure, like a few months with attr pulling pubic execute/read permissions, but it's a start.

MAKE: Is used to keep track of the rats nest of files that a large modular programme becomes. If you are inclined to write large c, assembly, or pascal programmes, you'll love this.

SAVE: is hidden here. It's important enough Tandy had to hide a copy of it on the MultiVue disk for their install programme to work. Just another reason to get MV even if you don't plan on using it.

SLEEP: Gives you a legal way to do a timing loop or just let another process get some cpu time. Options range from give up this one timeslice to sleep until we wake you up.

TEE: Can be used to split a pipe, so one isn't limited to piping here to there, but can spread things around.

TOUCH: Simply changes the timestamp on a file. Not an essential, but handy.

TSMON: Sits on an idle serial port, waiting for someone to try logging into CoCo. After they leave, it resumes sitting and waiting. without tsmon, connecting terminals to your CoCo would be much more difficult.

VERIFY: Checks a modules header and crc. It can also update a header after a module has been modified.

VIRTUAL DISK DRIVER: This RAM disk doesn't need formatting, but it has been superseeded by more capable PD programmes.

And that's about it. Now, onto some trickery using these utilities. One thing that OS-9 allows you to do with the command line is collect a group of them into a procedure file. Sometimes called a shell script or batch file, these allow one to automate some fairly complex tasks. The usual way to invoke (run) one of these is to type the filename as a command - shell will look in memory and the cmds directory for a programme with this name. Failing to find one. it will assure you must mean a procedure file, and jump to the current data dir looking for one of those.

When invoking a procedure file, add the ampersand for concurrent execution. In addition, the commands inside may also have their own ampersand... think about it, your shell, the procedures shell, and a few dozen commands (with tier shells) all churning away at once!

Which brings up a point I missed last month - DO NOT DO A LOT OF DISK TASKS CONCURRENTLY. The CoCo stops. What happens here is the drive steps to some track, writes a sector, then steps halfway across the disk to write another sector in a different file, then jumps back to where the first file is. When all this is finished, the CoCo will start again. Of course, if you have a no-halt controller (such as a DistoSCII), this problem isn't as prevalent.

There are a few nifty options that can be added when invoking a file this way (Typing procedure filename option). Normally, any error causes the entire file to bomb, but a -x results in the bad line being skipped over. A -p will supress the normal shell screen display for files you really don't need to watch. And last, a -t will display each line in the procedure file before executing it - makes a handy de-bugging tool.

The most familiar procedure file is startup. Startup is run at boot with the default options x p - t (the opposite of above). Probably the easiest way to cover the possibilities is to work our way through a fairly complex one.

Here is mine:

```
control - e
getclk4 5&
dmode /d1 stp=3 merge
/h0/sys/stdfonts /h0/sys/stdpats-16
/h0/sys/stdptrs > /w
load sutils dboot xmode emacs
conect
mega2
iniz /w7
display 1b 32 03 >w7
shell i=/w7&
tuneport /p -s=99
```

The very first line is a little trick I use to set up my system. By calling MultiVue's control utility with that -e, all 16 palettes, as

well as mouse resolution, key repeat speed and delay are adjusted at startup time to match the env.sys file. Changing any value is as easy as firing up MVue and clicking about (another reason to get it!).

Next, setime has been replaced with a utility to read my smartwatch. Although the real time is still kept by the software clock in this system, it's reset every five minutes so we are never too far off.

Now, we get to the subject of laziness. Although the proper thing to do is cobbler changes like the dmode line into boot, it's so easy to just leave it to startup! In fact, there used to be a few 'modpatch diskfix.mpc' kind of lines in my startup... at least a few changes were eventually installed properly.

The required loading of the graphics system has been reduced to one line, simply because I like my startup to fit on one screen. Merge certainly doesn't mind, and it makes editing startup easier.

The next section is all RAM management. The first 2 files are actually several dozen utilities, taking up only 3 blocks. Xmode is a custom version of this utility, which sometimes has to be replaced with the stock form - so it's loaded as a single file in it's own block, the better to ditch later. Then comes the no patience bug. I hate to wait. So, a small text editor (emacs) and a LARGE chunk of Basic09 i-code are loaded. True, the boot process takes a little while. But afterwards, there isn't near as much disk reading going on - perhaps 1/2 the stuff I do is already in RAM.

What doesn't show in the file itself is the fact - The boost disk was filled in the same order. If these files were spread across the disk, things would be much slower.

Only after loading all this stuff is the 2Meg upgrade enabled (via mega 2). No real reason, but it cleans up the mfree display a little bit here.

Then, it's off to bang a text window. Since /w7 is shipped ;as a 80 col, text window it's an easy choice. The foreground colour is changed with display so it will be visibly different than /term. Then, we feed it an immortal shell (shell i=/w7&).

Lastly, I have to fix the bit-banger port for the 6309's extra speed. So we open and close with very machine specific commands in this file. Keep this in mind anytime you look at any procedure file, either in a book or a buddys system - they assume a lot in terms of both hardware and software, and so aren't very portable.

After booting and looking for and running startup (if present), OS-9 looks for one last file. This is an executable file named autoex, in dd/cmds. Jumping ahead of myself a bit, the autoex you get with MultiVue is simply a copy of the file 'multistart with a different name. You can rename or copy any executable file, for example procs, to autoex.

Next issue - onto MultiVue!

Rick Ulland can be reached in care of this magazine, via EMail (Delphi:rickuland; Internet:rickuland @delphi.com; or US Mail at 449 South 90th West Allis, WI 53214.Feel free to send questions or comments but include SASE if expecting a reply.

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

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The PCCC is a user group which could arguably be the longest running CoCo user group in Australia. The club has been going strong for 11 years that I know of and is still a plethora of information on the CoCo.

They are based on the Mornington peninsular in Melbourne and can be contacted by phoning:

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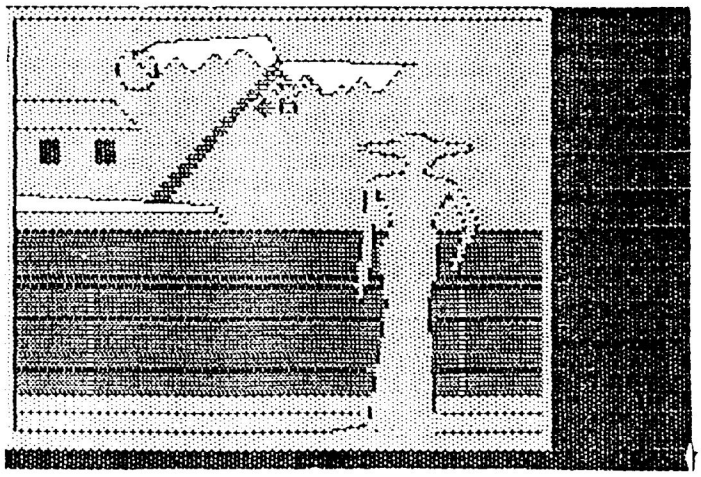
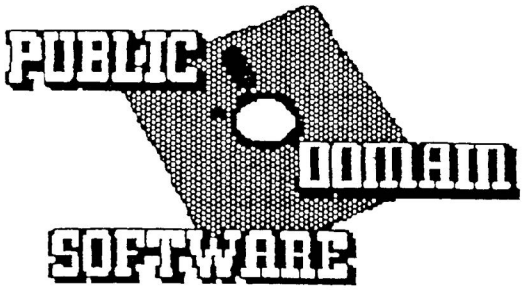
VOYAGER - by Graham Elphick

```
10 HSCREEN2:PALETTERGB
20 HCOLOR8:HCLS11
30 PALETTE0,2:PALETTE2,4:
PALETTE4,0:PALETTE6,3:
PALETTE11,62:PALETTE13,20:
PALETTE14,3:PALETTE15,49
50 HLINE(150,183)-(168,180),PSET
60 HLINE(168,180)-(177,127),PSET
70 HLINE(177,127)-(174,112),PSET
80 HLINE(174,112)-(174,104),PSET
90 HLINE(174,104)-(180,90),PSET
100 HLINE(180,90)-(173,79),PSET
110 HLINE(173,79)-(169,116),PSET
120 HLINE(169,116)-(165,126),PSET
130 HLINE(165,126)-(162,120),PSET
140 HLINE(162,120)-(164,113),PSET
150 HLINE(164,113)-(168,74),PSET
160 HLINE(168,74)-(174,72),PSET
170 HLINE(174,72)-(185,71),PSET
180 HLINE(200,183)-(197,131),PSET
190 HLINE(197,131)-(197,126),PSET
200 HLINE(197,126)-(201,113),PSET
210 HLINE(201,113)-(201,104),PSET
220 HLINE(201,104)-(199,91),PSET
230 HLINE(199,91)-(206,80),PSET
240 HLINE(206,80)-(214,93),PSET
250 HLINE(214,93)-(207,111),PSET
260 HLINE(207,111)-(212,116),PSET
270 HLINE(212,116)-(211,111),PSET
280 HLINE(211,111)-(220,92),PSET
290 HLINE(220,92)-(209,75),PSET
300 HLINE(209,75)-(195,71),PSET
310 HLINE(195,71)-(196,67),PSET
320 HLINE(196,67)-(198,68),PSET
330 HLINE(198,68)-(201,64),PSET
340 HLINE(201,64)-(218,61),PSET
350 HLINE(218,61)-(218,59),PSET
360 HLINE(185,71)-(187,67),PSET
370 HLINE(187,67)-(185,64),PSET
380 HLINE(185,64)-(164,61),PSET
390 HLINE(164,61)-(164,59),PSET
400 HLINE(164,59)-(183,57),PSET
410 HLINE(183,57)-(187,54),PSET
420 HLINE(187,54)-(195,54),PSET
430 HLINE(218,59)-(199,57),PSET
440 HLINE(199,57)-(194,54),PSET
450 HLINE(250,183)-(200,183),PSET
460 HLINE(150,183)-(5,183),PSET
470 HLINE(5,183)-(5,5),PSET
480 HLINE(5,5)-(250,5),PSET
490 HLINE(250,5)-(250,183),PSET
500 HLINE(0,0)-(255,0),PSET
510 HLINE(255,0)-(255,191),PSET
520 HLINE(255,191)-(0,191),PSET
530 HLINE(0,191)-(0,0),PSET
540 HLINE(250,116)-(200,116),PSET
550 HLINE(199,120)-(250,120),PSET
560 HLINE(250,167)-(199,167),PSET
570 HLINE(203,175)-(250,175),PSET
580 HLINE(175,116)-(169,116),PSET
590 HLINE(167,120)-(176,120),PSET
600 HLINE(162,120)-(5,120),PSET
610 HLINE(163,116)-(5,116),PSET
620 HLINE(170,167)-(5,167),PSET
630 HLINE(164,175)-(5,175),PSET
640 HLINE(250,134)-(200,134),PSET
650 HLINE(173,134)-(5,134),PSET
660 HLINE(168,156)-(5,156),PSET
670 HLINE(202,156)-(250,156),PSET
680 HLINE(212,122)-(212,167),PSET
690 HLINE(118,167)-(118,122),PSET
700 HLINE(40,167)-(40,122),PSET
710 HLINE(250,96)-(218,96),PSET
720 HLINE(213,96)-(200,96),PSET
730 HLINE(177,96)-(171,96),PSET
740 HLINE(166,96)-(5,96),PSET
750 HCIRCLE(62,27),10
760 HLINE(117,39)-(123,33),PSET
770 HLINE(123,33)-(132,42),PSET
780 HLINE(132,42)-(141,31),PSET
790 HLINE(141,31)-(147,37),PSET
791 HPAINT(2,32),2,8
792 HPAINT(15,32),5,8
793 HPAINT(62,32),3,8
794 HPAINT(175,87),5,8
795 HPAINT(205,87),5,8
796 HPAINT(223,103),6,8
797 HPAINT(206,103),6,8
798 HPAINT(206,118),7,8
799 HPAINT(172,105),6,8
800 HPAINT(172,118),7,8
801 HPAINT(156,118),7,8
802 HPAINT(156,109),6,8
803 HPAINT(156,125),6,8
804 HPAINT(156,171),1,8
805 HPAINT(222,171),1,8
806 HPAINT(222,162),6,8
807 HPAINT(222,148),6,8
808 HPAINT(206,148),6,8
809 HPAINT(44,160),6,8
810 HPAINT(44,150),6,8
811 HPAINT(32,150),6,8
812 HPAINT(32,160),6,8
813 HPAINT(270,5),8,8
814 HLINE(5,81)-(98,85),PSET
815 HLINE(98,85)-(105,96),PSET
816 HLINE(66,84)-(127,23),PSET
817 HLINE(127,23)-(130,23),PSET
818 HLINE(130,23)-(75,84),PSET
819 HDRAW"BM124,24F10E6 F9R3E4F3
E6F6R3E12"
820 HDRAW"BM60,
21F10E10F6R4EBF5E6R3F8"
821 HLINE(120,26)-(126,24),PSET
822 HLINE(130,23)-(191,24),PSET
823 HLINE(128,23)-(122,12),PSET
824 HLINE(122,12)-(72,15),PSET
825 HLINE(72,15)-(60,21),PSET
826 HCIRCLE(129,31),4
827 HCIRCLE(132,43),4
828 HCIRCLE(121,43),4
829 HLINE(100,88)-(5,88),PSET
830 HLINE(60,83)-(60,52),PSET
831 HLINE(63,52)-(5,52),PSET
832 HLINE(63,52)-(51,40),PSET
833 HLINE(51,40)-(5,40),PSET
834 HLINE(42,67)-(51,67),PSET
835 HLINE(17,67)-(26,67),PSET
836 HLINE(51,67)-(51,57),PSET
837 HLINE(51,57)-(42,57),PSET
838 HLINE(42,57)-(42,67),PSET
839 HLINE(26,67)-(26,57),PSET
840 HLINE(26,57)-(17,57),PSET
841 HLINE(17,57)-(17,67),PSET
842 HPAINT(136,27),0,8
843 HPAINT(120,18),0,8
844 HPAINT(130,30),7,8
845 HPAINT(120,42),7,8
846 HPAINT(132,42),7,8
847 HPAINT(110,42),7,8
848 HPAINT(73,86),0,8
849 HPAINT(73,90),1,8
850 HPAINT(54,62),1,8
851 HPAINT(49,62),8,8
852 HPAINT(21,62),8,8
853 HPAINT(21,47),3,8
854 GOTO 854
916 GOTO 916
```





PUBLIC DOMAIN LIBRARY
=====================

This issue sees the addition of 3 new disks to the library. These disks cover three entirely separate subjects. ie Business, Graphics and Games.

APPLICATIONS DISK 036 BUSINESS
========== ======== ========

On this disk are gathered a compendium of programmes for the business orientated. They cover a wide range of areas from receipts and invoices to help in writing a personal resume. There are programmes to help the small builder or do-it-yourselfer calculate the cost and materials needed for small building projects such as room extensions. Bricks, mortar and beams etc. can be calculated.
The programmes include everything from addressing envelopes to surveying a job. In fact everything except the manual work.
The programmes on this disk are:

ADRSBOOK	BRICKS	CASHFLOW
DEPRSCHD	DIR	ENVELOPE
FINANCE	INT RATE	INVOICE
LABOUR	METCONV	RECEIPT
REPTGENR	RESUME	STOCKS
TIMES	WF-DOC	WORDSCAR

GAMES DISK 019 GAMES PACK 5
===== ======== ==========

This disk contains 18 Basic games. You will surely find something to amuse you from:

ABOUT	BEARING	BLACKJK
CHESS	DRAG	HORSE
NAUSEA	NUKEATTK	PUZZLE
ROCKS	RUBIC	SAUCER
SPINNIT	SUBCHASE	TRADERS
YANCC	YTZCARD	

GRAPHICS DISK 049
======== ========

GFX CARTOON/CHARACTERS
======================

This is the second of our MAC graphic picture disks. Again there are two sides of pictures to view. These are:

BLOOM	GARFIELD	HITCH
IBMPIC	OPUS	WEIRD
WOLVERIN	WIFE	BILLCAT
BREETA	DONATELO	DOCTORS
GLOVAL	HE-MAN	MMOUSE
ROY	ROBOCLIP	

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S.A. 5167

(Please make out cheques/money orders to R.DALZELL)

BORDER VARIATIONS

Border Variations
by Keiran Kenny

Johanna Vagg's attractive border ikons have enhanced printed pages for many CoCo users, and I am glad to see that CoCo-Link is now making them more widely available on a PD disk.

After some correspondence with Johanna a couple of years ago, and much assistance, I modified one of her programmes to allow positioning of bordered boxes anywhere on the paper.

The prompts in the programme are clear enough and I hope that they will be easy to follow. The position of the left margin is set by the number of ikons across you choose to use. Lines 170 to 190 cater for the three possibilities: left and right margins less than 256; left margin less than 256, right margin more than 255 and left and right margins more than 255.

As it is, the programme is intended for use on a Tandy DMP series printer.

```
0 'VARIBRDR - ADAPTED FROM A
PROGRAM BY JOHANNA VAGG BY KEIRAN
KENNY
1 CLS:PK=PEEK(65314):IFPK/2<>
INT(PK/2)THENPRINT@230,"TURN
PRINTER
ON!!!":FORDL=1TO100:NEXT:GOTO1
10 POKE150,18 '2400 BAUD
20 CLEAR1000
30 DIM A$(12)
40 G$=CHR$(30)+CHR$(27)+CHR$
(19)+CHR$(18):GS$=CHR$(30)+CHR$
(27)+CHR$(20)
50 PRINT:PRINT" READING DATA..."
60 FOR X=1 TO 12
70 READ A:IF A=999 THEN 100 ELSE
A=A+128
80 A$(X)=A$(X)+CHR$(A)
90 GOTO 70
100 NEXT
110 CLS:PRINT"PLEASE
CHOOSE":PRINT:INPUT" 1) FLOWERS
                     2) TREES
                  3) PEOPLE
              4) NOTES
           5) COMPUTERS
      6) HEARTS";Q
120 IF Q>6 THEN 110
130 INPUT"PIX ACROSS 3-28";W
140 IFW<3ORW>28THEN
PRINT@256:PRINT@256,"";:GOTO130
150 PRINT"LEFT MARGIN
(MAX."479-W*16;CHR$(8);")";:INPUTLM
160 IFLM>479-W*16THEN
PRINT@288:PRINT@288,"";:GOTO150
170 IFLM<256ANDLM+W*16<256THEN
RM=LM+W*16-16:T1$=CHR$(27)+CHR$(1
6)+CHR$(0)+CHR$(LM):TA$=CHR$(27)+
CHR$(16)+CHR$(0)+CHR$(RM)
180 IFLM<256ANDLM+W*16>255THEN
LS=255-LM:WR=W*16-LS:RM=WR-16:T1
$=CHR$(27)+CHR$(16)+CHR$(0)+CHR$(
LM):TA$=CHR$(27)+CHR$(16)+CHR$(1)+
CHR$(RM)
190 IFLM>255THENLM=LM-255
:RM=LM+W*16-16:T1$=CHR$(27)+CHR$(
16)+CHR$(1)+CHR$(LM):TA$=CHR$(27)+
CHR$(16)+CHR$(1)+CHR$(RM)
200 Q=Q*2
210 INPUT"# OF REPEATS (MAX.
34)";PP
220 IFPP>34THENPRINT@320:
PRINT@320,"";:GOTO210
230 PRINT#-2
240 DATA,,,,96,16,20,16,110,113,113
,110,16,20,16,96,999
250 DATA ,,,,1,2,10,2,29,35,35,29
,2,10,2,1,999
260 DATA ,,,,,,,64,36,18,127,18,36
,64,,,999
270 DATA,,,,,64,72,36,18,121,127,
121,18,36,72,64,999
280 DATA ,,,98,119,98,,,,,,66,119
,66,,,999
290 DATA 4,6,7,7,63,7,7,6,4,48,56
,4,3,4,56,48,999
300 DATA ,64,126,6,7,99,127,,,124
,12,12,70,126,,,999
310 DATA ,1,1,,,,,,3,3,,,1,1,,,999
320 DATA 126,126,2,2,2,2,2,2,2,2,
126,,,,,,999330 DATA
3,7,14,26,50,42,42,42,42
,42,39,40,48,32,,,999
340 DATA 120,4,2,1,1,2,2,1,1,2,4,
120,,,,,999
350 DATA 1,2,4,8,16,32,32,16,8,4,2
,1,,,,,999
360 PRINT#-2,G$;
370 GOSUB 480
380 FOR P=1 TO PP
390 PRINT#-2
400 PRINT#-2,T1$+A$(Q-1);
:PRINT#-2, TA$+A$(Q-1)
410 PRINT#-2, T1$;
420 PRINT#-2, A$(Q);:PRINT#-2,
TA$+A$(Q)
430 NEXT
440 PRINT#-2
450 GOSUB 480
460 PRINT#-2,GS$;
470 GOTO 110480 PRINT#-2,T1$;
490 FOR P=1 TO W:PRINT#-2,A$(Q-1);
:NEXT
500 PRINT#-2:PRINT#-2,T1$;
510 FOR P=1 TO W:PRINT#-2,A$(Q);
:NEXT
520 PRINT#-2
530 RETURN
```

****

1 Delux RS232 pak - $20
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  Price: $25 the lot
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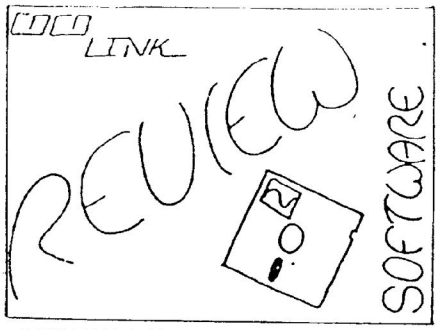


****

XENION

A Programme by Michael Duncan

****

Xenion is an entertaining Arcade game, produced in Australia by Michael Duncan. It has been around for about six years, I came across it five years ago.

It is a space war game written in Assembly Language and it is well sign-posted for beginners.

You pilot your space ship across four worlds of the TAMOS SYSTEM: - TELLAR, ESCOR, TAWARSK and FIBOS. You are attacked by missiles, force fields and everything else in the book.

It has auto-load and loads from (DOS) ENTER.

Points are scored by hitting various Aircraft, Radars (50 points), Tanks (400 points) etc. The Mother ships can only be destroyed by multiple hits.

BE WARNED:- DIR gives the impression of the disk being blank. There is no title or visible record of the programme, which is a trifle confusing to the beginners.

Never-the-less it has a lot of merit.

On a scale of * to ***** I would award ****.

It is a time consuming pastime like most Arcade games. Loading is a little slow at times and you need to adjust vertical hold after loading, a pity as this is easily corrected in programming.

Scenery is excellent.

A very novel effect occurs when you press RESET' Something happens'' - Just wait and see - To tell you would spoil the fun.

In summary a good Australian programme that deserves support.

Val STEPHEN

(Xenion is available from REMCOMS for $30 + $5 postage.)

****

RUPERT RYTHYM

A Programme by Nickolas Marentes

****

This is an arcade game for the CoCo 3. The first thing noticeable about it is the quaint spelling of rhythm (ie RYTHYM).

The literature accompanying Rupert Rythym is short and to the point and gives you more than enough information to make playing the game simple. The game is introduced by a very stylish digitised picture of the pop singer Sting. (Obviously done with Nickolas Marentes Digi-Scan digitiser). This is displayed on screen while the rest of the programme loads. The main problem with this introduction is that the digitised picture has to be adjusted for screen roll (possible only if you have a television with a manual vertical hold) and then readjusted when the introduction screen arrives on the scene.

The initial screen has a number of doors with letters on them. Behind each door is a musical note which has to be saved by completing a game screen. On pressing the fire button when outside one of these doors you are transported to a game screen. There are sixteen different game screens in the programme. The game screen is comprised of a number of platforms with elevators which move up and down between the platforms. The platforms change colour when Rupert passes over them. All platforms must be changed for the musical note to be saved.

This may seem very simple to all you game players but Nickolas has added a few little things that will alter this feeling. The game works on a timer which starts at 50000 and continually counts down by one. Each platform changed earns you a score of 200 but time wasted waiting for elevators and taking unneccessary trips makes the score decrease pretty rapidly.

Wait! There are also these little men who guard the platforms and who can zap you in the wink of an eye. You have ammunition to stop them getting you but they can make life difficult in getting to some of the platforms.

Hold it! There is also this ball thing which floats around indiscriminately and has to be avoided. You have a limited supply of ammunition to combat this fellow so it is advisable to be very wary of him.

When you have successfully captured all the notes you have to arrange them in the correct order so as to play the tune. This is where your total score is of importance. If you have not accumulated a high enough score it will decrease to zero before you have had time to sort the notes into the correct order.

There are several different pieces of music encoded into the programme so that each time you start the game you will not necessarily be aiming at the same target. Nickolas claims that this is the best percussion music you will hear on the Colour Computer. The literature also states that it is to be performed "on stage". I do not know what that means as I have not managed to get that far yet.
game screens in the programme.

The graphics in this programme are of the top order and won't be bettered anywhere. They are a delight to behold.

For gamers, Rupert Rythym presents a stimulating challenge. I have not yet managed to complete a game but have come fairly close. I have visions of managing to assemble a whole tune and hear or see it played.

There are several ways to make attaining a high score easier but I think this is one of the things that most game players prefer to find out for themselves.

I definitely recommend this game as one of the best arcade games available for the Coco 3 that I have seen.

Robbie DALZELL

****

SPACE INTRUDERS

A Programme by Nickolas Marentes

****

For Space Intruders read Space Invaders. This is a version of the original arcade game which started it all. The game has been programmed to run on the Coco 3 and is available on cassette or disk.

One doesn't have to explain the rules for this game as I am sure just about everyone knows the scenario. Space Intruders uses the well trodden path with just a few minor changes to make it a bit different. Nickolas even gives you a couple of hints on how to better your score.

The graphics are well done and one can clearly make out the shapes of the different colourful intruders. Sound effects are adequate for a game of this sort. I was glad that each time a game was over (and that's unusual for me), I didn't have to listen to 12 bars of'Star Spangled Banner' or something like that. Space Intruders allows you to pit your score against other players or the two top scores shown on the board. This is a feature much beloved by those able to get scores high enough to compete.

I felt that the movement of my artillery was rather sluggish. The whole action of the game seemed a bit slow to me but,personally, I wouldn't count that as much of a demerit. When using a joystick I am sure that a self centering type would be a definite advantage. My son, who is better at these games than I am, showed how much simpler it was to use the arrow keys. Using them did not improve my score much. Still, it is a good feature the ability to use either Joystick or keyboard and must increase the audience for this game.

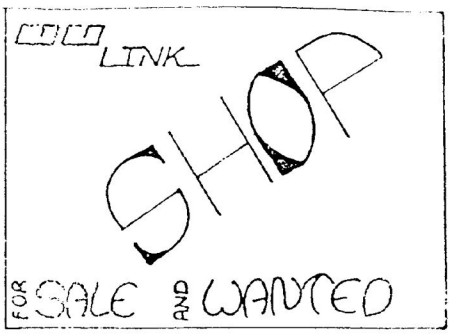
On the whole I found Space Intruders to be as good and colourful a version as I have seen on any computer. It's an old game and a favourite of many. It may not be fast enought for the hotshot gameplayers but I am sure it would be a lovely present for some of the mums and dads who would like their relaxation not to be too frenzied.

I enjoyed playing it again. You don't have to think too much, you just keep zapping away at those aliens till either you get them or they get you.

Give yourself a treat. Step back in time and have a game of Space Invaders.

Robbie DALZELL

(Both Rupert Rythyn and Space Intruders are available from REMCOMS for $20 + $5 postage.)



[][][][][][][][][][][][][][][]

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PROGRAMMING THE WORD - By Val Stephen

Here is another epistle for COCO-LINK called:

PROGRAMMING THE PRINTED WORD.

It was brought about by my recent series of poetry on disk.

I thought that some of the techniques were worth sharing with our readers.

****

PROGRAMMING THE PRINTED WORD

by

Val STEPHEN

To make the printed word attractive on screen with the COCO, is really very easy.

We are all very sick of black on green or green on black. If we use a colour CLS we still get all the printing in green or green on black.

In a recent article on Peeks & Pokes I suggested the use of POKE&HFFBC,X for colouring the printing and POKE&HFFBD,X for the background and this is completely without the green backing.

The X in these cases is any colour from 0 to 64 plus 64 in each case. eg. White is 127 (63 plus 64) Black is 64 (0 plus 64). When we clear the screen we only use CLS without a number for the background. We get that from the POKES.

For titling we can usually use a graphic surround of choice. Random colours are ideal and are easy. To make titles very dramatic we can use PRINT "TITLE" then a pause, FOR X=0to2000:NEXT X

Next thing is to leave the surround and PRINT at the same place " " using the space bar and lo and behold the printing vanishes, give another pause and then PRINT "PROGRAMMED BY CLAUD ANON" or "GEORGE TRAD PRESENTS".

This gives the nice effect of the surround staying in place and the title appearing for the right length of time and then fading and its place taken by the "PRESENTED BY" caption.

Some colour combinations are very dramatic and contrasting, others are very vague and are hard to read so try out the different combinations for yourself.

To make a flashing THE END is easy too. The following works well.

```
10 PRINT@267, "THE END"
20 CLS
30 GOTO 10
```

If you want to slow the rate of flashing insert:

```
FOR X=0to500:NEXTX
```

(Before the GOTO)

If we are using the 40 size screen size eg in HSCREEN2 we can print longer lines than the 32 screen. Using HPRINT.

Another novelty is to colour the area above and below the screen. (HI RES TEXT SCREEN) we can use the following POKE:

```
POKE&HFF9A,X
```

X represents the colour of the extra border and is a number from 0 to 63.

We need to experiment or else look up the colours in the book. Some useful surrounds were reproduced in the first issue of COCO-LINK Vol 1 No 1.

These are very useful as surrounds for titles of all types. Good titling makes for attractive programmes and adds panache to a programme.

****

As Val mentions in his lead up to this article, this programme was brought about by his recent works on "POETRY ON DISK".

This is a collection of poetry and prose on disk and is a new and interesting concept in the presentation of home-spun philosophy in a very acceptable form. Consisting mostly of rhyming poetry and blank verse by the author.

The works on this disk are written and created by Val Stephen with the exception of the LIMERICKS which are traditional and anonymous. This entire concept is new and unpublished in written form. This is their premier presentation to the public in a form of computer disk especially for COCO users.

There are twelve works plus some old favourites from the world of Limerick humour.

The author is a retired medico and an ex RAAF bod in his mid seventies and these works represent many of his own personal feelings about life in general and about war in particular.

This is a unique opportunity as they are a limited edition.

If you are interested in purchasing any of Val's works you can write to him at the following address. The cost is $10 which includes postage (cheque or money order only).

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

Some of the many features of **Max-10**:
- Blinding speed - printing in multiple columns - online dictionary - spell checking - graphics can be mixed with text - full justification of proportionally sized characters - bold, italic, underline superscript and subscript type styles - superb file support, just point and click - "Undo" lets you correct mistakes - easy to use, no commands to remember - any graphics program can be used - pictures can be shrunk or stretched to fit - right and left alignment - centering - variable line spacing - page numbering - current page number displayed on the screen - variable tab stops - left and right margins - tabs and margins can vary in the same document - cut and paste text and graphics anywhere in the file - page break shows on the screen - pull down menus are quick and simple to use - lightning fast access to any point in the document with the scroll box - twenty fonts (styles and sizes), more available - any number of character sizes and styles can be mixed on the same line - up to more than 120 characters per line, depending on font size, style and letters - headers and footers, even with graphics - file compatibility with other word processors - right, left, bottom and top margins - word wrap - set starting page - type ahead - key repeat - key click - scroll up and down - ASCII file output for compatibility - disk directory - kill files- block cut, copy and move - global search and replace - paragraph indent - clipboard - merge - show file (on disk) - free memory display - page count - paragraph count - word count - graphics can be resized and moved - multiple fonts - error recovery - true lowercase - 512K memory support (all features work with 128K too) - complete point and click cursor control - moving, clearing and changing blocks of text is ridiculously easy, just point and click at each end of the text block - onscreen ruler - preview file before loading - search and replace - disk is not copy protected - more than 35 pages of text

CoCo Max III and Max-10 Perfect Together

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

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

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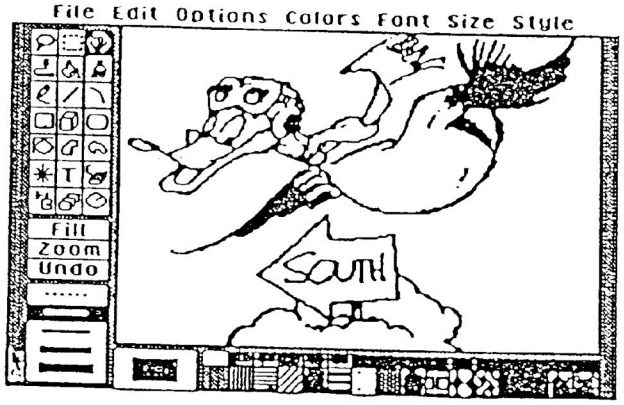

oCo Max III is absolutely the best drawing package ailable for the CoCo 3, and it does more than just let ou draw. CoCo Max III includes animation, text, color ixing and more features than you would think ossible. It combines incredible speed with dazzling aphics and it is a joy to use even its most powerful atures.

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housands of CoCo users have found that you don't ive to be an artist to have fun with CoCo Max. You'll onder why you waited so long to get the incredible oCo Max III.

CoCo Max III is the best because it includes:
- a huge picture area (*two* full hi-res 320x192 screens) - a large editing window - Zoom mode for detail work - 28 drawing tools which you just point and click on - shrink and stretch - rotation at any angle (1.5 degree steps) - 512K memory support (*all* features work with 128K too) - an Undo feature to correct mistakes - you can even Undo an "Undo" - Animation - special effects - color sequencing (8 colors, variable speed) - thirteen fonts (more available) - each font has eight different sizes - five style options (bold, italic, 3D, etc.) for thousands of font/size/style combination possibilities. - the CoCo Show "slide show" program - color editing of patterns - automatic pattern alignment - prints in single and double size - smart lasso (move text over a background...) - advanced tools: arc, ray, cube, etc. - select 16 of the 64 colors (all 64 colors are displayed at once for selection!) - picture converter (CoCo Max II, MGE, BASIC) - extensive prompting - "glyphic" clipbook of rubber stamps - double click shortcuts - color mixing (additive/subtractive/none) - money back guarantee - sophisticated data compression saves disk space - pull down menus (no commands to remember) - forty paintbrush shapes - two color lettering - spray can - scrapbooks of pictures - error free - Y-cable or multipack not required - high speed hi-res interface included (plugs into joystick port) - disk is not copy protected - amazing "flowbrush" - RGB and composite monitor support - replace color - printing on black and white printers in five shades of gray - full color printing with optional drivers for the NX-1000 Rainbow and CGP220 - entirely rewritten for the CoCo 3

There are no limits to what you can do with this fabulous program. Speed, ease, animation, power and color, all in one package. CoCo Max III is the ultimate program for the CoCo 3. -Rainbow review 4/88

CoCo Max III: $55

System Requirements:
CoCo 3 disk system and a Joystick or Mouse

Printer drivers included:
IBM/Epson and compatibles, GEMINI, DMP105/106/130, OKI182/192, CGP220 (B&W), DMP110, DMP200

Color printer drivers (prints 125 different colors) Star NX-1000, CGP-220, or Okimate 20 $20

For all CoCo Max Versions

Max Edit Font Editor: A font is a set of characters of a particular style. With Max Edit you can create new fonts or modify the existing ones.

Max Font disks (send for list) each $15

Max Font Set (95 fonts on 4 disks) $45

+ Postage $5

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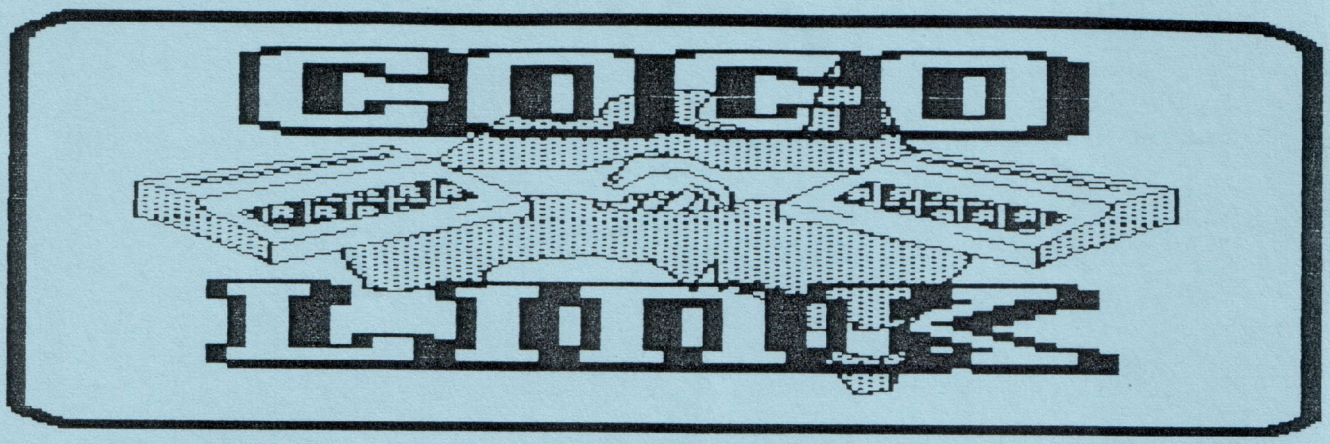

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Blazejewski Stan		Mordiallic/VIC	03 580 4605
Boardman William	10 Eltham Ave	Pt Lincoln/SA 5606	086 82 2385
Bye Graham	9 Airlie Bank Rd	Morwell/VIC 3840	051 34 5954
Cameron William	2/22 Warren St	St Lucia/QLD 4067	07 371 4736
Colls Jason	16 Clavus St	Geelong/VIC 3214	052 75 5450
Cooper Len&Shirley	223 Elswick St	Leichardt/NSW 2040	
Cosier W.F	32 Argyll St	Coffs Harbour/NSW 2450	066 524 056
Cunnigham Eric	7 Nuthatch St	Inala/QLD 4077	07 372 2980
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Holder Garry	229 Esplanade	Seaford/SA 5161	08 386 1139
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If you would like your name included in the above list in order to help other cocoists and to maintain contact between us, then send the above information to me for inclusion.

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