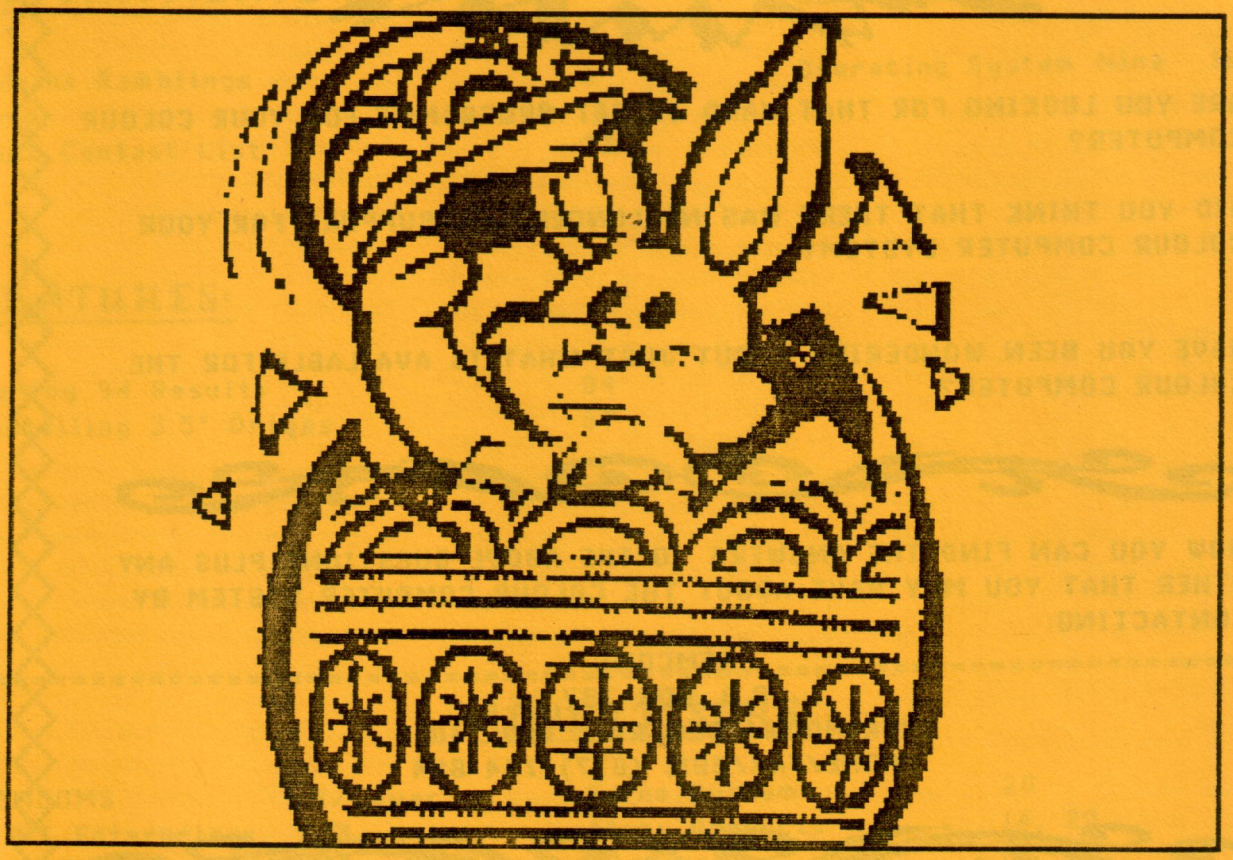
Vol 3 Issue 2 Mar/Apr 95

COCO - LINK

THE COLOUR COMPUTER MAGAZINE



THIS ISSUE

Operating System 9
Installation 3.5" drives
~~Back to Basics~~
For Sales & Wanted
+ Heaps More

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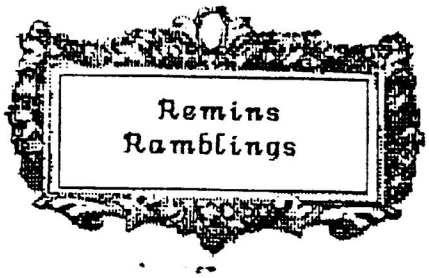

In this months ramblings I am afraid that I do not have anything really happy to report, in fact the exact opposite.

In '68 micros a few issues ago I read in Franks column about a person who wrote him a letter saying that he was not going to resubscribe because the magazine did not contain what he really wanted, the fact that this was never pointed out to Frank so that he could do something about it did not even seem to enter the equasion. This persons "bitch" was that there was insufficient BASIC information, ie something like my back to basics column, and too many reviews etc on OS9. Now that Frank has received some feed back he has fixed the problem in a small way by using my column in his magazine, (hey Frank I am flattered but I do think there are others more qualified to do your novice's justice).

Keeping the above in mind let me explain something to you about not only CoCo-Link but any publication that depends on subscriber input to remain alive. WITHOUT FEEDBACK OR INPUT THE PUBLICATION WILL FOLD!!!

Where is all this leading? Well I am here to tell you that both Ros and I are reaching our limit of frustration trying to keep cocoists from all levels of expertise in Australia informed and in touch through CoCo-Link.

In 1993 when we took on the onerous task of producing CoCo-Link there was very little in the way of submissions but towards the end of 93 this had turned around and we were receiving ample to start 1994 with confidence. 1994 in fact saw our number of subscribers almost double. However although our numbers had increased, the number of submissions began to dramatically decrease.

Towards the end of 93 and early 94 we received SOME feedback. You asked for reviews, we gave you reviews. You asked for OS9, we gave you OS9. You asked for more basics, we gave you back to basics. You asked for more content per magazine, we gave you three columns thereby greatly increasing the amount each magazine contained. As you can see, each time we received feedback, we bent over backwards to give you what you wanted.

Now let me tell you the truth about the other side of the coin. We asked for ideas, we got silence. We asked for short programmes, we got silence. We started the back to basics column and asked for someone more qualified to write the column, we got silence. We asked for ideas and comments to find out what was required in the basics column, we got silence. In fact with a very few exceptions, and we most sincerely thank those who are the exceptions, every time we have asked for any kind of help or feedback we have been greeted with a deafening SILENCE.

As I am writing this column I can hear some of you saying, "but look at the bloody mistakes you made and the number of times the magazine was late". Yes, we made mistakes and we publicly appologised for these and have endeavoured to ensure that we do not make them again, yes the magazine has been late a number of times, again we have appologised for this in the next issue with an explanation as to why it was late.

Right from the beginning we publicly stated that both Ros and I were neither media barons nor computer experts but that we were complete novices merely trying to keep our community together and informed with YOUR help. I just wonder sometimes how many of you believe that Ros and I do nothing else but produce CoCo-Link, well we don't. Ros goes to work full time at about 7am and gets home around 6pm every day, maintains a household and looks after a teenage son as well. I usually say goodnight to my family on Sunday and see them again MAYBE on the following Friday if I'm lucky.

When we do get a weekend together, do we go to the football or out to dinner or any of those other little family things that most people do? No, we both get to work trying to put together a magazine. A magazine which usually requires at least 80% to come off the top of the head from Ros and I, the other 20% comes from our exceptional subscribers and '68 micros.

What really prompted me to write this in the straight forward and truthful manner as I have is as follows.

I had been in the scrub for about three weeks and when I arrived back home we received a letter from three of our subscribers which left me wondering just what, apart from our blood, was really expected from us and CoCo-Link.

One stated that CoCo-Link did not have enough OS9 so he was not going to resubscribe, one said that CoCo-Link did not have enough short programmes so he was not going to subscribe and the third said that the magazine did not have enough graphics programme so he was not going to resubscribe.

Both Ros and I could not believe that three areas of the magazine for which we have been asking help for the past two and a half years, and have received again that deafening silence, which we have addressed to the best of our ability with little to no help, were the reason that three subscribers have been lost.

I must admit however that I appreciate the letter received from these three people, there are a significant number of others who have not even had the decency to lets us know they would no longer be subscribing or why. They have simply received the first issue of 95 (because we took into account the christmas mail overload) and maintained a stony silence.

OK, here is the bottom line for CoCo-Link.

This issue, 2/95 is my last plea for some assistance from the coco community in Australia. If I do not begin receiving feedback and material from you between now and the time the next magazine is due, then no magazine will be produced in 1996. I will simply use what I have at the moment and that which I receive from our exceptional subscribers and '68 micros to complete 1995 and then the magazine will fold.

Let me just close this rambling on a more positive note. I would like to thank publicly those few of you that have sent submissions to the magazine, the letters, programmes, reviews, articles, hints and tips and all the other material that has kept us going for two and a half years. You the minority have kept the majority informed all this time and you all deserve a round of applause for doing so, Ros and I thank you most sincerely.

To all of you, the future is yours, only you can determine what it will bring!!

SUBMIT AND SURVIVE, OR BE COMPLACENT AND LOSE!!!!!!

Fred Vine

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

****

J.W.T. ENTERPRISES

****

OPTIMIZE UTILITY SET 1:

-> Includes utility to check file and directory fragmentation;

-> Works alone or with Burke & Burke repack utility; and

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

Price: $45 + p & p

OPTIMIZE UTILITY SET 2:

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

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

-> Especially useful before optimizing your disks.

Price: $35 + p & p

OPTIMIZE UTILITY SET PAC:

Price: $60 + p & p

The above products are available from REMCOMS.

****

****

The following two items are from Ron Lidgard.

1 x XSPELL (OS9 spell checker). $40
1 x Small Business Accounting . $40
1 x Payroll (with manual) $40
1 x Alphabet Zoo (ROM) $7.50
1 x Face Maker (ROM) $7.50
1 x Kindercomp (ROM) $7.50
1 x Kids on Keys (ROM) $7.50
1 x Kidwriter (Disk) $7.50
1 x Personafile $15
1 x Cash Management $15
1 x Colour Disk Spectaculator . $15
1 x Canon Serial Interface and cables and documentation. Enables Canon Typestar typewriter to act as serial printer for Coco. Produces clear letter quality documents. $50

1 x twin double sided disk drive with controller $100

You can ring Ron on (07) 286 2776

****

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

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

****

More "FOR SALES / WANTED" throughout this issue.

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxx SURVEY 94 RESULTS xxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

As I promised last issue, here are the results or most of them any way from the survey we conducted at the end of 94. I must say I was a little disappointed because we only had returned about 58% of the forms that we sent out. In any case here are the results as we have them now;

AGE:

11 - 20 6%
21 - 27 13%
28 - 35 14%
36 - 42 13%
43 - 50 19%
51 - 70 28%
over 71 6%.

From the above results it seems that most of our cocoists in Australia are between 43 and 70 years of age with only around 40% under the age of 42. Maybe this is why there is no great demand for arcade type of games??

COCO SYSTEMS;

Out of all those who returned their survey forms the following is a break down of the systems owned;

COCO1- 15%, COCO2- 40%, COCO3- 94%

The memory configuration was as follows;

1 Meg - 6%, 512K - 70%, 128K - 44%, 64K - 38%, 16/32K - 5%.

These results tell me that the vast majority of cocoists have a 512K COCO3 and the next bracket is the 128K COCO3, it also tells me that a healthy number of you still have in your possession at least 1 other CoCo either 64K or 16/32K.

47% of those who answered the survey were found to have another type of computer, mostly IBM clones or Atari/amiga's.

HARDWARE:

Printers;

An impressive 90% of those surveyed have printers, mostly dot matrix of some form or another with only about 3% owning inkjets, bubblejets or laser printers.

The above result has made me wonder just how many cocoists are aware that they CAN use laser printers with their CoCo?

Cassettes;

Again an impressive 78% of those surveyed still had, although rarely used, a cassette deck of some description. I again wonder how many cocoists realise that a cassette is an excellent medium for backups of all those important disk programmes?

Disk Drives;

A majority of 94% used a disk drive and this was further broken down to, 71% more than 2 drives usually 40Trk or better, 29% used one drive again broken down to, 60% with 40Trk or more and 40% with the stock standard 35Trk.

Hard Drives;

Only 15% of those surveyed owned a hard drive, with 70% of these having up to 20Meg, 20% up to 40Meg and a further 10% over 40Meg.

This is an amazing result in my eyes as I believe you only START to realise the full potential of the CoCo when you use OS9 with a hard drive. Maybe we need to get some more information out to you all about connecting hard drives to your CoCo's?

Modem's;

Only 44% of those surveyed owned a modem with about 70% of these being 2400 baud or better. This means that over 60% of you are missing out on a plethora of information for the price of a phone call, again maybe more information needs to be forthcoming?

Computer Magazines;

I was surprised to learn that only 19% of those surveyed subscribed to any other computer magazine, amazing considering the amount of other publications available today.

2 COLUMN VERSUS 3 COLUMN:

The end result of this one was rather pleasing in that 84% prefered the 3 column format over the 2 column. In conjunction with this 60% said that they would be prepared to pay up to $27 for the larger 2 column format.

This result I am pleased to say means that the price of CoCo-Link will remain at $18 per year and will continue to have more information by using the three column format (with 2 columns for programme listings).

Question 12 on the survey asked,"What would you like to change about the magazine?". Below are some of the more frequent comments as opposed to those wanting names and addresses of playboy centre fold girls and winning numbers for the lotto.

More programmes;

I agree, I would love to be able to print more programmes in the magazine, but, someone has to submit them for me to do so. I can NOT plagiarise other peoples work to satisfy this request.

Basic09 Tutorials;

A bloody good idea, however who is going to write them, I am not good enough besides which I simply do not have the time either.

Sharper Print;

Yes I agree, I am currently putting my sheckles aside in order to buy a laser printer to comply with this one, but, unless someone would like to donate about $1000 or a laser printer, you just may have to wait a little while.

Articles on ML;

Again I ask, who is going to write them, look at my stuff up in this area when we printed an article submitted by Val Stevens. Val did extremely well with his submission but we stuffed it up because we did not and to a certain degree still do not understand about ML.

More;

On almost every survey form returned there was that word more;

more hardware articles,
more personality articles, (?)
more games,
more utilities,
more applications,
more graphics,
more OS9,
more RSDOS,
more Basic09,
more ML,
more vendors adds,

at the same time there were also the LESS;

less OS9,
less Graphics
less articles,
less vendors adds,
less OS9,
etc,
etc,
etc.

Question 12 in fact was a real eye opener, it told us that there is a most definite need for a magazine like CoCo-Link to keep the coco community informed and up to date, in fact there are cocoists out there craving for information. It also showed us that for this information to be forthcoming, we have to do it ourselves and while doing so we are not going to be able to please all of you all of the time and in fact we are going to displease some of you some of the time, (see Remins Ramblings!.

What has survey 94 done for CoCo-Link?

Well in a nutshell the survey has put us in a bit of a quandary, as stated above, there is a most definite need for a magazine like CoCo-Link to keep cocoists up to date and informed, but, at the same time, who is going to do all these wonderful things like writing articles and programmes and tutorials.

Survey 94 by your responses has shown us that we are needed, REALITY shows us that we can do no more without help from you.

[]

CONSIGNMENT NO: 4

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

1 x CoCo3 (512K) $150
1 x Homemade floppy controller -
... 40 track double sided $50
2 x Economy joysticks .....each $5
4 x Deluxe joysticks .....each $10
~~1 x OS9 Level 2 ..... $50~~
1 x Pascal Compiler $40
1 x TRS Copy $5
1 x Deskmate 3 ..... $25
1 x Multi-Vue $25
1 x CoCo Artist $5
1 x Phantomgraph $10
1 x Home Publisher $10
1 x Dynacalc $10
1 x Filter Kit $10
1 x Stylograph $10
1 x OS9 Level 2 (Public Domain) . $5
1 x Wild & MV Utilities $10
1 x Disk Doctor V2.0 ..... $10
1 x Hard Drive Utilities $10
1 x King's Quest III $10
1 x Zone Runner $10
1 x Sub Battle $10
1 x Microscopic Mission $10
1 x Rogue $10
1 each of Thexder, Doubleback, Tetris,
Soko Ban, Malcolm Mortar, Shanghai,
Colour Scripsit 2, Sprinster and
Bridge Tutor (ROM PAKS)... each $5
1 each of Eight Ball, King Cuthbert,
Investigations into Integral, Quix,
Color Compac, Calculus and
Typing Tutor (TAPES) .....each $5
1 x Logo (DISK) $10
1 x Complete Rainbow Guide to OS9
. Vol 1 by D. Puckett & P.Dibble $10
1 x Inside OS9 Lv II by K.Darling $10
1 x Motorola Mc6809 Microprocessor
... Programming Manual $10
1 x CoCo Disk System - Owners Manual
... & Programming Guide $5
1 x Going Ahead with Extended Color
... Basic $10
1 x Mc6809 Cookbook $5
1 x Color Computer Graphics $5
1 x TRS80 Color Computer Assembly
... Language Programming $5

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Now for Consignment NO: 2.

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

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

****

1 x CM8 RGB monitor..... $180 ono
(Inc manual & original box)

P.Morgan
4/30 Willmington St
WOOLOOWIN QLD 40301

****

MICROCOM TECHNOLOGIES, Inc

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

BOOKS:	UNIT COST:
500 POKES, PEEKS & EXECS	25.00
SUPPLEMENT TO 500 POKES	15.00
300 POKES, PEEKS & EXECS FOR COCO3	25.00
UTILITY ROUTINES VOL 1	20.00

SOFTWARE:	UNIT COST:
WORD POWER 3.3	55.00
CALANDER MAKER)	
SCREEN DUMP)	
SUPER TAPE/DISK TRANSFER)	25.00 EACH
VCR TAPE ORGANIZER)	
HOME BILL MANAGER)	
COMPUTERIZED CHECQUEBOOK)	
BASIC WINDOWS PROGRAMME	20.00
DISK UTILITY 2.1	20.00
FILE TRANSFER UTILITY MULTIVUE VERSION	25.00
MULTI EDIT	12.00
TW-80	12.00
VIP WRITER III	50.00
AUTOTERM	35.00
COCO #OS-9 RAMDISK	20.00
MULTIPROGRAMMING OS-9 OPERATING SYSTEM	35.00
MEWMORY MASTER	20.00
WILD & MV (DIRECTORY ASSISTANT FOR OS-9)	20.00
COLOUR DEMON SEED	20.00
XT-ROM	25.00

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

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

INSTALLING A 3.5" 720K DRIVE IN YOUR COCO

Added to by Desmond Rae. I wish I could credit somebody for the original file, but there was no name that came with it, I added a few bits to make it clear about the drive on what to do.

READ THIS ENTIRE FILE AND *UNDERSTAND* IT **BEFORE** UNDERTAKING THIS PROJECT.

Failure to do so could result in a blown CoCo. You have been warned!

At last the 3.5" microfloppies are becoming common enough that we can get them for our favorite computer, the CoCo. This article descibes how to install a 3.5" drive in your Mini Disk, FD500, FD501, or FD502 floppy disk drive system. This procedure is specifically written for Tandy equipmentbut can be adapted to equipment obtained from other sources.

First you must purchase a 3.5" microfloppy and a 5.25" to 3.5" adapter to mount it in a CoCo drive housing. Both parts are available at the Radio Shack Computer Center. The drive is Part No. 25-1065 . The adapter, Part No. 25-1066. I've seen other sources for this combination at better prices advertised in various magazines.

****
Before Installing the 3.5 Inch drive you *MUST* Cut the traces that put power from the power connector of the drive to the data cable connector. ALL 3.5 INCH DRIVES DO THIS!! Failure to cut these traces could result in a molten pool of plastic where your Coco used to be.The Traces to cut are very easy to find. Flip the 3.5 Inch drive over and look at the Power In Connector. You will see three traces that go and connect to the data connector. You *MUST* cut the traces that supply FIVE VOLTS and TWELVE VOLTS to the data connector. The Traces usually have written on them somewhere +5 and +12.
****

The next step is to install the drive into the adapter. The adapter is designed to mount in a standard 5.25" drive housing. It has a PC board with a connector to plug into the drive and two standard 34 pin edge connectors to allow daisy chaining to another drive housing. This PC board is illustrated by the schematics in Figures 1 and 2. Carefully plug the drive into the connector on the PC board and use the 4 screws provided in the kit (the ones with the lock washers) to secure the drive in the adapter. Pop out the shipping plate from the drive and then carefully remove the front bezel. Replace this bezel with the 5.25" bezel provided in the adapter kit. Replace the shipping plate in the drive.

The next part assumes that your drive consists of a single 35 track SSDD drive (or a 40 track DSDD for the FD-502). Since the Tandy adaptor does not have mounting holes to be mounted as the bottom drive, we will install it as the top drive using the side mounting holes provided.

Remove the cover from your drive housing and remove the dress blank panel from the front of the unit. Now it gets tricky. Depending on the drive style installed in your housing, the power supply may be either on the left or right side of the unit. In the case of the FD-500, the transformer is on the left and the power supply is on the right. Since the power connector on the adaptor was on the left, I

had to lengthen one of the power lines to make it reach. You must test fit the new drive and see if the power connector reaches and the 34 pin edge connector is in the correct orientation for the drive cable. Once you are satified that all the connections will make properly then set the new drive aside.

****When Connecting the extra drive be sure the connector is aligned to Pin 1 of the other drives. The Red Wire on the Data Cable is Pin 1. If this is connected back to front, when you apply power to the drives,the lights will turn on one or all of the drive lights.****

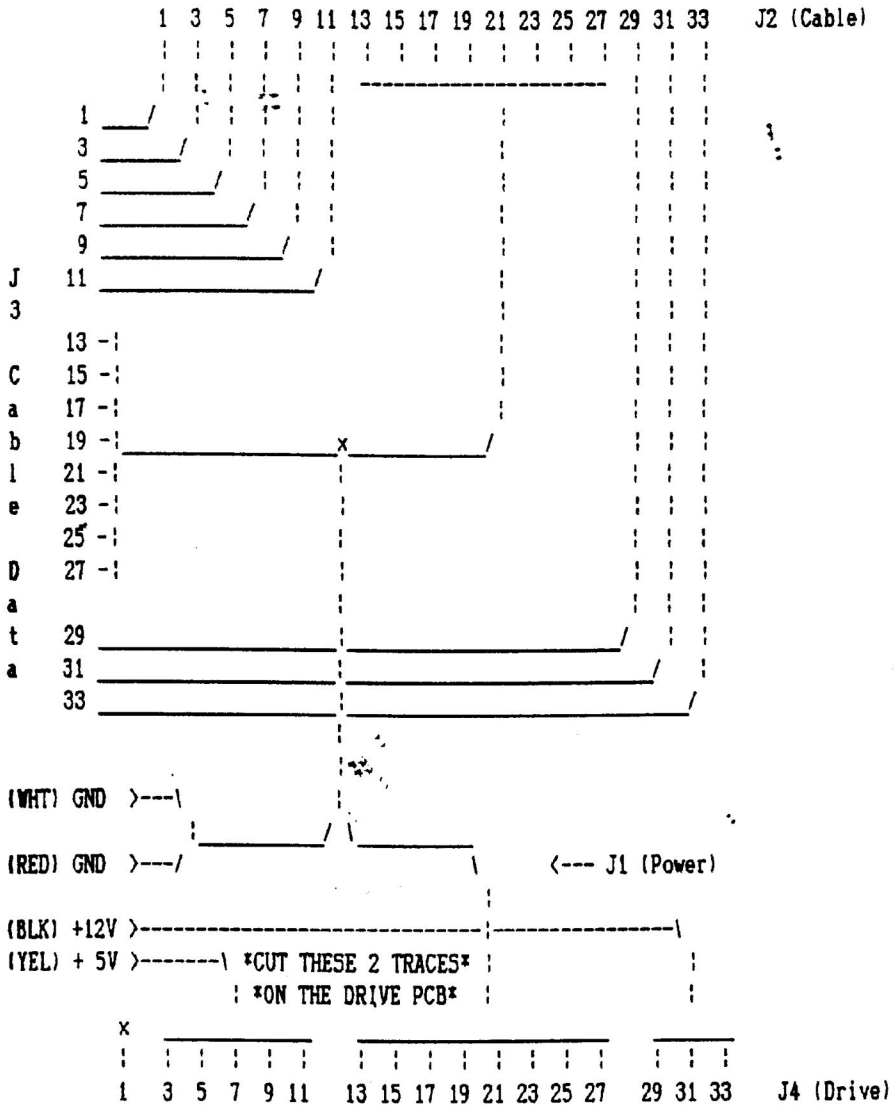
Now we will talk about a little understood topic, the terminating resistor pack. You should have noticed that the original drive was in the last connector available at the end of the cable. (At least it should have been.) Near the connector on the drive should be a socketed part that looks like an IC. This is a resistor array that is used to provide pull-up resistors for the open collector drivers used in the controller. Only one is required for all the drives attached to the cable and it must be on the drive at the physical end of the cable. Since my system has another drive daisy chained off the first drive housing, I had to remove this resistor pack from D1.If you had only the one drive, leave the pack in. Just remember if you add another (D2) drive, you will have to remove it. The 3.5" drive did not appear to have a comparable resistor pack.

Look for the jumper plugs near the connector of your original drive. You should find a shorting plug on the pins labeled Ø or DSØ. Move this plug to the pins labeled 1 or DS1. This drive will become /D1.

The drive (25-1065) that I got from Tandy was a SONY Model MP-F63W-72D.The select is a 4 position switch located on the right side near the backof the drive. The rear most position of the switch is DSØ. Select your drive to be drive Ø according to its installation instructions.

Install the drive using the screws provided in the adapter kit. Hook up the cables and power and verify that they are correct. If you are really confident you may put the cover back on the drive at this point. Reassemble your system and attach the drive to the computer.

Figure 1. 5 1/4" to 3 1/2" drive cable adapter board.
Power connections and odd connector pins.

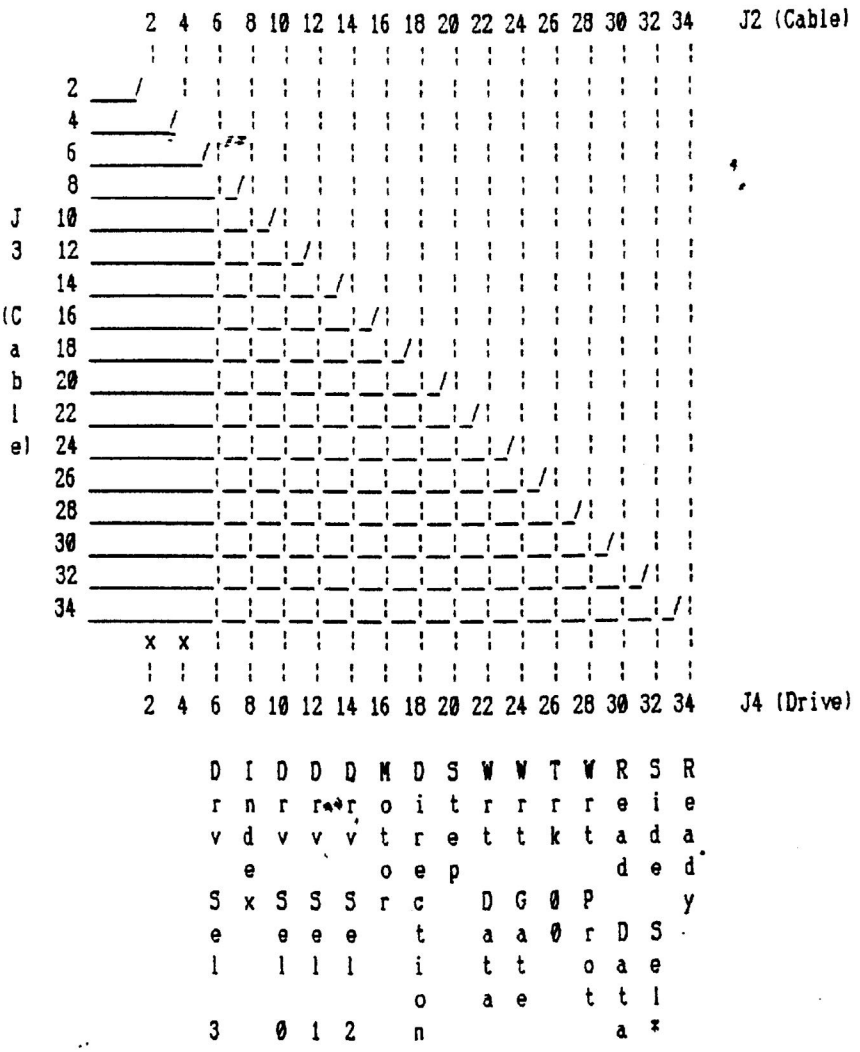


NOTES:

Pin 1 of J4 (3 1/2" drive connector) is not connected to anything but hasa solder pad on the interface board.

J2 and J3 are oriented opposite to each other to allow pin 1 to be on the topof the interface board or the bottom. The 5 1/4" interface cable coming fromthe controller may be plugged into either connector. The other connector maybe used to daisy chain to another external drive.

Figure 2. 5 1/4" to 3 1/2" drive cable adaptor board.
Even connector pins.



* Side select is defined as Drive Select 3 in TANDY CoCo Controller.
Pin 32 is used as Side Select in OS/9.

NOTES:

Pins 2 and 4 of J4 (3 1/2" drive connector are not connected to anything but have solder pads on the interface board).

Pin 6 of all connectors is not used by the Coco drive controller.

J4 is the connector for the 3 1/2" drive.

BUILDING YOUR FIRST 80 TRACK SYSTEM DISK
Now that you have completed all the hardware setups, you are ready to build a bootable system disk. Be sure that the new disk is selected to be /D0 and your original drive is selected as /D1.

Power up your system. There should not be any smoke or flashes that indicate that something major is wrong .(This will occour if you did not cut the +5 and +12 Traces on the Floppy PCB) We will start by using standard RS-DOS commands.

Put a 3.5" diskette into your new drive. Make sure that the write protect window is closed on the diskette.

Enter the following commands. Do not enter the comments in ().

```
DSKINIØ<CR>                 (format the disk with disk basic)
                            (put your System Master disk in /D1)
BACKUP .1 to Ø<CR>          (copy your os9 disk to the new drive)
                            (you may want to keep a copy of this 35 track,)
                            (SSDD version for later use.)
                            (Repeat the 1st 2 steps if you wish to do this.)
DOS<CR>                     (boot to OS9 using the new drive)

From now on we will be working in OS9.

CHD /D1; CHX /D1/CMDS<CR>     (switch to original system disk)

MODPATCH -s </TERM<CR>  (we will now patch the /DØ device descriptor)
                        (modpatch will read input from the keyboard)
L DØ<CR>                (link to /DØ device desciptor module in memory)
C 16 Ø1 Ø3<CR>          (change offset 16 to indicate 96tpi, mfm format)
C 18 23 5Ø<CR>          (change offset 18 from 35 tracks to 8Ø tracks)
C 19 Ø1 Ø2<CR>          (Change offset 19 from 1 side to double sided)
V<CR>                   (verify the module CRC)
                        (the cursor will back over the V, disregard)
<CTRL><BREAK>           (send an EOF to exit modpatch)

MODPATCH -s < /TERM<CR> (we will now patch the /DD device descriptor)
                        (modpatch will read input from the keyboard)
L DD<CR>                (link to /DD device desciptor module in memory)
C 16 Ø1 Ø3<CR>          (change offset 16 to indicate 96tpi, mfm format)
C 18 23 5Ø<CR>          (change offset 18 from 35 tracks to 8Ø tracks)
C 19 Ø1 Ø2<CR>          (Change offset 19 from 1 side to double sided)
V<CR>                   (verify the module CRC)
                        (the cursor will back over the V, disregard)
<CTRL><BREAK>           (send an EOF to exit modpatch)

INIZ /DØ;INIZ /DD<CR>   (force the device memory areas to be updated)

FORMAT /DØ R "Volume Name"<CR>  (reformat the new diskette to 8Ø tracks)
                        (do not be concerned about the extra seeks)
                        (you hear when the verify reaches track Ø7Ø,)
                        (the allocation table is just being written.)
                        (The following is the format output:)

COLOR COMPUTER FORMATTER
Formatting drive /dØ
ØØØ ØØ1 ØØ2 ØØ3 ØØ4 ØØ5 ØØ6 ØØ7 ØØ8 ØØ9 ØØA ØØB ØØC ØØD ØØE ØØF
Ø1Ø Ø11 Ø12 Ø13 Ø14 Ø15 Ø16 Ø17 Ø18 Ø19 Ø1A Ø1B Ø1C Ø1D Ø1E Ø1F
Ø2Ø Ø21 Ø22 Ø23 Ø24 Ø25 Ø26 Ø27 Ø28 Ø29 Ø2A Ø2B Ø2C Ø2D Ø2E Ø2F
Ø3Ø Ø31 Ø32 Ø33 Ø34 Ø35 Ø36 Ø37 Ø38 Ø39 Ø3A Ø3B Ø3C Ø3D Ø3E Ø3F
Ø4Ø Ø41 Ø42 Ø43 Ø44 Ø45 Ø46 Ø47 Ø48 Ø49 Ø4A Ø4B Ø4C Ø4D Ø4E Ø4F
Ø5Ø Ø51 Ø52 Ø53 Ø54 Ø55 Ø56 Ø57 Ø58 Ø59 Ø5A Ø5B Ø5C Ø5D Ø5E Ø5F
Ø6Ø Ø61 Ø62 Ø63 Ø64 Ø65 Ø66 Ø67 Ø68 Ø69 Ø6A Ø6B Ø6C Ø6D Ø6E Ø6F
Ø7Ø Ø71 Ø72 Ø73 Ø74 Ø75 Ø76 Ø77 Ø78 Ø79 Ø7A Ø7B Ø7C Ø7D Ø7E Ø7F
Ø8Ø Ø81 Ø82 Ø83 Ø84 Ø85 Ø86 Ø87 Ø88 Ø89 Ø8A Ø8B Ø8C Ø8D Ø8E Ø8F
Ø9Ø Ø91 Ø92 Ø93 Ø94 Ø95 Ø96 Ø97 Ø98 Ø99 Ø9A Ø9B Ø9C Ø9D Ø9E Ø9F

Number of good sectors: $ØØØB4Ø
```

<EXCELLENT! IT WORKED!!!> :-)

COBBLER /DØ<CR> (make the disk bootable)CHD /D1<CR> (you should already be here)DSAVE /D1 /DØ ! SHELL<CR> (copy all the files from your System Master) (to your new system disk)

When completed, you should have a 80 track, bootable system disk. Press the reset button on the back of the system to boot the new disk. . If all is well you should boot up and have LOTS of room for all those programs and utilities you could never fit on one disk before.

Since many of you probably will have a mixed bag of hardware and software that you reconfigure for different purposes, I bet your next question is"but what about using Config?". Well, I didn't forget about Config. It is too useful a utility to ignore. In this effort I wanted to get you up and running as quickly and simply as I could. For several methods of generating the 80 track drive Ø descriptors dØ_80d.dd and dddØ_80d.dd,continue with the next section, BELLS, WHISTLES, AND DEVICE DESCRIPTORS.

BELLS, WHISTLES, AND DEVICE DESCRIPTORS

So you need to add 80 track, drive Ø descriptors to your MODULES directory to build custom disks. Well, there are several ways to do it and I can explain some and hint at others. If I didn't mention it before, I am using OS-9 Level 2 on a CoCo 3. Parts of this article may not make sense if you are using Level I. The most I ever did with Level 1 was to make my 35 track,SSDD disk descriptors to 40 track, SSDD. Therefore I have no experience of trying to run doubled-sided disks in Level 1.

Method 1 - Use the Level 1 (or Level II) SAVE utility.

Prepare a backup of your BOOT/CONFIG/BASICØ9 disk to work with. I will assume you will keep it a 35 track, SSDD format for now. Insert this disk in drive 1 and perform the following commands to delete the Basicø9 files from the CMDS directory so you will have room for new device descriptors. DO NOT DELETE THESE FILES FROM YOUR MASTER COPY OF THIS DISK!!!

CHD /D1/CMDS<CR>
DEL Basicø9,RunB,gfx,gfx2,inkey,syscall<CR>
CHD ../MODULES<CR>
DEL bootlist<CR> (this file is built by Config every time you use it)

You will need the level I SAVE command in your CMDS directory of your 80 track system disk to do the next step.

With your working copy of the Config disk in /D1 and the system booted on your 80 track system disk, perform the following commands:

SAVE /D1/MODULES/dØ_80d.dd DØ<CR>
SAVE /D1/MODULES/dddØ_80d.dd DD<CR>

That's all there is to it! Level II Config automatically picks up these new descriptors when it runs (look on the next page of the list of descriptors while running config to find them). You can now use this config disk to customize your boot file.

METHOD 2 - Compile the new descriptors using Level I ASM.

I have heard rumors that the Level II RMA assembler that comes with the OS-9 Level II Development Package will not let you write device descriptors.This is due to sticking extra bytes in the object file which screws up the descriptor format. When my DEV PKG FINALLY(!) arrives I will check this out.

I have included an assembler source and listing output of D0_80D.dd for your entertainment and perusal. Since Tandy did not supply this descriptor with the Level 2 distribution disks, I consider it fair game to write my own.To make the DDD0_80D.dd descriptor just change all references to D0 to DD.

METHOD 3 - Write a procedure in Basic09 to convert D1_80d.dd to D0.

I will leave this as an exercise for the reader. You will want to use the GET and PUT commands to read the D1 80 track descriptor byte for byte and write them out to another file (called d0_80d.dd, of course) and modifyingt he bytes necessary for conversion. Use the following hints to write yourprocedure:

offset 13(hex) change 01 to 00 (this is the drive number)
offset 22(hex) change B1 to B0 (changes the name string to "D0")
offset 2D(hex) change 2A to 49 (this is the 1st CRC byte)
offset 2E(hex) change 0B to 50 (this is the 2nd CRC byte)
offset 2F(hex) change 76 to 7E (this is the last CRC byte)

For the DD descriptor use the following data:

offset 13(hex) change 01 to 00 (this is the drive number)
offset 22(hex) change B1 to C4 (changes the name string to "DD")
offset 2D(hex) change 2A to 53 (this is the 1st CRC byte)
offset 2E(hex) change 0B to F8 (this is the 2nd CRC byte)
offset 2F(hex) change 76 to 7E (this is the last CRC byte)

Method 4 - Alternate Basic09 procedure (if you have Level I DUMP cmd)

Use the DUMP command to list the contents of D1_80d.dd. Use the hints in Method 3 to build a DATA section containing all 48 bytes of the descriptor. Modify the appropriate bytes for D0 and DD and then write the DATA to appropriately named disk files. Use the IDENT command to check if the CRC is correct in your new files. Use the level I VERIFY -u command to correct CRCs if you have it.

HAVE FUN WITH YOUR NEW DISK DRIVE!!!

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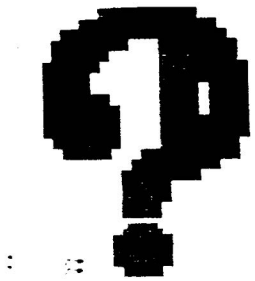

I do not know where this one came from, it was found amongst a number of disks which had been put aside because there were no names to say from where they had come, we have quite a few of these. From what I can gather it is a programme which will allow you to obtain a directory for a tape based system and then let you run a programme of choice by simply selecting that programme from a menu.

In any case here it is for you to have a play around with, maybe even improve on and then resubmit it to the magazine.

```
0 'TAPE DIRECTORY WITH CRUN
1 CLS
2 CLEAR 200,32666:A=326663 DIM
T$(24)
10 'INSTALL CRUN
11 DATA 0F,78,32,62,BD,A5,C5,BD,
A6,48,7D,01,E4,26,05,B6,01,E2,
27,03,7E,A6,16,BD,AD,19,BD,A7,7C,
9E,19,9F,7E,DC,7E,4C,BD,AC,37,
BD,A7,0B,26,34,96,7C,27,30,2A,ED
12 DATA 9F,1B,BD,A7,E9,8E,AB,EC,
BD,B9,9C,BD,AD,21,BD,AC,EF,BD,
01,82,8E,02,DD,86,52,A7,80,86,55,
A7,80,86,4E,A7,80,6F,84,C6,04,
8E,02,DC,4F,7E,AC,7F
13 DATA BD,AD,19,7E,A6,19
14 FOR P=A TO A+101
15 READ D$:POKE P,VAL("&H"+D$)
16 NEXT P
20 'INITIALIZE DIRECTORY TABLE
21 T$(1)="DIR "
22 T$(2)="MEMDUMP "
23 T$(3)="INSTALL "
24 T$(4)="CRUN "
25 T$(5)=" "
26 T$(6)=" "
27 T$(7)=" "
28 T$(8)=" "
29 T$(9)=" "
30 T$(10)=" "
31 T$(11)=" "
32 T$(12)=" "
33 T$(13)=" "
34 T$(14)=" "
35 T$(15)=" "
36 T$(16)=" "
37 T$(17)=" "
38 T$(18)=" "
39 T$(19)=" "
40 T$(20)=" "
41 T$(21)=" "
42 T$(22)=" "
43 T$(23)=" "
44 T$(24)=" "
50 'DISPLAY TAPE DIRECTORY
51 PRINT" TAPEDIRECTORY":PRINT
52 PRINT" A - ";T$(1);" M -";T$(13)
53 PRINT" B - ";T$(2);" N -";T$(14)
54 PRINT" C - ";T$(3);" O -";T$(15)
55 PRINT" D - ";T$(4);" P -";T$(16)
56 PRINT" E - ";T$(5);" Q -";T$(17)
57 PRINT" F - ";T$(6);" R -";T$(18)
58 PRINT" G - ";T$(7);" S -";T$(19)
59 PRINT" H - ";T$(8);" T -";T$(20)
60 PRINT" I - ";T$(9);" U -";T$(21)
61 PRINT" J - ";T$(10);" V
-";T$(22)
62 PRINT" K - ";T$(11);" W
-";T$(23)
63 PRINT" L - ";T$(12);" X
-";T$(24)
64 PRINT:PRINT" USE(shift) (clear)
TO EXIT";
65 SCREEN 0,1
70 'PROGRAM SELECTION
71 D$=INKEY$:IF D$="" THEN GOTO 71
72 IF ASC(D$)=92 THEN END
73 IF ASC(D$)<65 OR ASC(D$)>88
THENGOTO 71
74 IF T$(ASC(D$)-64)=" "
THEN SOUND 1,3:GOTO 71
75 SCREEN 0,0:EXEC32664
:T$(ASC(D$)-64)
```

****

MAGAZINES

****

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1984;
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****

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John McNabb is after some info. Does anyone know what Peeks & Pokes will change board rates for an MC10 printer. If you do give John a call or write to:

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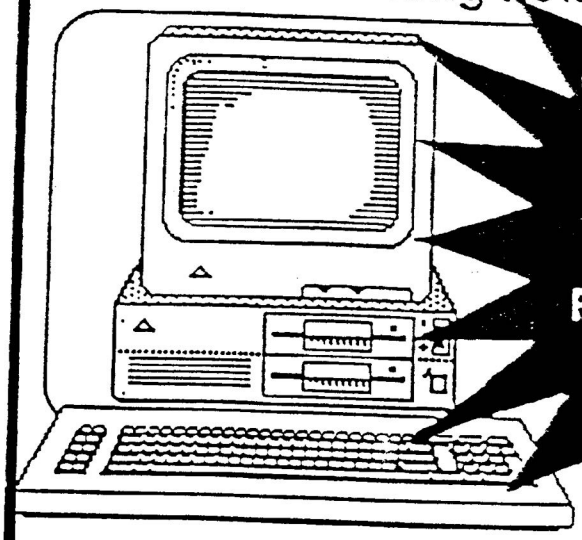
COCO FRIENDS DISK MAGAZINE

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



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

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

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

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

8 to 15 never-before-seen programs

The above software is available in Australia through REMCOMS

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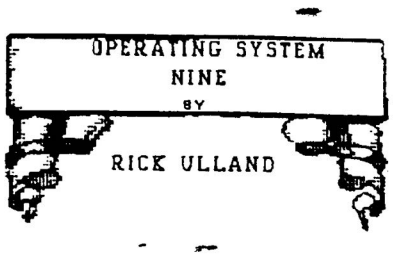


Backups, C compiler tips, and graphing with DynaCalc and PhantomGraph

---

There's a new shell in town, and it's name is 2.2a. Or so I see in the other window. Curtis Boyle fixed up the command line history version of shell+, so of course it's a feature of the new Nitros9 release. He was also nice enough to release a 6809 version, complete with one of the traditional ipc files .... but whats this? A file called simply 'shell'. An actual executable code thing remarkably similar to an OS-9 module. A refreshing change, if the lawyers stay away - the patch files are getting longer than the original code. Last seen on compuserve ..... got to install this thing.

Perhaps moving this far north has affected my senses, but it's already fall here, near as I can tell. Between school and the winter programming season, the coco gets a new workout, and lots of data gets shuffled around. Which is a long-winded way of asking if you have backed up your hard drive lately. Time for a repack as well! If you don't have and can't afford a repack utility, restoring a streaming backup to a fresh format is an extreme measures way to do the same thing.

When I started out, I used the utility that came with my hard disk. Seemed to make sense at the time, and it was free. But it was useless for anything but an identical reproduction of the original drive. Now I have stream. It's not only 10 times faster, but allows parts of an archive to be extracted - if you had to, you could set your system back up on floppies with just the archive and a boot disk. And it's only $25US, shareware. With a name like Bruce Isted (the programmer), it's got to be good.

Floppies also suffer from fragmentation, and if you run separate cmds and data drives, the cmds disk might be why you are getting impatient more often. Even though there is little free space to repack, a dsave/d0/d1 ! shell will rewrite each file as a contiuous block. But then Alice.....

Microware/Tandy C Compiler Hints:

Ask some folks what an operating system is and they'll tell you it's the code needed to properly support a C compiler. and they do have a point, many applications began with a curly brace.

If you're lucky, you've found a copy of Microware's ancient and Honorable c compiler. Tandy will be happy to sell you a Software Assembly version ($26-3038) complete with the now traditional badly Xeroxed pile of loose pages manual - even worse than the original, which itself looked like a Xerox of a mimeograph of some typewritten pages and instantly unbound into loose sheets once opened.

If you've ever tried compiling a program according to the manual, using the supplied modules, you just might be doubting your luck. Like much of the 'serious' OS9/6809 software, this puppy is old - still bearing a v1.00.00 stamp after a dozen years. Of course it's been improved, just not by Tandy.

The first step is improving the quality of code produced. A large percentage of a compiled program is snippets of prewritten code stored in a 'library', and the c compiler includes one, known as stdlib. It was OK for it's day, but that day has passed. The upside is it can be replaced with either of Carl Kredier's versions - the full featured clib.t includes transcendental math functions while clib gives up the complex math to make the final program smaller. And best, Carl's libs come with their own u-printem docs, replacing most of Tandy's smudged pages.

The old C does graphics as well, but Tandy strewed clib to the winds - the library itself was in the DevPak, some of the manual pages in the MultiVue binder-one had to buy everything! Or obtain Make Sweet's cgfx7, wh is not only nicer than stock, but will use up the other half of your new printer ribbon to produce more manual.

It's possible to use the stocker compiler and these libraries to write code as good as anybodies, but the compiler is still klunky to use. The main operational problem with this compiler is speed. Besides the normal problem of a 6x00 with too much to do, it was designed to work even on Level One systems, and so is broken down into smaller pieces such as a machine can digest. communication between all the pieces is done by writing work files - and hours can go by while floppies churn madly.

Since level Two has the ram, the obvious solution is a ramdisk. Copy your source to the RAMDisk and chd to to it. Now all those temp files can be quickly saved to RAM. There is an alternative cc (compiler executive which controls the whole process) that defaults to Ramdisk without the dancing. And of course, loading the whole compiler into RAM helps, especially if the first compile goes badly (don't they always?)

You'll want to move chx anyway, so the output file doesn't end up in main CMDS. A short shell script will do all of this for you so you can get right to work.

Although we don't really get into programming here, a few notes are in order. First, ANSIfront. Vaughn Cato's little c preprocessor does a pretty good job of turning ansi c straight out of your TurboC textbook into something the old compiler can

handle. This is a very big deal if you are considering a port from another machine. There is a companion c.prep (Jim McDowell) to read the weird looking source and spruce it up for ANSIfront.

There are still good reasons to learn the K&R way of doing things, even (perhaps especially) if the coco is a temporary condition. Microware is extremely proud of their ANSI C package, ensuring the older version will remain popular with OSK resellers. You, of course, will be one of the few required to port a K&R style program to ANSI.

It's difficult to even find a reference for K&R C. They are impossible to locate, and expensive once found. Public Domain to the rescue! The uncompleted Hitchhiker's Guide to C is a good beginning, but ends just as things are getting interesting. There is a more tomb-like tutorial also available, and this one lasts to the end - I'd still use HGtG as far as it goes.

Another source of C info is magazines. The OS-9 Underground" leans quite a way towards being a C magazine, although some of the code isn't exactly geginner level stuff. Worth a look if you are interested in the language. This magazine (68' micros) is a good place to pick up pointers as well - just watch out for Joel, he's a sneaky one! (duckling).

C wins the disk of the month award. If you don't have all this stuff a disk is only $5US.

Grahping Dynacalc:

Dynacalc makes a great little spreadsheet, but it's graphing function leaves a bit to be desired. Tandy had the solution in PhantomGraph (PG), but presented it in the usual Tandy manner, in otherwords you might have found one buried under 37 copies of Zone runner, if you looked. PG comes with a Tandy manual.

Before jumping in, a quick review of PG's data structure. Ther overall structure is four groups of twenty elements. Thing of a group as a section of a stacked bar chart. Each bar has up to four sections, and there may be twenty of these bars. Groups can also be graphed side by side in a bar chart - 80 bars per chart. Each element may contain 2 data cells. On scatter plots the second cell is used as the x value. Some graphs (for example pie charts) ignore this cell. In addition, each element has three characteristics - (colour, pattern, and attribute), and a title.

The secret to using PG is to never enter any data directly into the program - it's not really set up for that. Instead, PG should be force fed data directly from dynacalc.

Unless your spreadsheet is very small, set aside a block of it for PhantomGraph data. This area also serves as a text summary screen - leaving the label mid line allows ignoring the graphing data while crunching the numbers. It might look like this:-

pat1 pat2 pat3 pat4 label1 data1 data2 data3 data4

Use dynacalc's relicate function to set up the pattern table quickly - for example put the formula (d12+1) in cell e12, then replicate relative down the column. Other PG information like colours and attributes can be added to the pattern tables if needed, but keep it fairly simple, all these row numbers have to be entered in PG!

The data cells may just be equates to the cells in the main sheet, or do quite a bit of math in their own right. Using /s$s and /s$1, this block of the sheet can be saved out as a separate file. To graph a series of similar data, this s$ file can be plopped in for a quick recalc, then saved again (the new data) for conversion (save in column order for graphing).

Inside PhantomGraph itself, utilies/convert/dyna pops up the main entry window. After obvious file naming, the columns containg the first data and pattern cells are input. Click on the window, but not on a selection to save this group. When the window comes back, an addition group of data can be saved by changing the group number and column info. Click on the window again, then append. Once all groups are converted, click off the window to stop. You can reenter this file at any time by using it's name with dyna again.

With the data file saved files/open/data gets it into PG itself. After setting up verbosity (titles and such), files/close saves a graph file version - these graph files save the added info. And the rest is pretty much like the tutorial supplied with PG.

And so.....on to Atlanta!

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

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

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

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

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

Greg MacKenzie (059) 838 991;

Bob Charleston (059) 791 922; or

Stan Blazejewski (03) 580 4605

Don't forget the PCCC's bulletin board which operates between 9:30pm and 6:30am daily. The number to ring is (03) 580 4605.

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

REMCOMS

REMIN COMPUTER SOFTWARE

FROM RICK'S ENTERPRISE:

CFDM DISKS -		$9 SINGLE ISSUE OR $45 FOR 6 ISSUES	
UNBELIEVABLE OFFER NO #1	$55	UNBELIEVABLE OFFER NO #2	$55
UNBELIEVABLE OFFER NO #3	$40	UNBELIEVABLE OFFER NO #4	$85 (the lot) or $25 per set

FROM FARNA SYSTEMS:

COCO FAMILY RECORDER	$40	OMEGA FILE	$40
LITTLE BLACK BOOK	$20	VTO (VIDEO DATABASE)	$20
OS9 INVOICE/INVENTRY	$40	KEEP TRAK	$40
TANDY'S LITTLE WONDER	$25	OS9 QUICK REFERENCE GUIDE	$12

FROM ALPHA SOFTWARE:

COCO MAX III	$50	MAX-10	$50
MAX-10 FONTS	$20	MAX-10 DICTIONARY	$20
COLOUR PRINTER DRIVERS	$20	PRINTER TOOL KIT	$20
MAX FONTS for CM3 (4 disks)	$40		

AUSTRALIAN PRODUCED SOFTWARE:

CROSS-ROADS	$20	MIND GAMES	$20
DIGITECH	$35	XENION	$30
RUPERT RYTHM	$20	SPACE INVADERS	$20
DONUT DILEMMA	$20	CYBER CLASH	$30

FROM MICROCOM TECHNOLOGIES:

500 PEEKS, POKES & EXECS	$25	300 PEEKS, POKES & EXECS	$25
SUPPLEMENT TO ABOVE	$15	(For the COCO3)	
UTILITY ROUTINES	$20	WORD POWER 3.3	$55
CALENDER MAKER	$25	SCREEN DUMP	$25
HOME BILL ORGANISER	$25	VCR ORGANISER	$25
TAPE/DISK TRANSFER	$25	COMPUTERISED CHEQUE BOOK	$25
TW - 80	$12	AUTOTERM	$50
MEMORY MASTER	$20	MULTI EDIT	$12

FROM JWT ENTERPRISES:

OPTIMIZE SET 1	$45	OPTIMIZE SET 2	$35
OPTIMIZE SET 1 AND 2	$60		

WE ARE ALSO AGENTS FOR MOST USA COMPANIES, INCLUDING SUB-ETHA, DAYTON ASSOCIATES AND BURKE & BURKE. WE CAN ALSO OBTAIN SOFTWARE AND HARDWARE FROM OTHER AGENCIES IN THE STATES, CALL FOR INFORMATION.

WHEN ORDERING PRODUCTS WHICH MUST BE OBTAINED FROM THE USA, PLEASE ALLOW A MINIMUM OF 21 DAYS FOR DELIVERY.

TO ORDER RING: (077) 734 884 (FAX/PHONE) OR WRITE TO:
REMCOMS
P.O. BOX 787
THURINGOWA CENTRAL QLD 4817
(LEAVE MESSAGE ON ANSWERING MACHINE IF OFFICE UNATTENDED)

IN SYDNEY
ANDREW PRIDHAM
LOT 138 NEPEAN CARAVAN PARK
8 MAC KELLAR ST
EMU PLAINS 2750
(047) 356 739

IN MELBOURNE:
JOHN IKIN
42 SPRUCE DVE
ROWVILLE 3178
(03) 759-6253

IN WESTERN AUSTRALIA:
RENNAY BAMFORD
23 RAEBURNE RD
ROLEYSTONE 6111
(09) 397-5928

(LEAVE MESSAGE ON ANSWERING MACHINE IF OFFICE UNATTENDED)

POSTAGE IS $5 FOR SOFTWARE AND ACTUAL CHARGES FOR HARDWARE / BOOKS AND MAGAZINES. DUE TO THE UNCERTAINTY OF THE AUSTRALIAN DOLLAR PRICES FOR GOODS BOUGHT FROM OVERSEAS MAY VARY. THIS APPLIES ONLY TO GOODS WE HAVE TO ORDER, NOT FOR WHAT WE HAVE ALREADY IN STOCK.

AUSTRALIAN OS-9 USERGROUP PUBLIC DOMAIN LIBRARY

21 Virgo Street
INALA. Qld. 4077
Australia.

INTRODUCTION

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

WHERE I AM:

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

(07) 2787209

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

Also, I can be reached by FAX on:

(07) 3728325

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

WHAT I HAVE:

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

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

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

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

GETTING FILE LISTS

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

WHAT DOES IT COST:

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

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

Quantity discounts are available, please ask.

DISK FORMATS:

I can read and write the following formats:

COCO OS-9

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

OS-9/68000

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

COCO RSDOS

35 track double or single sided, 5.25"

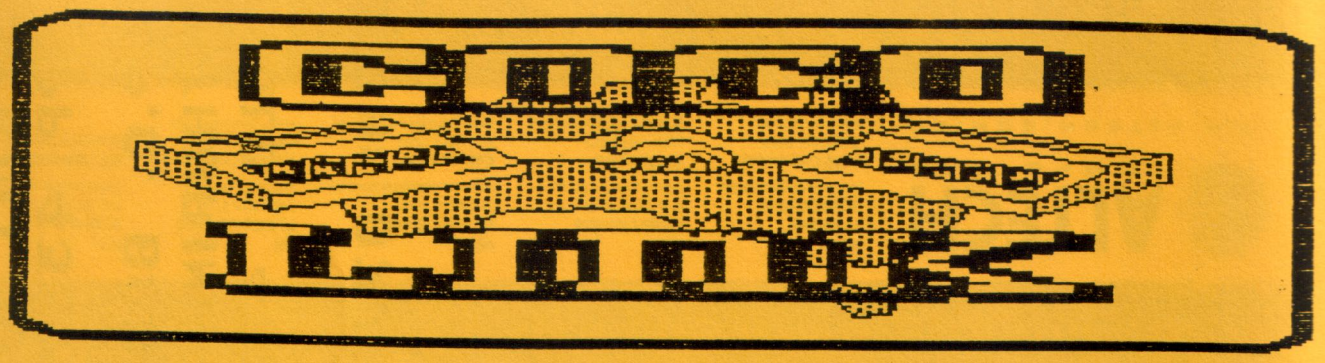
Other disk formats MAY be available, please ask me.

CONCLUSION:

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

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

Regards, Bob Devries
Australian OS-9 Usergroup
PD Library



Name	Street	Town/State/PC	Phone No
Alway Peter	P.O. Box 821	Boronia Park/NSW 2111	02 816 2130
Barker Bob	P.O. Box 223	Glenfield/NSW 2167	
Bentzen Gordon	6 Odin St	Sunnybank/QLD 4109	07 344 3881
Blazejwski Stan		Mordiallic/VIC	03 580 4605
Boardman William	10 Eltham Ave	Pt Lincoln/SA 5606	086 82 2385
Bye Graham	9 Airlie Bank Rd	Morwell/VIC 3840	051 34 5954
Brady Gaye	Mocatta's Corner M/S 501	Dalby/QLD 4405	076 696 241
Cameron William	2/22 Warren St	St Lucia/QLD 4067	07 371 4736
Colls Jason	46/21 Usher Ave	Labrador/QLD 4215 (015 594 627) OR	075 325 639
Cooper Len & Shirley	223 Elswick St	Leichardt/NSW 2040	
Cosier W.F	32 Argyll St	Coffs Harbour/NSW 2450	066 524 056
Cunnigham Eric	7 Nuthatch St	Inala/QLD 4077	07 372 2980
Dalzell Robbie	31 Nedland Cres	Pt Noarlunga/SA 5167	08 386 1647
Devries Bob	21 Virgo St	Inala/QLD 4077	07 278 7209
Donges Geoff	P.O. Box 326	Kippax/ACT 2615	06 254 9354
Eadsforth Jim	P.O. Box 329	Goolwa/SA 5214	
Edwards Peter	40 Davison St	Mitcham/VIC 3132	03 873 5249
Elphick Graham	26 Birch St	St Mary's/NSW 2760	02 623 8141
Gall Brian	P.O. Box 131	Cooranbong/NSW 2265	049 772 178
Hester Joseph	49 Truscott Rd	Moe/VIC 3825	051 271 158
Holder Garry	229 Esplanade	Seaford/SA 5161	08 386 1139
Hutchinson Simon	10 Ascit Court	Nth Dandenong/VIC 3175	03 790 0967
Ikin John	42 Spruce Dve	Rowville/VIC 3178	03 759 6253
Johnson Fraser	35 Robson Ave	Gorokan/NSW 2263	043 923 298
Kenny Bob	3/14 Bellingen Rd	Coffs Harbour/NSW 2450	066 51 2205
Lidgard Ron	17 Acacia St	Thornlands/QLD 4164	07 286 2776
McGrath John	93 Lemon Guns Dve	Tamworth/NSW 2340	067 618 671
McLintock George	7 Logan St	Narrabundah/ACT 2604	06 295 6590
McNabb John	P.O. Box 131	Boronia/VIC 3155	03 758 9008
Morgan Peter	4/30 Willmington St	Mooloolah/QLD 4830	
Morris John	30/45 Lawrence Hargrave Rd	Warwick Farm/NSW 2170	02 822 4678
Munro Ron	91 Blackburn Rd	Elizabeth E/SA 5112	08 252 2616
Murrells Alan	5 Goulburn Ave	Corio/VIC 3214	052 75 3065
Quinn Stephen	2/7 Park St	Orange/NSW	063 62 4748
Rae Desmond	P.O. Box 2076	Mt Isa/QLD 4825	077 43 3486
Remin Fred	P.O. Box 787	Thuringowa Central/QLD 4817	077 734 684
Remin Fred (The older one)	3/1 Franklin St	East Doncaster/VIC	03 842 8545
Rosch Raymond	5 Euphrates Pl	Kearns/NSW 2558	02 820 7228
Schmidt Richard	5A Stephens Ave	Torrensville/SA 5031	08 354 0951
Steman John	P.O. Box 680	Windsor/NSW 2756	
Stephen Val	1 Mabel St	Camberwell/VIC 3124	03 830 5668
Vagg Johanna	9 Belah St	Forbes/NSW 2871	068 52 2943
Wagnitz Ken	2 Depino Ave	Eden Hills/SA	08 277 1404
Williams Arthur	67 High St	Harrington/NSW 2427	065 56 1517

If you would like your name included in the above list in order to help other cocoists and to maintain contact between us, then send in the above information to me for inclusion in the magazine.
Do you know of the existence of a user group in your area or are you considering starting one up again? Let me know the detail including the contact names and phone numbers, meeting place, times etc, and I will print it in this magazine.

REMEMBER, USER GROUPS ARE THE BACKBONE OF THE COCO COMMUNITY!

COCO LINK

PRINT POST APPROVED
PP 433711 00019

P.O. BOX 787
THURINGOWA CENTRAL
QLD 4817

PH: 077 734 884

SURFACE MAIL

POSTAGE PAID AUSTRALIA

Mr D. RAE
Po Box 2076
MT ISA QLD 4825