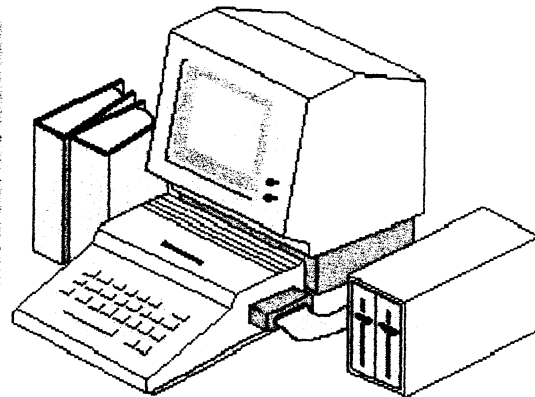# COCO~123

The President's /term

by Rob Gibons

While this February's meeting continued to be dominated by plans for April's up-coming club sponsored CoCoFest, one non-fest related issue was discussed, and I, as your President, would like to comment on that issue.

The issue was that of the distribution of so called "Orphanware". For those of us not familiar with the term, Orphanware is the name given to software that is perceived to be no longer available. Perhaps the original author or distributor has left the Color Computer market. Perhaps, now that there are so few sources of advertisement for such products, it is no longer being advertised as for sale.

Let's get one thing straight from the beginning, unless software is explicitly placed into the public domain, the rights to distribution remain with the author of that software or their designated distributor, for the length of their copyright. Few if any Color Computer based software has been around long enough to have it's copyright expire. There for the distribution of such software without the copyright holders express permission is Piracy.

We as a Club, by our constitution and by-laws can not engage in such distribution or associate with any group or individual that engages in such distribution. Enough said, time to get off the soapbox.

Now for the good news! One reason such acts of piracy occurs is through lack of information about the status of such software. Is it still available? Where can I get a Legal copy? Can anyone obtain a legal copy? Thankfully, one member of Glenside has been volunteered, whoops I mean has volunteered to, with the help of others, create a software database which is to include who has distribution rights etc. He will be working with, and/or contacting other individuals in our community who have also been at-tempting to create such a database. Hopefully, through his efforts and the efforts of these others, this will no longer be in issue in the future. Thank you Bob (Gator) Swoger and good luck!

| **Glenside Color Computer Club** | A Glenside Publication since 1985
Your Voice in the CoCo Comunity |

CoCo 123 Information

The Glenside Color Computer Club of Illinois is a not-for-profit organization whose members share an interest in the Tandy Color Computer ®. The CoCo 123 is the official newsletter of the Glenside Color Computer Club. The Glenside Color Computer Club of Illinois has no affiliation with Radio Shack ® and/or the Tandy Corporation ®. The opinions expressed by the authors of the articles contained within this newsletter do not necessarily reflect the opinions of the Editor, the Executive Officers, or the actual club membership.

We are committed to publishing a minimum of four issues and a maximum of twelve issues per calendar year. For a fee of $15.00, for January through December, you can become a GCCC member with full membership privileges. Send your dues to:

GEORGE SCHNEEWEISS
RR #2 Box 67
Forrest, IL 61741-9629

Here is a list of the 1996 Executive Officers and how to contact them. The club has four strong SIGs, Tandy Color Computer 1, 2, 3, and OS-9. If you have questions concerning these computers or OS-9 call one of these officers.

POSITION	NAME	PHONE	PRIMARY FUNCTION
President	Rob Gibons	847-776-9842	The buck stops here
Vice-President	Eddie Kuns	708-820-3943	Meeting Planning, etc.
Vice-President	Tony Podraza	847-428-3576	" "
Vice-President	Sheryl Edwards	708-344-5632	" "
Secretary	Paul Knudsen	708-755-3210	Records and Reporting
Treasurer	George Schneeweiss	815-832-5571	Dues and Purchasing
Editor	Mike Warns	708-627-9561	Newsletter coordinator
Telecom	David Barnes	847-587-9820	Club BBS SysOp
Printer	Dennis Devitt	708-629-2016	Newsletter Exchange
Advertising	Bob Swoger	847-576-8068	Newsletter Ads

CoCo 123 Contributions

If you would like to contribute an article, upload a file to the Newsletter Submissions section of the Glenside's Cup of CoCo BBS. Ditto for ads and news about your group. **Please include a name and an address or phone number.** If you would rather submit your article on diskette, they can be accepted in **ASCII** form and **unformatted** in the following formats:

    RS-DOS   5-1/4" SSDD, 35 tracks
    OS-9   5-1/4" SSDD, 35 tracks
    MS-DOS   Any standard format

Mail your articles to:

Mike Warns
31 South Edgewood Avenue
Lombard, IL 60148

Submission deadline for the CoCo 123 is the 15th of each month. Articles submitted after the deadline will appear in the next issue.

CoCo 123 Newsletter Exchange

The Glenside Color Computer Club of Illinois is pleased to exchange newsletters with other Color Computer or OS-9 user groups at no charge. Send your newsletter to:

Dennis Devitt
21 W 144 Canary Road
Lombard, IL 60148

Glenside Club Meetings

The Glenside Color Computer Club meets on the second Thursday of each month from 7:30 to 9:30 PM at the Glendale Heights Public Library. A social get-together always occurs afterward at the Springdale Restaurant.

Future meeting dates:
May 9, 1996
June 13, 1996

Editor: Mike Warns
Design, layout, graphics: Walrus House Enterprises

A special tip o' the hat to Dave Barnes and BARSoft Publishing, whose masthead page has been, uh, more than an inspiration for this issue's.

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These are your BBSs. Please support them.

Glenside CoCoRama BBS
847-587-9837
At Least 9600 Baud

SandV BBS
708-352-0948
Boy, is it fast!

Glenside's Cup of CoCo
847-428-0436
9600 Baud

Chi-CoCo BBS
312-735-3355
14,400 Baud

Glenside East
847-632-5558
9600 Baud

Bob, I tried to download your ads, but your board hates me.

Meet the New Secretary!
by Paul D. Knudsen

I was born at Ingalls hospital in Harvey, Illinois. I am a son of Glenn and RoDonna Knudsen. I have a brother and 2 sisters. I am the youngest of them. I got interested in electronics and computers at the age of 5. It all began when I stuck the flat-head screwdriver in the wall socket. From then on, I was determined to conquer electricity.

In Jr. High School, I met a friend who said he would sell me a computer for $50. This is when I got my first 64K CoCo 2B. I fell in love with the machine. I used my computer continuously for 2 years, until a fatal design of repackaging it, (I tried to use tin foil as a ground plane) which caused it fatal trauma. At this point, I was upset (ticked off was more like it) and didn't know what to do with myself. So a few weeks later, my father bought me a new toy! The Tandy 128K CoCo 3. (He bought me this machine, because I already had a few expensive accessories for the CoCo 2, i.e. Multipak and an FD-502 disk system.

A few years later, after looking through the Rainbow, I found Howard Luckey's phone number in the CoCo Clubs section. At this point I called him, got an answering machine and was disappointed (he, he, he.) So, I finally got a hold of him, and found out that he was treasurer of the Cook County Color Computer Club, which meets at the Park Forest Public Library. So, after a year or so, I became President.

Thing ran smoothly for a couple years, and then our club died due to lack of members showing up on scheduled evenings during the month. To this day, I still miss all the members who came every fourth Wednesday of the month to the 4 C's.

Now I am an active officer and member of Cook County's sister club Glenside. Right now, my CoCo's largest configuration is a 512k CoCo 3 (I'm STILL looking for a 6309 chip (I have the power boost software, I just blew my old 6309.), hoping to soon get NitrOS9. RGB monitor with Sound Blaster speakers attached to both sides. I also have the Burke & Burke XT-RTC with a 20 meg hard drive (soon to go to 40 megs, my old hard disk is conking out), two FD-502's and a Zoom 2400 baud modem. Pretty nifty eh ? I am now fully employed at my local, friendly Steger K-Mart as a cashier (for which I would rather be using a CoCo as a register instead of a lousy IBM, that thing hates me!) As soon as I get enough cash, I will be repackaging my CoCo into a PC case, hopefully with aid of Glenside member Brian Schubring.

System specifications of Paul D. Knudsen
Personality:
Well I try to be nice to every one as I can. Most of the time I don't function well in large groups, they make me nervous. I try to read everyone, so I try to make sure that I don't "say the wrong things." I am an all out around happening guy. When introduced to new people, I am a little shy, but I can hold a descently strong conversation. I must warn all, do not try to engage in techincal conversations with me, unless really necessary, I sort of get these technical ego trips, which makes me look bad, it ain't pretty. But all around though, I am a friendly person who looks to help anyone he can.

Speed:
Don't rush me, I enjoy taking a slow pace in getting things done, or I just might pop that last brain cell that I have been trying to work on, since graduation of high school.

Well that about wraps this up. At this point, I would like to thank Mike Warns, editor of this newsletter, for forcing me to do this. Just joking Mike! Well for anyone who doesn't go to Glenside meetings, who may attend in the future, look for me and just say hi!

February 1996 Club Meeting

by Paul Knudsen

The meeting was called to order at 7:50 p.m. by President Rob Gibons. The meeting began with the introductions of the members that attended. Present were, President Rob Gibons, Secretary Paul Knudsen, Howard Luckey, Gene Brooks, Bob Swoger, Eddie Kuns, Bob Bruhl, Mike Knudsen, Sheryl Edwards, Brian Schubring, Tony Podraza, and Richard Bair. The latecomers were Mike Warns, Tom Schaefges. George Schneeweiss also attended, but he went home sick. Get better George, and we hope to see you at the next meeting. We also had a guest, Lori Balas.

We began the meeting as usual with the old business, which we had discussion about the logo for the T-shirts for the fest. Tony Podraza was off in the corner of the room trying to get his demo ready, on how to program an eprom. We also discussed the idea on getting the vendors to the fest. We have a list of club members who are going to call them to see if they want to participate in this year's fest. We have word that the Adventure Survivors will be attending.

For the new business, we received in the mail from the Atlanta Computer Society a survey which asked questions on how they feel about the Atlanta Fest. We felt that this survey should be answered in a "survey" format. Rob had asked the questions publicly to the group, and everyone had their own opinion on how to answer each question. As the secretary, I wrote several answers down, and then created a nice formatted answer sheet to show how a percentage of a group can relate to each question. In a sense, this should give the Atlanta Computer Society a better idea on how festgoers see them. We also have some shocking news in the community, Mid Iowa & Country CoCo club might be in a lawsuit for distributing "orphan-ware." Orphan-ware is software written by authors whose companies still exist, in which pirates, think its okay for them to distribute, because they think that they have fallen off the face of this planet.

Orphan-ware is not okay, piracy of any form is illegal, and there are a lot of authors who still do exist in, which MI&CC is passing around freely. A motion was made at the meeting to refuse any dealings with MI&CC with upcoming fest. They will not be allowed to have a table/booth for which to vend with. Another motion was made to put the definition of piracy in regards to MI&CC and to spell out any and different forms of piracy, whether orphan_ware or not. That wraps up the minutes of this meeting, afterwards, we retired and went to the meeting after the meeting.

Sra Concepcion
730 Suwannee Road
Box 1826
Tyndall AFB, FL 32403

March 2, 1996

I've been an unconnected CoCo-ists for years and years, and am trying to rectify this. Little by little I am spreading the wealth, as it were, by trying to support as many CoCo publications as I can. My intent is to learn as much as I can, and for every one thing I learn or learn about our little machine, there are twelve or so other things that I would like to know.

My main interest has always been hardware (electronic and otherwise), and I've finally started to tinker with the little bugger which is responsible for over a million hours of entertainment in the last few years. And I am learning.....

I ordered some hardware from Small

GRAFX, Etc. and received, among other things, a copy of CoCo 123. I read it and it seems to be pretty cool. This issue (Oct. 95 - Vol. XV, No. 4) mentions a MIDI Pak, which is of great interest to me, especially if it is going to be able to take input from a guitar or bass, or even a microphone.

My dream system seems to be coming closer to fruition if this is the case. I fancy myself a musician, and it would be oh so cool to hook some hardware to my CoCo and record the different components of a song, mix them, and store them on disk as the master!! I can almost envision what it would be like. Heck, if it has a quarter-inch phono jack (for input), and two RCA jacks (left and right - for hookup to stereo) I'd be hard pressed not to want one. I'd even be willing to write a review for it when/if a) it becomes a reality, b) I get one in a timely manner, c) you'd be agreeable to a novice writing such an article. I'd also be willing to advise or give input on what I'd like (as a Musician) it to be able to do.

Also, in that very same issue, it mentions an e-clock-fix board. Is this applicable to a CoCo2? If so, which back-issue is its schematic in? Is a back-issue list available? Is there a list of hardware obtainable through you available? Is a parts list for this e-clock-fix board available?

I guess I saved the most important thing for last, enclosed is a check for one year's worth...
I hope my enthusiasm wasn't too forward.
Thanks in advance,
Cep

Dear Cep,
First, I do not believe that the E-clock fix pertains to the CoCo2. Second, the MIDI cartridge will not accept input from a guitar. In fact, Dr. Mike Knudsen, who knows as much about making music on a CoCo as anybody, remarked that it would be better named KIDI, for **Keyboard** *interface. Third, how could enthusiasm be anything but positive. It is* **welcome!**

A Portable CoCo?
by Mike Warns

I love portable computers. Correction: I love the **idea** of portable computers: Taking my computer everywhere I go, whipping it out to jot down some ideas for an article, working on work projects in my underwear with no fear of being fired. You know, freedom.

I found the reality to be different: Anybody who takes an expensive and sensitive product with moving parts to the beach is insane. I get more ideas while driving, and I usually forget them before I get anyplace I could use the portable. Very few portables are as powerful as my work computer, and none of them have a nineteen-inch display! Worst of all, the freedom provided by a portable computer is an illusion. I found myself concentrating so hard on battery life that I would forget what I was working on.

I was happy to sell my portable for what I had paid for it.

What I did then was make an assessment of my needs. I do not spend much time at the beach, and I do not intend to spend that little bit of time working on a newsletter. My "jotting down ideas" plan would be better served with a tape recorder. "Work" work is best done at, well, work. On the other hand, it is sometimes too cold in the basement to use the "big" computer for any length of time. I can keep a better eye on the kids while working in the kitchen than in the basement. I may **want** portability, but I do not **need** much of it. I do not need battery power or a fancy color display. All I really need is something I can plug into the wall and do simple word processing.

As I looked around my collection of too many ~~obsolete~~ well-broken-in computers, I realized that I could make a computer which would fit my needs, and I think you can,

5

too.

Step one: turn off the power to your CoCo stuff and unplug the Multi-Pak, disk controller, or whatever you have plugged into the side of it. Step two: unplug everything else you have stuck in it, your joysticks, printer, monitor, whatever. Now, pick up the bare CoCo. Doesn't weigh much, does it? A lot of portable computer manufacturers would like to sell a product that light! And a full-size keyboard, too!

Okay, you could not see much on its screen. That is where I have to rely on the American love of television. You forgot that you could plug that CoCo into a TV, didn't you? Okay, you forgot on purpose; you were probably sick of the low resolution and plaid display. Relax; your 80-column, all of the colors of the rainbow monitor will wait for you. This is just temporary and you have you make some sacrifices for portability, no matter how much you spend. And, so far, you have not spent anything.

So, just how many TVs will you admit to owning? Hook the CoCo up to one of them. You now have a semi-portable computer. But what about the wavy lines, you whine? Two simple solutions: If the TV has a monitor input, and most recent ones do, connect it to the composite output on your CoCo3. If the set is older and you have to connect to a couple of screw terminals, wrap the monitor cable through a ferrite ring a few times. Some of you ham types out there can probably give the reasons for this, but my empirical method has shown that an odd number of wraps, totalling three or more (more than five seems to mostly waste wire), as close to the antenna terminals on the set as you can get it will work.

I am blessed, in that the TV in the kitchen (reduces those pesky dinner time conversations) is really a retired color composite monitor connected to the audio and video outputs on the VCR in the living room (fabulous picture, but imagine how much trouble I could get into if I actually **understood** electronics!) and I just have to swap plugs to connect a computer and get

a rock-solid 32- or 40-column display.

That solves the display problem, so we will next address the software problem. You left the disk drives in your computer area, so that rules out OS-9 (you could drag the drives along, but that reduces portability). What else can you do with a computer? I mostly use mine for word processing, and that is an application where a bare CoCo is surprisingly effective.

Rummage around your box of old junk until you find a copy of Color Scripsit or, better with a CoCo3, Color Scripsit II. I bet you have a copy you bought at a fest for a buck. (You said your were buying it for your kid or spouse or something, but it is just that you cannot resist a bargain.) Plug it in, turn it on, and start working.

I have not used the original Color Scripsit, but the updated version is not the worst little editor I have ever used. (That was a product called KEDIT, for the IBMs. My boss was an old mainframe hand and insisted that it was the easiest thing to use. It proved to be counter-intuitive, confusing, and totally inappropriate for word processing. He quit a month later, and I celebrated by throwing it out.) If you use TS-Edit, you should feel right at home, as many of the commands are the same. (I think the same guy wrote both, so that would make sense.) It has enough word processing features to do almost anything you are likely to want it to do, and you can actually do real work on it.

Share your favorite programs in a demo at the next meeting!
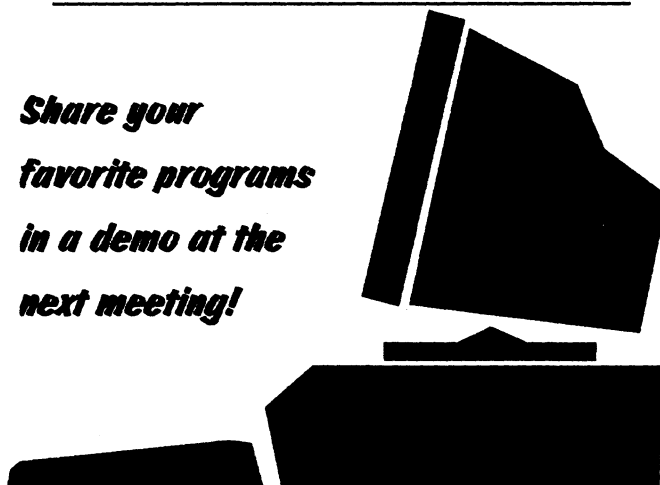
You will be saving onto tape, so get out your old data recorder. Remember the rules of saving to tape: save early, save often, and **do not save over earlier saves.** Then save it again. And use good tapes. (Maybe I was too rash telling you to leave the disk drive and your favorite word processor in the other room! Oh well, it gave me a chance to plug Color Scripsit and remind you that a bare CoCo is not useless.)

You can print directly from Color Scripsit, or you can port it to your other word processor for further work. Aha! you cry. Nothing will read those tapes except Color Scripsit! Very true, and I have to depend on you to have another computer, which you do, of course.

Unlike some other computers, the CoCo prints through its serial port. All serial devices send and receive data in similar ways, and we are going to take advantage of that. Get out a null modem cable or make one by swapping the wires going to pins two and four on a regular CoCo Mini-DIN serial cable. Connect the cable to the serial ports of two different computers. Fire up Color Scripsit in the source computer and a terminal program in the destination. Set the terminal for 600 baud, seven or eight data bits, one or two stop bits, and no parity (this is the standard printing setup for the CoCo and Scripsit, with modifications for terminal programs that cannot set up quite the same.) Set up your capture buffer to either write to disk or be large enough to capture your entire document.

Print from Scripsit as if it were attached to a proper printer (this also works to transfer BASIC programs from your CoCo to your IBM). You may have to do some more tricks to make this work; I have to hold down the <ENTER> key my IBM so it accepts more than one line. Save to disk and do whatever you want with the file.

Okay, you don't lose **that** much portability with a disk drive!

Still, we must try not to lose perspective in our bigger-(and smaller)-is-better world.

A computer is rarely worn out when it gets retired. And, just because it has entered the "if you had to pay for it, you paid too much" class of older technology, is it no longer useful? Do you type faster on a 100 Mhz machine than you did on one running at 1 Mhz?
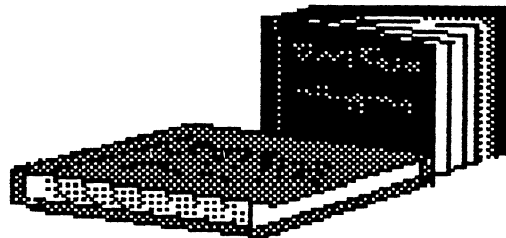
Book Review

by Rogelio Perea

net.speak
the internet dictionary
Your A-to-Z Reference to Internet Terms, Acronyms, and Etiquette

Tom Fahey
Edited by Ruffin Prevost

Hayden Books
ISBN 1-56830-095-6

Suddenly, the Internet is the "thing" of the nineties. As with all the latest and greatest technologies, this has brought a slew of new terms, acronyms, and abbreviations by the truckload, causing more often than not a sudden overflow of information. Wouldn't it be nice if we had a handy dictionary at arms reach while "cruising the net"?

net.speak is a welcome addition to any on-line services user. You can find all about PPP, TCP/IP, Routers, SLIP, FREQ, assorted smileys, and the common CRCs. This book goes well beyond a simple dictionary

Color Computer Expansion Port

by Rogelio Perea

This document describes the pin-out of the expansion port (40-pin) found in all the models of the CoCo 2 and in the CoCo 3. A couple of pins (#1 and #2) are not used in these computers but they were used by the CoCo 1, to supply 12 volts (at this time I do not have the assignment of those 2 pins).

PIN	SIGNAL NAME	DESCRIPTION
1	Not Connected	(Used on the CoCo 1) [Power Line on MPI]
2	Not Connected	(Used on the CoCo 1) [Power Line on MPI]
3	HALT*	Halt Input to the CPU
4	NMI*	Non-Maskable Interrupt to the CPU
5	RESET*	Main Reset andPower-up Clear Signal to the System
6	E	Main CPU Clock (0.89 MHz / 1.78 MHz)
7	Q	Quadrative Clock Signal which Leads E
8	CART*	Interrupt Input for Cartridge Detection
9	+5v	+5 Volts (300 mA)
10	D0	CPU Data Bit 0
11	D1	CPU Data Bit 1
12	D2	CPU Data Bit 2
13	D3	CPU Data Bit 3
14	D4	CPU Data Bit 4
15	D5	CPU Data Bit 5
16	D6	CPU Data Bit 6
17	D7	CPU Data Bit 7
18	R/W*	CPU Read-Write Signal
19	A0	CPU Address Bit 0
20	A1	CPU Address Bit 1
21	A2	CPU Address Bit 2
22	A3	CPU Address Bit 3
23	A4	CPU Address Bit 4
24	A5	CPU Address Bit 5
25	A6	CPU Address Bit 6
26	A7	CPU Address Bit 7
27	A8	CPU Address Bit 8
28	A9	CPU Address Bit 9
29	A10	CPU Address Bit 10
30	A11	CPU Address Bit 11
31	A12	CPU Address Bit 12
32	CTS*	Cartridge Select Signal
33	GND	Signal Ground
34	GND	Signal Ground
35	SND	Sound Input
36	SCS*	Spare Select Signal
37	A13	CPU Address Bit 13
38	A14	CPU Address Bit 14
39	A15	CPU Address Bit 15
40	SLENB*	Input to Disable Device Selection

The most common usage of this cartridge connector is with a ROM Pak. For cartridge detection, the Q clock is connected to the Cartridge Interrupt (pins 7 with 8); this generates an interrupt anytime a cartridge is plugged in and forces the computer to jump to the program in ROM. The cartridge MUST provide for this two pins to be connected, usually all AUTO-START ROM Paks come with this jumper in the form of a small circuit trace printed on its PC Board. To disable such auto starting Paks, a small scotch tape covering either trace 7 or 8 on the connector side of the pak is needed; this way the ROM program will not auto-start.

Besides the normal data and address lines, there are some special purpose signals available on the 40 pin port. Following is a more detailed explanation of such:

HALT*   This active-low signal places the CPU in a HALT state immediately following the execution of the current instruction. While in the HALTed state, the CPU address and data lines are in the High Impedance mode, making it possible for external devices to access RAM and ROM. The CPU may be HALTed indefinitely without any loss of internal data. A switch placed between this line and ground can serve as a "Pause" switch.

NMI*   This is the Non-Maskable interrupt input to the CPU.

RESET*   This is the master system reset and power-up clear signal.

E and Q   These are the two clock signals for the CPU.

CART* This is an interrupt input into PIA IC4. It is used to detect the presence of a cartridge. When jumpered by a ROM Pak or other device on the expansion port to the E signal pin, the CPU is forced to execute an external program (usually in ROM).

CTS* This is the Cartridge Select Signal. It is valid when the CPU reads any location from &HC000 to &HDFFF, as long as the GIME is in Map Type 0. Note that it is not active while writing to these locations.

SND This pin is connected directly to the sound input of the DAC chip and allows cartridge-generated sound signals to be routed to the TV or monitor audio system. The signal should be AC coupled and NOT exceed 3.9 volts p-p (distortion is present above 3.9 vpp).

SCS* This is a second chip select signal from IC9 (74LS138). It is active   for both reads and writes to addresses &HFF40 to &HFF5F, regardless of the Map Type.

SLENB*   This signal disables the internal device selection. This allows decoded but unused sections of memory to be used by the cartridge hardware.

By looking at the pin-out of the expansion port, we can see clearly the reason for all those NEVER PLUG/UNPLUG PAKS WHEN THE POWER IS ON warnings. The 5 volt line is right there in the midst of lines that connect directly with the CPU. Only the data lines are buffered to the 6809 and are somewhat protected against possible short circuits.

This information was compiled from the CoCo 3 Service Manual from Tandy. If there's something I have left out, please contact me and I'll do whatever's possible to complement the information presented here. I can be reached at

the E-Mail addresses given below, and if anyone desires to write to me via the all-day-standard US Postal System please do so, it is not necessary to include a SASE in order to get a reply!

Rogelio Perea
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72056.1204@compuserve.com
FidoNet: CoCo_echo and OS9_echo

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though, every other page or so there come helpful hints and tips from experienced Internet users, a lot of humorous illustrations help the reader in the process of understanding the "techie" material.

Several tables elaborate on subjects like FTP Commands, Mail Addressing Formats, World Wide Web Commands an the dreaded Spam phenomenon.

The book is about 200+ pages and size-wise is a little bit smaller than "The Complete Rainbow Guide to OS9 LII" book, so it looks good and nicely complements the average CoCo library shelf.

IMHO, net.speak is a must in this net-lingo days. With it, you will hardly be stumped when chatting with someone that FTPs, UUENCODEs and MIMEs to you all over the place.

Editor's note:
Many book reviews make me want to read the book, but I will need to read this book just to understand Rogelio's review. IMHO? Lemme guess..."In My Humble Opinion?"..."Idolatrous Monks Hate Octopi?"

NitrOS9 Modifications

by Brian Schubring

So all I wanted was a reliable, working CoCo that would access my full two meg of memory and let my parallel printer port work again. I replaced some of the modules with original stock modules then started from there with different modules of different editions. I must have gotten something goofed up and something right. Why you ask? Well before I did this I had a flackey system that was not reliable. Part of it was the fact that I had just done a repack, and also found that some of the components were not so good anymore, so out came the iron and I ripped out alot of old stuff (carefully, of course, since there were NO ripped up traces. Dang, I'M GOOD!), and put in new components, in sockets, of course. That must have helped because now the system became stable and didn't crash. But the different modules helped out too. I did have some modules mismatched, I still suspect that one or to of the ones I had in the boot were PowerBoosted and I didn't know which ones. But still no two meg, no parallel port, but a stable system that worked well. So for the time being I left it at that. DFIIIW. Don't Fix It If It Works.

Just for your info here is what I have for my system: A CoCo 3 w/6309 and a modified parallel printer port that Tony DiStefano of Canada published in the '87 Nov., Dec., issue of Rainbow. Why modified? Well the B&B RTC-Harddrive adapter card is addressed at the printer port addresses. So I had to redesign the circuit to address it at FF5A & FF5B. So much for that. A 2 Meg Disto board, and the new At-keyboard adapter by Northern Xposure. The newer MultiPak w/IRQ hack, FD502 Drive Controller, B&B HD Controller, 1 Miniscribe 20 meg & 1 Seagate ST251 40 meg for Harddrives, 2 40trk & 1 80trk 3.5" for DiskDrives. Original RS-232 Pak, and a MIDIPAK by Speech Systems. (Yes I am still working on the MIDI/RS-232 Pak). All that packed into a UniSys case with a PC powersupply. Overheating problems? NONE!!! Of course, two fans help.

Then on Tuesday, November 14 I got a present, (THANKS, COLIN) NitrOS-9 VERSION 1.22F. And it's bootable. So I read the instructions, made two backups of the disk, then I tried to boot from the disk. (This was done with an original copy of the disk before I did anything just to see if it would boot.) IT WORKED FIRST TIME!!! WOW!!! What an improvement!!! And yes folks, it did boot up right away with NO PROBLEMS. Then I got going and rebooted with my old boot and dug into the NitrOS-9 boot and added some drivers and modules that are not in the Bootmods directory on the disk, like for my harddrives. I used the new B&B descriptor that came with it of course, put in /nil & the new /VRN, Pprinter & /P, MIDI & Mididrv, among others that I needed. One thing that I had to do was set the steprate of all the drives and of course any changes for the size of my drives. After all that monkeying around I got disk ready to boot.

But How Did You Do All That ??? Who was that talking? Oh Well, that doesn't really matter since it brings up a good point. Well, all I did was use EzGen, on the backup copy of NitrOS-9.

One word to the wise .... When you use EzGen, don't do a whole lot of changes at once, because if you do you can BLOW the stack that keeps track of the changes. So please do the task in stages for your safety, sanity, and reliability.

NOTE: If you do have a harddrive, copy the entire NitrOS-9 disk into its own directory called Nitro or something, using 'DirCopy <in dir> <out dir> d '. Make sure you use the 'd' option to copy all of the sub-directories over to the harddrive. If you do not have a harddrive, then make at least two backups, because you will need to DELETE the BOOTMODS directory from one of your backup disks so you have enough room for the replacement of the new bootfile. This will take some time.

After you have EzGen'ed the boot with everything you need/want in it, now is a good time to Ded the OS9Boot to make sure all the drivers are set to right the baudrates and steprates. All my DiskDrives I have set to $03 (6ms steprate) I also did the same for both of my RamDrives. (When you do write out the modified module, make sure you VERIFY it also to get the correct CRC.) A word about the RamDrives. Before you format /R0 & /R1, make SURE you INIZ them or you may/will get errors when you try to read their directories or use them. Which brings to mind a problem I have. I can't have a ramdrive larger than 55 sectors. I am still working on the system and will find out sometime whats going on, but don't let that stop you from using the RamDrives, they work fine. Oh, and one more thing, if you decide to 'modbust' your current boot to get a module or two out, make sure you 'ATTR' the modules 'e pe w pw r pr' or you won't have a boot that will work and you'll wonder why with all the grief in the world until you SLAP yourself on the forehead and scream "STUPID ME !!!"

Now before you decide to just put the disk in and reboot there is one more thing you need to do if you boot off your harddrive like I do (/DD is my harddrive). Rename the commands in your root CMDS directory that match the commands in the CMDS directory on the NitrOS-9 disk to ' filename.stock '. Then copy over the files to the root CMDS from the NitrOS-9 disk and the new CC3go into your Root directory. You may also want to do the same with the commands found in the Utils1 merged file. Then Modbust the merged file and replace/add those also. (PS. USE ATTR' ON 'EM FIRST!!) The reason why you need to copy those files, is that all/some of the Commands found in the NitrOS-9, CMDS directory are updated and optimized for NitrOS-9 and may not work on a stock system. I would also recommend that you copy over the 'motd' file found in the /SYS directory to your /DD/SYS, and use the startup file on the bootdisk for a first try boot. Then modify STARTUP as necessary.

The following is an in depth view of what is actually on the disk compared to the read.me file that tells you the same thing. Notice that there are a few differences but you don't need to be worried about that. The OS9BOOT on the release disk has all the newest updated modules in it for this version release. What that means is that the BlobStop fix is part of the modules that had it. There is more info on that in the various read.me files throughout the disk.

NOTE: The last directory called UTILS1BUST, is just a 'modbust' of the merged files called Utils1 found in the CMDS directory that I put in my own directory. It is Not on the NitrOS-9 Disk.
Dtree
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By: Keith J. Alphonso

----/FD/NITRO   <==   This is just the directory I Copied the disk into.
   | OS9Boot
   | CMDS
   | SYS
   | CC3Go
   | Startup
   | BOOTMODS
   | DOC

```
| PATCH                          |   |   |                      |   |   |
| MISC                           |   | ----KERNEL2          |   | ----RAMPAK
| read.me                        |   |   | os9p2.122b       |   |   | r0_512
| UTILS1BUST                     |   |   | os9p3.122b       |   |   | r0_768
| bootlist                       |   |   | init.d0          |   |   | rampak.121
|                                |   |   | init.dd          |   |   | read.me
| ----CMDS                       |   |   | read.me          |   |   |
|   | grfdrv                     |   |   |                      |   | ----SARDIS
|   | shell                      |   | ----RBF              |   |   | read.me
|   | utils1                     |   |   | BURKE            |   |   |
|   | setime                     |   |   | ELIM             | ----SCF
|   | basic09                    |   |   | OWL              |   | PIPE
|   | chboot                     |   |   | RAMMER           |   | VRN
|   | cobbler                    |   |   | RAMPAK           |   | scf.120
|   | crc                        |   |   | SARDIS           |   | printer.116
|   | ddir                       |   |   | cc3disk.121      |   | p
|   | dirm                       |   |   | d0.d0            |   | ELIM
|   | grabtime                   |   |   | d1.d1            |   |
|   | pmap                       |   |   | dd.d0            |   | ----PIPE
|   | reboot                     |   |   | rbf.120          |   |   | pipeman.121
|   | runb                       |   |   | rbf.122          |   |   |
|   | testpak                    |   |   | read.me          |   | ----VRN
|                                |   |   | cc3disk.115      |   |   | vrn.119
| ----SYS                        |   |   |                      |   |
|   | motd                       |   |   | ----BURKE        |   | ----ELIM
|                                |   |   |   | bbfhdisk_2.122 |   |   | dacia.120
| ----BOOTMODS                   |   |   |   |                  |   |   | sacia.nompi.115
|   | KERNEL                     | bbfhdisk_2b.122          |   |   | sacia.mpi.115
|   | KERNEL2                    |   |   |   | bbfhdisk_4.122 |   |   | t2
|   | RBF                        |   |   |   |                  |   |   | ppia.119
|   | SCF                        | bbfhdisk_4b.122          |   |   | p
|   | WIN                        |   |   |   | bbhdisk_2.122  |   |
|   | ioman.121                  |   |   |   | bbhdisk_2b.122 | ----WIN
|   | CLOCK                      |   |   |   | bbhdisk_4.122  |   | VDG
|   | CC3IO                      |   |   |   | bbhdisk_4b.122 |   | term
|   | LISTS                      |   |   |   | read.me        |   | w
|   |                            |   |   |   |                  |   | w1
|   | ----KERNEL                 |   |   | ----ELIM         |   | w2
|   |   | rel.32.121             |   |   |   | wddisk.121     |   | w3
|   |   | rel.40.121             |   |   |   |                  |   | w4
|   |   | rel.80.121             |   |   | ----OWL          |   | w5
|   |   | boot.burke.121         |   |   |   | ram.owl.120    |   | w6
|   |   | boot.elim.122          |   |   |   |                  |   | w7
|   |   | boot.rampak.121        |   |   | ----RAMMER       |   | w8
|   |   | boot.rs2disto.121      |   |   |   | rammer.120     |   | w9
|   |   | boot.tandy.121         |   |   |   | md             |   | windint.122c
|   |   | os9p1.122f             |   |   |   | r0             |   |
|   |   | read.me                |   |   |   | r1             |   | ----VDG
|   |   | boottrack.tandy        |   |   |   | read.me        |   |   | read.me       12
```

```
|   |   |   | vdgint.115          |   | i_newcmds                  |   |   | cc3io.kq3.115
|   |   |   | vdgint.small3       |                                |   |   | clock.kq3.115
|   |   |   | vdgint.tiny3        |----PATCH                       |   |   | agivirqdr.115
|   |                             |                                |
|   |----CLOCK                    |----MISC                        |----UTILS1BUST <== This
|   |   | clock.soft.120          |   | MULTIVUE                   is the files in the merged file
|   |   | clock.elim.121          |   | PUBLISH                    called UTILS1.
|   |                             |   | FLT_SIM                    |   | Attr
|   |----CC3IO                    |   | KQ_III                     |   | Build
|   |   | cc3io.joy.120           |   |                            |   | Date
|   |   | read.me                 |   |----MULTIVUE                |   | DeIniz
|   |                             |   |                            |   | Del
|   |----LISTS                    |   |----PUBLISH                 |   | Deldir
|   |   | boot.elim.h0            |   |   | publish                |   | dir
|   |   | boot.tandy.d0           |   |                            |   | Echo
|   |   | make.elim.h0            |   |----FLT_SIM                 |   | Free
|   |   | make.tandy              |   |   | ft.115                 |   | frmem
|   |   | read.me                 |   |   | fs                     |   | Link
|   |                             |   |   | f2                     |   | makdir
|----DOC                         |   |   | f3                     |   | MDir
|   | a_6309                      |   |   | f4                     |   | Merge
|   | b_vendors                   |   |   | read.me                |   | Mfree
|   | c_compatibility             |   |   | ftdd                   |   | Procs
|   | d_syscalls                  |   |   | boot.elim.flt_sim.d0   |   | pwd
|   | e_sysvars                   |   |   | make.elim.flt_sim.d0   |   | pxd
|   | f_history                   |   |                            |   | save
|   | g_bootdebug                 |----KQ_III                      |   | Unlink
|   | h_modules                   |   |   | read.me
```

So now you want to know how it all works, Right? Well it works Great so far. Faster, it seems stable so far. A couple of the programs don't work right with it yet but I'll find out why ASAP. The programs are:

1) SuperComm, It won't put up the header line on top and it won't dial out. It may be caused by the /T2 & Sacia modules I'm using, but that remains to be seen. So far I can't use this program yet. But I can still boot up with my old boot and use it.

Attention!!! Here is some new news to add!!! I have fixed the problem with SuperComm. At this point it is only a tempory fix until Alan DeKok puts out the next upgrade to fix some bugs and release (as per Colin McKay), the regular Sacia & T2 modules and other stuff in release 1.22(H?).

How did I do it? All I did was take the Modules for the Eliminator and change the hardware addresses to the RS-232 Pak and the T2 for the Dacia. The modules that I used was for the No MultiPak or a MultiPak with the IRQ Jumper Hack found in the Elim Directory on the upgrade disk. Below is a print out of what files I used and what I did to make it work. Warning. I have Experienced a lockup of the system if left alone for a while after using T2 and needed to reboot. BUT now I can at least run SuperComm.

```
#1) Sacia.nompi.115                          #1) T2.Dacia
#2) Patched  Sacia                           #2) T2.Sacia

Differences                                  Differences

byte     #1 #2                               byte     #1 #2
======== == ==                               ======== == ==
00000245  6D 68                              00000010  64 68
00000317  72 6B                              00000032  44 53  <== D(acia) to S(acia)
000003ED  74 6D                              0000003B  B8 E0
00000499  82 B3                              0000003C  05 89
0000049A  D6 FD                              0000003D  42 3C
0000049B  D3 6C

Bytes compared:  0000049C                    Bytes compared:  0000003E
Bytes different: 00000006                    Bytes different: 00000005
```

2) UltiMuse3 ver 6.10.0 only, (don't know about other versions yet). This is the version that doesn't need a VDG window to startup in, and it seems to auto-sense if PowerBoost or NitrOS-9 is present, since I didn't have to hack the Um3Play module to get the music to play, like I did with the earlier versions when I was running PowerBoost. But that statement may be wrong, since I now use a MIDIPAK and it may not rely upon the timing loops like the serial port may. So far only a small bug is present. If you merge your 'SYS/stdalls' Fonts into memory you will see (ver # 6.10.0 - others?) in the upper left hand corner, down a line or two, in reverse video... whatever you type in to answer the dialog boxes. Otherwise all you will see are periods for every character typed in if you haven't merged into memory your fonts. The characters are cleared when a screen refresh is done by the program. Otherwise UltiMuse3 ver 6.10.0 seems to work fine.

3) My parallel printer port still doesn't work... But now I think it's either a hardware problem, or an addressing conflict with the 2 meg memory. Or the PParallel port modules need to be patched to the new SCF Manager that sees things a little differently now. There is a future for it yet.

DynaStar, works fine as does Vu, the new Help file system, and the Rsdos / Pcdos Menu programs. I'll let you find out what else does or doesn't work on your systems since it's probably different anyway. I hope that this small dissertation helps you in your endeavors in getting NitrOS-9 up and running fully.

DISCLAIMER NOTICE: I will not be held responsible for any problems, loss of data, time, hardware, or something not working. I do not claim that the information in this file is 100 % accurate, or can be used in replacement of the instructions, and/or read.me files or other VALID instructions found in/on either the instructions book, NitrOS-9 disk, or the OS9 Manual. This writing is just the work of a few days of working on my system on getting NitrOS-9 running on MY SYSTEM. I do not claim to have a perfect or even the fullest understanding of all the workings of OS9/NitrOS-9 but I do try to the best of my abilities.

Please, DO NOT take offense in the above statement. I have TRIED to be as accurate as I can be, and if there is an error, PLEASE let me KNOW so I can learn from it. Thank You.

Happy OS9'ing!!!

Meeting Location:

Glenside Public Library
25 West Fullerton Avenue
Glendale Heights, Illinois 60172

Directions:
The Library is on Fullerton Avenue, about one-half mile West of Bloomindale Road.
Fullerton is about one mile South of Army Trail Road and about one mile North of North
Avenue (Route 64). Bloomingdale Road is about two miles West of Route 53/I-355/the
North-South Tollway.

Next Meeting Dte
May 9, 1996
June 13, 1996

Glenside Color Computer Club
31 South Edgewood Avenue
Lombard, IL 60148