

CoCo~123



The Glenside Color Computer Club

**A Glenside Publication since 1985
Your Voice in the CoCo Community**

May, 1997 Volume XVII, Number 2

The President's /term by: Mike Knudsen

Greetings for the Fall from your President. Maybe we'll get some Indian summer to make up for the regular variety we haven't had as much of this year. At least for the Picnic.

If you don't see me at the Picnic, it's because it's Saturday and I'm hosting my son Dan's birthday party on my deck. If it's Sunday I should be there.

A lot of great stuff happened this year. Our GCCC pulled off another great Fest. And then Ron Bull in my home state of PA held yet another! It's been a few years since there were two separate Fests in one year. And we both plan another next year!

But the latest great news is that our IDE Hard Disk Adapter has finally been debugged and is ready for production, pending no bugs found in the final pilot model. The final bug was found to be in the driver software (naturally -- heh heh). But that's only because we scared and intimidated the hardware into working. How? By having my van loaded with fancy test equipment, ready to roll to the last all-nighter at Eddie's. The mere thought of O-scopes and logic analyzers terrified that hardware into behaving.

Many thanks are due to Carl Boll and Eddie Kuns for their many tireless all-nighter debugging sessions, and to Gene Brooks for drawing and updating the schematic drawings (OK, so he used one of those "other" computers, but it was fun to

The IDE Project Update by: Carl Boll

It is now The end of August and still we don't have the boards ready to ship.

Why!? Well it is a long and complicated story. Can it suffice to say that it is all a learning experience? Not really.

I must take most of the blame. I thought when we got the original prototype of the IDE interface that we were almost home free! After we got that and the schematic in the form of a GIF file I would have thought we were in good shape.

It looked even better when Brian Schubring imported the GIF (or should I say converted) into a schematic drawing program. Next Gene Brooks took that schematic and imported it into a professional schematic/board layout program that he uses at work.

Gene then had a board built which he populated and brought to our next meeting. Unfortunately it didn't work! Both Mike Knudsen and Gene found the problem at exactly (well almost exactly) the same time. After one minor modification the IDE Board worked.

At this point I will digress a little. After we named this the IDE Project we found out the we had actually misnamed it. More properly it should be called the ATA project. You see IDE is an old outdated standard that was in

CoCo~123 Information

The Glenside Color Computer Club, Inc. is a non-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, Inc. (hereafter known as GCCC). GCCC has no affiliation with Radio Shack ® and / or the Tandy Corporation®. The opinions of 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 12 issues per calendar year. For a fee of \$15.00, for January through December, you may become a GCCC member with full membership privileges. Send your dues to:

George Schneeweiss
13450 N 2700E RD
Forrest, IL 61741-9629

CoCo~123 Contributions

If you would like to submit an article for publication in the CoCo~123 you may upload it to one of the Club BBS's or send it directly on a disk to:

Carl Boll
6242 S. Menard Ave.
Chicago, IL 60638

..The following formats are acceptable:

RS-DOS - 5 1/4" disk
OS-9 - 5 1/4" disk
MS-DOS - 5 1/4" or 3 1/2" disk

All articles should be in straight ASCII format, not specialized word processing formats to facilitate importation into the newsletter.

Advertising is also accepted. If you are a vendor you may send an ad to the previous address. All ads should be "camera ready"* art. Please limit the size of your ad to 1/4 page. If you wish you may submit your ad on a disk in the following graphical formats:
JPEG, GIF, BMP, WPG

Reprint Policy

If you or your club / user group desire to reprint any articles in part or in whole that appear in the CoCo~123 you may do so under the following guidelines:

1. Provide credit to the Author of said article
2. Provide credit to the CoCo~123

We encourage others to copy these articles and the newsletter and distribute it at your regular meetings.

Glenside Club Meetings

The GCCC meets every second Thursday of the month from 7:30PM to 10:00PM at the Glendale Heights Library. A social get-together always occurs after the meeting at a local restaurant.

Newsletter Exchange

The GCCC is happy to exchange newsletters with other clubs / user groups at no charge. Please send your newsletters to:

Dennis Devitt
21 W 144 Canary Rd
Lombard, IL 60148

These are your BBS's. Please support them.

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

Glenside East
847-632-5558
9600 baud

Glenside's Officers

President: Mike Knudsen
630-665-1394
Vice President: Jerry Jeskey
708-449-2638
Vice President: Justin Wagner
630-393-7072
Vice President: Tony Podraza
847-428-3576
Treasurer: George Schneeweiss
815-832-5571
Secretary: Bob Swoger
630-837-7957

The President's /term

watch). And to everyone else who pitched in.

This kind of project keeps the GCCC at the forefront of those who support our little "orphan" computer. We couldn't do it without the support of ALL our members -- moral, emotional, financial, and just showing up at our meetings and other events.

Keep it coming -- it pays off!

Your President, *Mike Knudsen*

The IDE Project Update

fact an 8 bit interface for old IBM XT and XT compatible computers. The interface we are using is actually a 16-bit interface that does some fancy footwork to convince the hard drive that it is communicating with a 16 bit computer. The scheme can be used, I'm sure, to interface other 16 bit parts to the CoCo in the future if it is so desired.

The old true 8 bit IDE drives are very hard to find now and it wouldn't be very smart to build an interface for them. One variation of these drives was the Tandy Smart Drive. This was an IDE drive that was used in some of the Tandy 1000 line of computers.

Enough digression for now. We had a working board now, at least it was working with the driver provided. Now we had a dilemma. The driver we had was an 8 bit driver. You see, the ATA drives are 16 bit devices in that they read and write 16 bits at a time. Now the original designer of the board, Jim Hathaway 3, made the board to be able (he hoped) to actually read and write 16 bits but being the true hardware hacker that he was he lacked the skill at writing drivers to actually get the 16 bits working. The drives are also hard coded to be 512 byte sector devices and they can NOT be low level formatted like many SCSI drives can be. We knew we had a working 8 bit board. Right now what was happening with the board was it would read and write 8 bits of data to/from the drive that we could use and an additional 8 bits that were garbage. We just ignored the garbage, never read it into the CoCo. This worked fine and in fact this is just how Jim has been using his interface for quite some time now.

The biggest problem with this is that you only end up with half of the drive's capacity for your use. The other half will be filled with garbage. Not really the best solution but one we realized might be better than nothing, after all, half of a 540 Meg hard drive (which costs less than my first 20 Meg MFM drive) is still 270 Megs, a lot of storage for a CoCo.

At this point we started testing the interface and hard drive setup. We really beat on it doing multiple dsaves while other processes were going. Whoops, we started to get failures. As we studied the drive we could see real problems. We thought we had a hardware problem so we started testing some other possible fixes. The problem stayed the same regardless of what we did. At this point I finally decided to put the hard drive onto a "DOS" machine to make sure we had the right specs and to format it, etc.

OUCH!!!!!!!!!!!!!! It had bad sectors. One was in the bit map area...not good. Upon further study we found out that the driver was not allocating bad sectors when formatting, not returning the errors properly. Golly Gee! wonder why we had problems.

New hard drive! formatted under DOS. Check with both MS-DOS and Norton's Utilities. No bad sectors. Now I beat up this hard drive. Ran dsave and other processes concurrently. It worked fine! OK, next step.

We sent the current 8 bit driver to Alan Dekok so that he could write a 16 bit driver for us. After all, he is the king of Nitros now and he has source to untold drivers, etc. The first driver didn't work at all. The second one wasn't much better but we had source code now with an idea of how to make this work.

Enter Mark Farrell. He found a couple of nasty little bugs in the code. Minor things like the read/write order. After squashing those bugs we still had problems with the data getting totally scrambled with the 16 bit driver. At least now we were able to use DED though to read the drive as a raw device.

This gave us a few clues but not the ojne we needed. Mark found this one! somehow in the translation from the GIF to the final schematic two pins got swapped. This did real nasty things when trying to read or write 16 bits but didn't affect the 8 bit hardware.

OK! Now that is fixed. Let's try again. We format a drive. No errors. We do a dir. It looks good. We start to do a dsave and we get more erros than we know what to do with.

After lots of study with DED we find out that somehow we are loosing bytes. Not just any old bytes but very specific bytes. It is a certain bit/byte pattern that is causing a problem. Now, is the problem occuring during a read or a write. This takes some time to confirm. It happens during both but is worse during read.

At this point (actually several steps earlier) Eddie Kuns got very actively involved. Scott Griepenrog also helped a little as did Brian Coens and Tony Podraza. Eddie was the one doing the DED magic and he started rewriting the driver after first fully (and I mean FULLY) commenting the source.

He found lots of potential problems. Fixing them didn't help at all! At this point we again started looking at

hardware. We did all sorts of things to change timing of reads and writes. Fortunately the board is fully socketed and I have a steady hand and a decent 15 Watt soldering pencil. We had so many hacks on some chips that there were only the +5V and ground pins actually in the socket, everything else was wired to something different. We had chips piggybacked too.

We did make it different, not significantly but definitely different. At this point we kind of gave up because of the PA Fest. Because of the current state of the board we decided it would behoove us to leave it home. We did have an old board to show though. At this point we had three boards from Gene, one of which still worked, three that I had made by hand none of which still worked (they all died at the Chicago Fest) and the first board from Jim Hathaway.

By now Mark Farrell had fixed one board so that it worked (it was the original one that Gene made). Until this point boards had been passed back and forth between me Eddie and Mark with Tony Podraza doing a lot of the delivery work. We had found a potential addressing problem with the board if it is used in a MultiPak. Eddie had some ideas about fixing that and conferred with both Mark and Gene about this. Mark had also come up with an alternate addressing so that the interface can be used with a Burke and Burke controller.

Up to now though we still hadn't solved the final problem. We still couldn't do a 16 bit read and write with certain data patterns. Eddie and I were going to get together to work yet again on the project when we got phone calls from Mark. He had a working driver, finally after a couple of "almost worked" drivers. He uploaded it and source to Tony's BBS and we downloaded it that evening. Much to our chagrin it didn't work! We played with it and the source for some time but no go. Finally Eddie decided to just go back to the original source and do the modifications that seemed to make the difference for Mark. Of course we had to make a few other changes too.

Eddie made a boot disk...we plugged it into the disk drive. After saying some very nice things to the CoCo we booted up. I held my breath as we formatted the hard disk. OK, no errors...looks good so far. Let's do a little diddling with DED...write that nasty pattern. move a couple of sectors away and do another write and go back to the first sector....it still looks good!!! Could this be it? After doing a few Dsaves and very viciously beating up the hard drive we couldn't make it mess up.

The driver worked! Between Eddie and Mark Farrell they had gotten the driver to work. There is still more work to be done before we get the boards etched and other testing that needs to be done but it looks very promising now. Kudos to Eddie and Mark and pats on the back to everybody else that was involved in getting this working.

Now the good news. We will probably be able to start shipping these boards in a month. Eddie is a Grad student and can not afford to spend any further time on this project for a while so...we wait. In the meantime I am working on the

documentation and Mark is improving the drivers. I am going to build one more prototype by hand (right after finishing this newsletter) and Gene is going to cut one more at work (see the special notes). We will test these to make sure everything works correctly and if it does...we are in business. I can't thank everybody enough for their patience on this project. Eddie, Mark, Tony, Gene, Brian and Brian, Mike Knudsen and of course all the people who sent in deposits and decided to wait for a 16 bit product. I have to admit that at times I was afraid we weren't going to solve all the problems but now I am optimistic.

We are planning on having a "board building party" as soon as we get the boards from the etching house. Docs should be done by then so we can start shipping right away. We are going to fully socket the board and provide a set of pads for a spare chip (for hackers) and there will be a few other changes but nothing that will make it a lot different from what we were showing in Chicago.

Wish us luck now. It is finally coming to a conclusion. Eddie has spent many more hours than he should have. We spent at least 8 days where I got there at 5:00PM to 7:00PM and stayed until 7:00AM. I very conservatively estimate the amount of manhours spent this far on the project to be in excess of 2000. That doesn't include the hours Jim Hathaway spent. Yes, that seems like a lot but when you consider that we had three different people working on the project at different locations it gets a little more realistic.

A lot of time was spent trying to obtain the true specs of the ATA standards, some was wasted because the standards aren't user freindly. All in all it was a real learning experience for all of us.

*****SPECIAL NOTES*****

First Jim Hathaway needs to be mentioned. He did what a lot of others said wouldn't be worth doing. What is amazing is the fact that Jim manages to do everything with just 9 chips and he doesn't even use them all to their full capacity (there are unused gates).

Next is Eddie Kuns. He is working on his Phd in Physics. He is near the end of his studies and everything is finally coming together. The problem is he has to figure out what it all means and put it into some sort of understandable order (at understandable for a physics type person. He spent way more hours on this project than he could afford. We all owe him a big thanks.

After Eddie is Gene Brooks. He took a schematic, made it a file on his computer and then generated a file that most board makers can use directly, no need to print anything out. This took him many hours. More importantly he was very understanding when we asked for changes, etc. It was also Gene that provided us with the prototypes that were made from the said file. This gives us a chance to test the artwork without actually etching boards. This deserves an extra special mention. Where he works they have a machine that takes a

double sided copper clad board and uses a metal cutting bit (kinda like a dremel tool or a router) and literally cuts away the copper leaving the traces and pads where you want them. It does both sides and is VERY accurate! This was invaluable. Without Gene and the prototypes he provided I doubt that we would have actually been able to undertake this project.

Next comes Mark Farrell. Mark figured out a lot of the problems with the driver and the board. He also provided a few false starts lest anybody think he did it alone. He and Eddie had quite a few conversations on the problems and possible solutions. The solution that finally fixed the 16 bit driver was also on Eddie's list of things to check. Mark just got to it first. I am not trying to take anything away from Mark either. He spent a lot of hours on this project and they are all, each and every one of them deeply appreciated. I guess what I am trying to say is that it wasn't any single person or evne any two people that have contributed to the success of this project, it has been a mutual effort that succeeded because of the unique friendship and sense of community...no...family that we find in this club.

Then there is Brian Goers who found the board maker we will be using. In an industry where Gene tells me that a 6 week lead time is normal they will do it in 2. They can do the gold plated card edge contacts we want and they do plated through holes, no extra charge. Brian also helped with testing and trying to figure out what could be wrong with the boards. He spent a lot of hours manning the booth in both Chicago and PA too.

I can't forget Tony Podraza who spent a lot of hours shuttling the boards back and forth, a few hours attempting to test a board and quite a few hours passing messages to and from Mark until we all got our hours and stuff figured out. Now we just play phone tag with answering machines.

Brian Schubring first imported the GIF file to a usable format (kinda). Gene ended up having to do it all over again but that was not Brian or Gene's fault, just software incompatibility.

Mike Knudsen helped by offering his logic analyzer and oscilloscope (I actually think this is what made the board work) and was planning on coming over the day that we got the driver fixed to see exactly what is happening hardwarewise. It gets to stay all magic now.

Howard Luckey for moral support and help manning the booth in Chicago. Howard is a great guy!

Bob Swoger for spare pieces/parts fro the Project.

Justin Wagner who got us a whole bunch of cables.

My wife who has allowed me a lot of latitude and been VERY, VERY understanding about big boys and toys.

Anybody else I've forgotten. It wasn't intentional. As

I get older it becomes harder to remember everything. That is why I make lots of notes.

WITTMAN COMPUTER PRODUCTS CLOSES!

It has been a long and thought out decision. But effectively May 1, 1997 Wittman Computer Products will no longer be in business. It has taken a lot of thought over the past 6 months to a year. But there just aren't any sales happening. The last software sales were in Chicago with about 2 more over the past year. The cost of ads and business checking account and phone calls have drained what "profit" there may have been in the business account.

I will gladly test out software and new hardware for the 306. The 306 list will remain up, but not sure about the Insight list since there is no activity at all one there.

My wife Cheryl made mention in April when she was working on our taxes that the business has not been worthwhile. Besides the extra time I am spending as her pregnancy progresses and with the hopes of purchasing a home in the near future.

More of my time is being spent working more to bring more in to pay bills and save for a home. Besides a little more volunteer work with our Amateur Radio Club, Church, and researching my family genealogy.

Thank you to all of you for your support. We have come a long way over past years. But it is time to end this part of my life an continue on.

Bill

Wittman Family Genealogy
William L. Wittman, Jr.

wittman@frontiernet.net
39 South Lake Avenue Phone (716) 494 - 1506 EST
Bergen, NY 14416 Fax (716) 494 - 2875
<http://www.frontiernet.net/~wittman>
<http://www.frontiernet.net/~wittman/genealogy>

EDITOR'S NOTE:

The community will sincerely miss Bill's presence at the Fests. It is our hope that he will remain a user of OS-9 and come future Fests as a regular attendee instead of a vendor. Bill was very active in promoting the OSK machines and we will all miss his contributions as a vendor in this small family we call the CoCo community. From all of us at Glenside:
THANK YOU Bill for all of your past support and you have our well wishes in your future endeavors. -Carl

Upgrading a CoCo 3 to 512K without a 512K memory board

By: Marty Goodman

As of this writing (February, 1993), the CoCo 3 has long been orphaned, and support for it is now nearly non-existent. As part of this situation, it has become impossible to buy 512K memory upgrade boards for the CoCo 3. Well, if you have a 128K CoCo 3 and want to upgrade it to 512K, it still is possible to do this without a 512K memory board. The good news about this approach is that all that is needed are 16 41256 DRAM chips and four .1 mfd to .47 mfd miniature capacitors, and four 18 pin DIP headers. The BAD news is that this approach is very tedious, and requires considerably skill and experience with fine soldering, and a lot of patience.

Materials:

16 41256 (256K x 1) DRAM chips These should preferably be 150 or 120 ns access speed, although faster chips (100 ns or faster) will likely work just fine, too.

4 18 pin DIP headers, of a size that will plug into the four 18 pin memory sockets on the CoCo 3. A Machine Pin style 18 pin socket may work fine for this purpose. Machine Pin style 20 pin sockets can, of course, be hack-sawed into 18 pin sockets.

4 .1 to .47 mfd (I recommend .33 or .47 mfd) capacitors, physically very small in size (the size of a match-head is best).

One short piece of wire.

Approach:

What you will do is make four QUADRUPLY STACKED sets of memory chips. That is, you will be making four, four-chip-high piggybacks on top of the four 18 pin headers. Most of the pins will go straight thru and be soldered to the pins of the chip or header below them. However, a few pins will be re-routed.

Bend straight out (horizontally) pins 1,2, and 14 of a 41256 DRAM chip. Bend pin 16 of that DRAM chip "forward" so it reaches just a bit outward in the direction of the length of the 41256 chip.

Line up the chip over the 18 pin header, so that pins 1 and 16 of the DRAM chip lie over pins 2 and 17 of the header. See to it that pin 16 of the 41256 is bent in such a way that it can make contact with pin 18 of the header.

Solder pins 3,4,5,6,7, and 9 of the DRAM chip to pins 4,5,6,7,8, and 9 of the header. These pins will be going STRAIGHT DOWN, unbent. Solder pins 9,10,11,12,13, and pin 15 of the DRAM chip to pins 10,11,12,13,14, and pin 16 of the 18 pin header. These pins will be going straight down.

Solder pin 16 of the DRAM chip to pin 18 of the header. This requires that pin 16 be bent a bit "forward", as noted above. You might want to put a "dog leg" type bend in it to keep it from contacting pin 17 of the header.

Prepare three more 41256 chips in a similar fashion, EXCEPT don't bend forward or out pin 1 or 16. Leave pin 16 alone. Now stack those three chips on top of the chip and header you prepared, one on top of the other. Attach pin 1 of the chips to pin 1 of the lowest chip, and attach pin 16 of the chips to pin 16 of the chip below it. Note that all the pin 16's are routed to pin 18 of the header, and that all the pin 1's are routed to the pin 1 of the lowest chip, which in turn is NOT hooked to the header, but instead is bent out.

Now, using wire wrap or other small gauge wire, join on each chip pins 2 and 14. Run wires from the joined pins 2 and 14 of each individual chip to pins 2,3,15, and 17 of the 18 pin header. It does not matter what pair of joined pins goes to what pin of the header... just be sure that each of those four header pins is connected to a pair of joined pins 2 and 14 from one of the four DRAMs in the stack.

Now solder on top of the stack the little capacitor, hooking one side of the capacitor to pin 8 of the DRAM chip and the other side to pin 16 of the DRAM chip at the top of the stack.

Make up a total of four such stacks as above.

Note that you will likely find it easiest to clip off the narrow part of the horizontally bent out pins, leaving just the fat part of them to solder to. This may in fact be necessary to keep the pins from hitting each other when the stacks are installed.

Now plug each of the four stacks into the four 18 pin DRAM sockets in the CoCo 3.

Solder short wire jumpers between the joined pin 1's of each of the four stacks.

Solder a wire from the joined pin 1's of all 16 DRAMs to a plate thru solder pad just in FRONT of pin 11 of CN4 on the CoCo 3 mother board. This is the missing address line used in the 512K upgrade.

The plate thru pad in question is located very near CN4, between CN4 and CN 2. CN 4 is a 12 pin socket used for part of the 512K memory board, and CN 2 is the socket for the keyboard of the CoCo 3. Be SURE to remove the keyboard of the CoCo 3 before doing this, else you risk destroying the ribbon cable of the keyboard when you try to solder to the CoCo 3 mother board.

Your CoCo will look a bit weird, as if there are four "high risc towers" in the memory chip sockets. However, if you carefully follow these instructions, you SHOULD get out of this a 512K CoCo 3.

Reference Information:

Pin out of 41256 chip compared to pin out of 4464 chip socket in CoCo 3:

| | 41256 | 4464 | |
|-----------|---------|------|---|
| | | 1 | *OE (not used by CoCo 3 tied high Ignore) |
| extra adr | A8 1 | 2 | I/Oa bi directional I/O line |
| Data In | Din 2 | 3 | I/Ob bi directional I/O line |
| | *WE 3 | 4 | *WE write enable |
| | *RAS 4 | 5 | *RAS Row Address Strobe |
| | adr 5 | 6 | adr address line |
| | adr 6 | 7 | adr address line |
| | adr 7 | 8 | adr address line |
| | Vcc 8 | 9 | Vcc +5 volts |
| | | 9 | adr |
| | | 10 | adr |
| | | 11 | adr |
| | | 12 | adr |
| | | 13 | adr |
| data in | Din 14 | 14 | I/Oc bidirectional I/O line |
| | *CAS 15 | 16 | *CAS Column Address Strobe |
| ground | gnd 16 | 17 | I/Od bidirectional I/O line |
| | | 18 | gnd ground |

What is going on here is that the Din and Dout of each 41256 is connected to each other, and those two joined pins are then connected to one of the bidirectional I/O lines of the header. The one extra address line (pin 1 of a ll 16 chips) is hooked to the mother board so that it can connect to that address line of the GIME chip's memory management section. Finally, pin 1 of the 4464 chips is not actually used, for it is an enable line that is grounded all the time. Therefore, we can ignore the fact that the 41256 lacks such a line.

It is a great pity we could NOT use four 44256 chips to upgrade the CoCo 3 to 512K memory. This would have eliminated the hassel of staking chips four high. However, the refresh cycle for 44256 chips is 512 cycles, and the darn GIME chip in the CoCo supports only 256 cycle refresh. One would need special extra circuitry (like that on the Disto 2 meg upgrade) to use such chips.

I have successfully upgraded one CoCo 3 to 512K in this fashion. It's AWFULLY tedious.

---marty

MARTYGOODMAN on Delphi

MARTYGOODMAN@DELPHI.COM on Internet

Please share this article freely with all.

P.S. minor typo: pin 14 of the 41256 is a Dout, not a "Din" line. All Din lines of a given 41256 chip are shorted to the Dout line of that chip in the CoCo 3 memory circuit.

Here's a rather long message from Custom Forum 143 on Delphi. It's a little too good to accept it as a real story. Still even if it isn't true, there are certainly some computer users who are nearly as uninformed.

50835 11-SEP 08:20 General Discussion
Really? Is it that bad?

From: ALPHAGENESIS To: ALL

Technical assistant at BEST BUY, "May I help you?"

"Yes, well, I'm having trouble with MS Word."

"What sort of trouble?"

"Well, I was just typing along, and all of a sudden the words went away."

"Went away?"

"They disappeared."

"Hmm. So what does your screen look like now?"

"Nothing."

"Nothing?"

"It's blank; it won't accept anything when I type."

"Are you still in MS Word, or did you get out?"

"How do I tell?"

"Can you see the C:\ prompt on the screen?"

"What's a sea-prompt?"

"Never mind. Can you move the cursor around on the screen?"

"There isn't any cursor: I told you, it won't accept anything I type."

"Does your monitor have a power indicator?"

"What's a monitor?"

"It's the thing with the screen on it that looks like a TV. Does it have a little light that tells you when it's on?"

"I don't know."

"Well, then look on the back of the monitor and find where the power cord goes into it. Can you see that?"

"Yes, I think so."

"Great! Follow the cord to the plug, and tell me if it's plugged into the wall."

"Yes, it is."

"When you were behind the monitor, did you notice that there were two cables plugged into the back of it, not just one?"

"No."

"Well, there are. I need you to look back there again and find the other cable."

"Okay, here it is."

"Follow it for me, and tell me if it's plugged securely into the back of your computer."

"I can't reach."

"Uh huh. Well, can you see if it is?"

"No."

"Even if you maybe put your knee on something and lean way over?"

"Oh, it's not because I don't have the right angle-it's because it's dark."

"Dark?"

"Yes-the office light is off, and the only light I have is coming in from the window."

"Well, turn on the office light then."

"I can't."

"No? Why not?"

"Because there's a power outage."

"A power... A power outage? Aha! Okay, we've got it licked now. Do you still have the boxes and manuals and packing stuff your computer came in?"

"Well, yes, I keep them in the closet."

"Good! Go get them, and unplug your system and pack it up just like it was when you got it. Then take it back to the store you bought it from."

"Really? Is it that bad?"

"Yes, I'm afraid it is."

"Well, all right then, I suppose. What do I tell them?"

"Tell them you're too stupid to own a computer."

Marlin Simmons

The following was posted to the cocolist. It is quoted in its entirety. You can contact Paul via Email.

While senselessly daydreaming I mentioned that RS still sold the smart watch as a replacement part.

The Chip is a DS1216E and 10 to 15 bucks cheaper from JDR or Newark.

I'm not affiliated with any of the companies mentioned. Just passing the info on since I sold several I had pack ratted awhile at the Carlisle Fest.

Thanks
pwz ii

--
bg814@yfn.ysu.edu
Paul W. Zibaila II
The opinions expressed by me are mine.

.....
I also received the following message about 63C09E CPUs (at least I think they were 63 >C< 09's). They are definately 6309E's.

Carl

The mail here is as wacky as my brain seems to be lately. If I've answered this several time I appologize.

I've got about xx bucks apiece in them.
xx.50 - xx.00 would be great I've been trying for 15.00 with a socket to the GP

Thanks
pwz ii

--
bg814@yfn.ysu.edu
Paul W. Zibaila II
The opinions expressed by me are mine.

If you are interested in getting a 6309 or a smartwatch this is good to know. Please contact Paul.

.....
From Our Cracked, Incomplete and Abridged Computer Term Lexicon:

Analog *n.* Hors d'oeuvre, usually made with cheese and covered with nuts. Served at all staff parties.

Apple *n.* Typically, a device used to seduce men. Usually equipped with display screens and/or worms and bugs.

Bar Chart *n.* A list of places to go when it's Miller Time.

Minutes of the Glenside CoCo Club meeting of January 9, 1997.

Six members present.

Meeting called to order at 8:05pm

Old Business:

IDE Boards:

There was discussion about the status of the IDE boards being made for the CoCo which will enable the CoCo user to use these kinds of drives on their systems. Progress is being made and in fact there was a prototype board at the meeting and after the end of the official meeting a lot of time was spent on setting up a system to get the board working. There was no success at the meeting. (Since the meeting Carl did get one working.)

Jim Hathaway has been doing the work to design the boards and the arrangement is that he will get \$5.00 for every board that the Club sells. So far no price has been set because there is a need to get a better handle on costs, however the price is expected to be affordable.

Newsletter:

The author of the article about model railroads in the last newsletter is Williard Lorenz.

"Last" CoCo Fest (Seminar speakers):

There was a discussion about who to have as seminar speakers, so far none have been selected. Also the club is willing to pay for a keynote speaker and if there is enough interest the Club may collect more money for a speaker by passing the hat for donations. Again no one has been selected yet. Getting a schedule of speakers could be a good way to attract visitors to the Fest.

Library Reservation:

There was a question about the fee for the meeting room having been paid, the Library said that they hadn't received it yet. The Chair will call the Treasurer to check on it.

New Business:

It was announced that the Glenside Club had made arrangements for the Chicago Area OS-9 Users Group to use the meeting room on the fourth Thursday of the month for their new meeting place. The OS-9 group will pay the Glenside Club the room fee.

Meeting adjourned at 9:00PM

Submitted by Howard Luckey, acting secretary.

Minutes of the Glenside CoCo Club meeting of February 13, 1997.

Minutes By The Minute

by Bob Swoger

In the tardiness of President Mike Knudsen, the meeting was called to order at 7:58 pm by past President Tony Podraza. Present were George Schneeweiss, Rich Bair, Tony Podraza, Gene Brooks, Carl Boll, Rob Gibbons, Bob Swoger, Eddie Kuns, Gerry Jeskey and Mike Knudsen.

Swoger related a trade he made to acquire three 150 MB Hard Drives while Gene Brooks related loosing his file Server to a flooded basement.

The rest of the meeting time was spent mainly in discussion of the April 26-27 CoCoFEST!. Bob Swoger reported getting Brian Schubring in touch with the Shellie Hart at Promac to get the FEST! shirts done.

Tony handed out copies of two newsletter issues from the Delco Computer Club, The Magazine Rack. Our coming FEST! was covered in their latest issue.

Tony also had a copy of Farna System's "The World of 68 Micros" which also carried news of our coming FEST!. Noted also was that "The World of 68 Micros" is the only publication we have seen that still has ads!

Tony then dropped on us some sad news. FEST! accommodations, the block of 50 rooms we had used in the past, are no longer available to us the weekend of the FEST!! As a result, we had to go down the road a few miles and get a block of rooms from the Red Roof Inn in Hoffman Estates. Fortunately, the cost was less than \$2 more. We remind our attenders to get their room requests in before April 11 to get this special price. We seek help in getting a shuttle service for our FEST! guests. If you can help please contact Tony Podraza at 847-428-3576; BBS-428-0436; E-mail address: tonypodraza@juno.com.

Vendors that have thus far responded are R.C. Smith, Hawksoft, Farna Systems, SBUG, Alan Dages, Justin Tyme, and Adventure Survivors.

Mike Knudsen will schedule seminar speakers for the FEST!. Mike will try to get Dennis Bathory-Kitsz of Malted Media Communications as our Keynote Speaker.

Several members will attend the OS-9 meeting to use the room for FEST! preparation on Thursday February 27.

The meeting adjourned at 9:05 pm. Rob Gibons gave us a demo and seminar on the history of CoCo Flight Simulators. Rob is soon to relocate to Florida to be with his folks in their later years. Best of everything for you on your new path, Rob, from all of us here at Glenside.

Minutes of the Glenside CoCo Club meeting of March 13, 1997.

Minutes By The Minute

by Bob Swoger

The meeting was called to order at 7:58 pm by President Mike Knudsen. Also present were Mike Warns, George Schneeweiss, John Grotefend, Rich Bair, Howard Luckey, Tony Podraza, Gene Brooks, Carl Boll, Justin Wagner, Bob Swoger, Eddie Kuns and Brian Schubring.

Howard Luckey presented Glenside with moneys on behalf of Cook County Color Computer Club to help sponsor Dennis Bathory-Kitsz of Malted Media Communications as our Keynote Speaker at the upcoming fest.

Brian Schubring announced that the CoCoFest shirt order had been placed in time to see a sample weeks before the fest in case of possible changes. This years model will be a 3 color musical theme shirt.

Tony Podraza added to our list of CoCoFest vendors D.C. Smith, Hawksoft, Farna Systems, and Adventure Survivors the names Andre LaVelle of S-BUG and Mark Marlette. Yet to confirm are MunkoWare, Wittman and StrongWare. Mike will try to contact these vendors in the next reporting period.

President Mike Knudsen read a letter from President Colin McKay of the OS-9 Users Group, Inc. For six months the OS-9 group has been inactive and feels the need for either new fresh leadership or a merge into the Glenside group for the best interests of the OS-9 users. Rich Bair made a motion seconded by Mike Warns to publish this need in the next CoCo 123 Newsletter before the April 26-27 CoCoFest. This newsletter will go out to the OS-9 members to see if that new leadership will come forward before that date. If not, the Glenside club will take on the membership of the OS-9 group that they might continue to be updated of OS-9 happenings through our newsletter.

Several months ago Mike Knudsen proclaimed his UltiMuse Software to be Shareware. Since that time he has added a few more improvements. He will offer his latest version of UltiMuse at the CoCoFest Glenside table at the modest price of the manual printing and media cost.

Justin Wagner read a request from Jerry and Mary Hoover of Alturas California asking for help to fix or replace a recently purchased CoCo 2. We shall publish the letter with a reply to that request. See the letter elsewhere in this newsletter.

Carl Boll reported that two bugs have been identified in the new CoCo IDE Hard Disk System. First, the software allows for a full format of the hard disk. This turns the drive into a brick requiring special low level formatting to make the drive functional again. This feature will be removed. Second, it was found that a call to WIN will freeze the system. It is hoped this second bug can be resolved shortly.

Carl also read a letter he received from President Terry Simons of the Mid-Iowa CoCo Users Group announcing the close of that club. Their closing membership count is 105 members. We shall try to get a list of those members to send a complimentary CoCo 123 newsletter to each one.

There is still a need for the use of a van to run a shuttle service between the Red Roof Inn and the Holiday Inn show area. We do have a professional driver. If you have a van we might use during the two day event, please contact Tony Podraza.

The meeting adjourned at 9:15 pm after which a demo of the new IDE Hard Drive System was demonstrated.

== THE LETTER ==

Jerry Hoover writes to Justin Time: My wife has a CoCo 2 she bought from the Salvation Army. When we got it home, it seemed to work ok, except that it would not work with ROM PACs. Do you have any ideas? We have had 1 CoCo 1, 1 CoCo 2 and 2 CoCo 3's. Now we have this 486 and a CoCo 2. If you don't know what's wrong with my wife's CoCo, do you have a soft and hardware price list? My wife loved Mega Bug. That is the reason she bought this CoCo. Now if we can get her CoCo going or get another, maybe a CoCo 3, and a Mega Bug ROM Pac. Thanks for your time, Jerry and Mary Hoover, 310 E McDowell #41, Alturas, CA. 96101

[Jerry & Mary, check first that your ROM PACs are CoCo 2 ROM PACs and not CoCo 3 ROM PACs. Next, try contacting Dan Elliott of COMPUTER CLASSICS for rock bottom repair prices, 417-469-4571 or RT 1 Box 117, Cabool MO 65689. Write or call ahead first. Finally, check our ADS section in the back of this newsletter for a replacement machine. ==GATOR==]

[Carl, please pick up the file ADS.ZIP from The Club BBS, 847-632-5558, in the Files Section. Print it out in four column with small type. Thanks, Bob]

OS-9 Users Group, Inc. Plea

President Colin McKay of OS-9 Users Group, Inc. requests a new and fresh leader for the helm of the OS-9 Users Group, Incorporated. If you feel that you can undertake this important position, please contact Colin through this newsletter. If a new leader can not be found, it is suggested that the OS-9 Users Group be merged into the Glenside group for the best interests of the remaining OS-9 users. The deadline for that individual to come forward must be before the April 26 meeting. Thanks in advance. Mike Knudsen, President Glenside Computer Club.

Minutes of the Glenside CoCo Club meeting of April 10, 1997.

Minutes By The Minute by Bob Swoger

Present were Tony Podraza, Mike Warns, George Schneeweiss, John Chasteen, Rich Bair, Howard Luckey, Gene Brooks, Brian Goers, Bob Swoger, Eddie Kuns, Brian Schubring, John Grotefend, Justin Wagner, Carl Boll, Eddie Kuns, and Gerry Jeskey.

There was no formal meeting as President Mike Knudsen over slept thinking the regular meeting would be held on April 17.

The members present instead examined the new IDE interface to become more familiar with it. Carl has ordered enough parts to make 120 units. The unit preformed well but still have a couple of software bugs. The important part is that the hardware works perfectly.

Brian Schubring showed off the new CoCoFest shirts, a three color model. Annette Swoger will personally thank Shelley Hart of PROMAC for her help in getting this shirt done. KEY LOGO of Janesville, Wisconsin, enlarged the artwork at no additional cost to fit the smallest size shirt. This shirt with its MIDI MUSIC theme is as colorful as the Nancy Myers shirt of '91 and really looks great!

The next meeting for the purpose of tying up loose ends for the CoCoFest will be April 17.

Minutes of the Glenside CoCo Club meeting of May 8, 1997.

Minutes By The Minute by Bob Swoger

The meeting was called to order at 7:58 pm by Vice-President Tony Podraza. Also present were Mike Warns, George Schneeweiss, John Chasteen, Rich Bair, Howard Luckey, Tony Podraza, Gene Brooks, Carl Boll, Brian Goers, Bob Swoger, Eddie Kuns and Brian Schubring.

Tony began the meeting with a scrub of the April 26-27 CoCoFEST. We had a few additional costs that came about by not having rooms available at the INN and having to run a shuttle between the RED ROOF INN in Hoffman Estates and the Holidome in Elgin. The deficit is roughly between \$300 to \$500.

Tony informed us that Burke & Burke Software was given to us on a shareware basis. We shall firm up a way at a future date just how we make this software available to the public.

Carl Boll obtained 88 sign-ups for the new IDE Hard Drive Interface although he had hoped for 100. The build will be 120 units. Some Kits will have to be made up from the 120 units for over seas shipment. All state side units will be built and tested only. Art Flexer is to write code to run the IDE drive under ADOS and Extended BASIC.

Carl Boll will handle re-direction of E-MAIL to any officer of our club. Just address it all to one address, GCCC@chicoco.chi.il.us

Tony Podraza will copy off the documentation Dennis Bathory-Kitsz left behind with PC boards for distribution. He will then mail back the documentation. Many members present expressed their delight in meeting Dennis. His work for the CoCo community was remembered from the past and finally meeting this delightful up-beat man was indeed a highlight of the '97 CoCoFEST.

Bob is to ask the QL community if they would like to join us at the next fest.

Mike Warns suggested that we might start a WEB page. Carl Boll suggested that we do it through STG NET to keep the cost down to near zero. Carl and Mike will try to work out the details before the next meeting and give us a report.

Marcus from Canada and Dennis Bathory-Kitsz discussed with Bob Swoger the desire to have an organized dinner on Saturday evening of the next CoCoFEST. Bob noted that the Holidome had a great buffet for only \$8 and that he and Brother Jeremy along with five others had enjoyed their time at the table that evening. Carl Boll and Others enjoyed the Buffet also but at another table. It was decided that we would organize this at the next CoCoFEST.

Noted also was the need for people to help unpack before the fest and pack up after the fest. Tony wished to thank both Justin Wagner and Tom Schaeffges for helping him with the packing activity this year. More people would have gotten Tony home much earlier, so we shall add this need to the fest next year to have volunteers to sign up for that activity.

Don Waltermann of the Q-BOX BBS sent a very nice message about his visit to the fest.

Just wanted to thank you for inviting us to the Coco show. We received a warm welcome from everyone we talked to. That says a lot for your group since we were not Coco people. Would you consider expanding the show for T/S folks next year? I think if we started talking it up a year in advance, we might get some more folks there. In fact I'm going to just mention it this weekend at the QL show and see how much interest there is. I doubt if the QL show would merge in but for myself, I'd be happy to go to both shows. Regards, Don

The meeting adjourned at 9:30 PM.

%%%

Tony, please remember to add William Wildman to our membership list.

Treasurer George stated that the treasury stands at about \$2800 as of May 1, 1997.

Carl, please correct Geo's address in future CoCo 123 to read 13450N2700E RD FOREST IL 61741

Carl Boll is looking for a DWP 220 printer w/tractor feed. This will be placed in ADS.ADS for the newsletter.

BEAT UP LIST
tables
PA System (wire)
pack up sign up

Minutes of the Glenside CoCo Club meeting of June 12, 1997.

Minutes By The Minute by Bob Swoger

The evening began with a demo of the CoCo Friends magazine presented by Tony Podraza for notton. The version shown was called PCFDM (PC Friends Disk Magazine). Ray Smith Dorsett Pool Engineering. Some pictures could no be seen because of disk format but we did see pictures galore.

Tony gave a presentation on installing a Cloud 9 Half Meg RAM upgrade into John Chasteen's CoCo3 in 5 minutes time. This RAM unit sported SIMS on a small and professionally clean PC board. It comes complete with a test Disk for \$50.

Carl Boll, Gene Brooks and Eddie Kuns reported that the prototype IDE drive controller hardware was functioning with a few bugs to be worked out of the 8 bit version of the firmware. The unit will be given to Mike Ferrell the purpose being to develop the 16 bit version of the firmware

The meeting was called to order at 9:20 PM by President Mike Knudsen. Present also were Tony Podraza, Bob Swoger, George Schneeweiss, Rich Bair, Tom and Jonathan Kowalski, John Chasteen, Carl Boll, Brian Goers, Justin Wagner, Gene Brooks, Eddie Kuns and Mike Warns.

Secretary Swoger presented the papers for incorporation to be filled out. As the papers were all ready late, Treasurer George Schneeweiss included the late fee in the check presented to the secretary. The board decided that the change of agent papers would be filled out at the July meeting so that we could discuss at the meeting after (the restaurant) the strategy to keep the corporation agent in Cook County to avoid further hassle.

The meeting adjourned at 9:55 PM.

Minutes of the Glenside CoCo Club meeting of July 10, 1997.

Minutes By The Minute by Bob Swoger

The meeting was called to order at 8:10 pm by President Mike Knudsen. Also present were Mike Warns, George Schneeweiss, Rich Bair, Howard Luckey, Tony Podraza, Gene Brooks, Justin Wagner, Carl Boll, Brian Goers, Bob Swoger, Eddie Kuns and Jerry Jeskey.

The first item of business was the selection of the annual picnic date. September 7th was chosen as the favorite date.

Secretary Swoger reported that the papers for incorporation were sent into the Secretary of State two months late with the appropriate late charge included in the check. Papers for a change of the registered agent were signed by the president and secretary. Because the club is presently registered in Cook County, Rich Bair will become the new registered agent so that we might go through less hassle making this change.

Brian Goers made a motion, seconded by Rich Bair, pay for a booth with vendor fee at the upcoming fest in Pennsylvania August 2-3.

Carl Boll who has obtained 88 sign-ups for the new IDE Hard Drive Interface gave a report on the progress. As yet the PC boards have not been ordered. The prototype board is working with the present 6 bit software. The goal is to have 16 bit software though only 8 bit software was promised. Mark Ferrell has the working hardware and is trying to get the 16 bit software version to work. He has been requested to cloggy the software to work in any fashion just to prove that the present hardware will work so that production of the hardware can begin. Eddie said the present problem with the 16 bit software has been identified.

Tony gave the bottom line numbers for last April 26-27 CoCoFEST. Total cost - \$3655.62, Total receipts - \$3343. Total attends - 94 with 15 new memberships. The two day auction brought in \$491, about half that of 1996. A good deal of the Tandy auction items came from a Glenside member in DuBuque Iowa. Mailing cost was \$307.02. Move to except Tony's report by George, second by Mike Warns.

Treasurer George Schneeweiss reported the present treasury level to be about \$2700 after the OS9 moneys came in and the IDE project money had gone out.

President Knudsen requested Eddie Kuns to obtain the write up and address list necessary for the OS9 addition to the Glenside Newsletter to satisfy the requirements of the transfer of funds from the OS9 group to the Glenside group.

Bob Swoger reported that the QL community, which is centered mainly in the Boston area, has no interest in participating in a fest this far west. There is, however a small contingent in the mid-west that is interested. The Indiana vendor wishes to be present at the fall picnic.

Mike Warns informed us that Scott Grepetroub will help with the Glenside web site. Mike can now be contacted at mikewarns@juno.com and wishes a list of all known Glenside Internet email users.

Justin said he saw a nice write up about the fest by Marcus from Canada on the web. He was asked to obtain it for print into the club newsletter. It was Marcus that expressed the desire to have an organized dinner on Saturday evening of the next CoCoFEST.

The meeting adjourned at 9:05 PM.

%%%%%%%%%

Tony, please remember to add William Wildman to our membership list.

Treasurer George stated that the treasury stands at about \$2700 as of July 1, 1997.

Carl, please correct Geo's address in future CoCO 123 to read
13450N2700E RD
FOREST IL 61741

Carl Boll is looking for a DWP 220 printer w/tractor feed. Tony has a lead on such a printer.

Minutes of the Glenside CoCo Club meeting of August 14, 1997.

Minutes By The Minute by Bob Swoger

The meeting was called to order at 8:00 pm by President Mike Knudsen. Also present were George Schneeweiss, Rich Bair, Howard Luckey, Tony Podraza, Justin Wagner, Carl Boll, Brian Goers, Bob Swoger, Brian Schubring, John Chasteen and Jerry Jeskey.

The meeting began with a report on the IDE drive. (Carl, please fill in. I missed the first part of the meeting.)

The report on the IDE interface goes as follows. Periodic updates have been posted on the Cocolist on the Internet. It is the general consensus of the people that have placed a deposit with us that they are willing to wait to make sure that the interface works properly with the 16-bit drivers. It was also reported that this may not be possible and the interface may need to be sent out as an 8-bit design only (this has since been proven wrong, we now have a 16-bit driver that is working properly). Some suggestions were made and taken under advisement as well as Mike Knudsen's volunteering to help troubleshoot the hardware with a logic analyzer and oscilloscope. We were planning a meeting at Eddie's place for Wednesday, the following week. Mike said he could likely attend to help us out. Other ideas were mentioned and since they have all been explored and turned out negative I won't elaborate on them here. Suffice it to say that there were bugs in both soft and hardware.

The Pennsylvania Fest was the next item of business. (Carl, take this on also.) Carl pointed out that the fests are becoming more of a social event for good times with vendors not pulling in the big bucks of yesteryear. Some vendors don't seem to be too displeased with this as they are enjoying the get-together also. Brian Goers reported that the Fest made the local paper big time. Carl reported that there were no new Glenside memberships sold and only one renewal. Overall, the attenders said they had a great time.

Fest Report:

The Pennsylvania Fest was not very well attended and all in all was a little disappointing. It is noted, happily, that there will be another one with an even greater push to get people to attend.

The club only got one renewal and it was not worth attending other than to show support (in this editors opinion a very important issue). Thank You Ken Scales for your renewal!

Ron Bull did an excellent job organizing and finding a good venue for this Fest. It is amazing how well it turned out given the fact that Ron did this by himself.

Ron almost broke even on this Fest mostly due to the fact that Steve Bjork paid for his own room (Ron had agreed to pay for it before the Fest)

The seminars were well attended and the Keynote Speaker was Steve Bjork. Other speakers who did not show up were Kevin Darling and possibly Marty Goodman (I'm not sure if Marty was really expected to attend).

The guys also reported a spectacular natural gas main break caused by a back hue off the Pennsylvania turnpike. The flames were seen from a pretty good distance. (Carl, please elaborate?)

OK, as we were driving back to Chicago (a >LONG< drive) it had gotten dark. In the distance we saw a glow. We didn't remember seeing this glow on our drive in (also in the dark) and were speculating on what it could be. As we got closer we saw some bursts of flames shoot up over the trees we were still a few miles away. At this point we thought perhaps it might be an oil refinery because there didn't seem to be any smoke to speak of. I made a comment that the only thing I could think of that burns that clean is natural gas! Well, as we approached we saw a backhoe and a crater with flames shooting at least 50 feet into the sky. The pressure was so great that the gas didn't even start to burn until it was 15-20 feet above the crater. There were a lot of emergency vehicles there and the road was not closed off so we kept going. I may have gotten a picture of it...if the camera worked properly. This was some distance from the highway.

The last item of business was the setting in stone the selection of the annual picnic date. Saturday September 13th was chosen as the actual date with Sunday the 14th as the rain date. The club will provide Hot Dogs and Brats with buns, the barrel with ice will again be provided for the drinks guests will bring, non- alcoholic, please! Bring lawn chairs, insecticide and your favorite pass around dish. We will provide the games and tables. A computer item swap fest will culminate the picnic. Bring those items you think others might enjoy. See the flyer elsewhere in this newsletter issue for instruction on getting to the picnic.

Mike Knudsen brought three 2400 baud modems as door prizes this evening.

The meeting ended at 9:15 and as immediately followed by Brian Schubring's driver program for giving the CoCo the ability to select MIDI programs for selective and continuous play through the MIDI tone generator. Brian played many good tunes for us right up until 10 PM.

That should bring us up to date on the Minutes of the various meetings this year.

The EDITOR

It is with regret that we, the Glenside Color Computer Club and the CoCo~123 report that the OS9 User's Group, Inc. has officially disbanded.

The final decision was made at the end of the Chicago CoCoFest. The treasury funds were handed over to the Glenside Color Computer Club at that time.

The reason for turning the funds over to the Glenside Color Computer Club are legal ones. By law the funds can not be given to the members of the defunct group. They can only be given to the government or another non-profit organization. It was felt the OS9 User's Group, Inc.'s membership would be best served by the Glenside Color Computer Club. At this time we are still waiting for the mailing list from the former President of that organization and a final letter to the members which we agreed to distribute. We can not determine what privileges we will give the former members until we have the mailing list.

1997 6th Annual "Last" Chicago CoCoFest Report

By: Brother Jeremy

Dear friends:

Glenside asked for feedback on last weekends Fest. My only criticism of the Fest would have to be in regard to the room situation that required us to be split up between the Red Roof Inn, The Holiday Inn, and other local hotels. This was in no way the fault of Glenside, and I know it was out of their hands. I only bring it up to point out that the Fest is so much more than simply a computer show.

I will leave it to others more eloquent than I to describe the events of the show, the exhibits, seminars, etc. I would just like to share a personal thought or two. I first bought a CoCo 2 and then a CoCo 3 and knew very little about computers. In fact I chose the CoCo due in part to my hobby at the time which was Model Railroading. There had been a series in 1984 in Model Railroader Magazine on interface your model railroad to a computer. Well the layout was eventually abandoned, I became a Monk, and the CoCo took on more utilitarian tasks. Word Processing, record keeping, eventually MAX-10 and Desktop Publishing. All of our worship material was done on the CoCo.

When I moved to the mid-west, names that I had known from the Rainbow and Delphi became attached to faces, as I was able to start attending Rainbowfests, and then CoCoFests. Thanks to the unending patience and countless hours of help and advice from many other users, I was able to gain knowledge of this computer and become somewhat knowledgeable in both RSDOS and eventually OS-9. Little did I ever think that I would one day end up as treasurer of the OS-9 Users Group. (Although I think that had less to do with my financial skills, than the fact that as a monk under a vow of poverty, no one was worried that I would abscond with the funds.) I was very grateful that I was able to in some small way pay back all the kindness that I had been the recipient of. Whatever good my efforts did in trying to hunt down software and hardware for re-release was my attempt to say thank you for all that you people have done for me.

Sadly, the CoCo's don't get fired up as much as they used to. Due to various changes at my community, we needed to be able to generate files that could be taken to service bureaus, and we have had to move on to MSDOS equipment. It gets the job done. But something is lacking. Last weekend, I had the CoCo's running at the Fest, and a flood of memories and emotions came flooding over me. As many of you know, I have a working copy of the never released OS-9 Level 2 Version 3 upgrade, with moveable, resizable windows. I discovered, however that there is something else that I see on my screen, and that is the faces of those of you who have been such a

special part of my life, this past decade. Never did I imagine, when I walked into that Radio Shack store, how significantly the Color Computer would impact my life. I can't picture that this would have happened with another computer. I thank God for the wonderful experiences that I have been able to have because of this computer.

As long as there are CoCoFests, I will attend them. You people have become too important a part of my life for me not too. I realize that there will come a day when they will cease, and I will grieve when that day comes. Thank you Glenside, Atlanta, and Ron Bull, for the work you have put into the various fest, and for letting me be a part of them. May God bless you all.

With all best wishes,

Brother Jeremy, CSJW

.....

1997 6th Annual "Last" Chicago CoCoFest (April 26-27, Chicago, Illinois)

By: Allen Huffman, formerly of
Sub-Etha Software

(05/01/97)

NOTE: Any discrepancies between what is contained in this report and what actually happened, especially on Sunday, is probably due to a drink known as the Yukon Snake Bite. (See also: Paul Jerkatis, Carl Boll)

EDITOR'S NOTE: While I admit that I did buy Allen his second and third (and maybe a couple of others) I let him decide what he was going to drink. I have warned him before about those "tasty" drinks and he should know better than to drink what Paul orders for him.

Sometimes I think I must feel the same frustrations science fiction comedy author Douglas Adams does. For those not hoopy enough to know, Adams is responsible for the Hitchhiker's Guide to the Galaxy, which began as a BBC radio programme in England back in the very late 70s and then evolved into books, a record set, comic books, trading cards, made-for-TV mini-series (also on BBC, and as cheesy as Dr. Who but with better jokes), computer game, and so on. Adams, you see, is always being asked to write special "introductions" to his various works when they get republished. For the 10th anniversary of the Original Radio Scripts he was asked, again, to write (another) introduction, which seemed odd since he'd already written an introduction when they were originally published a decade ago.

My point? Well, perhaps there isn't one, but I do have a profound feeling of *deja vu* all over again when I find it's time to write yet another "last" Fest report. And, frankly, I really thought this would be the last time I would get to sit down on my CoCo, fire up NitrOS-9, load up Ved, and begin typing. But, again, it seems I am wrong. Apparently the good guys at the Glenside Color Computer Club don't understand the rather unique nature of the word "last" which, according to my Webster pocket dictionary (modern revision), is defined as follows:

last - *adv.* final, latest

Part of this, taken literally, might work since this was the "latest" CoCoFest. But we still have a problem with "final".

last - *n.* block for molding shoes

Though this offers me a chance to make reference to a scene from the Hitchhiker trilogy (now up to five books) concerning the Shoe Event Horizon (which explains why there are so many shoe stores), I won't. Instead, I'll refer to the use of the word as in "Last Annual Chicago CoCoFest" as to not being a noun and therefore not really having anything to do with shoes whatsoever.

last - *vi.* endure, continue

Ah, now we are getting somewhere. Certainly, the Color Computer seems to "endure" (*vi.* & *vt.* last, which always bothers me when one word uses another word to define it whose own definition uses the original word) the tests of time (lost yet?), and they certainly do seem to have a way to "continue" (remain, prolong, persist in) to happen again, and again, and again. Thus, by this definition, I can finally rest at ease and feel comfortable with using the term "last" in regards to a Glenside sponsored CoCoFest. Regardless of the outcome, whether there is another or is not, "last" does, now, seem appropriate. I would therefore like to apologize for my very brief introduction to my last 1996 "Last" Chicago CoCoFest report in which I made the remark "Where's truth in advertising?" partially because I hadn't, at that point, unpacked my dictionary and partially for the fact that I was just plain incorrect.

For those of you still with me, I thank you. Now, sit back, and enjoy what may come to be known as my "last" annual Chicago CoCoFest report.

TIMELINE

The trial for the Oklahoma bombing is underway. OJ wants another trial himself. Microsoft (pardon me) celebrates amazing profits, while Apple continues to lose money. Microware pushes forward it's digital television standard and the new OS-9 based Uniden "Axis" e-mail telephone is about to be released.

Unfortunately, "surfing the web" continues to be a rather over-used buzzword and Beenie Babies are yet another

unexplained craze.

THE DRIVE

Unlike the past two Fests I attended (1995 Atlanta and 1996 Chicago), I didn't make this one by way of aircraft. I managed to be "home" here in Des Moines, Iowa and seeing that Elgin, Illinois was just a mere 300 or so miles away I chose to load up my trusty Honda Civic (in spite of my better judgement due to past encounters with toll roads and diesels in Chicago) and make the trek on my own.

Boisy Pitre, along with James Jones, had annually made this journey, though this year it didn't look as if Boisy would be in town (he now lives back home in Louisiana). So, I made tentative plans to make the journey with James. In the final week before the Fest, Boisy was brought into Des Moines for work, so together they could make their pilgrimage eastward and pay homage to the film entity known as "Luther the Geek" which, for the life of me, I couldn't explain if I had to. At some point I suppose I will actually go see if I can find this movie and rent it.

I took Friday off, and packed all of my goodies up on Thursday night. I took virtually everything I could, including my full CoCo system (with SyQuest EZ135 removeable hard drives) and MM/1, as well as various odds and ends I wanted to get rid of at the Fest (such as my no longer needed SCSI drives and several new in-the-box Plug-N-Power interfaces which I thought Chris Hawks might enjoy). I even managed to locate the former Sub-Etha Software vinyl banner and roll it up for the journey. It should be noted that for this trip I did not forget my bathrobe, something which, due to doing that a few times, has made me lose considerable froodness with fellow Hitchhikers.

On Friday morning I awoke very, very early so I could promptly return to sleep. (This, of course, meant I didn't get to caravan with Boisy and James, but that's a small price to pay for a few extra hours of sleep.) A few extra hours of sleep later I awoke and hastily started loading up my Civic hatchback. There was a time in my life when I could do this with such precision that I even amazed myself, but due to making the past few years worth of trips in vans, rental cars, and aircraft, I seemed to have lost my touch. Through some odd effect of quantum storage physics, I managed to load the poor little import down, complete with a full case of Jolt Cola(tm) and a bag of assorted caffienated water products (See also: Krank2O, Aqua Java, and Water Joe).

For a little over a year I have owned a Toshiba laptop (which does run OS-9000, but also that rather popular, bulky, and slow GUI from two years ago), and I was bringing it along for the trip complete with a DeLorme "Tripmate" global satellite positioning system sitting on the dashboard and plugged into the serial port. This enabled me to do something I don't often get to do: make a trip and NOT get lost. During my five hour drive, the little arrow tracked my position and speed direct to the parking lot of the hotel (which I found simply by entering the address into the computer). I don't think K.I.T.T. (See also: Knight Rider) could have done it any better.

The drive itself was totally uneventful. No jokes, no running gags, no really cool rest areas. It's just not the same making the journey without Sub-Etha founding partner Terry Todd (or Mark Page, or Tim Johns, or a vanload of CoCo pals), which helped to further depress me about the impending "last" Fest I was approaching. Due to the nature of the route, I wouldn't even get to stop at the Funk's Grove rest area and buy some chicken soup-like drinks from the vending machine. Sigh.

Editor's Note: I've missed these characters too.

At around 6pm (and several toll booths) I gracefully missed the exit directly in front of the hotel, and decided to let my computer map guide me there using an alternate route. As I drove down a side street, a rental car pulls up beside me and honks. By an odd chance, it happens to be containing Boisy and James! It's a small world after all (See also: Disneyland). They informed me they had already been to the Red Roof Inn (where everyone was staying due to the Holiday Inn not having any rooms) and were on their way back to the Fest site. Since they had a map, I followed. A few blocks later, my computer indicated they weren't actually going in a direction which would take them to the Fest site, so I headed out on my own, crossed a river, and twisted my way back into the parking lot that I had originally missed the exit to originally. To their credit, their paper map returned them safely as well, just a bit later.

THE ARRIVAL

As with many Fests, I had no idea what I would do when I arrived. Walking through the hotel, it was obvious that Holiday Inn thought more of the "toy show" convention they were hosting than us even after four years of returning to them. All the inside rooms had windows open with, oddly, old collectable toys in them. Usually at this time they would have CoCos and MM/1s on display. The show area was open, and I was able to meet and greet the Fest regulars. Inside the show area, the full location wasn't being used. Instead of the regular floor area, about 1/4 of it was walled out. This portion was accessible from the outside and became the seminar room, which actually worked out quite nicely.

It was interesting to finally meet Markus Blumrich, a Canadian who seemed to pop up out of nowhere this past year with his TRS-80 CoCo page on the internet. His page contains more CoCo information, links, and screen shots than any other attempt done so far. Markus made the trip down and was seen roaming the show with a backpack over one shoulder and a camcorder in his hand, capturing images from the Fest, many of which were placed on his web site just days after the show ended. Markus' CoCo page has had over eleven THOUSAND hits, which is quite a bit for a page devoted to a "useless and obsolete" home computer, don't you think? Meanwhile, back to the report...

I had no idea where I would end up staying, but fellow OS-9 Monk, Brother Jeremy, had offered me part of his room, as did John Strong. I'm always glad that the CoCo has made me as many friends as it has.

To make a long story a bit longer, I unloaded all of my gear into the StrongWare booth (since they are now dealing the Sub-Etha CoCo software), and roamed around looking for others. After helping Scott Griepentrog unload a bit from his van, a group of us headed out for dinner at T.G.I.Fridays (which another group headed back over to the Red Roof Inn for pizza).

I would like to point out that my friend from Lufkin, Texas, Alex Forrest, was able to make this trip! His folks and he made the long, long drive from East Texas to Elgin, so at least, to some extent, the tradition lived on. (Alex had previously made the van journey to Atlanta in, I believe, 1994). It was great having Alex around, especially since he was one of the only remaining CoCo users in East Texas and I hadn't seen him since I moved to Iowa in 1995.

THE PRE-SHOW

Due to "situations beyond their control", Holiday Inn didn't have rooms for us (construction, they claimed, but I saw very little proof of that other than a drained pool), the pre-show didn't happen. People we staying at various different hotels (the Adventure Survivors at another Holiday Inn, many of us at Red Roof, and still others at the Budgetel), which meant for the first time ever at a Fest, the bar was empty of CoCo people on Friday night! So, after dinner, small groups met in hotel rooms at the Red Roof (which didn't even have a lobby or restaurant or bar or...) to chat and goof off.

Brother Jeremy had bought his electric guitar, and I had my acoustic, so we jammed through all hours of the night singing and playing everything from gospel to classic rock of the 50's and 60's. And, suprisingly, none of the neighbors complained! (For the record, Brother Jeremy turns out to be a very capable guitarist, harmonica player, and vocalist, holding back to his band-days before he dropped that habit for another one...) I hadn't had that much fun with music in many, many years. My thanks to Brother J, and my apologize to John Strong for us never making it back up to his room (though, with the volume of things considered, perhaps that wasn't such a bad thing after all).

THE SHOW AREA

The Fest booklet wasn't in booklet form this year, and no map was included (again), and, alas, I forgot to make my own so it is very likely that I may have put some of the vendors in the wrong locations. However, if you are reading this and were not at this Fest, it seems very likely that you won't be able to tell so I'll just move along...

Fourteen official vendors were there, but several others were represented (such as FARNA Systems vending the CoCo 3 emulator for Rick Cooper who is in turn vending it for the author Jeff Vavasour), and Glenside having the Burke and Burke goodies (which haven't been seen in "new" form at a Fest in years).

The regular show area was setup as follows:

| | | | | |
|--|---------------------|----------------|-------------------------|----------------------|
| | | StrongWare | Q-Box | |
| Seminar Room | | | XXXXXXXXXXXXXXXXXXXXXXX | S-Bug |
| | | X | | X |
| | | Cloud-9 | X | X |
| | | X | | X R.C. |
| | | X | | X Smith |
| | | X | | X |
| | | X | | X |
| | | X | | X Justin |
| | | X | | X Time |
| Luckey Corner | FARNA | MIDI | X | X |
| | Systems | Men | X | X |
| XX | | | | X |
| Al | X | | | X |
| Dages | X | | | X |
| | X | | | X |
| XX | | | XXXXXXXXXXXXX | |
| Monk-O-Ware | Adventure Survivors | HawkSoft | X | X Glenside |
| | (Beenie Babies) | | X | X CoCo |
| | | | X | X Club (Burke&Burke) |
| | | | | |
| | | X | | |
| | | X Registration | | |
| | | X & Ron Bull | | |
| | | XXXXXXXXXXXXX | | |

While last year's show has 19 vendors setup, this show "felt" like it had as many if not more.

And now ... the vendors:

1. Alan Dages - From the land of the Waffle House (that's Georgia, though he's actually in Stone Mountain), Al and his better looking half made the journey with a table of odds and ends, including Al's own accelerated MM/1 which he is letting go for a very good price.

2. Adventure Survivors - L.E. and Nan from Peachtree, Georgia, also made the trip with their adventure-related newsletter. Of bizarre interest this year was Nan's collection of Beenie Babies (those cute critters found in small versions at McDonald's currently, if you can find a store with any left). Much to my amazement, she sold all but, I believe, two of the fifty or so she brought along. This has got to take the prize in the category of "Most Unlikely Item to be Sold (to Great Success) at a CoCoFest". By the end of Sunday, it seemed that everyone had one in their pocket, purse, or sitting on their shoulder.

3. Cloud-9 - Mark Marlette, hacker extreme (Turbo 2000 Deluxe Edition :) was showing of some suprising new CoCo hardware prototypes. There was an all-in-one 2 meg upgrade (which plugs into the 512K RAM expansion plugs and the CPU socket), and a new SCSI interface which correctly supports hardware parity, which is needed for devices such as the Iomega ZIP drive, which he had running on the CoCo! The software also supported the full set of SCSI IDs. I really hope these items can be put into production, since I want one of each.

4. FARNA Systems - Frank Swygert and his lovely (but don't tell her I said this) wife Tiffany were there taking subscriptions to "the world of 68' micros" as well as offering some of Alan DeKok's products including: the NEW NitrOS-9 version 2.0, TuneUp (patches for stock OS-9 on a 6809), Thexder/OS-9, Shanghai/OS-9, Rusty (launch disk basic programs from an OS-9 hard drive), among others. The latest version of NitrOS-9 offers even more tweekes and enhancements over the former 1.22 releases. Please note that since it is a major release, no upgrade path is available. However, I think all of us using NitrOS-9 should not hesitate to reimburse Alan for his amazing efforts these past few years with this product. (Oh, I should also point out that Curtis Boyle, one of the original NitrOS-9 developers, was also seen roaming this show as well!)

Frank was also selling and registering copies of the CoCo 3 emulator, which is now being handled by Rick's Computer Enterprises. Both the shareware CoCo 2 emulator and "commercial" CoCo 3 emulator have been recently updated. The CoCo 3 version now emulates a 2 meg CoCo and also supports a virtual hard drive under OS-9 (up to 4 gigabytes in size, the max OS-9 Level 2 can address). There is also support for writing native x86 assembly "drivers" from the emulator. What a world of possibilities we now have! I personally picked up three copies - one for myself, one for a former CoCo-er friend of mine, Tika (who was the original emulator OS-9 beta-tester for Jeff), and one for a legendary CoCo game program who I won't name since I want it to be a surprise when I send it to him. Heh, maybe I can coax him into writing another CoCo game "for old time's sake"...

5. Glenside Color Computer Club - The host club had buttons reading "Just Say NO to MS-DOS", "OS-9 Forever", among others, in all kinds of colors. Great multi-color t-shirts were there with the "Music, MIDI, and Mayhem" logo on it, and Burke and Burke items were available, complete with docs and even schematics for the old B&B hard drive interface! Now is the chance to pick up some of the Burke and Burke utilities you may have missed out on (such as File System Repack or the EXCELLENT EZgen) since they are shareware. If you do obtain a copy, PLEASE send Chris Burke a donation and let him know that we are still here appreciating his past efforts!

6. HawkSoft - Chris and Nancy Hawks showed up again with a new surprise - a PPP package for OSK! It allowed you to dial into an internet provider (supporting PPP), then do things such as telnet and ftp. Since this code was basically engineered from the KA9Q package, Chris didn't feel he could charge for it. The disks were available for \$3 each and he sold out. With that many copies out there, maybe we'll finally see an MM/1 surf the web... (On a side note, I have now personally surfed the web on two different OS-9 platforms using two different browsers - it can be done!)

7. Justin Time - Justin Wagner had tons of spare hardware items to sale. What else can I say?

8. Luckey Corner - Howard Luckey and Carl Boll had a table and were showing off some neat new CoCo items, including Roger Taylors new Projector 3 (P-3) image viewing program. Demos of it were available in nice envelope packages for only \$1. This program does AMAZING dithering on the CoCo and produces very high quality (surprisingly high quality is another way to word that) displays on a standard CoCo color display! Even with a limited on-screen palette of 16 colors, I was amazed at how great the pictures looked from across the room. Only when you got close could you realize how much amazing dithering was going on. This item is for RS-DOS and is a MUST HAVE for anyone who wants to view images. It even displays ANIMATED GIF images (very popular on the internet these days). (On a side note, Curtis Boyle mentioned he had a version of "view" for OS-9 that also handled animated GIFs...)

Also at this booth was the new up-and-coming CoCo-IDE interface, shown in various stages from early prototype wire wrap to a near complete demo version. The interface is long and plugs into the side of the CoCo. There is a connector for plugging a standard floppy controller into it, as well as an "expansion bus" which could be used to add an RS-232 port of some kind, for instance. The interface is going to be made (possibly only ONE run of boards) by Glenside and due to the non-profit nature of the club, the selling price will be around \$30-\$40. It will come with drivers for 6809 and 6309 written by Alan DeKok, and will be made available in kit form and completed form. Fianlly! Special thanks to Jim Hathaway for designing this creature.

9. Monk-O-Ware - Brother Jeremy was basically there to show off his prototype CoCo 3 collection, CoCo ethernet card (which may or may not have ever been officially manufactured), and the "rumored" OS-9 Level 2 upgrade (with moveable, resizable windows). At his booth was Rick Ulland of CoNect, with his Fast232 packs for sale. I wonder if he sold out AGAIN?

10. Music Men - Brian Shubring had several thousand watts of audio power and more MIDI sound modules than one could comfortably tolerate cranking out tunes all weekend. Mike Knudsen was on hand with his latest version of Ultimuse, which is now shareware. Ultimuse has evolved so much over the past years and I was VERY impressed to see what it's capable of from the sheet-music side of things! Output to standard MIDI, notes that are tied together (unlike the MUSICA days), and many more professional features made me, once again, exclaim "that's being done on a CoCo/MM/1?". The sound system at this table was also used for the impromptu CoCoFest Jam Session held Saturday night.

11. Q-Box - Another group of "orphaned" computer users, this time showing off very interesting Sinclair products of the past. Very interesting. It seems the CoCo isn't the only loved system of the past with a following in this modern world of WinTel.

12. R.C. Smith - R.C. had tons of CoCo goodies, and was offering complete used CoCo systems for \$200, including CoCo, multipak, monitor, etc. I should have picked one up since it appears my CoCo suffered some damage during the past few days and is now acting up. Hindsight is 20/20 I suppose.

13. S-Bug of Los Angeles - Andre' Lavelle made it here again with harder to find 720K and 360K floppies and drives. His new gadget this year were printer buffer/extendors, which let you hook a computer to a printer in one room, then run a small telephone cable across your building to where the printer actually was. I picked up one of these and a serial to parallel converter (and blank disks, and a floppy drive, and...).

14. StrongWare - John Strong and his crew were on hand and, oddly, Charlie didn't pick on me hardly at all this Fest. Many copies of Soviet Block and GEMS were sold at this year's show, as well as a few copies of Sub-Etha items which they were vending. A sneak preview of "projects to come" was briefly shown

including title screens and layouts for an upcoming adventure game project being done in conjunction with StrongWare and myself. A free Jolt Cola(tm) was given away with any purchase, and they sold out of custom-made "Team OS-9" mouse pads.

Ron Bull was on hand outside the Fest area taking vendor applications for the Pennsylvania CoCoFest which happens in early August of 1997. Several vendors committed to attending, as well as many Fest goers. He also had on display my Fest Photo Album featuring pictures from many of the CoCoFests from 1990 onwards. "Confirmed" rumor has it that, as of this writing, more vendors are signed up for the PA show than made it to Chicago.

THE SEMINARS

A very healthy assortment of seminars this year!

Saturday:

11:00 - "CoCo Peripherals" - Rick Ulland

Rick arrived late and, I believe, missed this :)

1:00 - "The New IDE Hard Drive: Why and How to Use It" - Carl Boll

I think this title is self-explanatory. The prototype display drew quite a bit of attention.

2:00 - "Professional Shareware, and New Hardware" - Karl Sefcik

3:00 - "Keynote Address" - Dennis Bathory-Kitz

This was a rare page in CoCo history - the return of a historic figure in the CoCos past. Dennis ran Green Mountain Micro, which advertised in Rainbow back in the early 80's, promoting things such as 6809 tutorials, eeprom burners and lower case boards. Dennis gave a VERY energetic talk dealing with the historical days of his former company, and also explaining some of the tragedies that befell it. It seems that he resurfaced in our Community and discovered the CoCo emulators (the first command he tried, after the excitement of seeing the old flashing cursor, was, of course "PRINT MEM") and someone asked him nicely if he'd be interested in attending and the rest is yet another page in CoCo history. (I seem to be having this feeling of *deja vu* again.)

Quite a bit of his speech involved some of the more unusual projects he used the CoCo in. He is a performer with over 500 compositions to his credit. Before the advent of home computers, he envisioned using computers for music and even designed a piece with the intention of having electronic music play a part in it. It was years later before technology allowed him to experiment in these fields. The easy sound of the Color Computer made in an attractive machine to pursue. CoCos were used in various performance projects including a kinetic room (with custom ROMed, networked CoCos) which had computers triggering sounds based on the presence of people in the room, simulating the interaction of, to the best of my ability to express it, natural surroundings. (He used the example of crickets and

how they quiet when you get nearby, but begin again when you get away, and other animals that "growl" or warn you when you get too close.) This was but one of the MANY CoCo related projects he discussed, including a never-performed (with the computer, anyway) piece involving computer generated poetry.

Dennis had many historical pieces of information with him, such as lists of the assembly code for his old projects (which he wanted to bring but the eeproms seem to have gone bad), lowerkit board prototypes, and a few remaining copies of a book he co-wrote, which I now have in autographed form.

He also offered much insight into the former days of Color Computer magazine, and what happened to it when Ziff-Davis "purchased" it and shut it down. He also discussed his involvement with the follow-up, Undercolor, and it's fate as well. The current status of many of his former CoCo-mates was also discussed, including his board solderer (who's name I forget) who now is a carpenter.

It's very difficult to even touch on how much he covered. He was VERY funny, very energetic, and full of concepts and ideas for all the CoCos that we still have lying around, such as: HTML server (why use a massive desktop, he says), an amusing "pet door" controller which opens the doggy door only when you dog (with it's sensor collar) comes near it, and many, many others.

Copies of his "Learning the 6809" were sold at the Glenside booth as well, further bringing back some items from the past. It seems that Dennis is yet another great individual who will forever have a place for the CoCo in his heart.

I would VERY, VERY much like for someone who took notes at this seminar to write a full review of the topics he discussed. I feel I have only marginally done justice to it, and hope I don't offend Dennis or anyone else with my oversites. A very, very special thank you to all those involved with getting him out there, and to Dennis Barthory-Kitsz for attending.

4:00 - "No Minimum Bid Auction, Day #1" - Mike Knuden

It's amazing what you can get for a few dollars.

Though not an official "Fest event", it should be pointed out that Al Dages celebrated a birthday during the show. A large cake was brought out (a very nice bonus - free food!) which contained the numbers "7" and "1". Perhaps those digits, if reversed, would more accurately reflect some of the energy that he has. I think it's neat that he would choose to spend his birthday with us, but considering that quite a few of the Atlanta Computer Society gang were present, maybe it wasn't so far from home after all.

At 5pm the exhibit hall officially closed, but many people hung around long after that up until Brother Jeremy hosted a Holy Communion Service in the seminar room. This service was small (due to many leaving for dinner, but it was deemed better to try it Saturday night than to get people up early from the other hotels on the more traditional Sunday morning), but did feature live music by our favorite Monk, who even amused us afterwards by demonstration how things might be if Bob Dylan performed those sorts of songs...

Sunday:

10:00 - "Design the CoCo 4: Free-4-All" - Rick Ulland and YOU

A rather lively audience attended and threw around tons of ideas of next generation CoCo hardware, from adding an extra 6x09 based machine to handle i/o and graphics, to complete motherboard updates. One interesting proposal is that of adding intelligent add-ons to do in hardware the same type of optimizations that NitrOS-9 gives in software. As usual, many great ideas surfaced. As not-usual, it looks like some of them may get acted upon.

Scott Griepentrog has created an internet e-mail list for those interested in this discussion. To subscribe, send a human-readable request to Scott at "stg@stg.net".

1:00 - "MIDI Music Mania: What's New" - The MIDI Men Boys and their toys... And speakers...

3:00 - "No Minimum Bid Auction, Day #2" - Mike Knudsen

And now for something completely different... Old CoCo hardware, dirt cheap. (Insert *deja vu* statement once more.) Some of the more unusual items that turned up during the week included a copy of CoCo OS-9 Sculptor (the deluxe database which is still available), and an ancient video digitizer from the early CoCo days. A large portion of the items auctioned away came from a closed Radio Shack store. One has to wonder, though, how they managed to get ahold of several TRS-80 Model I systems.

THE EVENINGS

On Friday evening, groups split off to do various things. Back over at the Red Roof Inn (about 10 minutes away from the Holidome), a group was going to order pizza and, apparently, watch the Dukes of Hazzard reunion on television. Others congregated for as long as possible at the show area trying to answer the most-asked question: "Where shall we have dinner?"

As mentioned earlier, a group of about a dozen of us (including Paul Jerkatis, John Strong, Alex Forrest, and Scott Griepentrog) went out to T.G.I.Fridays to sit and wait for a seat. This was at the same location where we dined last year at another nearby eating place (a "restaurant row", it would appear).

Saturday night, however, was a bit more interesting. After the show closed, the regular dinner question once again surfaced causing much more confusion than it should have. One eating establishment was suggested, but after finding out it would take nearly two hours to seat us, other plans were made. Unfortunately, most of these plans weren't jointly made, and soon we found most had headed off on their own in search for sustenance. The now-traditional religious services hosted by Brother Jeremy on Sunday mornings were moved to Saturday night, and after that a small table of us gave in and actually ate at the hotel restaurant, as did Scott's group. Next year, I think we simply must find some sort of restaurant guide to help us avoid the Italian Buffet special which, when combined with

various drink mixtures in the pub, seems to produce some rather undesirable effects.

A short break was taken in the bar as Carl Boll and others bought and were bought drinks. Joel Hegberg even helped me recall some odd chocolate mixture we had served to us the previous year, which we ordered again.

Afterwards, music was played in the seminar room by myself, Brother Jeremy, and, in honor of my lack of name recollection, a great guy named Bob (who works for Motorola). A small audience (including Tony Podraza's wife, Linda), fed us the encouragement that kept it going. Soon, Brian Shubring mentioned he could run home and bring a keyboard, which turned into us simply moving the mobile guitars into the Fest room where Brian's massive MIDI setup (including keyboard) was already installed. As the evening rolled on, James Jones joined in on vocal harmonies as well as a rather large wind recorder type instrument thingie, and Mike Knudsen took over on keyboards, often adding the bass part. Since the "set list" included primarily famous "oldies", many were able to join in and sing along. Bob, who claims to have not picked up a guitar in over a year, kept the acoustic rhythm track going through the entire event.

Of special interest were several live "encore" performances of Brother Jeremy's original composition dealing with the attempts to contact Kevin Darling about releasing the OS-9 Level 2 Version 3 upgrade. If all goes as planned, a future Fest may be the scene for a live session recording of this song. Any musicians planning on driving to an upcoming show, drop some e-mail to "revwcp@delphi.com" and let him know you'd like to sit in on the jam session.

At this point the story gets rather Allen Huffman focused, so those not interested please skip down below. Carl Boll, I believe it was, brought me a drink known as a "Yukon Snake Bite", which is something the cane-enabled limping Paul Jerkatis had mentioned earlier in the evening. (The limping had nothing to do with mentioning the drink of course but, rather, had something to do with an injury.) This drink tasted like lemons gone bad. Very awful and very bitter. I suspected this was a joke being played on me, so I set out to prove "them" wrong by drinking it fully, then ordering a second one.

The fun continued, and eventually I found myself hanging out with Brother Jeremy and we spoke of many things non-Fest related. I don't know if I'll ever be able to truly express the thanks I have for many of the things he has done for me. I most certainly wasn't able to express it that night as, not surprisingly, my complete lack of tolerance for all things alcohol decided to kick in and make me very, very, very ill. All I have to say is thank God (and I suppose this usage fits in very nicely in this context) for Brother Jeremy being around to see that I survived this ordeal. I do remember finally making it to bed (in a hotel room shared by the Monk, Rick Ulland, Keith from New York, and myself), then waking up the next morning just before show start time and deciding I was really in no condition to be

social. (Upon re-reading this, I've managed to completely trivialize how awful of an experience this was for me, and I'm quite happy about that :)

As I slept through the Sunday show (in, as I told others, a tribute to my original Sub-Etha partner Terry Todd), I was checked on during the day by Alex and Brother Jeremy. By show closing at 3:30pm I finally felt stable enough to rejoin the activities, and I grabbed my bath robe and wandered wearily down to the show area, where Scott Griepentrog bought me some fruit juice, and Carl advised me that the easiest way to avoid a hangover was to simply not sober up.

I don't think I'll do that again.

By the time I managed to find the first floor, things had already started winding down. Dave Pellerito sold me a copy of his video tape magazine which I have been wanting to get my hands on since 1993, and I even managed to find my guitar which I had to abandon the previous night. (The video magazine, by the way, was a rather interesting venture which I would have subscribed to earlier if I realized it contained a closing segment demonstrating a use for an MS-DOS manual by setting it on fire...)

SUMMARY

Neato!

Somehow I think I can't get by with a one word summary after writing so many pages of text for everything else.

But I'll try...

Okay, I admit defeat. To summarize, re-read the previous pages and skip every other line. If that doesn't help, try this:

This was a high energy show that provided some of the "classic" Fest elements we often don't get to see: 1) a "legendary" keynote speaker from the classic past of CoCo history, 2) new hardware and software items (and by "new" I mean "haven't existed for the CoCo before", 3) a full line of seminars on different topics, and 4) some new faces!

Now if I only knew what happened on Sunday. . .

RUMORS

Most of the new "rumors" are becoming reality: CoCo IDE, CoCo SCSI with parity, a new 2 meg upgrade, shareware internet support for OSK, JPEG for the CoCo, etc. However, some of the "real" rumors include the CoCo4X, a hardware RAM disk that never forgets, a graphics/SVGA hardware add-on that frees up the CoCo from doing all the work itself, and yet another Fest graphical adventure game (which might explain why I was using my digital camera to take dozens of color images of the show location).

THE RETURN

We all packed up then, as usual, split up into different groups. I do miss not getting to go to the Mongolian Bar-B-Que this year, but a lower budget trip to Old Country Buffet made more financial sense to many of us. The Team OS-9 Crew (and Chris Podraza!) dined there which gave John and I a much needed chance to discuss some rather interesting future projects which we hope to have ready by the Pennsylvania Fest.

After this, and spending a half hour in the parking lot jabbering, I booted up my laptop and the GPS receiver and drove myself back home, stopping at an unknown rest area in search of some chicken soup-like drinks from the vending machine. At a little after 2am made it home, unpacked, then collapsed from exhaustion only to wake up several hours later to my talking alarm clock reminding me that, of course, I had to get back up and go to work.

DISCLAIMER

I'm actually quite proud of this Fest report partially because I think it's one I should be proud of, but mostly because I had alot of fun writing it. However, I do not make any claims to having anything remotely resembling reality in it.

If you suspect reality does exist in this report, please send me a message saying so. If you find something you feel needs to be corrected, please let me know about that as well, since revised versions of these reports will hopefully be made available to all those who sign up for the Pennsylvania Fest, though don't quote me on that...

THANKS

Editors Note: Pay special attention to this section Glenside members. This is what it's all about!

Thanks, Glenside for EVERYTHING! Thanks, Dennis Bathory-Kistz for a GREAT seminar. Thanks, Brother Jeremy for the use of the bed, the serious talks, and the music and fun. Thanks, Don Adams for the dinner (uh, you were the one who paid, right?). Thanks, John Strong for the interest in the adventure game project (and the sympathy for the loss of my mother this past year). Thanks, Linda for the quickie (shoulder rub, that is). Thanks, Chris Podraza for making it out and remembering your towel. Thanks, Alex Forrest, for being there. Thanks, Charlie and John for the cookies. Thanks, Andre, for the deals. Thanks, Scott Griepentrog, for the lemonade on Sunday. May you rot in Iowa, Carl Boll and Paul Jerkatis, for the Yukon Snake Bite (blech...), and the same goes for the Holiday Inn for not having enough rooms for us <grins>. Thanks, Mark M., Jim H., and Rick U. for all your work on new CoCo hardware. Thanks, Alan D., Roger T., and many others for all the new CoCo software. Thanks Jeff V. for the emulator, which is bringing back more resurged interest in the CoCo. Thanks to Ron Bull for attempting a summerfest in Pennsylvania in a few months! And, last but certainly not least,

thanks to everyone that attended either as a vendor or otherwise, and thanks for showing enough interest to allow Glenside to hold the 7th Annual "Last" Chicago CoCoFest in 1998!

Allen C. Huffman, formerly of Sub-Etha Software
COCO-SYSOP on Genie
allenh@pobox.com on the Internet
http://www.pobox.com/~alsplac
P.O. Box 22031 / Des Moines, IA 50325

FUTURE FESTS

Chicago will happen YET AGAIN, and Ron Bull's PA Fest is just around the corner. Someone even mentioned about attempting the return of a southern AtlantaFest, which would be nice. I really miss the Stone Mountain laser show.

Pennsylvania
August 2-3, 1997 - PA CoCo/OS-9 Fest/Show/Sale

Elgin, Illinois
April, 1998 - 7th Annual "Last" Chicago CoCoFest

SPECIAL OFFER

I am willing to help finance new CoCo hardware as well as keynote speakers for upcoming Fests. People like Jeff Vavasour, Marty Goodman, Steve Bjork, Kevin Darling, and tons of others would be a welcome addition to any upcoming Fest. After all, they might not have too many more chances to be idolized by a group such as ourselves... :)

SUE END

...Not!

ABOUT THE AUTHOR

Allen Huffman has been a loyal CoCoist since about 1982. He started with a grey-case CoCo 1 (E board, upgraded to 64K and lowercase) and has progressed through the years from there. In 1990 he co-founded Sub-Etha Software with Terry Todd and has brought several programs to the market including Rulaford Research's K1 Midi Librarian, and Sub-Etha's own MiniBanners and Towel. He has attended ever CoCoFest since 1990 and written reports on all but the initial 1990 Atlanta show, and even that has been done in retrospective format for an upcoming CoCoFest Chronicles "book".

Allen has contributed to UpTime, OS-9 Underground, the world of '68 micros, and various newsletters around the country and has had several letters published in The Rainbow (including one which prompted them to reprint their first 2-page issue). He also serves as Color Computer SysOp in the Tandy RoundTable on Genie and has been mentioned in The Computer Shopper for this position.

Allen now works for Microware as a technical training engineer teaching OS-9 classes and lives just outside of Des Moines, Iowa with his CoCos (1, 2 and 3), MM/1, and OS-9000 Toshiba laptop. He's a Leo who likes classic rock his favorite musical group is The Monkees. In his spare time he enjoys visiting theme parks and writing odd things such as this to include in Fest reports to see if anyone actually reads them...

Mostly harmless.

1997 6th Annual "Last" Chicago CoCoFest Report

By: Carl Boll

I really don't have much to add to the two previous reports other than to stress that the separate motel was the main reason we originally decided to move from the Inland venue where we had to stay in a motel down the road. At least the Clubhouse Inn provided transportation for free.

All of this was a real "comedy of errors" on many people's parts which hopefully will not be repeated again. This is what can be expected when one person is trying to do too much though.

Other than that comment...Another excellent Fest! Everybody who was involved in the planning and running of the Fest did a lot of work and they all deserve a heartfelt thanks from those of us who attended.

I intend to be there next year, once again with a booth. It's the only way to "do a Fest".

Paul Jerkatis, Scott Griepentrog and myself went to the Holiday Inn's Lounge Saturday and there were woefully few Fest attendees there. It just wasn't as much fun as in years past. I didn't even get to mess around with Al's bed.

For those who missed this Fest, start planning for the Fest next year. The date will be announced very soon. Plan a vacation around it. Sooner or later one of these Fests will really be the last one. Probably when there is no longer anybody with the time to do the work of setting it up.

Tony Podraza deserves a lot of credit for the continuation of the Chicago Fests. He is the moving force behind these Fests. If it weren't for him they would have ended a few years ago.

The Glenside Club either broke even or came so close as to not matter once again. The cost for next year will increase so expect that there will be some increase in booth prices or some perks cut.

Carl

Review of the PA CoCo Fest '97

By: Allen Huffman

This Fest report is dedicated to the memory of Alex Forrest, one of the few remaining CoCo-only hackers I know, and a friend who will be sadly missed by all who knew him. May 1, 1966 - July 19, 1997.

1997 Pennsylvania CoCoFest (August 2-3, Carlisle, PA) by Allen Huffman, formerly of Sub-Etha Software [With contributions from SockMaster, Ron Bull, Carl Boll, ...] (08/04/97, 08/11/97) Some changes made by Ron Bull.

NOTE: Any mistakes in this report are most likely unintentional, with the exception of those which were placed here on purpose. Those, of course, are not unintentional and are therefore not to be noted.

Sometimes if you want something done you have to do it yourself. Ron Bull wanted a Fest in his neck of the woods, so he did it himself.

This is his story... But first, a poem.

Once I had a toy machine, I bought at Radio Shack.
All my friends had always said, I should just take it back.

But here I am, some ten years past, And my toy is still such fun.
Who would have thought, when I bought it, that it would be the one,

I'd come to love and use so much, through all hours of night.
And let me know, that I did good, And that they, of course, weren't right...

Dedicated to my favorite "PAL", who sometimes fights me,
but never says "GIME"...

TIMELINE: UPS is about to go on strike. The Soviet Mir continues to be in trouble. Walt Disney World celebrates it's 25th Anniversary. Microware reports a quarterly loss, but announces many new upcoming contracts (such as another million OS-9 licenses for set-top boxes in Ireland). A little robot runs around the Mars surface, running a non-OS-9 operating system (and needing to be rebooted from time to time). SPAM on the internet reaches an all-time high.

THE DRIVE: Thanks to my job as a technical training engineer with Microware I had enough frequent flyer miles to make this journey by aircraft. Thank you, TWA.

Friday morning at 6am I was scheduled to depart on a flight which would take me to Pittsburgh, PA which is about three or four hours from the actual Fest location. I was scheduled to meet up with CoCo game-great Steve Bjork for a visit to Kennywood, America's oldest traditional amusement park in West Mifflin. Fortunately, my scheduled arrival went fine and as I stepped out of the aircraft unloading hallway thingie, Steve was there and together we took his rental out to the park, right on schedule.

While my main purpose of this trip was the Fest, Steve had something else he wanted to take care of.

He had a meeting at the park in order to do an amusement article for the new magazine he is editor of, E-Tech News and Review.

At Kennywood (www.kennywood.com) we met with a nice gentleman named Andy who filled us in on the history of the park, from it's 1920s vintage roller coasters, to it's currently world-record setting Pitt Fall drop ride (215 feet and, by contract, the world's tallest free-fall for at least the next year). We spent four hours exploring the park, then headed out on a drive to Carlisle.

THE ARRIVAL The Fest location was at the Embers Inn. We checked in, unloaded, and went out to explore the surroundings. The large Fest area was set up as Ron Bull and others started putting things together. This was a "good thing" since originally it seemed the hotel wasn't going to let them have access to the room until early Saturday morning, which is never a good thing for vendors wanting to have fun Friday night without having to wake so early the next morning.

THE PRE-SHOW Most of us were spread out between three of the buildings. Almost no "hanging out" was done in the show area that evening, so the pre-show consisted mainly of a group of us getting together to go to Golden Coral.

We loaded into Scott Griepentrog's minivan and headed down to the, unfortunately, closed restaurant. So, we headed a bit further to the, fortunately, non-closed Olive Garden. Our crew consisted of Scott, myself, Steve Bjork, Boisy Pitre (following in his car), James Jones, and John Strong. The meal was uneventful, made only slightly eventful by Scott's juggling and our overly thorough server who offered us more options than even the latest version of Microsoft(tm) Word.

After this, we dispersed back to the hotel and went our separate ways.

THE SHOW AREA The only accurate map would be Ron's (to scale). Instead, I present this inaccurate (See Also: Disclaimer) version:

| | | |
|---|-----------|------------|
| Bruce Moore / Rick's Comp. / Nora Landrialt & Eric Jon Tromp /SockMaster / Monk-O-Ware / Glenside / Luckey Corner | | |
| | | X X |
| | | X X |
| | | X X |
| | | X X Paul |
| Bargeman Labs | S-BUG X X | X X W. |
| | X X | X Xzibaila |
| | X X | X X II |
| | X X | X X |
| | X X | X X Ron |
| Dirt Cheap Networking | X X | X X Bull |
| | | X X |
| | | X X |
| | | XXX |
| Unlimited Elec. StrongWare FARNA Systems Adv. Surv. X | | |

---+ Registration Seminars ->

No booklet and no map this year, so the following list will be from my ever-failing memory:

1. Adventure Survivors - Beanie Babies (the real ones, by Ty). I think they have some kinda adventure game newsletter as well. Also, I'm not sure which game it was they were playing, but it was a sky-view role playing type game with characters and fighting and all kinds of neat things. Adventure Survivors has done quite a bit over the past years to contact authors and acquire rights to distribute some of the classic adventure/role playing games made for the CoCo. If you know someone who wrote some of the "lost" CoCo adventure games, why not get them in touch with the Survivors and let them bring the software back?
2. Dirt Cheap Networking, Inc. - Dave Hallko and his wife (I think her name was Michelle or something) returns to a Feast, this time without Neal Brookins (author of the Bible Concordance search engine). He had a variety of networking cables and a project plan for a FOUR 6809-cpu board computer. He needs interest and support to continue the project, which will require OS-9 being written to operate on the system. Note that this is NOT part of the "CoCo 4" project also underway, but a specific piece of hardware for a specific project Dave wants to do, and if it works out, we might find other uses for his platform. Anyone interested?
3. Ron Bull - The master of ceremonies had a table full of "free" items, both hardware and software, for Feast attendees. Quite a nice perk for those who made the trek.
4. Strongware - John Strong and Don Adams represented both Strongware's classics (OSK tools, and the CoCo GEMS and Soviet Bloc) and demonstrated the new MM/1 version of

Invaders09 by myself. This version was rewritten by jamic@mit.edu and should hopefully see the light of day in the near future. Some of the enhancements include digital sound, and a 256-color screen. The original CoCo OS-9 version made only minimal clicks and operated on a 16 color screen. Unfortunately, one of my favorite "features" was taken out of the MM/1 version (the "cheat mode"). During the show John made the rounds with two Kodak DC20 digital cameras taped together. He was snapping images in hopes of producing some 3D pictures for the MM/1 and, possibly, the CoCo. These might work their way into the upcoming Adventure Game engine currently in the works (again).

5. Bargeman Research Labs - Karolton W. Sefeik had quite a bit of literature he'd accumulated dealing with CD-i players, Motorola products, and other items of interest. One of the more interesting items was a list he'd obtained from Phillips with over 500 active CD-i companies. Neat stuff!

6. Rick's Computer Enterprises - Rick Cooper and Stuart Wyss had tons of Sundog Systems games and took subscriptions to the CoCo Friends disk magazine. Rick also mentioned he now has subscriptions by e-mail, and a way to receive .DSK emulator images so you can view the diskazine on a PC running Jeff Vavasour's CoCo 3 emulator. There was also talk of a native DOS program which could view the issues directly. Stuart, whom I finally got to meet, had a wealth of information to share and was just an overall nice guy.

7. Unlimited Electronics Repair - A local vendor from the area showed up briefly during the first day. Ron reports that they realized they had the wrong type of monitors for our group :(

8. FARNA Systems - Mr. and Mrs. Swygert (hey, that sounds

neat) were able to stay for the Saturday portion of the show (they had other travel plans for Sunday) offering "fixed" NitrOS9 V2 disks and others. One item of interest I picked up from his table was a flyer promoting "American Independent", a magazine devoted to many of the small, "yet historically significant" American automobile manufacturers. It was billed as "a magazine for you and your car", and sounds neat (even if I know very little about cars myself).

9. Paul W. Zibaila II - Paul had a variety of CoCo goodies on his table, including a rather interesting item. A company was using CoCo 3s as touch-screen kiosk computers in GNC stores. (You know, the health store in every mall with all the vitamins and supplements.) The unit had a large i/o card attached (with a hard drive!) and was displaying on a CM-8 monitor in a wooden frame case with a touch sensitive screen in front of it. You could point and select items and navigate through a very professional full color interface. The response time was very impressive (better than some "modern" kiosks I have found in malls these days!) and who knows - maybe we've all actually seen a CoCo in the mall and never knew it! Some of this hardware may be sold off, so perhaps the designs can be acquired for the various interfaces. I believe there was even some form of networking on board. Hopefully we can get more details from Paul on this exciting bit of CoCo history.

10. Luckey Corner - Brian Goers (was Howard around?) was listed as maintaining this booth, but somehow I never got around to connecting with them.

11. Glenside CoCo Club - Carl Boll was there to sign folks up, talk about the IDE interface project, and generally pick on me. As usual, the show wouldn't be the same without Carl present.

12. Monk-O-Ware - Brother Jeremy was running the "rumored" OS-9 Level 2 upgrade and showing off the various CoCo 3 prototypes that OS-9 for the Color Computer was developed on.

13. Sock Master - John Kowalski offered compilation disks of his various outstanding CoCo 3 demonstration programs (as endorsed by Larry Greenfield and many others), including: CoCo MOD music player, GLOOM 3D maze engine, color demos, high-speed life simulator, Twilight Terminal (32 color ANSI, high speed RS-DOS terminal!) and much, much more. Watch out for his "Moon Patrol"-style game, coming soon (we hope). More comments on this can be found in his seminar notes, elsewhere in this report.

14. S-BUG - Dick Albers stood in for Andre Lavelle with a variety of hardware goodies, including mini-mice and blank disks.

NO SHOWS Some of the vendors expected to attend were missing. Ron had hoped to see ELITE Software, EZ Friendly Software, John Sladek, Jim Hathaway, PAOnline, and Second Source, Inc. I'm not sure of the details of these, but I know a few of them are "long gone" CoCo vendors. Perhaps we can try again for the next Fest and talk them into making it out?

THE SEMINARS Although few in number, the

quality of the seminars at this show will be difficult to beat.

Saturday:

9:00 - PA Online - no show, but they were scheduled to discuss Fidonet, Internet and WWW access.

10:00 - Kevin Darling - also didn't make it. It was hoped he'd discuss "OS-9 and Multimedia", items which he is no doubt familiar with after spending the last few years working on various digital set-top boxed based projects.

11:00 - "CoCo IDE" - Carl Boll Carl gave updates on the status of the IDE interface for the CoCo, currently being produced by the Glenside CoCo Club. The hardware seems stable, but some driver problems with the 16-bit software have them working overtime in order to ensure a perfect product (or very close to it) on delivery. This is an example of "modern hacking" on the CoCo.

1:00 - "Game Programming" - Steve Bjork This was the event that, to many, justified attending. Steve stepped out of CoCo retirement to present a multi-media game programming seminar. For those who might not know, Steve was a primary CoCo game programmer for Radio Shack. In about 1992 when the CoCo was discontinued he moved on to write Crystal Quest for the Nintendo Gameboy, then a series of other projects such as Chessmaster for the Sega Game Gear, Rocketeer and Bass Masters Classic for the Super Nintendo, Captain Planet for the Sega Genesis, and also Iron Hammer for the never-released Sega-VR helmet. His most recent endeavor is as editor for E-Tech News and Review, a high-tech gadget magazine for folks like us who love technotoys and other forms of amusement (simulators, theme parks, etc.) Steve recently surfaced on the CoCo listserv (bit.listserv.coco) and has chimed in from time to time when people asked just where he'd been. Somehow Ron Bull was able to talk him into coming to this event and putting on this session at his own expense. (In spite of rather nasty attacks by two former CoCo people who seem to want to ruin things for the rest of us.) For those of you who saw it first hand, you can appreciate the time and money that went into the presentation. The seminar room was set up with an overhead projector, television set, and Color Computer. The presentation began with a video clip playing on the monitor which started with a zoom-out from a CoCo motherboard fading into a zoom out of the CoCo case, then screen shots from various CoCo games Steve worked on, all set to music with crossfades and video effects between segments. The segment was very energetic and produced entirely on a digital video editing workstation (those Californians have all the toys, don't they?). After the clip ended, Steve was introduced as the Audio Spectrum Analyzer played to the music from Disneyland's Main Street Electrical Parade (which, incidentally, "retired" after a near 20-year run at Disneyland this past summer). Steve began his speech by explaining this was exactly how the product was pitched to Tandy, in a presentation that began a career that lasted well over a decade with Radio Shack. Looking at things now, it's amazing to imagine there was a time when a person could make a very comfortable living off of writing Color Computer programs! Since the main focus of the seminar was game programming, with healthy bits of CoCo history thrown in, I'll attempt to summarize the main points. The attendees were all given

handouts which had code fragments and definitions of game components (and "suggested reading" listings) while Steve used the overhead and slides. The topics ranged from "items that make a good game" right down to data structures for object control (something taken for granted today, but "new" in the early 80s when even the 'C' language didn't have a standard). Another video was played showing a game clip set to three different background tracks (CD audio, similar to what you might hear on a modern game system or PC). Steve explained the different "feel" music could give to a game, then mentioned that the game being shown was a project he completed but never released. Apparently, Steve "found" the game during a recent CoCo housecleaning when getting ready for this Fest. The game is titled "Horizons" and combines a 3D star background (similar to Warp Fighter 3D) with a "horizon view" of alien ships to blast scaling in from space (similar to the way the dirt bikes came into view in Desert Rider). The playership stayed in the bottom center of the screen while the objects moved left and right giving a good sense of motion and "depth". As enemies were blasted, the "score" value popped up in their place. Perhaps we can convince Steve to finally release this game? During the discussion, Steve paused and said he needed a laser pointer so he dug into his bag and retrieved a hand phaser (like the ones used in Star Trek the Original Series) and "shot" it at the overhead screen. A laser dot appeared as the sound chip played the phaser noises. After things settled down, he dug out a regular laser pointer for the rest of the seminar. (On a side note, he has the phasers for sale, I believe. It seems he really thought a Star Trek phaser needed a real laser in it to be a bit more realistic!) Some code samples were shown in 6809 assembly and techniques were discussed for sprite placement and background tiles, such as the way several megs (if uncompressed) of graphics were stored in the Super Pitfall cartridge. (Chet Simpson has published part of an article dealing with this subject in the world of 68' micros as well, so those who weren't able to attend this seminar might find back issues interesting since some of Chet's techniques are the same or very similar to items Steve has used in his games as well.) Among the "game trick" comments made were the fact that Super Pitfall simulated 160K in a 128K CoCo by using the entire 128K (including the 32K "hidden" under where the ROMpak loads in) and the full-size ROM memory. Many non-Bjork projects were also mentioned, such as Shanghai by Rick Adams being a program that Tandy "banned" from the offices due to a noticeable drop in productivity from employees playing it! Did you know Rampage was created for the CoCo in just 35 days? It seems there was a nice "bonus" for completing it before the deadline, and the CoCo version was faced off against the Tandy 1000 version at the Tandy corp. offices to further show how great the CoCo really was compared to the other machines Tandy was pushing at the time. Unfortunately, we all know how things ended up. During the seminar, Sockmaster contributed some cycle counts to clarify some of the things Steve was talking about (the MUL instruction takes 11 cycles, I believe he pointed out), and Steve asked him to chime in if there were any items he mentioned that were wrong, and also urged Sockmaster to offer any improvements or other ideas in his own seminar which happened later. It's worth noting that the seminar was videotaped, and Steve made the journey to the Fest to "test the market" for a game programming package which would include source code (and maybe the unreleased Horizons game), printed material, and edited version of the

video, and other goodies. If this happens, Steve wants to turn over distribution of the project to an existing CoCo vendor, allowing them to make some money on it. So, if you would like to see something like this done, please drop a note to Steve and let him know. He can be contacted at: E-Tech News & Review 17029 Devonshire St. Suite 127 Northridge, CA 91325 editor@e-technews.com (Please note that this is NOT the same address which existed for years for SRB Software.) And if you think this write-up is long, recall the one I did for Dennis Kitz from the 1997 Chicago Fest :)

3:00 - "OS-9" - Boisy Pitre As an "insider" (but speaking for himself) with Microware, Boisy was able to give his views on the future of OS-9, from sadly realizing that the desktop hobbyist days are most likely gone for good, to the happy days of realizing soon we may all have something in our house that runs OS-9. I was not at this seminar, so I'll leave the details up to someone else.

4:00 - "SockMaster Demo-stration" - John Kowalksi SockMaster made the trip down from Canada and showed off a plethora of NEAT things, including his 4mhz CoCo accelerator. This item "sneaks" in an extra clock cycle anytime the 6809/6309 isn't going to be doing bus/memory access. A toggle allowed him to halt or slow down his machine, and the true speed of his modification was shown when he toggled his MOD file music player's display screen from low to high speed. Other items shown included his bouncing ball demo, which bounced a large rotating ball around a checkered background (which had a few more colors on the screen than the CoCo can really produce, which is of course impossible), his MOD file player (playing four voice digital samples while updating the display screen in real-time, which is of course impossible), and his 3D "Gloom" filled-wall maze demo (which kept a nice framerate including wall "clipping" and everything, which is also of course impossible). I suspect most of what he showed, such as 816 colors on the screen at a time, is really impossible and he just doesn't seem to understand the concept of "it can't be done on a CoCo". At one point, when the size of his MOD player was revealed, Steve suggested we put the MOD player in ROM instead of the "hidden" snapshot saying it would make a much nicer use of the space. Imagine that - something truly neat in that "lost" 6K. Anyone with a ROM burner want to give it a shot? I'd love to be able to do CTRL-ALT-Reset and play MOD files... Also shown was the workings of a Moon Patrol-style game for the CoCo 3, featuring four layers of parallax background scrolling (VERY SMOOTH using some GIME hardware scrolling tricks along with software screen blits). This item could very well be one of the "best" CoCo 3 games produced if SockMaster decides to turn it into a full game.

Sunday:

8:30 - Sunday Morning Worship Services with our own Brother Jeremy

9:00 - PA Online (no show)

10:00 - "Open Forum" - James Jones and others spoke of a variety of computing related topics.

11:00 - "Open Forum" - Steve Bjork led a slightly different seminar, by moving it into the unused section of the main exhibit hall (right under the disco ball near the presentation stage, actually). Although billed as Steve's time, he took a mediator position and opened the floor as Rick Cooper and others discussed, formed, and established the "Color Computer Preservation Society", otherwise known as CoCo-PS. Everyone seemed to have something to contribute, and we ended up with this: A quarterly "newsletter", sent out snail mail, informing out community of CoCo happenings, such as "updates" from the various clubs and organizations (there might be, for instance, a Glenside column and an Atlanta Computer Society Column, and a recap of what was in Frank's magazine), then club listings, bulletin board numbers, web site listings, and general CoCo news such as new products, Fest information, and anything else that seems "important". Scott Griepentrog volunteered to typeset the initial issues, and Rick Cooper volunteered to handle the money, photocopying, and mailing of them. A move was made to take up a collection to send a copy out to all 500 people listed in Rick's CoCo Registry database (five hundred!?!?!). Steve and others will assist by contributing information and assistance with the editing. If you want to help, or just want to sign up, send a five dollar (\$5) check to Rick's Computer Enterprises. The checks will initially be "held" for a short time to see if there is enough interest for this project to continue. So, DONT HESITATE! Send your "subscription" in now and join the grooviest preservation society of them all. Send \$5 Today: Rick Cooper -or- CFDM -or- Rick's Computer Enterprises P.O. Box 276 Liberty, KY 42539 Scott mentioned that he would be setting up an e-mail address (cocops@stg.net) and allocating web site storage for the organization. Watch your favorite CoCo news source for details on the progress of this endeavor.

1:00 - "Open Forum" - John Strong operated another seminar from the main show area which, unfortunately, I didn't sit it on.

.....

This isn't the end of Al's report but it is all that we currently have to publish. One other thing that happened after the seminars on Sunday was a no minimum bid auction.

This one was a little different than the ones that take place in Chicago in that the vendor could specify if they wanted some or all of the money that the item brought.

This might be a new idea for Chicago. How about just an auction that is run by the club for the vendors? It might work. I know I would be willing to split the "profits". I hate taking stuff home from these Fests.

It is already announce that there will be a PA Fest next year! Make your plans to attend.

.....

LATE BREAKING NEWS By: Mark Farrell

We've done it! Thanks to the work of Jim Hathaway,

(hats off to you) the Color Computer Community has another entry it the world of hard drives!!!

The Glenside Color Computer Club has been busy too!!! The original driver was designed by Jim Hathaway. This driver was very small and fast. However, it did have several drawbacks:

- 1.) Utilized only every other byte on the disk. The interface card was designed to access all 16 bits but, the software timing and control turned out to be a daunting task for several people and many hours.
- 2.) Very limited error handling. The IDE (ATA) drives do not provide error codes like MFM or SCSI drives do. There is a status register AND an error register that must be tested, bit by bit, to see what caused the current operation to fail.

The fun part started when we found that there are several types or revisions of what we call IDE devices. The specifications are spelled out by the X3T10 standards committee to the ANSI standards people.

Note: Set Drive Parameters is mentioned several times. This operation allows the host driver to tell the ATA device how many HEADS and SECTORS per track it has. The device can then be interrogated with an Identify Drive command to find out how many CYLINDERS it has. The ability to do this is called Translation. Without this handy feature, the driver would have been much more difficult to write. Currently, we are using a forced translation of: 16 Heads by 32 Sectors per track. (64 OS9 SPT).

The types are:

- IDE (ATA) - Includes most of your original 20-80 meg drives. Primitive at best. Set drive parameters not implemented.
- ATA-1 - 'Some' important standards evolved here. I have to laugh because it's quite possible that if cars were built this way, you would not get in one! Even if you could get the door open...if you could find it. Set drive parameters implemented but, not standardized.
- ATA-2 - More 'standards' developed because of CD-ROM, removable media, tape backup and because people told to tinker with stuff (and get paid) will tinker with stuff. Bits in the status AND error register changed meanings. Also, new PIO and DMA modes were added to provide higher speeds. Set drive parameters properly defined (so it would seem).

Well now for the good stuff:

DRIVER SPEEDS and SPECS

All times based on a 6309 system under Nitros9 V2.0 using Megaread.

A.) Original Driver - by Jim Hathaway
Speed: 16-18 seconds
Code : 6809

Comments: Uses only 8 of 16 bits causing loss of 50% of drive space.

Single drive only.

B.) 6309 version of Original - by Mark Farrell
Speed: 14-16 seconds
Code : 6309 TFM command used in R/W drive data only.

Comments: Uses only 8 of 16 bits causing loss of 50% of drive space.

Single drive only.
NOT extensively tested.

C.) First 16 bit version based on poor understanding of interface card and ATA timing (proto-type board also had a bug) never got off the ground. With every thing that this driver wasn't, Allan DeKok provided us with the framework for a more complete driver. Thanks!

D.) 'Working' 6809 version based work done by Allen DeKok - by GCCC Team
Speed: 20-22 seconds
Code : 6809

Comments: Large files fail compare after copying. Track down to lost 16 bit word(s). This was thought to be a problem caused by data patterns. After MANY hours of testing and looking at the data using dEd, we found the clue we needed.

E.) Working 6809 version of above - GCCC Team
Speed: 22-24 seconds
Code : 6809

Comments: WORKING! Enhanced error processing.

F.) Testing Partitioning version of E - GCCC Team

Comments: Works well enough but, can't get passed two partitions without crashing system(?).

G.) Master/Slave drive version of E working.

Comments: Works well but drives fight over buffer and slows things down.

H.) Master/Slave version Major Overhaul. - Mark Farrell
Speed: 37-39 seconds
Code : 6809

Comments: Dynamic allocation of SLAVE drive buffer at INIT time. Only if SLAVE detected. Two buffers smooth out Multi-Tasking. Error handling enhanced. Minor bug in error clearing causes 2 IDE sectors to fail (4 OS9 sectors). Need to reset drive after an error has occurred. Most of time increase comes from two drive overhead. Physical Verify

after Logical Format does NOT find all bad sectors on device. This is a big problem.

G.) Working on it...were almost there!

Comments: Need utilities for clustering and surface scan and verify.

Editor's Note: The drivers are not finished yet and we also have not finished testing the hardware at the time of this printing.

The Team (most of it)

Carl Boll
Gene Brooks
Mark Farrell (that's me)
Eddie Kunz
Tony Podraza
Brian Goers
Brian Schubring

Latest Comment on the IDE Project

As of the printing of this newsletter a lot of work has been done on the project. We are close to production now.

If you are interested in getting one of these boards you can send a deposit to the following address:

The IDE PROJECT
C/O Carl Boll
6242 S. Menard Ave.
Chicago, IL 60638

Make your check or money order for \$15.00 payable to:

The Glenside Color Computer Club

Please hurry though, we are only making a limited run of these boards and when they are sold that is all there are. We do not have plans to make more after this initial run.

We can not quote a final price right now. It should be right around \$50.00 per board. Shipping and handling not included.

If you have an Email address please include it with your check or money order. It will make it easier to contact you when we have a final price and need the balance due sent to us.

If you are waiting for a board we apologize for the delays but we could not in good conscience ship a product that we weren't sure worked properly. Now that we have done all of this prototyping and testing we are much more satisfied that you will be receiving a board that will work as advertised.

===== [NEWSLETTER ADS] =====

To put an AD in the BBS and newsletter, upload a file with the filename. filetype: FSxxx.ADS where xxx is your initials. !!! Our ADS are free !!! Your ADS appear in FOUR different newsletters and BBSs! Ma BELL has seen fit to confuse our phone numbers with the addition of TWO NEW AREA CODES! Please try 847 AND 630 if 708 doesn't work!

S O R R Y !

Please inform SYSop to remove items from the list by calling 630-837-7957

FOR SALE

971002

 486DX2 66MHz 12MB RAM 720 MB HD Windows 95, voice/fax modem, 4X CD ROM 14" .28dot pitch mon 1 1/2 years old \$700 OBO. 847-639-9032

FOR SALE

971002

 Word processor Brother 3400 12" amber monitor 3.5" 240kbFDD dual screen data merge grammar check punctuation alert \$150 847-584-0143

FOR SALE

971002

 386 PC w/170 MB SCSI HDD EGA monitor & keybd 8088 PC w/mon & keybd Make offer. 847-695-4694

FOR SALE

971002

 Computer memory 8-1M SIMMS 70ns 30 pin Upgrade your 386 or 486 to 8 Meg. Joe 847-516-9220

FOR SALE

971002

 100 MHz Pentium PC 16 MB 12GHD W95 MSoffice 1 yr old\$400 847-781-9538

FOR SALE

960421

 Pentium 75MHz 16M RAM 540M HD 14.4 FAX/VC MODEM .28DPI 14" Monitor...\$750 708 207 2618

FOR SALE

960421

 Canon Bubble Jet B200e\$65 Cham 630 462 1852 eves

FOR SALE

960421

 Radio Control model airplane kits new in original boxes. Starhawk Low-wing, .40 ARF: \$35 2 Goldberg Sky-tigers, 63" wingspan, .40, 4-channel \$25 ea Don 847 359 2676

FOR SALE

960421

 386DX40 CD ROM 170M HD 14.4 MDM.....\$300 OBO Jason 847 885 9767

FOR SALE

970421

 Canon Bubble Jet printer 4 0 0 0 1 y r old.....\$249 Call 847 991 7380

FOR SALE

970421

 Epson LQS70 24 pin prntr w/rbns.....\$60 630 307 0798

FOR SALE

970421

 CoCoIII-6809 CoCoIII-6309 CoCoII CoCoI Magnavox RGB MNTR TRS-80 Color Mntr(Cat 26-3210) 4 Joysticks Color Mouse & Adptr DMP130A Printer 20M SEGATE SCSI DISTO 4-1 ADPTR DISK CONTROLLER RS232 PAC TANDY KENTON SCSI HD ADAPTR MULTIPAK - CAT26-3024 SPEECH SOUNDPAK 1600 BAUD MODEM DUAL 5.25" Floppy Drive & SNG 5.25" Floppy Drive, both with cases & CBLs Cassette Player Software: OS9 LVL2 Multiview FLIGHTSIM SUBBATTLE KING'S QUEST SHANGHAI NITROS9 TERMINAL PROGRAMS More Books: Inside OS9 LVL2

BASIC09 OS9 WINDOWS COCO3 service mnl CoCo3 Assembly Language Rainbow Mags & Disks Frank Randle 12039 44th Ave Kenosha, WI 53142 jam123@execpc.com 414-694-2931

FOR SALE

970219

 Great starter computer Tandy 100% IBM compat., 640K RAM, 3 1/2 disk drive, 20 megabyte, color monitor & printer - all for \$350. Call Mary 630-483-8917.

FOR SALE

970219

 Autocad software - autodeck R12-CH that contains Win & DOS ver & autovision & 3D studio. Great for students & exp users. Asking price \$270. OBO. Call 847-566-5598.

FOR SALE

970219

 PS-166 16 meg.-EDO case, 3.5 floppy/ keyboard, mouse 2mBPCI SVGA 8XCD ROM, SBcomp and 33.6 kbs. modem Win 95 1.66 hd monitor also avail. \$1381. New. Hurry!! Call Douglas 847-925-1585.

FOR SALE

970219

 PS-100 16 meg - EDO case 3.5 PD/KB / mouse / 1mBPCI SVGA 8xCDROM - SB16 comp + speakers 33.6modem 1.66HD & 14" monitor Wings & MSPI vs custom made system. \$985. Call Douglas 847-925-1585

FOR SALE

970219

 PS-200 32 meg - EDO case, 3.5 floppy/KB/ mouse 2MB PCI SVGA IOX CD rom sb16 comp & 26HD + speakers 33.6 kbs modem monitor - avail. Win 95 + MS plus new. \$1695. Hurry! 847-925-1585

FOR SALE

970219

 PS-133 16 meg - EDO case PD.KB - mouse 2MB PCI SVGA 8xCDrom SB comp & 33.6 kbs modem 1.60 HD Wings+Plus 14" monitor is also available. New system. \$1250. Hurry! 847-925-1585.

FOR SALE

970219

 Short wave receiver DX-160 5 band \$95. 630-682-9723.

FOR SALE

970219

 Apple Classic II 10/80 with 68882 co-processor. Perfect condition, original box. \$250. Call 847-825-0209.

FOR SALE

970219

 2 computers 486SX33 8 meg RAM with CD, 14"colormonitor, modem 200mg HD 2 floppies \$600. OBO. 286 laptop 60 meg HD, modem with case & accessories. John after 8 pm. \$250. OBO 815-455-5209.

FOR SALE

970219

 Quadraflex QL-410 semi-automatic turntable w/digital series cartridge. Barely used.

\$120. new, asking \$60.
OBO. Call
847-272-4946
eves (6-10pm).

FOR SALE

970219

Computer - 486SX25
w/210M HD, 4M RAM,
modem, k-b & mouse.
Win. 3.1, Wordperfect
6.1 more s/w Le &
manuals inc. \$250.
815-895-9380.

FOR SALE

970219

Mac Performa 6120, 60
MHZ PwRPC, 24 MB RAM,
350 MB HD, 14.4 FAX/VC
modem, w/color
mon-bundled sftwr + addl
games for pre-kids -
\$1000. OBO.
Chris.
630-690-5357 -day or eve-

FOR SALE

970219

Computer desk \$30. 55
5/8"H x 28"W x 23 1/2" d.
Oak finish 4100. in
stores. Wayne
847-566-6521
Mundelein.

FOR SALE

970219

Power Macintosh 75MHz
power PC, 16MB RAM, 1GB
HDD, 4x CD ROM, 15 inch
color display, 14.4
modem \$800. firm.
847-740-6423.

FOR SALE

970219

486 66MHz computer 8mb ram,
14.4 fax modem, sound
blaster, 4X CD rom, 500
mb HD, speakers, APC
pwrmgr AC line filter,
software, top line 15"
monitor, new mouse. \$1200
OBO
847-397-2406.

FOR SALE

970219

Brand new battery
eliminator for the
Motorola Cellular Flip
phone \$15. Replacement
battery for the Motorola
(home) cordless phone \$9.
Never used.
Call
708-565-6686.

WANTED!

970219

Intel 486 66 MHz SV
working condition.
847-882-4714.

FOR SALE

970219

External CD Rom, 28.8
modem for laptop
630-820-1313

FOR SALE

970219

P150 computer system,
32MB EDO RAM, 1.3 GB HDD,
512KB cache, 3D video
card w/2MB, 8x CDRom, 16
bit sound card, 80 watt
speaker, 14" monitor,
key & mouse, 1 month old.
Win 95
\$1600.

847-352-7001.

FOR SALE

961230

COCO 2,3 - DIRECT CONNECT
MODEM HARD DRIVE(20 MEG),
DISTO SUPER CONTROLLER.
RGE DOS, 2 DMP 132
PRINTERS. MOUSE,
KOWOLA PAD, MULTIPAK
INTERFACE, CARTRIDGES,
DISK DRIVES JOYSTICKS,
BLACK ONES AND THE COOL
WHITE ONES. JOHN SLADEK
I DONT WANT MUCH MONEY
FOR THEM
(610)522-0966 VC
OR
(610)522-0267 BBS

FOR SALE

961218

Epson ES-1200C scanner
w/Photoshop \$800. OBO.
Epson Stylus Pro w/
PowerRIP- \$400. OBO.
Apple Laserwriter Select
\$800. OBO.
Steve
360-550-8619.

FOR SALE

961218

acintosh computers:
Performa 6300CD/ 100,
32M/1.2G, 28.8 fax/modem,
CD Rom, 15" color
monitor, software -
\$1700. OBO. LCII, 10M/8M,
14" color monitor
\$350. OBO.
Steve
550-8619.

FOR SALE

961218

Amiga 2000 with 32 bit
68020 CPU accelerator,
325M hard drive, 3.5"
ext. & int floppy drv,
AMAXII Mac emulator, 14.4
modem flicker fixer,
joystick,
\$400.
Call Kris @
630-330-9360.

FOR SALE

961218

Memory 16 meg 72 pin Edo
Simm \$85. Also 4meg
72pinEdoSim \$25.
776-1870.

FOR SALE

961218

Intel 486DX266 2 545
meg HD's 32 meg RAM,
quadspeed CDRom, 28.8 int
modem, mini tower case
Vesa local bus both
floppies runs fast need
to sell! \$850. OBO.
630-372-2823
after 5:30 pm.

FOR SALE

961218

Printer Panasonic KX-P2
124 wide carriage, 24pin
dot matrix color capable
\$100.
Call Kim after 5 pm.
630-894 2516.

FOR SALE

961218

Computers for a young
student, household - Mac+
w/40/80M Hd., 4M RAM,
many extras. \$150/180.
Add modem for e-mail or
Telnet. Yes, they're out
of date, but very
lemctional.
359-7293.

FOR SALE

961218

Computer - 486DX2-66
w/CDRom, 420MHD, 16MRAM,
k-b & mouse, DOS 6.0, Win
3.11, \$565. 15" H 1-RES
SVGA Mon \$175. NLQpnter,
\$85. All together, a
great setup. \$775.
359-7293.

FOR SALE

961218

Computer - 386SX20 w/140M
HD, SVGA video card &
monitor, DOS 6.09, Win
3.1, modem, k-b & mouse.
Lotsa s/w, Just add B-J
printer, and it's great
for college!
359-7293.

FOR SALE

961107

IBM compat PC 486/33SX
4MB RAM 170 Mb HD 2
floppy drvs kbd mouse.
Lots of software. Asking
\$300. 14" 28 dot color
monitor. Asking \$200.
Will sell separately or
together.
Call
630-434-9534.

FOR SALE

961107

3-D camera Everything
included. Asking \$500 OBO
Call
630-924-8492.

FOR SALE

961107

Gateway 486DX33 computer,
250MB 8MB RAM
multi-media keyboard,
mouse incld. Monitor, &
modem not included
.....\$250/OBO
Contact
630-462-1648
after 6pm.

FOR SALE

961107

?X86 133MHz multimedia
tower. 14" SVGA, 6X CD
drive, 1.27 GIG, 16MB
RAM, 1MB PCI video, 33.6
modem. sound card,
speakers, keyboard/mouse.
.....\$1275
Weekdays 11-3 pm
847-855-9157.

FOR SALE

961107

Laptop TI4000M DX2-50
dual scan 8M RAM built in
sound 325m hard drive 2
type 2 1 type 3 PCMC
slots Win3.11. \$800.
Call after 5 pm Ask for
Paul
925-9775.

FOR SALE

961107

Digital DEC520ic color
ink jet printer. \$125
847-296-3844

FOR SALE

961107

Plotter -HP Draftpro- DXL8
pens good condition \$500
815-356-1198.

FOR SALE

961107

HP Omnigo 120 PDA with
1MB SRAM card & PC
interface \$200. Call
847-854-5418.

FOR SALE

961107

Tandy 485ED-IBM comp,
75MHz 486DX4, 8meg-RAM
(EXP) CDRom SCSI sdbl
str, mod, NE-2000-15"
SVGA-VLME \$1000 TDY
multimedia IBM-comp.
50MHz 2486SX-5Meg-
RM(EXP) CDRom sdblstr mod
prtr 14" m \$740.
847-336-6902.

FOR SALE

961107

Super Nintendo game system. Includes 3 controllers, all cords & 99 games: Mortal Kombat3, Killer Instinct, Donkey Kong Country & more! \$200. OBO.
Call anytime.
593-2845

FOR SALE

961107

Mac IICI w/14.4 fax modem, 8Mg RAM, 80Mg HD, Laserwriter II NTX. \$800. OBO.
Call
705-0967.

FOR SALE

961107

786SX computer 8MRAM w/lots of software. Great starter \$300, \$475 w/ SVGA monitor.
Call
630-833-3433
Leave message.

FOR SALE

961107

Mac SE/30 w/ImageWriter color printer. 40Mb HD. 8Mb RAM w/software upgrade to 14Mb RAM Custom Apple carrying case for both computer & printer. Lots of software incl. All necessary cabling incl. Everything like new.
\$525 OBO Must sell.
Call
821-0937.

FOR SALE

961016

Macintosh PB520c w/12M RAM 500M HD 19.6K int FAX modem ...
\$1800
Mike
312-337-1135

FOR SALE

961016

Macintosh PB230 w/12M RAM 120M HD 14.4 int FAX modem Lapis minidock\$600
Mike
312-337-1135

FOR SALE

961016

Macintosh 5215 Performa 16M RAM 75 MHz power PC 14.4 int modem 15" built in color monitor CD ROM lots of software ..
\$1500
847-740-6423

FOR SALE

961016

14.4 FAX modem w/sftwr\$35
Juan
847-695-9033

FOR SALE

961016

14.4 int\$40
14.4 ext\$60
286 bd&case\$25
386SX-16 w/math co-processor & case ..\$35
42MHD IDE\$35
HP Desk Jet\$100
847-855-9157

FOR SALE

961016

*786DX-40 14" VGA 105MHD 4M RAM SB16 sound card w/spkrs modem & 24 pin printer loaded w/software \$400
847-855-9157

FOR SALE

961016

786DX-25 Multimedia w/SVGA 125M HD 2M RAM 16 bit sound card CD drive speaker & modem Loaded w/ sftwr \$500
847-855-9157

FOR SALE

961016

IBM 486 w/monitor & software \$900 OBO
Extra software & printer for extra \$200
Reggie or Shea
608-758-8739

FOR SALE

961016

786DX turbo 15" SVGA 350M HD & 100M HD Sound card SB16 tape backup internal dr ...
\$680
630-837-4325

FOR SALE

961016

786DX portable 250MHD 5M mem PCMCIA port color screen .
\$850
630-837-4325

FOR SALE

961016

786-25 2M 40MHD B/W monitor FD 3.5 5.25 9 pin dot mtrx pntr \$150 OBO
847 625 6271

FOR SALE

961016

Packard Bell 386SX 16 MHz 1MR 80MB HD VGA 14" clr Epson prntr Windows 3.1 WordPerfect Lotus Matlab Chess\$525 OBO
847-674-6544

FOR SALE

961016

786 100 MHz CDROM 500MHD high performance card LAN equiped Sound card SB16\$575 OBO
630-837-4325

FOR SALE

961016

786SX25 100MHD 4M RAM SVGA Visual C++ Visual BASIC WordPerfect for Windows ...\$499
847-781-0641

FOR SALE

961016

Compudyne 386-25 210MHD 4MRAM STB Vesa VGA cntrlr 5.25&3.5 FD 2400 baud modem 250M tape software no monitor\$250
847-464-1325

FOR SALE

961016

Macintosh extended keyboards Refurbised\$25
Mike
630-351-3436

FOR SALE

961016

Dell 486 4M Good start for kids \$450
LIZ
847-537-4169

FOR SALE

960912

Epson LQ500 printer...\$50
Hard disk 323MB.....\$60
ISA HD controller....\$10
Call Bill
847-537-9087.

FOR SALE

960912

IBM compat PC-486/33 w/math coprocessor 4mb RAM, 170mb hd, tape backup, 2 floppy drvs, 14" 28 dot color monitor, kbd & mouse. Lots of software
750 OBO.
Call Pam
847-632-9970

FOR SALE

960912

Lotus Smartsuite 96 for Win95, Notes, Ready. Box never opened...\$275/OBO
Call Maryann
312-175-5154
9 am - 4 pm.

FOR SALE

960912

786DX 33MHz 200MHD 4M RAM VGA monitor. Window3,1 Word 6 Excel Tons of software\$400 OBO
Tony
847-854-6117

FOR SALE

960912

Super Nintendo w/l normal cntrl 1 Arcade style joystick 4 games w/tip bks\$110 OBO
Snd Blaster 16-SCS12 used 4 mo, Compat w/hisppd, int-SCS12 CD drives \$130 OBO.
847-301-9911

FOR SALE

960912

Dell P166S minitower 2.4G HD 32M RAM 6XCD 17inch. 26 monitor AWE32 speakers 2Meg videoram never used. 3 year warr. Bought in June 96.
Call
847-464-1227
after 6 pm.

FOR SALE

960912

Pentium-pro 200MHz mother board & CPU for \$1300. Call for fully assembled system price
847-549-9472.

FOR SALE

960912

33.6 fax/modem, made by Action Technology, 1 year warranty, Rockwell or TI chipset for only \$119.
Call
847-549-9472.

FOR SALE

960912

Macintosh computers 80/40M HD good S/W,..225/200 Epson LQ 510 printer.\$100 IBM media center\$45 8" HD, 10M never used.\$30 S-100 & PC board & S/W .\$ask!!

FOR SALE

All "OBO"
847-359-7293.

FOR SALE

960912

Kenwood Tranceiver TS520S \$B.O. Toshiba copier BD4810.....\$220 Apple #410 plotter Like New.....\$75

847-359-7293.

FOR SALE
960912

Super Nintendo entertainment system. Includes 3 controllers, all cords, & 9 games: Mortal Kombat 3, Killer Instinct, Donkey Kong Country & more!
\$230. OBO.
Call 847-593-2845.

FOR SALE
960912

Computer - Packard Bell, 486SX 25MHz Multimedia, 14" super VGA monitor, 135M-HD, 4M-RAM, 2X CDROM, sound card w/speakers tons of software\$600 Evenings.
Jim
847-895-8389.

FOR SALE
960912

Mac Powerbook 1 80c active color screen, 4M/80M, 2 batt. w/ext. charger, padded case, ext. 14.4 data/fax, Stylewriter printer, original packaging. Must sell.
\$900.
847-781-9360.

FOR SALE
960912

Laserjet 4L-new HP printer - never been used - PC compatible - 300dpi - 4ppm 1MB memory. Can be upgraded to 2MB 100 sheet input - 50 sheet output economode printing ..\$350
Sandy
847-358-2280.

FOR SALE
960912

Computer equip - ultrasnd max sound card w/wave table\$70
Toshiba 4 meg sim for T2100 series laptop ..\$40
PC radio card\$25
Call Ted Evans at
847-695-8946

FOR FREE
960910

ALPS 24 pin DMP, wide carriage w/pwr sply problem. Color FREE Bill Beissert
117 Cordova Road
Capentersville, Illinois
60110
847-428-4629

FOR SALE
960910

CoCo3 system 512K, DMC,
716 691-9495

MPI, 2 floppies,
Monitor, DMP-130 printer, controllers, software and more.....REASONABLE
Bill Beissert
117 Cordova Road
Carpentersville, Illinois
60110
847-428-4629

FOR SALE
960910

My whole RAINBOW COLLECTION!! Magazines and Disks!! and more!
Bill Beissert
847-428-4629
117 Cordva Road
Carpentersville, IL
60110

FOR FREE
960910

CoCo2 with bad 6809 in it, it locks up, 64K FREE
Bill Beissert
847-428-4629
117 Cordova Road
Carpentersville, Illinois
60110

FOR SALE
960801

TS2068 with spare for parts \$35 TOS DD Intrfc w/2 3" drivs \$40 TS2040 printer w/paper\$10
QL w/docs & tapes\$40
Atari 1024 Monitor ...\$10
Commodore Monitor for PC ...\$40

Lyman Pacquette c/o Jeff Taylor
103 Jordan Drive
Orangeville, ON Canada
L9W 4W7 (519)
940-0966

FOR SALE
960801

Complete TS2068 package\$45
Above w/Spectrum ROM SW\$50
3-TS2040 Printers each...\$15

Jeff Taylor
103 Jordan Drive
Orangeville, ON Canada
L9W 4W7 (519)
940-0966

FOR SALE
960630

T/S2068 Computers (never used complete in original boxes). Make offer including shipping costs:

FRED J HENN
230 N FRENCH RD
AMHERST, NY 14228-2033
716 691-9495

FOR SALE
960630

T/S 1000 Computer (never used, complete in original box). Make offer including shipping costs:

FRED J HENN
230 N FRENCH RD
AMHERST NY 14228-2033
716 691-9495

FOR SALE
960630

SANYO DM-2112 Monochrome mntor (used will work with a TS2068 computer.) Make offer including shipping costs:

FRED HENN
230 N FRENCH RD
AMHERST NY 14228-2033
(716 691-9495)

FOR SALE
960630

Thomson 4120 Color monitor used but like new will work with the TS2068 computer. Make offer including shipping costs:

FRED J HENN
230 N FRENCH RD
AMHERST NY 14228-2033
716 691-9495

FOR SALE
960630

IBM 5151 Monochrome monitor (used) has IBM connector so probably is for that computer only. Make offer including shipping costs:

FRED J HENN
230 N FRENCH RD
AMHERST NY 14228-2033
716 691-9495

FOR SALE
960630

TS2040 Printer (used) complete with pts and docs. Make offer including shipping costs:

FRED J HENN
230 N FRENCH RD
AMHERST NY 14228-2033
716 691-9495

FOR SALE
960630

?arKen disk drive system (never used) for T/S 2068. Make offer including shipping costs:

FRED J HENN
230 N FRENCH RD
AMHERST NY 14228-2033
716 691-9495

FOR SALE
960630

?ESTRIDGE modem with power sply Make offer including shipping costs:
FRED J HENN
230 N FRENCH RD
AMHERST NY 14228-2033
716 691-9495

FOR SALE
960630

Timex 3" disks (used) including one identified as: CP/M vers. 2.2 & monitor emulator (never used and includes docs. Timex user's guide to CP/M & Digital Research CP/M operation system command summary}. Make offer including shipping costs:

FRED J HENN
230 N FRENCH RD
AMHERST NY 14228-2033
716 691-9495

FOR SALE
960630

?liger EPROM programmer system (never used includes supporting documentation and EPROM program mer board assembled by supplier Make offer including shpping costs:

FRED HENN
230 N FRENCH RD
AMHERST NY 14228-2033
716 691-9495

FOR SALE
960630

TS2068 OLIGER EPROM programmer, never used assembled by suplier

Fred Henn
230 N French Rd
Amherst NY 14228-2033
716-691-9495

FOR SALE
960630

? - Qls w/QL printers & accssrs. SASE for full list.
R A JELEN
11443 Island RD
Grafton OH 44044
216-748-3830

FOR SALE
960630

? - TS2068s w/printrs & accssrs SASE for full list
R A JELEN
11443 Island RD
Grafton OH 44044
216-748-3830

FOR SALE
 960630

 TS2068 CMOS motherboard
 with spares & accessories
 SASE for full list

R A JELEN
 11443 Island RD
 Grafton OH 44044
 216-748-3830

FOR SALE
 960630

 TS2068 OLIGER DOS system
 built in IBM style case
 complete with parallel
 printer port and CGA
 monitor. Many spares &
 accessories. SASE for
 full list

R A JELEN
 11443 Island RD
 Grafton OH 44044
 216-748-3830

FOR SALE
 960630

 TS2068 OLIGER EPROM
 programmer, cartridges and
 EPROMS and many spares
 & accessories SASE for
 full list

R A JELEN
 11443 Island RD
 Grafton OH 44044
 216-748-3830

WANTED
 960630

 3.5" ED disk drives
 that work the GoldCard on
 the QL. Also 3.2 Meg
 floppy disks for them.

John Pegram
 1126 Stradelle RD
 Los Angeles CA 90077

WANTED
 960630

 REMOTECK serial or
 parallel interface for
 the ZX81/TS1000
 Rod Gowen
 14784 S Quail Grove Cir
 Oregon City OR 97045
 503-655-7484

WANTED
 960630

 ?HF Modulator for ZX80
 or ZX81
 Fred Stren
 23386 Serene Meadow DR S
 Boca Raton FL 33428
 407-852-6899 evenings

FOR SALE
 960630

 TS-1000 items - They Are
 Going! Make offer
 including shipping costs.
 I cannot guarantee that
 all cassettes will load
 but I can offer to
 replace with or
 cassettes as long as I
 have them but you will
 have to pay shipping on
 replacements. 13)
 S y n c h r o - S e t t e
 subscription tape:
 September 1983 no docs
 15) Synchro-Sette
 subscription tape:
 November 1983 no docs 16)
 Ator ABC Gator (Timex)
 16K RAM no docs 17)
 Backgammon (Timex) 16K
 RAM no docs 24) Checkbook
 Manager (Timex) 16K RAM
 Docs 27) Cube Game
 (Timex) 16K RAM docs 29)
 Flight Simulator (Timex)
 docs 32) Fortress Of
 Zorlac (Timex) 16K RAM.
 33 & 34) Frogger (Timex)
 16K RAM docs 36) Grimm's
 Fairy Trails (Timex) 16K

RAM docs 39 & 40)
 Inventory Control (Timex)
 16K RAM docs 42) Language
 Usage (Timex) 16K RAM
 docs 48) Mixed Game Bag 1
 (Timex) 16K RAM docs 49 &
 50) Mixed Game Bag 2
 (Timex) 2K RAM docs 52)
 Mixed Game Bag 3 (Timex)
 2K RAM docs 54) Money
 analyzer I (Timex) 2K RAM
 docs 57) Organizer
 (VU-FILE) (Timex) 16K RAM
 docs 63) Stamp Collector
 (Timex) 16K RAM docs 65 &
 66) Stock Option Analyzer
 (Timex) 16K RAM docs 67)
 Super Math (Timex) 16K
 RAM docs 68 & 69)
 Supermaze (Timex) 16K RAM
 docs 75) VU-CALC (Timex)
 16K RAM docs 79)
 Biorhythms and Day Of
 Week (Softsync) 16K RAM
 docs for biorhythms only
 80) Delphic Toolkit
 Thomas B Woods) 16K RAM
 no docs 81) Escape From
 Shazzar! (software) 16K
 RAM docs 82) Joystick
 Games For 2K RAM 6 (Zebra
 Systems) docs 84) HOT-Z-1
 1 (Ray Kingsley) 16K and
 64K RAM docs 85) Inca
 Curse (Arctic Computing)
 16K docs 88) Mad Dog Tank
 Blaster Tom Woods) 16K
 RAM no docs 90 & 91 & 92)
 Master-Scribe 1.0,1.1,
 1..2 (Mike Hawks) 64K RAM
 docs 93) Monarch!
 (Software) 16K RAM no
 docs 96) Monster Maze 3D
 (New Generation Soft) 16K
 RAM docs 97) Nowotnik
 Puzzle (Software) 16K RAM
 no docs 100) Quest For
 Holy Grail & Elusive Mr.
 Big (Softsync) 16K RAM
 docs 101) Sort (Thomas B
 Woods) 1K RAM no docs
 1041 Supertape (JRC
 Software) docs 110) ZX

Forth (Forth Dimension)
 no docs 112 & 113 & 114)
 Adventure C (Softsync)
 16K no docs 115 & 116)
 Alien Invasion (Softsync)
 16K no docs 118) Artist
 Games Tape 2 (Melbourne
 House) 16K docs 119 & 120
) Catacombs Games Tape 3
 (Melb House) 16K docs 122
) Championship Chess
 (SoftSync) 16K Docs 125)
 Financial Manager &
 Record Keeper (Softsync)
 16K docs 126 & 121)
 Flight Simulator (Timex)
 16K docs 129) HOT-Z II
 16K and 64K no docs 130)
 HOT-Z II 16K only no docs
 131) Machine Code Test
 Tool 16K no docs 132)
 Master Scribe Set Of 5
 Cassettes no docs 134)
 "MTERM" Communication
 Program no docs 135 & 136
 & 137) Night Gunner
 (Softsync) 16K docs 139 &
 140) PRO/FILE Thomas B
 Woods) 16K no docs 141 &
 142) Pyramid Games Tape 2
 (Melbourne House) 16K no
 Docs 143) Quest For Holy
 Grail & Elusive Mr. Big
 (Softsync) 16K docs 148)
 Starfighter Games Tape 2
 (Melbourne House) 16K
 Docs 152) ZX Assembler no
 docs 155) Unknown
 Programs Sent From
 Australia no docs 157)
 Delphic Enterprises 4K
 programming utilities
 docs 158) The Check
 manager, 16K RAM, no docs
 159) 8K/16K Disassembler
 "DAI" Martin Irons, no
 docs 163) Monitor and C
 Boat Strad. No docs

DONALD S. LAMBERT
 1301 KIBLINGER PL
 AUBURN IN 46706-3010
 219-925-1372

OS9 SUPPORT FROM MICROWARE

By: Carl Boll

Just recently on the cocolist I read a comment on the lack of support for OS-9 for personal users by Microware. I feel that this is an idea that needs to be addressed.

First let me make certain that everybody knows that I am not affiliated with Microware and any opinions are my own.

To fully understand why Microware gives little support to the personal user you must understand what their actual current market is. Microware is not competing with Microsoft or Apple for a share of the personal user market, rather they are competing with the companies that market real time operating systems for industrial use. This is a much larger market in reality. Stop to think about all of the computerized machines in use today. Almost every monitoring device used in hospitals or

clinics demand real time monitoring. Robotics, Electronic Fuel Injection, Electronic Ignition, Pollution controls for industry as well as for cars. On top of the Real Time applications is the ability of OS-9 to be burned into a ROM because of its modularity and compact size. This allows it to be used in small controllers such as those used for Microwave ovens and the electronic controls of just about anything from CD players to video recorders.

While they must provide support they do not need to staff an extremely large support team because the support will be done at a developmental stage, not at the end user stage. The people that they provide support for are in the most part familiar with programming and many have experience with OS-9 at some level.

The decision to drop support for the 6809 version of OS-9 was a business decision. In my opinion it was a wise one. The 6809 is no longer in production. One of the few personal computers to ever use OS-9 as an operating system (by personal computers I mean those that really achieved any true popularity, not the TC-9 or GIMIX or any of the plethora of computers that were produced in the 70's and early 80's that were really aimed at business or industry) was the Tandy Color Computer. The fact is that Tandy purchased a license to sell OS-9 as modified for the Color Computer. They were the ones that were supposed to provide customer support. This was in keeping with the philosophies of Tandy which always seemed to want a proprietary type of arrangement. This carried over into their later entries into the computer market and accounts for their subsequent failure to capture a large share of the IBM PC compatible market. It was the little quirks of their 1000 line

that made them "not true compatibles". The 2000 ran a version of MS-DOS but couldn't run most programs developed for the IBM-PC due to the fact that the 2000 used an Intel 80186. In actuality the 2000 was a better machine than the PC but it came too market 5 years to late. Enough on that though and back to OS-9. When Tandy decided to stop production of the Color Computer that was also the real end of support of any type for the 6809 version of OS-9.

In many ways it is amazing that OS-9 level 2 ever came to market. There was a level 1 upgrade that ran on the Color Computer 3. Level 2 was really innovative when introduced on the Color Computer. When all is said and done though it was the marketing power and buying power of Tandy that made this happen at all.

FIX YOUR OWN COCO, SOME TIPS

By: The CoCoList; edited by Carl Boll

The idea for this article came from a discussion on the cocolist where a couple of people asked for help troubleshooting their "dead" CoCo's. Credit goes to those specifically mentioned in the article and to Marlin Simmons and of course Marty Goodman M. D. In compiling this article I used a little common sense and a lot of experience.

Now I'll address a few comments that were made. I gave Radio Shack part numbers wherever possible. This does not mean that I advocate using only Radio Shack parts. The reason that I used Radio Shack's catalog for most of the tools and parts is as follows:

- 1) They are very wide spread i. e. lots of them everywhere.
- 2) You can walk in, buy the parts and walk out with them in a bag.
- 3) For the most part they do have decent quality parts albeit somewhat expensive.
- 4) The CoCo itself is a Radio Shack device.

Other things which were commented on, I suggested using a 6809 while repairing the CoCo. I stand by this statement. The Motorola 68X09 in all of its variants is an N-MOS device while the Hitachi 63X09 is a C-MOS device. The N-MOS devices are much less prone to dying from static electricity and can tolerate spikes, etc. a lot better. Once the CoCo is fixed, by all means put a 6309 in it!

One other thing I should have mentioned is that when special ordering anything from R/S make sure they phone the order in while you wait. This means you should place the order during normal working hours (M-F 9:00AM-5:00PM) if you

don't want to have problems. As with anything, it is the individual that is a problem. Taking an order and not calling it in is >NOT< company policy. In fact if you complain loud enough you can get a few people in trouble.

>IF< you can not get into a Radio Shack during normal working orders and must leave the information to be phoned in at a later time, do the following:

1. Make sure that everything is written down and that you get a copy.
2. Make sure you leave a deposit on the order. If they don't ask for a deposit something is fishy.
3. Make sure you get the name of the person serving you, have them write it on the order slip and make sure it is on your copy.
4. Get the managers name and the normal hours that they work.
5. >IF< you get any run around about any of these normal requests ask for the name and phone number of the regional manager. A phone call to this person will work wonders. They got into this position (usually) by being better than average at doing their job and they usually started out at the bottom.

Finally, I would also be remiss if I didn't also mention that parts can be found elsewhere than Radio Shack. Jameco, Mouser, JDR are a few of the places that come to mind offhand. I only included the Radio Shack part numbers because you can walk into a Rat Shack and walk out with the said parts. The GIME chip is hard to find. I am not sure if Radio Shack still has them available.

Without further ado:

Fixing a dead CoCo!

Work area.

I should mention that I always work on a workbench that has a large slab of aluminum bolted to it which is grounded. A very usable alternative is to take a piece of caedboard or plywood and wrap it in heavy duty aluminum foil which can then be grounded. Whenever working with electronic devices you should wear a grounded wrist strap as well.

Troubleshooting

When you turn the computer on do you hear the relay click? If so you have power. That doesn't mean that the power supply is 100% OK but usually if the cassette relays clicks once on power up you have a good +5VDC inside.

Cassette relay clicks but no display. First check the switch on the back of the CoCo to see which channel you are supposed to be outputing to (only if your display is a TV). This sounds stupid but a lot of people forget that it can be either channel 3 or 4. Next make sure the switch is set to computer on the converter that hooks to the antenna leads (again TV only). Make sure all the cables are plugged in properly, wiggle things to see if you get a change. Absolutely no picture is bad. Usually the CPU.

OK, that done let's check the one other thing that doesn't require opening the computer. Carefully type motor on <ENTER>. Listen when you hit the enter key. If you hear a click the CoCo is functioning. The problem is getting a video signal to the video display unit. Time to get an ohm meter or continuity tester out and check the cables, etc.

First let's do all the things that don't cost anything. Turn the computer on after taking the cover off (there are usually 6 screws holding the case together, one is under a warranty label. They are not all the same length so keep track of where they came from. I usually just put them back in their respective holes and put a piece of tape or a label over them.). Leave it run for a while (unless something is smoking). Feel the RAM chips. They should be warm to the touch (disregard this if you are using a memory upgrade with SIMMs). A cool chip >MAY< mean you have a bad chip.

Next remove the GIME chip (use a PLCC removal tool Radio Shack part # 276-2101). Make sure you note it's orientation before you remove it. Very carefully clean its contacts. I personally use a soft rubber eraser and then a cotton swab with denatured alcohol. It works for me, others don't agree.

From root Wed Sep 3 09:18:38 1997
Return-Path: <root>
Received: by chicoco.chi.il.us (Smail3.1.29.1 #4)

id m0x6GGT-000IwGC; Wed, 3 Sep 97 09:18 CDT

Message-Id:
<m0x6GGT-000IwGC@chicoco.chi.il.us>
From: root (Carl Boll - System Operator)
Subject: Re: Fixing a CoCo
To: PaulH96636@aol.com
Date: Wed, 3 Sep 1997 09:18:37 -0500 (CDT)
Cc: coco@pucc.princeton.edu, coco123@chicoco.chi.il.us
In-Reply-To:
<970903063744_2002477442@emout07.mail.aol.com>
from "PaulH96636@aol.com" at Sep 3, 97 06:37:47 am
X-Mailer: ELM [version 2.4 PL23]
Content-Type: text
Content-Length: 1549
Status: RO

While thinking of something else PaulH96636@aol.com's fingers typed:

- #>
- #> Carl,
- #>
- #> Your repair notes were interesting and I'm keeping them for future ref.
- #>
- #> I might add to what you said with the following:
- #>
- #> A good tarnish remover is a product called Tarn-X, a clear, somewhat foul
- #> smelling water based liquid which can be applied with a moist q-tip or pipe
- #> cleaner. It is very fast acting; try it on a tarnished penny!
- Be sure not
- #> to let
- #> excess liquid get to other components as it's chemicals could form a bridge
- #> after drying out. Woolworth's/Woolco used to carry this product but I
- #> believe it's now available at Walgreen's.
- #>
- #> I used to work in an RS store and have repaired one or two ailing CC3's by
- #> merely resoldering the cpu pins. Seems even some relatively new units can
- #> develop cold solder joints.
- #>

This is an excellent idea too. I should have mentioned it at the beginning of the message. It doesn't cost anything to reflow the solder on the CPU pins and the socket pins of the GIME and RAM chips, etc. As to the Tarn-X, if it works, use it. Since I haven't tried it I won't personally recommend it. You of course will need to rinse it off after application. I suggest using distilled water followed with denatured alcohol. The distilled water contains little in the way of ions and alcohol will displace it causing it to dry quicker (less time for corrosion to occur).

Carl

Carl Boll: sysop@chicoco.chi.il.us
root@chicoco.chi.il.us
carlboll@juno.com

Now clean the socket the same way. You must be careful not to bend or break any pins on the chip or socket.

Remove any debris from the socket.

Reinsert the chip by first making sure you have it oriented correctly and lined up pin for pin with the socket and then gently but firmly pushing it down into its socket. Be careful not to get it cocked and to get it fully seated.

Test the computer. If you still have a problem next try pulling the RAM chips. Again check the orientation of them. Switch their order. If the symptoms of your problem change (or disappear) replace them. Try several different orders of placement. It will be almost impossible to figure out which chip(s) is/are bad but they are very inexpensive now. I suggest getting a chip removal tool for pulling the chips. Radio Shack sells a set, Part # 276-1581.

You should also make sure you are grounded while working on the CoCo to prevent static electric discharges. RS sells an antistatic wristband that works well for this. Part # 276-2397.

While thinking of something else James W. Cross's fingers typed:

>From
vpnet!maki!PUCC.PRINCETON.EDU!owner-coco Thu Sep 4 09:59:49 1997
Message-Id: <m0x6QIC-000rj1C@maki.wva.com>
Date: Wed, 3 Sep 1997 21:00:42 -0400
Reply-To: ac999@detroit.freenet.org
Sender: COCO - Tandy Color Computer List <COCO@PUCC.BITNET>
From: "James W. Cross" <ac999@DETROIT.FREENET.ORG>
Subject: Re: HELP: COCO 3 repair manual needed
X-To: coco@pucc.princeton.edu
To: Multiple recipients of list COCO <COCO@PUCC.BITNET>

On Wed Sep 3 13:40:02 1997, aa370@fan1.FAN.NB.CA ("Bruce W.L. Jack") wrote:

>Subject: Re: HELP: COCO 3 repair manual needed

<SNIP>

>I do have a VOM, what should be checked first in the PS?

Thanx

aa370@fan.nb.ca

First with power off, disconnect all I/O cables and remove cartridge or controller from the cartridge port.

Even though you hear the relay, start by checking the +5 VDC. All locations will be referenced from the keyboard operators position. One of the copper colored ground clips along the front edge of the mother board makes a handy ground reference as do the numerous ground clips for the bottom EMI shield.

On a CoCo 3 mother board near the front left corner, locate R19, a 0.1 ohm resistor. The end of the resistor nearest the keyboard should read +5.0 +/- 0.25 VDC. This is the source of the 5 Volts.

Locate the power switch at the rear of the mother board. Visually tracing forward about half way toward the front edge of the mother board are 2 large black diodes about the diameter of a pencil; each with a silver band on their rear end. Measure the AC voltage between the unbanded ends (not to ground) of the diodes. It should read 8.1 +/- 0.4 VAC according to the schematic in the service manual. Unloaded it may read slightly higher. This is the raw DC voltage for the +5 VDC regulator.

To the right of D2 is a small plastic transistor regulator labeled IC36. To the right of that device is a circuit board feed through (a solder filled hole) surrounded by a white silk screened circle with the legend OUT 8V. Measure between the feed through and ground; it should read 8.0 +/- 0.4 VDC. This voltage powers the RF modulator for a TV monitor.

That's about all as far as voltage measurement goes unless you have a damaged circuit trace on the mother board. Let the unit sit with power on for about 5 minutes. Avoid walking across carpet before you attempt this next step or static discharge may do further damage. Touch a ground first, then carefully touch each IC and check for heat. Any that are stone cold may be missing power.

Good Luck!

--

Jim Cross ac999@detroit.freenet.org

"Do not let the world around you squeeze you into its mold!"

If the computer still doesn't work the next most likely culprit is the CPU (6809). You will need to remove and replace it.

For this you will need a pair of side cutters (#64-1833), a soldering iron (#64-2105), desoldering braid (64-2090), solder (64-001), a 40 pin socket (276-1996) and a 6809 (special order from R/S).

The only method I ever recommend is destructive removal. The main reason for this is the fact that overheating the traces (and even repeated heating) will cause them to come loose from the board itself and break off. This is >NOT< desirable. The 6809 does not cost enough to warrant taking a

chance on damaging the board. We can still get 6809's but the boards are out of production and getting rare.

First cut every leg of the chip as close to the chip as possible. Next heat each leg until the solder holding it melts. Gently pull the leg free of the board with a pair of tweezers, a probe or even the iron itself. The Ground leg will take the longest to heat.

Next we need to remove the solder that is still in each hole. To do this we will use the desoldering braid. Place the braid over the pad you want to clean. Place the soldering iron on top of the braid. You will see solder "wick" up into the braid. If this doesn't happen in a few seconds (say 10) you will want to melt some solder onto the pad first. Do not use desoldering braid over again. If you have already heated a section it is used, whether or not you managed to suck the solder up into it.

On rare occasions it is necessary to use a little rosin flux on the desoldering braid (#64-021).

Now all the holes are clean and we are ready to put a socket in. Make sure the socket is correctly oriented and solder it in place. Now carefully insert your 6809 (if it is new you will need to bend the legs in a little to fit the socket). Make sure it is fully seated.

Turn on the computer. This hopefully has fixed your problem.

The only other thing that can easily be done is to

remove and replace all of the RAM. This is the next normal step. You will need to special order the RAM chips. They are already socketed.

Replacing the GIME should be the last thing tried. It is actually the least likely of these various chips to die. It may get flakey but it usually doesn't die completely. They are hard to find and also expensive.

Socketing your 6809 is not a bad thing no matter what.

I recommend a 15 Watt soldering iron because it is too easy to overheat the traces with anything higher. If you have extensive experience you can use anything you are comfortable with.

Finally...most CoCos end up dying from either bad CPU, RAM or GIME and usually in that order. Some just go to "sleep" from dirty contacts of the GIME or RAM or just unseating of the GIME. Of course other chips and parts can fail but these are the most common. If you are willing to try this should fix your CoCo.

Good luck and happy CoCoing.

-
Carl Boll: sysop@chicoco.chi.il.us
root@chicoco.chi.il.us
carlboll@juno.com

Hardware Hacker's Haven By: Rogelio Perea

I've read a message a while ago about a joystick having its red button misfire from time to time. I happen to have a couple of Tandy labeled deluxe joysticks in which the same problem appeared just last week.

The deluxe joysticks were made by Kraft for Tandy and I must say that the inner workings of the hardware are quite good and reliable enough to withstand years of good use..... just how many high scores escaped my hands after the RED button went bye-bye? Well, I decided to crank up the soldering iron and fix both joysticks for good.

Almost any temporary contact push button switch will serve the purpose of replacing the standard sw in the joystick. As I found out, the original button is unfixable even if one manages to open it carefully; one of my joysticks had the button crack up when trying this operation :- (I had already tried the lubricant spray (tv tuner proper) on that switch in an attempt to silence a squiggle heard each time it got pressed.

Went to Radio Shack and bought a couple of

temporary switches with a convenient square faced red bezel. These were around US\$2.00 each and maybe I could have them for less in a better stocked electronics store - do try hunting down other stores if available in your area!

The mounting hole left by the original button is 1/2 inch by 1/2 inch (roughly) and the switches I bought at RS were designed to be mounted in a round hole - no problem, a small washer fixed the fitting problem inside the joystick body and the square bezel in the switch hides any gaps making the finished appearance factory new.

The joysticks are in perfect working condition once again. :-D

-=-=-=
Rogelio

Editor's Note:

I have always used Radio Shack's switch Part Number: 275-618.

Meeting Location:

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

Directions:

The Library is located on Fullerton, about one-half mile west of Bloomingdale 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 53 / I-355 / the North-South Tollway.

NEXT MEETING DATES:

OCT 9, 1997

NOV 13, 1997

OCTOBER 9, 1997
JANUARY 8, 1998

NOVEMBER 13, 1997
FEBRUARY 12, 1998

DECEMBER 11, 1997
MARCH 12, 1998

Late Breaking News!!

The Glenside Color Computer Club and its newsletter have an INTERNET Email Address now! You can now send E-mail directly to the Board of Directors or submit articles directly via E-mail. Please just submit articles as a text message, do not use MIME or other formats, they just create more problems at this end.

The E-mail addresses are as follows:

**gccc@chicoco.chi.il.us
coco123@chicoco.chi.il.us**

The mail is recieved and forwarded by a UNIX based machine so it is important that you do not capitalize anything in the addresses. UNIX is very fussy about that. --Carl