



DEDICATION

For the past nine years or so, CoCoFEST! attendees have had the opportunity to pick up custom made buttons about the FEST!; the CoCo; or just plain ol' humorous pictures.

(Hit "Any" key to continue!)

These buttons have spread more than just a few smiles as the people passed by the Glenside table. The donation of time and effort to make those buttons came from John & Phyllis Chasteen, family members of Glenside for as long as I can remember.

Despite her courageous ongoing battle with Diabetes, a heart condition and kidney failure, Phyllis insisted in providing Glenside with another batch of buttons for this year's FEST! Within a week after this year's CoCoFEST!, John admitted his 50-year life partner into hospital for a three week stay.

On June 30, 2000, Phyllis B. Chasteen was called home to spend Eternity with her Lord & Saviour, Jesus Christ.



By unanimous decision of the Board of Directors of the Glenside Color Computer Club, Inc., this issue of the "CoCo~123", is dedicated to the remembrance of her life.

Personal note

Even though Phyllis will no longer grace us with her physical presence, her dedication to the spreading of the Gospel of Christ to the loves of her life, children, and her resolve to enjoy life in the face of trials will be examples that I will hold in high regard.....always.

-John A. (Tony) Podraza

CoCo ~123 HighLights

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G.C.C.C. Inc. OFFICERS:

Here is the list of year 2000 club officers and how to contact them. If you have questions about our club, call one of the officers for the answers.

<u>POSITION</u>	<u>NAME</u>	<u>PHONE</u>	<u>PRIMARY FUNCTION</u>
President	Brian Goers	708-754 4921	The buck stops here...
Vice President	Tony Podraza	847-428-3576	Meeting, Planning, etc
Secretary	Robert Swoger	603-837-7957	Records and Reporting
Treasurer	George Schneeweiss	815-832-5571	Dues and Purchasing

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-----tony

CoCo~123 INFORMATION

The CoCo ~123 is the newsletter of the Glenside Color Computer Club. Your annual contribution of \$15.00 keeps our club going. Send your check to Glenside Treasurer:

George L Schneeweiss
13450 N 2700 E Road
Forrest IL 61741-9629

Our treasury provides newsletters, local meeting room and good times with fellow CoCo users at our annual Chicago CoCoFEST.

CoCo ~123 CONTRIBUTIONS

If you have any suggestions for the newsletter or would like to submit an article, please contact the CoCo ~123 Editor:

Howard Luckey
4 Gibson Rd
Park Forest IL 60466-2122

CONTRIBUTORS TO THIS ISSUE

Brian Goers--Tony Podraza--Carl Boll
George Schneeweiss--Bob Swoger--Mike
Knudsen--Mark Marlette--Willard Goosey
David Gacke

G.C.C.C. MEETINGS

The Glenside Color Computer Club meets the second Thursday of each month at the Schaumburg Heights Public Library at 7:30 p.m. If you need a map, see our WWW Glenside Homepage at:

<http://users.aol.com/clubbbs/glenside>

A social get-together always occurs at the nearby Sante Restaurant.

Bob Swoger, Webmaster
Glenside Color Computer Club

FROM THE PRESIDENT'S DISK

Etched in Time

I was looking through an old issue of BYTE magazine awhile ago and amazed at the prices of hardware. At that time the hard drives came in Meg sizes. but I'm going off subject. There was an article in one that caught my eye. I don't remember the CPU, probably a Z80, but the author built an interface to his computer. The interface controlled stepping motors mounted on a ECTH-A-SKETCH. You remember the toy, it was a red box/ tablet with two knobs at the corners. When you turned the knobs a line was drawn on the glass.

Then you shook it up-side down to clear the picture. Anyway it was any interesting article that the author wrote about. Don't be to surprised if I put one together just to do it. What about you programers. Is there a program that you wrote that solved a problem, answered a question you had. Tell us about it in an article.

On a final note Carl has been diligent in shipping IDE boards this last couple months. As people set up their boards and systems you could write a short article about your setup, problems you had if any. What are you using all the storage space for?

Brian Goers
President Glenside Color Computer Club.

The V-P's Platen

There has been a lot of activity going on around the various Glenside officers' homes as late, both CoCo- and non-CoCo related. There have been anniversaries, birthdays, varying work schedules, out-of-state trips, hospital trips, "births, deaths, infinities" (oops, sorry, Dr. Zorba). HEY! DOES THIS SOUND FAMILIAR? It should, I wrote it 18 months ago. BUT...the one thing that is NEW news is that there will be a

10th ANNUAL "LAST" CHICAGO CoCoFEST!

The dates are scheduled to be May 5th & 6th, 2001. I grant you, it'll be a real oddity (2001..a CoCo Oddity...get it? HA, I kill me). We have always had GREAT times and we don't expect anything different this time. If you haven't been to one....well, you haven't lived till you've been to a Chicago CoCoFEST! (How's that for a bad cliché?) AND, there is still the "Last" in the title of the event....you never know...so you better come and see for yourself! I'll be there, and I hope you will, too.

Tony Podraza, vp
Glenside Color Computer Club, Inc.

TREASURY NOTES

As of October 12, 2000, the balance in our checking account is still healthy. (The reformatting cut out the figures, sorry. Tony)

George Schneeweiss, Treasurer
Glenside Color Computer Club

THE SECRETARY'S NOTEBOOK

September 14, 2000

Present were Brian Goers, Dave Gacke, Bob Swoger, Scott Montgomery, Richard Bair, George Schneeweiss, Justin Wagner, Howard Luckey, Tony Podraza and Brother Jeremy.

The first discussion was of the PennFEST attended by members Brian Schubring, Brother Jeremy and Scott Griepentrog. Scott make Glenside CoCo123 newsletters available at the fest. Brother Jeremy reported that new events

happened at this fest that we might try at our future fests. Also present at the PennFEST were Kevin Darling and Mark Hawkins. Mark was one of the three designers of the operating system in ROM on the CoCo3. Mark's picture along with Tom Harris and Tom Earls can be seen on the famous "3 Stooges" start up sequence on the CoCo3. Mark told at the PennFEST how the picture was made pasting the separate pictures of the guys, and even the background "M", into the picture. Mark also told of how the Game Chip could be replaced with a hardware substitute.

[There was an informal discussion about some of the extra modes that are in the Game chip but were never implemented. Part of the problem is that the CoCo was limited by the resolution of the CM-8 monitor. It was discussed that it would be possible to create a Game chip emulator. It would be a device that would plug into the Game chip socket and allow all the current Game chip modes to be emulated, plus it could be made to drive SVGA monitor. Problems—drivers would have to be written. Grfdrv would have to be re-written to find these modes. However, as this board would have its own CPU, etc., it might not be too difficult.]

Next, Brother Jeremy told us of his meeting with Kevin Darling and what might become of MultiView.

[Kevin Darling attended the Fest and participated in the panel discussion with Mark and Jeremy Spiller. I also had the opportunity to sing the "famous" Hello darling song to Kevin. He loved it. He kept breaking up at each line, and hoped to get a copy of the video. Maybe MTV (Monk TV) will carry it????

Big news is that there is more to come on the OS-9 Level 2 Upgrade. There is more work that was done after the copy of the Upgrade that I have been distributing was completed. (Approx. 3 months more work) For example, Amiga fonts can be used with the Up-upgrade. (That's not a typo, lets use Up-Upgrade in the Article.) Action does not stop when one window overlaps another. Other enhancements, various bugs fixed. We are now in the process of re-assembling all the various modules. There is a lot of work to do. There is some source code but this generates several legal questions. Kevin and crew originally did a full dis-assembly of Os-9 Level 2 before starting work on the Upgrade. When he came to Microware to negotiate the Upgrade project, they brought out their source code. He countered by showing them his. During the panel discussion Kevin spoke of some of the problems of working from a disassembly. There is the problem of trying to figure out exactly what the programmer was trying to do. On the other hand, it free you from some presuppositions, and thus allows you to tighten up the code. Mark was very impressed on how Kent Meyers was able to make the grfdrv module 8k smaller. He thought that they had written the code as efficient as possible. Both agreed that building on some one others work is different than starting from scratch. It is easy, with 20-20 hindsight to say "Why didn't they do that this way.? But this wasn't a case of taking a bad thing and fixing it, rather it was a case of taking a good thing and making it better. It was nice to see a sense of admiration for another persons work.]

OS-9 Level ? - LOST IN THE FLOOD? [Rumor has it that Microware could not release the source code to OS-9 Level 2 because they no longer have it. It appears to have been lost in the great Iowa flood of several years ago.]

[Prototype CoCo3. While Brother Jeremy may own several of the Prototype CoCo3's that Microware used to write Os-9 Level 2, he does not own the wire-wrapped prototype still in the basement at Microware... Thou shall not Covet. Want-to-bet?]

Brother Jeremy now owns the rights to Fast 232 [Monkware has gained the production rights to the Connect Fast232 Pack. Negotiations are now beginning with a manufacturer. This pack, if you remember, allows the CoCo to work with a 56k modem. (Will work 115,200 with a null modem cable.) Os-9 Level 2 and Nitros9 drivers are included. More details to come.]

Brother Jeremy thought that speakers at our next CoCoFEST could be Kevin Darling, Mark Hawkins and Paul LaBlanc. Paul is working on a new CoCo emulator. It should correct some of the deficiencies in the current CoCo3 emulator. A panel discussion with Kevin and Mark would be very interesting. I think if Curtis Boyle was included to add the Nitros connection, it would be fantastic.

[I would like to close with something I had posted to the CoCo list.

The PennFEST 2000 has come to an end and with it comes the end of a wonderful experience which was due to the labors of Ron Bull and Nickolas Marentes.

I won't list all the vendors and attendees, (I'm sure that Allen Huffman will once again do one of his Fest Reports), but approx. 15 vendors were either present or had their products represented. I believe that there were 76 paid attendees.

The PennFEST was billed as the CoCo's 20th birthday celebration, and certainly lived up to its name. We had the pleasure of having three special guests in attendance. Jeremy Spiller, author of "Zenix" and "Crystal City", Mark Hawkins, who was primary engineer, customer coordinator and project manager of the port of OS-9 to the CoCo. (Mark is one of the three individuals that appears on the COCO3 screen image when you do a ctrl-alt-reset.) Rounding out the three guest, was the legendary Kevin Darling. I had the pleasure of singing "Hello Darling" my musical plea for the release of the Level 2 upgrade to Kevin in person. (Hello Darling is available as a wave file on the os9archive.rtsi.com site in the new uploads section, I believe the file is called Bjkevdar.wav) Kevin was quite gracious and responded very good naturedely to the song. (The music video will be coming out soon)

Kevin, Jeremy, and Mark had an open forum Saturday evening with yours truly, Allen Huffman, Curtis Boyle, James Jones, and Brian Schubring doing the pre-forum warm-up of Music

and Mayhem with the Monk and Friends. The open forum went on for several hours, presenting an extremely interesting history of the CoCo, software development, etc.

Sunday saw several seminars, along with our traditional time of worship. It has always been wonderful to share with people in this very special way.

The Fest was a time to celebrate, a time to reflect, a time to laugh, and yes, even shed a few tears, for something very precious has come to an end. Glenside has planned a Fest for next May 5 and 6 in Elgin, Ill. But the Penn Fests have come to an end. Ron Bull held 4 wonderful shows, (this year with Nickolas doing an incredible job as well.) Thank you Ron for a job well done.

As I reflect back, I also have to thank Tandy for creating the hardware we know as the CoCo. I thank Motorola, Microsoft (yes Microsoft) and Microware and others for the software. Little did they imagine that there would still be a dedicated group of CoCo users after all these years. But in addition to the hardware and software, they unknowingly created another kind of ware, HEART-WARE. The CoCo has brought about a community of people who are among the most friendly, supportive, and indeed loving people I have ever had the privilege to know. Everything I know about computers and computing I owe to you people. Your support and encouragement both in computers and in other areas. We have shared many happy moments along with sad ones. I still remember the outpouring of kindness I received for the CoCo world when my father died and more recently after my mother suffered a serious stroke. I know of many others in our community who have had the same experiences in their times of need.

Sadly the CoCo doesn't get used as much as it did in the past. But it remains set up. Sometimes I find myself looking at the screen and remembering the forum nights on Delphi, the various BBS's, the emails, etc. When I look at the screen, I see more than just the program running. I think that if I look hard enough, I see the faces of the people who have become a part of the fiber and being of my life.

I will leave it to others who are more eloquent to describe the Fest, but once again I would like to simply to the people that have been so kind to me for almost two decades, thank you for sharing a part of your life with me, and may God be with you till we meet again.

With all best wishes,
Brother Jeremy, CSJW]

PICNIC - The picnic included the grand tour of George Schneeweiss' house and "House on the Plain" (If Wisconsin can have "House on the Rock", then we can have this). If George doesn't have it, it doesn't exist. Overall, with wives, children, and other family members, there were 17 or so in attendance at the picnic. Had a good time of fellowship & food; met some new people; laughed with everyone. We also folded, labeled, stamped and made ready for mailing, the

remaining CoCo123 Newsletters to mail out the following Monday Morning.

No one got lost; no one got cut; no one got stung; there were no mosquitoes; & nobody was left behind. BUT those not present were sorely missed. As the CUBS say.....WAIT 'TIL NEXT YEAR.

Well maybe not....everybody in the Chicago area associated with the Glenside Club is invited to the Club's storage locker on the Saturday the 23rd at 1 p.m. for an organizing meeting.... not organizational... we are going to repack and inventory the STUFF that people have donated over the years. This (hopefully) will enable the club to respond to the needs of CoCo users in the future when this or that goes south on a user and we will be able to get them up and running, again.

IDE interface boards were the next item of discussion. Carl Boll purposely gave up a pleasant time at our annual picnic to spend time working to get IDE boards out. The 2 1/2 to 3 hours it would have taken him to drive to the location of this year's picnic were spent working on the project (not to mention the drive back, again).

Carl had a hard drive crash which lost the information on who had ordered boards and how many they had ordered. He had no backup and very little paper to help him rebuild the database. He has inquired on the CoCo List to have folks help him rebuild the list. To date he has shipped about 80 units and has about 40 more to ship.

Let it be known that you were missed, Carl.

Dave Gacke gave our webmaster, Bob Swoger, a new link to add to the Glenside Homepage. Dave has added the CoCo 1 and CoCo3 service manuals to this site. It is mall.lnd.com/coco

The next newsletter is due out in the mail by the third week of October.

The business portion of the meeting adjourned at 8:56 P.M.

We then gave a DEMO of the drive set Brian Goers purchased at the last Glenside CoCoFEST. Bob Swoger requested Brian to bring the drive set in to show what quietness could be enjoyed by using this particular drive set. The drive set was the TEAC FD-50A Mini Disk Drive set sold by DEC. These drives were available through a firm in Florida originally for about \$150. The unit consisted of a CoCo 2 colored metal case housing a power supply and two side by side long wise 40 track single sided full height drives. The case looks real good under the computer monitor as it lifts the viewing height to eye level.

The drives were driven using a Capton belt. They had a 30 millisecond step rate, the very number that the Tandy used on their disk drive controllers. It is for this reason that when Brian did a disk access from these drives that the drives made no

chatter whatsoever and just PURRED nearly in silence! Thanks for the demo, Brian. I was really getting sick of all the chatter I heard with other peoples CoCo Drives.

October 12, 2000

Present were Brian Goers, Dave Gacke, Bob Swoger, Scott Montgomery, Howard Luckey, Tony Podraza and Brother Jeremy.

Tony gave an report on the club get together at his home of the club's storage space of club owned items used at CoCoFESTs. These are the precious hardware and software items that are available to all who request it to add to or replace items needed in CoCo Computer systems. These items were re-boxed in plastic boxes costing less than \$4 each, 5 totally re-boxed and re-shelved. Unfortunately, there was one person missing that day who was supposed to create the inventory list, so that part did not get accomplished.

Bill Ledger sent in an e-mail from Central Wisconsin states he has 500 lbs. of CoCo1 through CoCo3 w/10meg HD items to go to whoever will come and get it. Price unknown. John Frengh from Forest Park IL has a similar situation.

Brian Goers got a phone message from someone that needs a replacement CoCo. Bob said he would give him the one that is in the trunk of his car.

Tony gave a CoCo emulator demo on an IBM platform laptop machine.

Brother Jeremy reported that Paul LaBlanc of Canada, Alan Huffman, Mark Hawkins, and Kevin Darling are possible participants at our next CoCoFEST.

The meeting adjourned at 8:55 P.m..

Robert Swoger, Secretary
Glenside Color Computer Club

From the listserv.coco

Subject: IDE again
Date: Thu, 28 Sep 2000 23:21:06 -0500
From: "Carl J. Boll" <carlboll@CHICOCO.CHI.IL.US>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

After reading over 30 messages I've decided that I'd better do this right away. I'd like everybody who has gotten their board (doesn't matter when or how) to make a post to the CoCoList letting others know their experiences, both good and bad with the boards.

I will answer all questions as quickly as I can, due to my own work schedule and obligations this will be at the end of the week, it will be rare for me to read E-mail on weekdays.

What I would like to do eventually is get everybody involved who has a board in a support group. We will set up a mailing list for this purpose very soon. I feel that the best way to support these boards and indeed this is proven by the cocolist, is to get as many people involved answering questions and giving advice as possible... I hope this will improve response time for problems and allow me to spend a little more time on the project.

I would also like, at this time, to thank the following people for their assistance in the project. Without their help the project wouldn't have been finished at all.

Just to let people know some of the time involved here, just in making up and testing of a single board.

There are no less than 200 solder points on each board. The testing is done at both addresses and takes about 5 minutes for each test. Add about 3 minutes for swapping boards and that is 13 minutes per board. Maybe this is a little high but I'd say it is an average that is about right. We have just one test bed. There are over 130 boards fully finished now so just the testing has taken over 28 hours. Drivers: there is no way to estimate this. We've had so many people involved and spent so many hours that I can't even begin to guess. It was without a doubt more than 10 times the time spent on everything else combined. That's scary. Packaging, this takes time too, probably 5 minutes per board and labeling, etc. another 3 minutes. If you think this is a little high just take an unassembled box put it together and repack your board the way it was packed. Don't forget sealing the anti-static bag either, this was done using a "seal-a-meal" unit, pretty neat if I say so myself. Mailing, that depends on a lot of factors. R&D, I hand built at least 6 boards from scratch before even going public with the project to make sure they worked and that it was feasible to try this.

Layout. Many hours were spent designing the board using professional layout programs and equipment. A few boards were produced using a cutter to make sure everything worked. We also made a lot of changes. Having boards made. We used an industrial board making company. This shows in the final product. The card edge connectors are all gold plated and the pinholes are all solder through holes. I'm sure I'm forgetting other things as well but now onto the kudos:

There is no order of importance here, although I will make some comments on some people that are important ones.

Eddies Kuns:

Eddie has provided support, a lot of hours and skill to the project. He probably has more hours invested in the project than anybody except me. We've used his apartment for most meetings, he has worked on code. found many problems and always been there to support and keep me on track. Without Eddie and his help I seriously doubt that I could have finished this at all. He made up the web page and has done all of the updates, he found the major faults in the original

16 bit drivers and fixed them, spent hours commenting code and gallons of Coca Cola that we guzzled until 3 or 4 in the morning on too many occasions to count.

Brian Goers:

Brian helped with a few of the sessions at Eddie's place. He also did a lot of hardware work on his own. Brian has repaired, tested and put together a lot of boards without me being there to help. He volunteered for this and has done a remarkable job. He was also present at the Fests to help man the booth and he has also helped to keep me focused on the project.

Tony Podraza:

Tony, thanks for your support during the times when June was really ill. Your messages of prayer and general support really helped me keep my faith both in this project and in myself. Tony has also attended meetings and done what he could to help out although on occasion his snoring did get distracting at 2 or 3 in the morning <GRIN>. (Who snores? Hurmph! --Tony)

Mark Farrell:

Mark attended a meeting or two but did a lot of work on the original 16 bit drivers on his own. Without his initial work we would only have the original 8 bit drivers. He also added the secondary addressing that allows the board to work in a multipak with a Burke and Burke controller.

Howard Luckey:

Howard graciously allowed us to have a Christmas party at his house where we spent hours soldering and testing boards. He has also manned the booth at various Fests and is a very nice and friendly person who has always been an asset to the project. He and Brian drove to one of the PennFests that I couldn't attend.

Gene Brooks:

Gene did all of the routing and layout as well as providing us with preproduction test boards so that we could test the design before committing to a final design of hardware. This may have saved our butts a couple of times and definitely added to the high quality of the finished product. You'll notice there are no trace cuts with wires soldered from point to point. Everything is routed correctly using VIAS and this will make these boards much more reliable.

Scott Griepentrog:

Scott attended a meeting and I traveled out to Indy with Eddie when we were working on the 16 bit drivers. It is a 3 hour drive (or more) on way to Indy from Chicago. Scott is also hosting the IDE project Web Page gratis and has been very supportive of the project and the community.

Brett Heath:

All of the technical details in the documentation and the bulk of the documentation were assembled, edited and researched by Brett. Eddie Kuns and I added some details that are particular to the project and I added even more to the docs about how to use the board, etc. but we wouldn't

have nearly as comprehensive or nice a set of docs without Brett's contribution.

Jim Hathaway III:

Here is a guy that read a thread about how it was impossible to use IDE drives on the CoCo and looked at a simple PC IDE controller. It really had a single chip on it. He said to himself, it can't be that hard if they can put it in one chip!. Well, he did what a lot of people thought was impossible and shared it with all of us.

L. Curtis Boyle:

Here is a person that I wished lived close enough to me so that we could actually meet once in while. He has taken over the driver development and is doing an absolutely fantastic job. It is due to him that we have drivers that support more drives, partitioning and master/slave. These drivers will be made public very soon (they are BETA right now). You'll be able to download them from the web page or send in for them, I don't want to mail them out as part of the project until we have a few other features finished.

Bob Swoger:

Bob is the little guy you see at the GCCC booth at every Fest (he's well over 6 foot tall and almost as big {proportionately} as me and I'm 5' 7" and weigh in at 230). If it weren't for Bob's support of the Glenside Club, his involvement and his publishing of the newsletter I wouldn't be involved.

SHORT STORY

Back ages ago when we had RainbowFests Bob was at the GCCC booth. I was an attendee and he talked me into joining the club. I did so and have never regretted it. Unfortunately I never did get all of the info on where and when the club met. If he hadn't (finally) published a newsletter I'd never have attended a meeting and none of this could have happened. As it happened I did attend and due to that I became very active in the club. I think that if I hadn't become active in the Club it would be fair to say that it is not as likely that we would have ever seen a single Fest held in Chicago after the last RainbowFest. I could be wrong about that but I am sure that Dave Myers would not have held one here. Tony Podraza has been the driving force in the latter Fests. He was actively involved in the first one, too. I'm not trying to take anything away from Tony. He has done much more for promoting the continuing Fests than I have, but I did talk Dave into the first one by finding a place to hold it that had reasonable rates and getting him to fly down to Chicago to check it all out. Enough self-serving though.

The GCCC members:

They held several "parties" to build and test boards, spending the majority of the meeting working on doing just that rather than demo-ing software, playing with the CoCo or anything else that they usually do at the meetings. They did still attend the meeting after the meeting though.

The CoCo Community:

It is all of us, you, that have made this possible. There is no way that I could have done this on my own. I've only been able to bring this project to this point because all of you wanted it to happen. It is the constant support that I've gotten from the many people who ordered a board, paid a deposit or even paid in full (or for that matter just want one) that has made all of the work worthwhile. Whenever somebody started to complain too much (and if I was making a profit on this it would be a very justifiable complaint) others would send me E-mail saying nice things and many also posted support directly on the CoColist.

There are others, those who I should have mentioned individually but have forgotten but they are encompassed in the final entry. They are part of the community. We are all indebted to them and to each other.

Carl

Subject: IDE yet again

Date: Thu, 28 Sep 2000 23:26:10 -0500

From: "Carl J. Boll" <carlboll@CHICOCO.CHI.IL.US>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

This is about the new drivers mentioned in my previous post.

As soon as is possible Eddie and I will get these drivers up on the IDE web page for downloading. As soon as we get that done I'll put them on disk and if you can't download them yourself you'll be able to send me a letter with a check for \$3.00 and I'll mail you a disk with the drivers. There will be an upgrade in the future that you won't pay for but we are hoping that we can add ATAPI support for several devices before we ship that out.

You also will want to look at the web page for updates on the documentation in the form of addendums and we will start a list server for discussion of issues and for support.

I expect that there will also be a lot of support here on the CoColist as well.

Carl
End

News from Mike Knudsen:

Subject: Re: Glenside newsletter
Date: Sun, 1 Oct 2000 12:47:44 EDT
From: KnudsenMJ@aol.com
To: hluckey@prairie.cc.il.us

Hi Howard. Sure, I could write a few paragraphs about what I've been doing with UltiMusE for the 1-2-3. What I've done since I moved to Maine, in list form, is:

Ported UME to LINUX X-Windows on the PC

Wrote and gave out a MIDI file player program for both MM/1 and Coco, which does not require the two-step approach of Paul Seniura's old one (three steps for Format 1 files, which mine plays automatically)

Added new features to the MM/1 version of UME, like Piano Roll Viewing and features to support making player rolls for my hurdy-gurdy monkey crank organs.

Fixed the Coco version so it doesn't get behind the beat as much.

Well, that's about it. The LINUX port is the big news. I haven't given it out yet except to some Alpha testers (like Carl and Eddie).

Glad you, the Club, and the 1-2-3 are still in there swinging.

Take care, Mike Knudsen

Subject: Great Card Connector Cleaner
Date: Sun, 1 Oct 2000 21:47:02 EDT
From: Mike Knudsen <KnudsenMJ@AOL.COM>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

With most everyone out there struggling to get their new IDE controller working, now's the time to mention what I consider the all-time great cleaner and lubricant for plug-in connectors, especially such as used on the MPI and the Coco for the Paks. And your disk drive cables, MIDI cables, audio, whatever.

It's a spray can called Caig DeoxIt. Yes, that's Caig, not Craig, and DeoxIt. It's for electronic technicians, and you may have to mail-order it from someplace like Antique Electronics Supply in Tempe, AZ.

You may know I've collected and fixed old radios and the like longer than I've messed with computers. Dirty noisy switches and volume controls, intermittent connectors -- all those pesky items will yield to DeoxIt or they can't be fixed. It rarely fails.

Unlike the usual Rat Shack TV tuner cleaner, DeoxIt won't leave a residue that attracts more dirt. Nor will it discolor metals or frost up plastic surfaces.

I almost posted this a day or two ago. I'd been meaning to use DeoxIt the next time my Coco refused to boot up due to bad MPI connections. Well, guess what happened today! DeoxIt fixed it -- we'll see for how long.

(But not before I screwed up and cycled power with my hard drives turned on -- so lost a few dir's out of /DD. Will have to do some backups from my second ST225, to which I had

backed up everything before I tore down my Coco system and packed it up for the trip to Maine. Luckily my work on UME and Make didn't get zapped.)

--Mike Knudsen

PS: I have No connection with the Caig company, except for a few hundred connections in my electronics that work a lot better now because of DeoxIt.

Subject: new product? (An edited thread.)

Date: Tue, 3 Oct 2000 15:37:18 -0500

From: Mark Marlette <mymarlett@ISD.NET>

To: COCO@pucc.Princeton.EDU

Newsgroups: bit.listserv.coco

Well it is that time again..... Time to roll out another never been done before design for the CoCo. I have been gather information for quite some time and I'm almost ready to start the work.

I think it will be the largest board ever for the CoCo and will defiantly have more horsepower on board than twenty CoCos! The problem is cost. With these super chips in low volume come super prices. Am I TOTAL nuts for even thinking about a project like this these days? Please let me know if and how many people would be willing to have such a board or what they would like to see if it isn't already on it.

Major Items:

- * 2megs DRAM
- * FLASH memory for OS9
- * Ethernet
 - PPP,LCP,IPCP,IP,TCP,UDP,DNS,SMTP,POP3,HTTP and PAP,CHAP or Script authentication, Binary Base64 encoding and MIME. Did I miss anything?
 -
- * Dual Port 16c550 FIFOs
- * Bidirectional Parallel Port
- * RTC
- * AT Keyboard Interface
- * Dual Boot IC2 ROM
- * SCSI
- * IDE
- * MIDI
- * ADC true hardware solution, not sure about these
- * DAC true hardware solution, "" "" "" ""

As you can see this is an incredible device and it has been it the works for awhile. I didn't want to release my 2meg card till I was set on what would be on it. Some of the add ons will be options to be added to the base 2 meg board as plug in modules. These plug in modules WILL also plug into the Glenside IDE card. Not sure what the breakdown is of that until I get all of the logic design done.

As far as the Ethernet and the super communications chip goes this is where the cost lies. The PPP chips is pretty much a done deal. It is expensive but what a treat. ANYONE will be able to program it and with seven setup

commands you are connected to the Internet that will allow you to send and retrieve Email from the CoCo! :) We all know that there will be some graphical restrictions but there will be almost no work for the coco to do. It will all be processed on the super chips. Retrieve/Send an Email is six commands/responses. UNBELIEVABLE! What is even better is that the drivers are all ready done for this! Only the applications will need to be written. Cloud-9 will not be writing the applications due to the "workload" here. I'm sure that if there is enough interest that someone or a group of people will be able to develop this app. Please contact me if you would be interested in the task. Only serious people apply.

The Ethernet controller I need to research a bit more but it will need some drivers to be written.

Demand will drive this product only.

Please response to both the list and to me personally. I want everyone to know what is going on ****if**** anything.

Thanks,

Mark
Cloud-9
email: mmarmlett@isd.net

Subject: Re: new product?

Date: Tue, 3 Oct 2000 17:39:18 -0400

From: Louis Schulman <louiss@GATE.NET>

To: COCO@pucc.Princeton.EDU

Newsgroups: bit.listserv.coco

Hi Mark,

I am in favor of a product with the hard drive support, serial and parallel ports, RTC, and other basic stuff, but I would skip the fancy stuff if it is going to double or triple the price and cause time delays, software problems, etc.

Frankly, your SCSI controller is already a little expensive for me, even though I want one. Sounds like the price here would just be too astronomical.

I'd love to have this thing, but this is only an inexpensive hobby for me, sorry. I do love your stuff, though.

Louis

Subject: Re: new product?

Date: Tue, 3 Oct 2000 17:48:19 -0400

From: Ken Carlin <carlin@NAUTICOM.NET>

To: COCO@pucc.Princeton.EDU

Newsgroups: bit.listserv.coco

Well Mark, I'm interested. The 2meg board is the single feature I'd like to have the most, but the Ethernet options would be really nice too.

Subject: Re: new product?
Date: Tue, 3 Oct 2000 17:02:32 -0500
From: Mark Marlette <mmarlett@ISD.NET>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

At 05:39 PM 10/03/2000 -0400, Louis Schulman wrote:

>Hi Mark,
>
>I am in favor of a product with the hard drive support,
>serial and parallel ports, RTC, and other basic stuff, but >I
>would skip the fancy stuff if it is going to double or >triple
>the price and cause time delays, software problems, >etc.
>
>Frankly, your SCSI controller is already a little expensive
>for me, even though I want one. Sounds like the price here
>would just be too astronomical.
>
>I'd love to have this thing, but this is only an inexpensive
hobby for me, sorry. I do love your stuff, though.
>
>Louis

Noted. This board will be \$\$\$\$\$. I too could lower the price if the volume was there. Lets use a real case here. A "chip" that costs \$50 in single quantity, drops to \$13 with a 100,000 quantity. PC boards the same thing occurs. As you can see the domino effect is in place.

I love to make it do things that it could never do. Cost?
After twenty years..... :)

Thanks for the feedback

Mark

Subject: Re: new product?
Date: Tue, 3 Oct 2000 15:05:15 -0700
From: Jim Cox <jimc@AMC.COM>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

Mark:

I would be interested in your board, but I really don't have a need for the ethernet. Could that be an option? The rest of the stuff, particularly your 2M RAM, SCSI, and additional ports would be great. I just think the ethernet is overkill for my needs.

Jim Cox

PS: Just to clarify my point, this is all I need.

- * 2megs DRAM
- * FLASH memory for OS9
- * Dual Port 16c550 FIFOs
- * Bidirectional Parallel Port

- * RTC
- * AT Keyboard Interface
- * Dual Boot IC2 ROM
- * SCSI
- * IDE
- * MIDI
- * ADC true hardware solution, not sure about these
- * DAC true hardware solution, "" "" "" ""

Subject: Re: New Product
Date: Tue, 3 Oct 2000 17:32:00 -0500
From: Dave Gacke <dgacke@LND.COM>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

I know this may sound like heresy, but.... Has anyone considered building a full fledged CoCo to ISA bus bridge board?

You know, get a cheap passive ISA backplane board, and insert the appropriate boards for you. :)

There are LOADS of cheap HD controllers, sound, serial, ethernet, video, etc. cards out there...

I've been toying with the idea, but haven't yet taken the time to sit down and look at it closely.

This might be the more cost efficient approach to fully embedding everything. Plus, most PC stuff is well documented, so hopefully CoCo drivers wouldn't be too horrific.

Dave Gacke

Subject: Re: new product?
Date: Tue, 3 Oct 2000 17:33:51 -0500
From: Roger Taylor <CoCoTower@WEBTV.NET>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

Well, Mark... all the true CoCoNuts will definately want such a board to make their CoCo do all those modern things. CoCo users who already have PC's that do that stuff might not care for it. And some CoCo users might even think that for the price tag they can pick up a used PC out of the local classifieds.

Even though I realize that at 2mhz, graphical web pages would never load quick enough to really do much there... but I am sure that resizable fonts and colors would do us well enough to get by.

Anyway, I am all for this board. With it, the CoCo community will do GREAT things, my friend.

Why don't you just build a whole new CoCo and give us a CoCo 4? :) The actual CoCo itself can be put on one chip nowadays.

'course Paul Barton's 8-meg board is extremely tempting but unless everyone has one the whole idea goes to waste. I hope you get enough response on this project.

I will be glad to write drivers and support software for your board, for OS-9 and/or DECB. Please put me at the top of your consideration list and let me know as soon as you are ready for some software to show that baby off.

--

You may also reply to me about:

~ OS9 "MediaBlaster" under construction ~
~ "Projector-3" graphics system for DECB & 6309 ~
~ "Bunch of Goodies" DECB program disk ~
~ 8k, 16k, 32k EPROM Burning ~
~ The CoCoNut Directory @
<http://www.geocities.com/cocodir> ~

Roger Taylor - P.O. Box 847 - Magnolia, AR - 71754-0847

Subject: Re: New Product
Date: Tue, 3 Oct 2000 18:25:02 -0500
From: Mark Marlette <mymarlett@ISD.NET>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

At 05:32 PM 10/03/2000 -0500, you wrote:

This is really not that hard. B&B did it years ago. I differ with you on the PC being well documented. It is documented but to find the low level detailed information that you will need to talk to these devices and to the specific cards will not be that easy. A slightly different rev comes out or they use a different card and it is broken. By the time you are done with this you will end up with a version of windows on your Coco from a drivers standpoint. I hate the multipack as it is. It makes the coco look sloppy, IMHO. I have done the ISA interface already for the AT306 and the CoCo would not be that hard either. Software is where you will spend your time. Don't get me wrong, I'm not knocking this idea. I think it would be a great item. Just not doable in my future.

What is fun with the coco is that a lot of people have been proven wrong. I would like to be shown otherwise. I'm going the route of added costs to get the product to market faster. I have so much design work to do and the coco doesn't support the family. This is probably my last board for the coco so that is why it is so large and complex. I want everything on it and cost really isn't an issue. It is for most. This board will probably cost me around \$10,000 to produce. Not too many people throwing that kind of money at the coco these days. The end result will be most cool. A coco without any boards plugged in to the CART port and full connectivity. If not I will have the prototypes and have the coco working hard as it does everyday. It is never off except to change a board or fiddle with something. Uptime 99.99% on my development system. :)

Mark

Cloud-9
<http://www.isd.net/mmarlett/cloud9.html>

Subject: Re: new product?
Date: Tue, 3 Oct 2000 19:33:28 -0400
From: Dave Poitras <dpoitras@MEDIAONE.NET>
Newsgroups: bit.listserv.coco

Hi Mark,

One word comes to mind...

WOW!

Ok, (drooling stops) Let me know when to send the PayPal payment :-). Oops, here comes Susan & she's just shaking her head and rolling her eyes at me. Please put me down for one. When I figure the first floppy drive cost me \$399.00 this is a bargain.

I am not sure I would ever use all the features, but I'd love to try. I like the idea of Ethernet built since my house is networked now.

Dave

Subject: Re: New Product
Date: Tue, 3 Oct 2000 20:12:39 -0500
From: Mark Marlette <mymarlett@ISD.NET>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

At 08:01 PM 10/03/2000 -0500, you wrote:

Deposits ****might**** be required, not sure yet. I don't like to do that but the turn will be VERY fast. Last board I did from concept to having the PC board in my hand was 3 days. It took me a FULL winter to learn the software packages not a small task. This board will not be turned in three days. I need to research some more and ask what people would like. Floppy controller to support 3 1/2" media and 5 1/4" media. I already have that but it is a MAJOR hack to the old style WD1793 controller. Robert Brose did the original hack, most excellent work Robert! I can stick a 3 1/2" HD floppy in my PC, copy files and go over to the coco and read that same disk. Next best thing.....Ethernet. :)

Mark

Subject: Re: new product?
Date: Tue, 3 Oct 2000 22:20:38 -0500
From: Mark Marlette <mymarlett@ISD.NET>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

At 10:16 PM 10/03/2000 -0500, Brian E. Goers wrote:

Brian,

I have looked at USB but the layers and the drivers that would have to be written would be a large task.

Someone will step up and write the drivers I will produce the hardware.

Thanks,

Subject: Re: new product?
Date: Fri, 6 Oct 2000 03:45:41 -0500
From: "Carl J. Boll" <carlboll@CHICOCO.CHI.IL.US>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

On a foggy, gloomy day, Mark Marlette's fingers typed:
[About Mark's new product]

This sounds like a great project. I'm in for one. I especially am interested in the ethernet. It'd be nice to have that for my own network. How much will they cost?

Carl
--

New subject:

Subject: corrected & expanded IO map
Date: Tue, 26 Sep 2000 12:23:22 -0600
From: Willard Goosey <goosey@NMT.EDU>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

From: Jessie Oberreuter
<joberreu@SEATTLEU.EDU>
To: Multiple recipients of list COCO
<COCO@PUCC.BITNET>

FF00: Keyboard row scan

FF01: 0,1 Hsync IRQ control
2 changes FF00 to DDR
7 Hsync flag

FF02: Keyboard column scan

FF03: 0,1 Vsync IRQ control
2 changes FF02 to DDR
7 Vsync flag

\$FF1x is a mirror of \$FF0x. BUT writing to \$FF0x gets the GIME excited about SAM registers. Writing/reading \$FF1x gets you direct access to the hardware PIA pins, without having the GIME do funny stuff to your SAM registers. (Alan DeKok)

FF20: 0 Cassette in
1 Bit Bang out
2,7 D/A converter

FF21: 0,1 Carrier FIRQ control
2 changes FF20 to DDR
3 cassette motor
7 carrier detect flag

FF22: 0 Bit Bang in
1 single bit sound out
2 mirror FF02.6
3 RGB monitor flag
4,7 VDG control

FF23: 0,1 Cartridge FIRQ control
2 changes FF22 to DDR
3 sound enable
7 cartridge interrupt flag

The same thing holds true here. \$FF3x is a mirror of \$FF2x, without getting the GIME involved. (Alan DeKok)

FF40 \
: > Drive Controller
FF4F /
FF50 \
: > Disto Mini Expansion Bus
FF57 /

FF50 \
: > IDE controller default
FF5F /

FF60 \
: > FF60 X position of pen
: > X-pad FF61 Y position of pen
FF63 / FF62 Z pos/pressure of pen
FF63 ???

FF68 \
: > RS-232 pak 6551
FF6B /

FF6C \
: > Modem Pak 6551 ACIA
FF6F /

FF70 > alternate address of LR-Tech SASI controller
 FF74 > default address of LR-Tech SASI controller

FF70 \
 : > IDE controller alternate address
 FF7F /
 FF7D \
 : > Speech/Sound pak FF7E speech chip register
 FF7E /

FF7F > Multi-Pak interface slot control switch (0=0,17=1,34=2,51=3)

FF74 \
 : > Disto SCII haltless controller additional addresses
 FF77 /

FF7A \
 : > Orchestra 90-CC Pak FF7B right channel d/a
 FF7B /

FF90: 7 CoCo 1/2 compatible map
 6 MMU enable
 5 IRQ enable
 4 FIRQ enable
 3 DRAM @ xFExx is constant
 2 standard SCS
 1,0 ROM control (00=16k int/ext, 10=32k int, 11=32k ext)

FF91: 5 timer select (0=63 microseconds, 1=70 nanoseconds)
 0 MMU task select (TR)

According to John "Sockmaster" Kowalski, that 70ns timer input is really 279ns (=3.579MHz). The 70ns value is either an ordinary typo or an obsoleted holdover from an earlier never-manufactured design. The 63.5us source is the 15.75KHz horizontal sweep.

FF92: 5 timer \
 4 Horizontal border \
 3 Verticle border > IRQ enable
 2 Bit Bang in /

1 key press /
 0 cartridge /

FF93: 5 timer \
 4 Horizontal boarder \
 3 Verticle border > FIRQ enable
 2 Bit Bang in /
 1 key press /
 0 cartridge /

FF94: Timer MSN
 FF95: Timer LSB

FF98: 7 bit plane
 5 burst phase invert
 4 monochrome : 000=1 (graphics) 011=8
 3 50hz verticle sync / 001=2 (CoCo 1/2)
 100=9
 2,0 lines per character row < 010=3
 110=12

FF99: 6,5 Lines per field (00=192, 01=200, 11=225) \
 4,2 Horizontal resolution >
 video resolution
 1,0 Color resolution /

Due to a design error in the GIME, the "200-line" mode only displays 199 lines of active video on the screen. If you do the BASIC pokes for 25 lines on the WIDTH 40 and WIDTH 80 screens, you will see the blinking underscore cursor disappear at the bottom line. If the graphic screens are poked for 200 lines, the bottom-most line will be #198, not #199. Try it and see.

FF9A: 5,0 Border color register

FF9C: 3,0 Vertical scroll LSN
 FF9D: Vertical offset MSB
 FF9E: Vertical offset LSB
 FF9F: 7 Virtual horizontal enable
 6,0 virtual horizontal offset

FFA0 \
 : > MMU @ TR=0
 FFA8 /
 FFA9 \
 : > MMU @ TR=1
 FFAF /

```

FFB0 \
: > Palette registers
FFBF /

FFDF  ROM disable  \
FFD9  CPU rate     \
FFD3 \           \
: > Display offset > SAM emulation echo
FFC7 /           /
FFC5 \           /
: > Display mode  /
FFC1 /           /

```

```

FFFE:  RESET vector
FFFC:  NMI vector
FFFA:  SWI1 vector
FFF8:  IRQ vector
FFF6:  FIRQ vector
FFF4:  SWI2 vector
FFF2:  SWI3 vector
FFF0:  6309 exception vector (Illegal
instruction/division by 0)

```

Any other additions/corrections? Come on, I know there's lots of other hardware out there!

Willard
--
Willard Goosey
goosey@mailhost.nmt.edu

Subject: Re: Peripheral Memory Mapping
Date: Tue, 26 Sep 2000 10:09:54 -0500
From: Dave Gacke <dgacke@LND.COM>
To: COCO@pucc.Princeton.EDU
Newsgroups: bit.listserv.coco

Hi all,

Now that I've accomplished what I had set out to do, I'll fill in the details for everyone.

I was able to borrow one of the mythical IDE controllers this weekend from Rich Bair (Thanks Rich!) Anyway, during the install process you have 2 memory locations for the IDE registers to be mapped to. They are \$FF50-\$FF5F or \$FF70-\$FF7F.

Well, I only have a couple things in my CoCo during the install. I've got my FD-502 floppy controller, and the IDE

card. They are both plugged into my upgraded silver Multi-Pak.

According to the docs, since the Multi-Pak is at \$FF7F, that is not a good place for the card, so I picked the default of \$FF50-\$FF5F. I pick out the appropriate driver, and start my install...

The situation was, after I made a boot floppy, that during the boot process, the system would lock with the floppy drive light on.

I attempted remaking a boot floppy several times, just to make sure I didn't make a mistake during the process.

(Also, I should note, I tried a total of 3 different floppy controllers to see if it made any difference. No luck.)

Well, after no luck, I decided to take IDE card out of the multi-pak, and just "poke" at \$FF50, and voila! The floppy drive kicks on and the system locks up! Now, I don't know what the deal is, all I know is that in my CoCo, there is something there.

Anyway, to try and shorten this, I used the \$FF70-\$FF7F range. Made a new boot floppy and it "seems" to be working ok so far with the multi-pak.

Anyone else have any thoughts on this, or a similar experience with the board maybe???

Dave Gacke

INVENTORY BLOWOUT SALE

As of 10:53 PM 10/16/2000 CLOUD-9 still had available, the following:

1- AT keyboard Interface	\$ 55
6- 512K SIMM memory upgrade	\$ 40
1- TC^3 SCSI Interface wo/RTC	\$ 85
5- TC^3 SCSI Interface w/RTC	\$100
10-63c09ep	\$ 31 ** Almost extinct
3-63b09ep	\$ 22 ** "" ""
10-Pro-Tectors	\$ 16 ** Save \$4 if you buy 63x09

CLOUD-9
3749 County Road 30
Delano MN 55328
612-972-3261

EOF

Time has caught up with us again, the October issue is going out in November, but at least it IS going out. You can always help us out with your contributions. See page 3 for Howard's address, or you can submit your 1's & 0's to me via E-mail at tonypodraza@juno.com or tonypodraza@netscape.net As always, I bid you Peace.