

From the President's Platen

by Tony Podraza

I say this a little *sheepishly*, but I'm not *lion* to ya, March is going to be a month of hectic running around. What with the reality of a Chicagoland CoCoFest sponsored by DNM Enterprises, INC., preliminary preparations will keep us sufficiently occupied to keep us out of trouble. What's this, you say? A 1992 CoCoFest in Chicago and you haven't heard of it? Well, in this issue, you'll find an ad that will give you all the details. You'll remember that, in the last newsletter, we asked for input re: attendance from our membership to a fest of some type. At the moment of this writing, I don't have the results of that poll. Those results were going to be used as an indicator for the possible sponsorship of a "gathering of CoConuts" by Glenside. However, largely due to the interest of Glenside and the ACBBS network, DNM Enterprises, INC. has decided to put plans into action and has started the ball rolling for the 1992 Chicago 'fest. We hope that we'll be able to see many of you there at the Glenside Booth and in the hospitality room. And now, some details for the Glenside Club. You will note the ticket prices for the 'Fest in the ad, BUT for card-carrying GLENSIDE members, prices are as follows for a two-day pass only:

1. If you order your tickets prior to May 8th, either through the club or direct from the CoCoFest Headquarters, GLENSIDE members' cost will only be \$12.00! That's almost a discount of 30%!!!!

2. If you wait until you arrive and have your membership card, your cost for tickets at the door will still be reduced to a cost of \$15.00. That's still a 25% discount!!! So order your tickets now and beat the rush!

Now, as you know, there's no such thing as a (totally) free lunch. GLENSIDE will be needing members to perform security functions during the show. Basically, the security functions are to keep people from hurting themselves and to make sure that everybody has their nametag/badge on as they enter the 'Fest floor. Either drop me a line or sign up in the hospitality room if you are willing

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to serve. It'll be a BIG help.

Well, by now all of you who are RAINBOW subscribers have gotten your first issue of same in the new format. Tell us what you think of it. Personally, it turned out better than I expected. Remarks from Vice-Pres. Gene Brooks are extremely flattering. If the rest of the community are as appreciative of the job that the staff at Falsoft is trying to do (and succeeding in that effort, I might add) as Gene is, you might think that they've just won an Olympic medal. Which is just about the case, considering the recent obstacles. But, enough, I have other things to insert before I ship this off to the Editor.

In the first section, I mentioned "card carrying member". Those of you who have their membership current through Dec. '92 should have received membership cards with your last (FEB) newsletter, or with this one. If your mailing label has a "91" at the end of the first line, then this is the last newsletter you'll be getting until you contact George Schneewies about your dues. If you are a vendor, your participation in support of the mailings is appreciated, but not solicited. You know our policy already regarding that. We want you to know what's going on in the community, at least from our standpoint.

So much for business.

Last month, we were hit by the 'Hardware Bug', again. If you were at the

Glenside Color Computer Club

CoCo~1,2,3 Information

The Glenside Color Computer Club of Illinois is a not-for-profit organization whose members share an interest in the Tandy Color Computer®. The CoCo~1,2,3 is the official newsletter of the Glenside Color Computer Club. The Glenside Color Computer Club of Illinois has no affiliation with Radio Shack® and/or the Tandy Corporation®. The opinions expressed by the authors of articles contained within this newsletter do not necessarily reflect the opinions of the Editor, the Executive Officers or the actual Club membership.

We are committed to publishing a minimum of four issues and a maximum of twelve issues per calendar year. For an annual fee of \$12.00 you can become a GCCC member with full membership privileges. Persons wishing to receive the CoCo~1,2,3 newsletter without full membership privileges may receive this newsletter for an annual fee of \$14.00. Send your dues to:

GEORGE SCHNEEWEISS
2801 S KILBOURN AVE
CHICAGO IL 60623-4213

Here is the list of 1992 Executive Officers and how to contact them. The club has four strong SIGS, Tandy Color Computer 1, 2, 3 and OS-9. If you have questions concerning these computers or OS-9 call one of the officers. Area code C=312, S=708.

POSITION	NAME	PHONE	PRIMARY FUNCTION
President	Tony Podraza	S428-3576	The buck stops here...
Vice-President	Carl Boll	C735-6087	Meeting Planning, etc.
Vice-President	Gene Brooks	S897-9023	
Secretary	Howard Luckey	S747-0117	Records and Reporting
Treasurer	Geo Schneeweiss	C376-0126	Dues and Purchasing
Editor	David Barnes	S587-9820	Newsletter coordinator
VP Telecom	David Barnes	S587-9820	Club BBS SysOp
Printer	Dennis Devitt	S629-2016	Newsletter Exchange

CoCo~1,2,3 CONTRIBUTIONS

If you would like to contribute an article to the newsletter, upload a file to the Glenside CoCoRama BBS with an extension of 'NEWS'. If you have an AD for the newsletter UPLOAD a file with the extension of 'ADS'. If you have NEWS to POST about your group, please use the message base. These files are gathered by the BBS computer and downloaded to the Editor. If you need help contact the SYSOP by E-MAIL, mail, in person, or by phone:

DAVE BARNES
P.O. Box 281
LAKE VILLA, IL. 60046

It is preferred that you call: VOICE 708/587-9820 or BBS 708/587-9837
On DELPHI - DAVIDBARNES On CIS - 73357,1324

Articles for the CoCo~1,2,3 will also be accepted on diskette in ASCII form and UNFORMATTED only in the following formats:

RS-DOS 5 1/4"-35 SSDD/DSDD 5 1/4"-40 SSDD/DSDD
OS-9 5 1/4"-35 SSDD/DSDD 5 1/4"-40 SSDD/DSDD 3.5"-SSDD/DSDD
MS-DOS 5 1/4"-40 SSDD/DSDD 3.5"-SSDD/DSDD 5 1/4"-1.2 Meg

Submission deadlines for the CoCo~1,2,3 are two weeks prior to each monthly meeting. Articles submitted after the deadline will appear in the next issue.

CoCo~1,2,3 NEWSLETTER EXCHANGE

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

DENNIS DEVITT
21 W 144 CANARY ROAD
LOMBARD, IL. 60148

If you desire to reprint any articles that appear here, please provide credit to the author and this newsletter.

We encourage your user group to copy this newsletter and distribute it at your regular meetings to your members free of any charge as we believe that this will encourage better meeting attendance. If you are a user group that feels as we do, please let us know in your newsletter so that we might do this for our members and keep our attendance up.

GLENSIDE CLUB MEETINGS

The Glenside Color Computer Club meets on the second Thursday of each month, from 7:30 - 9:30 PM, at the Glendale Heights Public Library. Further info can be obtained from Tony Podraza at home 708-428-3576.

FUTURE MEETING DATES:

March 12
April 9

A social get-together always occurs afterward at the Springdale Restaurant.

CONTRIBUTORS TO THIS ISSUE

• Tony Podraza • Paul K. Ward
• Howard Luckey • L. Todd Knudsen
• David Barnes • Greg Cramsey
• Kevin Darling • Joel Mathew Hegberg

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David Barnes

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and
BARSoft Publishing



These are YOUR club BBS's... Please support them !!!

From the President's Platen

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meeting, you know what I mean. If you weren't, be sure to read Howard's write-up of the meeting in this issue. Rest assured that we will have a working set of drives at this month's meeting. Might also be an idea to have a working OS-9 boot for the system, eh? Since the club owns a copy of OS-9, and we DO demo stuff from time to time, anybody got the time to compile one? Standard, of course, no 'no-halt' controllers or hard drive descriptors, please.

At this time, I'd like to welcome the following new members to Glenside:

John Chasteen from Wood Dale, IL
Peter Tutelaers from Leende, The Netherlands
Rick Adams from Santa Rosa, CA
Will Bywater from Hoffman Estates, IL
Randall Boland from Arvada, CO
Jack Walls from West Grove, PA
Jean Edwards from Glendale Heights, IL
Shawn Lape from Glenview, IL
Walter Janus, Sr. & Jim Anderson from Chicago, IL
Ivan Richwalski from Medford, WI
Dorothy Wegrzyn from Chicago, IL
Robert Sturnfield from Bellwood, IL
Gerald Summer from Stone Park, IL
Tom Schaeffges from Woodstock, IL
Harold Dickerson & the Twin Tiers CoCo Club from Elmira, NY
Jeff Bennett from Chicago, IL
M. David & K. Heather Johnson of BDS Software from Glenview, IL.

To all of you, Welcome ... and thank you for making our lives fuller for your friendships and club participation.

HELP!

It seems that the Glenside Disk of the Month OS-9 disks from the first two years have been attacked by the media monster, at least in my collection. If you have a GOOD copy of disk #10(JUN 89), #20(AUG 90), or #24(DEC 90), please contact me so I can get the "master file" back in order. Thanks!

Time to get this off (by modem) to the Editor. If there's anything or anybody that I missed (there's always something), I'll try to get you in next time. Till then, find something good.....and praise it. I bid you peace.

February Meeting Review

By Howard Luckey

The meeting started at 7:50 PM. The reason for the late start was that Mike Knudsen and others couldn't get UltiMusE to boot. Why UltiMusE you ask? Because Tony wanted to start the meeting with the musical greeting which traditionally opens the RainbowFest. Mike arrived in time with his keyboard and the program but couldn't get things to run, so at 7:50 Mike hit a few notes and the meeting started. Since the meeting I have talked to Tony and the problem was one of the drives was single sided and the other one, although double sided, was probably out of alignment.

Tony made the big announcement, THE FIRST ANNUAL

COCOFEST IS COMING TO CHICAGO! Yea! After approximately one month, Dave Meyers has decided to have the fest after all. On Tuesday (Feb. 4, 1992) Dave visited the Chicago area to check out facilities and arrangements for decorators (people who set up the room) and with other support, made his decision. The other support includes a \$1000.00 contribution from ACBBS and the support of the Glenside club. ACBBS is a share-ware software BBS, and they have donated some of the proceeds to help support the fest.

The club support, in addition to what we can do locally, is to provide a hospitality room right next to the showroom. This room could also be used for show space if more is needed than is provided by the regular one. Assuming that we will have a hospitality room the club is open to suggestions about how to use it. Some suggestions already mentioned are: having the club on line to our local bulletin boards; setting up a place for EPROM burning (This could be for vendors who could charge a fee.); setting up a place for hardware hacking (Marty Goodman might use this to cover some of the cost of the Fest.). If you have any suggestions please forward them to one of the officers.

At this point Tony asked Carl to take the floor to present some of the particulars. The location is in Westmont which is a little south of Ogden Ave. on Cass Ave. The building is called the Inland Meeting Center and the showroom is DuPage Hall. The main hotel for participants is the Club House Inn which is approximately 3 1/2 blocks from the Center. The room charge is from \$55 to \$95 plus tax and includes breakfast and a cocktail party. The Inn will also provide a shuttle service to the meeting hall. Carl mentioned a number of other hotels nearby in case of need. The Fest is scheduled for the last weekend in May the 30th and 31st.

At present there is no set cost for the booths. Dave has to balance the cost to vendors so as to cover his costs and perhaps make some profit and at the same time not charge so much as to discourage vendors from participating and making a profit.

Vendors believed to have committed so far include Interactive Media Systems (IMS), Frank Hogg Laboratory (FHL), and Burke and Burke. Other possibilities, were mentioned. (Since the meeting Tony has mentioned that Glen Dahlgren of Sundog Systems, and Cray Augsburg, managing editor of The Rainbow, will each lead seminars at the fest.)

Tony and Carl said the club will probably have a booth and we have the money in checking and savings to support our participation.

After Carl's report Tony took the floor again and mentioned the Computer Fair which is held almost monthly at the Orland Park civic center, 147th and LaGrange Road, Orland Park, IL. Carl also had some discount coupons to pass out a few which were free. For some of the free passes Tony asked some trivia questions about the Color Computer and those who answered got one of the free passes.

Paul Jerkatis, president of the OS-9 users group and SysOp of the SandV BBS, announced he has purchased a new Hayes modem. It is a 9600 baud unit which includes the up to date standards now being used. He said he purchased it for \$350.00, a very good price, at CompUSA.

Tony stated that Mike Allen (708-780-3023) has a complete CoCo3 system for sale for \$250. If you wanted a LP8 and TRP100 the price would be \$350.00.

This took care of the business part of the meeting and now it was time for the demos. The plan was to have Bob Swoger

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February Meeting Review

Continued From Page 3

demonstrate the 1 Meg printer buffer he had talked about at the last meeting, but for some reason Bob wasn't at the meeting. Fortunately Tony had a backup plan. He and Carl had brought in different models of buffers, serial to parallel, parallel to serial interfaces, and A/B switches. Tony then proceeded to make a very nice presentation about "getting from here to there" when we are ready to print the important work we have done on our computer. First Tony asked the question, "Why use a print buffer at all?" The answer is that a buffer sucks in the file and sends it to the printer and you can begin to use your computer for another task almost immediately. Then Tony would hold up one of the devices, describe it, and tell how it worked. One of the switches was electronic so that it would do the switching when one computer or another would send data to the printer. One of the better buffers and one that Tony liked a lot was a 64k one sold by OWL Ware, a long standing vendor in the CoCo market. It was a nice looking package, a little bit larger than a pack of cigarettes, and cost around \$40.00. It had parallel in and parallel out which means most CoCo owners would need a serial to parallel interface. Some of those were on display also. Tony mentioned a buffer that looked the same as the one from Owl Ware is in the Inmac catalog for \$130.00 to \$140.00.

After the presentation the idea was to use a buffer to show how they work and to show the benefit of using one. For some reason it didn't work that way. (Since the meeting Tony thought the problem was that the buffers got their power from the printer and we didn't have that kind of set up at the meeting.)

Later many of us went to the restaurant for the meeting after the meeting.

FYI

Figures from the history of electronics innovation

These selections are a casual sampling from the pantheon of electronics innovation. Most, in fact, predate the era of "electronics." But these innovators and their unsung colleagues laid the foundation for tomorrow's creations.

Blaise Pascal (1623-1662)

Along with a weakness for gambling, Pascal is known for his philosophical and mathematical work in probability. He invented the Pacaline adding machine, and with his brother-in-law Perier, invented the barometer. He is the namesake of the Pascal programming language.

Jean Baptiste Fourier (1768-1830)

Remembered for the mathematical techniques he introduced as a result of work with heat diffusion. Chief among these techniques is the Fourier Transform. Arrested twice during the terror following the French Revolution, Fourier spent much of his life trying to avoid politics long enough to pursue his studies.

Next month we will see more of these selections, until then keep thinking. Who knows what will be the next innovation?

From the desk of ...

By Paul K. Ward

Of the three most popular operating systems (MS-DOS, MacOS, and UNIX) used on the desktop, UNIX was the first and remains the only one with modular, multi-tasking and multi-user elements built-in. It is a mature operating system that can finally be offered on the desktop thanks to cheap memory and fast microprocessors.

The recent rise of UNIX has generated a lot of interest in improving UNIX's ability to solve the needs of common, non-technical users.

I follow *UNIX Today!* religiously, and have been following this trend with great interest because it impacts on IMS's goals for the personalization of OS-9. UNIX has basically two chief choices for Graphical User Interface -- Open Look and Motif. There is some work being done to combine these two at some level (for example, by creating interchangeable C libraries to ease porting an application to both).

Recently, *UNIX Today!*'s Philip J. Gill summarized areas in the UNIX market where software will need to be improved. Interestingly, he wants to see exactly the same kind of changes in UNIX software that IMS is working to create in the OS-9 market.

Client-server applications

"Client-server" is a phrase that can describe applications and user interfaces. IMS is striving for both.

The reason is that Client-Server approaches to software take advantage of a distributed computing environment (not to be confused with the more precise term used by the Open Software Foundation, namely, Distributed Computing Environment). A general purpose distributed computing environment is the future. Networks, both local and wide area, will carry data and commands between places and among different pieces of software.

IMS is architecting simple methods for allowing software to work together in this fashion. We are also looking at some new technology from Sun and Hewlett-Packard that unifies Client-Server data structures.

An example of a client-server application might be a transaction-oriented database where the data is entered on one computer and is committed to the database housed on another. In the home, you might have an MM/1 Personal in the kitchen with a data entry form for the phone number and address of a friend. Once you enter the data, the MM/1 network software will carry the data to you MM/1 Extended in your work room, committing the data to the database and making it available to other computers and terminals you may have attached to your MM/1 Extended.

Also, IMS is building in network-transparent hooks into its windowing system to permit client-server GUI functions. For example, we have tested running a mouse cursor on a remote system by moving the mouse on a local system. The codes that control windowing can be packetized and sent over a network so that menus, overlays, and drawing commands can be executed anywhere on a network. This would allow you to run a very powerful application on a remote MM/1 -- just the screen data and windowing codes are sent across the network. You can use your mouse, menus, and text editing as though you are actually using the remote system.

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From the desk of ...

Continued From Page 4

I hope that Mr. Gill's prediction for UNIX works for OS-9; "Companies that focus on client-server development tools could become hot this year."

Pricing.

Not much needs to be said. In the DOS world, some applications are very expensive, ranging up to \$500 to \$700 dollars. But even these prices seem puny compared to UNIX prices. A BBS in the UNIX world can easily cost thousands of dollars.

IMS is committed to negotiating for lower prices on existing OSK software, and to creating affordable, quality new OSK software. On the other hand, the day of the \$9.95 program is probably over.

System management.

By most measures, DOS requires very little management whereas UNIX often requires a full-time system manager with a lot of experience. OSK fits in between. It is much easier to manage than UNIX. But because OSK is potentially a multi-user system, some management may be required. Some management tools are coming for the MM/1 and OSK, including SysMon from Dirt Cheap Software Company (already available from IMS). Other, graphically oriented tools, will permit the "superuser" (you) to schedule events, add and delete users, encrypt your files and passwords, and so on.

OSK started out to be a no-headache operating system -- put it on the factory floor and forget about it; it just plain works. And this is exactly what IMS strives to maintain in the MM/1. As time goes on, the MM/1 software and hardware will become easier to install, maintain, and use; prices will be low, power and utility will be high.

IMS wants the MM/1 to be a mainstream product. By keeping up with trends and standards, we have an advantage over many other companies who are or have been out of step with standards such as Commodore and Atari. Part of mainstreaming the MM/1 involves beating UNIX at its own game, and we are on the way!

If you want to help, leave a message for IMS at the Ocean Beach BBS at (619) 224-4878, or write to:

IMS
1840 Biltmore Street NW
Suite 10
Washington DC 20009

INTRODUCING GLENSIDE'S NEWEST BBS

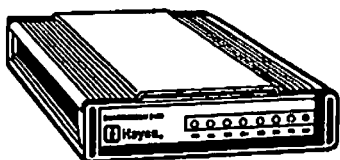
Glenside's Cup of CoCo BBS

300/1200/2400 BAUD

24 Hours / 7 Days

SysOp: Tony Podraza

(708) 428-0436



GOSUB Goodies

By L. Todd Knudsen

GOSUB GOODIES #1 HI-DISK

The analogy of black boxes is not new and can be used in many aspects of life. Most of the appliances in an average home are used on a day-to-day basis without much concern for how and why they work. As long as the microwave quickly nukes the left-over pizza on Saturday morning, that is all that really matters.

If you take this aspect of black boxes into the realm of computers and software you can create some very powerful and productive tools for both the developer and enduser alike. Gosub Goodies is a series of articles dedicated to the exploration of software black boxes on the CoCo using Disk Extended Color Basic to create subroutines to enhance existing programs or build a tool box for developers.

This month's goody is called HI-Disk. It allows the user to access the disk drive while in the high speed mode of the CoCo3, (POKE 65497,0), without fear of destroying disk data. This is normally not possible because the timing loops in Disk Basic are too short for the disk controller to function correctly. HI-Disk lengthens these loops in 2.0 and 2.1 versions of Disk Basic. Other DOS's for the CoCo can fix this problem, but this solution breeds compatibility problems with BASIC programs passed along to friends who may not have the modified DOS. Many BASIC programs found on BBS's and in the Rainbow slow the 6809 to do disk access then increase speed after. This added coding used to speed up & slow down the processor is now no longer needed. HI-Disk will speed the creation of new programs as well as allow users to modify existing programs to increase efficiency. To use HI-Disk, simply put a GOSUB 7000 near the start of your BASIC program. Now you can use the speed-up poke without concern for destroying data on your disks. If you have any questions, suggestions, or comments please feel free to contact me via the CoCo~123 Editor.

Enjoy...

```
10 'Gosub Goody #1
20 'HI-Disk
30 'L. Todd Knudsen
40 'let DECB use hi-speed during disk I/O 214=1.0 or 215=1.1
50 '
7000 IF PEEK(&HE289)=68 THEN RETURN: 'if ADOS then no
mod
7010 IF PEEK (&HC004) = 214 THEN AS =
"C0EED52AD6D1D6F1D727D75E" ELSE AS =
"C101D617D7C4D7E4D81AD851"
7020 FOR V= 1 TO 24 STEP 4
7030 A = VAL ("&H" + MID$(AS, V, 4))
7040 POKE A, 189: POKE A + 1, 240: POKE A + 2, 157: POKE A +
3, 18
7050 NEXT
7060 POKE &HF09D,52:POKE &HF09E,127
7070 POKE &HF09F,53:POKE &HF0A0,255
7080 RETURN
```

Next Month... More GOSUB Goodies !!!

Hardware Hacking

By David Barnes

Head parking is a big issue with hard disks, and it often is misunderstood.



When any hard disk comes to a stop, the heads do land onto the media. But the process happens as the drive slows down, so when the head does land, the drive is not turning very fast. Usually, the story ends right here; the heads land on whatever cylinder they were positioned over last—usually over areas of the disk that contain data.

Any drive with a voice coil actuator offers a feature known as automatic head parking. These systems have a spring attached to the head; while the drive is operational, an electric coil overcomes the spring tension and moves the head around the disk. In this setup, when power is lost, the spring can automatically pull the head rack away from data areas of the disk to a special handling zone.

Although all voice coil drives do in fact park the drive heads automatically, almost no stepper motor drives do. If you want to find out whether your drive autoparks, simply determine whether the drive has a voice coil or stepper motor positioner. Some exceptions to this rule may exist. Some stepper drives may incorporate a parking mechanism. From my experience, out of the many makes and models on the market, I have found only a single exception; the Seagate ST-251. This drive is a stepper drive which autoparks through the use of a weight on the end of the head arm.

So, the question now is, should you park the heads every time you shut down the drive? Some people think so, but many companies state you don't have to park the heads on the drive unless it is to be moved. A fail-safe approach is to park the heads at every shutdown. The procedure is simple and really cannot hurt.

College Of DuPage Fest

By Greg Cramsey

CORRECTION... CORRECTION... CORRECTION

Here are the dates for the better part of 1992 on the computer show at the College of DuPage physical education building.

**April 26 · May 31 · July 26 · September 20
October 25 · November 22**

June was not published on my flyer. Admission is \$6.00 for adults and \$2.00 for children 8-12 years. It is a large show, about twice the size of a Rainbowfest. If you are wondering if it's any good, I purchased a 9 pin 136 column (15") Star LV1615 printer for \$128.00 with tax.

The show has lots of survey cards at the entrance. Please use one, we need to let them know the CoCo is still out there. Show hours are from 9:30 AM - 3:00 PM, call Computer Central (sponsor) at 708/940-7547 for more information.

The College is in Glen Ellyn between Roosevelt and Butterfield Roads. If you drive in from Park Blvd. to College Rd., the Phys. Ed. building will be the first one on your right.

Forking with OS-9

By Kevin Darling

- * Modpatch script to change DeskMate-3 to use hires adapter
- * and always the VDG window it's called from (not just /term).
- * This means you'll no longer have to unplug the hires adapter
- * when you want to use DM-3.
- * Also means that you can run it from any window that you
- * have xmoded to type=1 and have a shell on. Then just
- * type "desk dmmenu" to come up in deskmate.
- * (or "autoex" if you want to drop the original shell)
- * Delete comment (*) lines here before using.
- * "load /d0/cmds/desk "
- * "modpatch thisfilename "
- * Use the save cmd in util library to save the new Desk module.
- * Kevin Darling, with thanks to Mark Griffith : 12 aug 87
- * modpatch script:

```
l desk
c 00F0 03 02
c 00F1 10 12
c 00F2 3F 12
c 00F3 84 12
c 00F4 10 12
c 00F5 25 12
c 00F6 19 12
c 00F7 CF 12
c 00FF 00 01
c 0CAB 26 12
c 0CAC 08 12
c 0CBE 26 12
c 0CBF 08 12
c 1DC7 7D F6
c 1DC8 82 3A
c 1DC9 86 45
v
```

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Announcing

Icon Basic09

The next programming language for OS-9!

Icon Basic09 is a graphical user interface (GUI) to Basic09, which will make programming easier than ever! Icon Basic09 takes an innovative approach by using graphic representations, or icons, to represent statements and keywords for writing Basic09 programs and procedures. Instead of constantly typing while writing a program, the user can simply point & click to choose the desired statement!

Icon Basic09 can also be very useful in studying procedures and programs written by others to learn how they operate. The package contains a full set of icons...or, you may edit or create icons using the included icon editor. Icon Basic09 requires a CoCo-3 with at least 256k, mouse or joystick, and OS-9 v2.

\$20

Dual hi-res joystick adapter (RS-Colorware)	\$40
Hi & Lo-res joystick adapter	\$27
HAWKsoft keyboard extension cable	\$25
Domination ("fish"-like wargame)	\$18
MyDOS full featured DOS extension	\$15

Hawksoft

PO Box 7112
Elgin, IL 60121-7112
(708) 743-3884 even & ends

US and CDN S&H always included. Terms: MO, check, or COD.

A Discussion on Bezier Curves

By Joel Mathew Hegberg

Bezier curves are named after the French mathematician Pierre Bezier, who developed them for automobile design. What is a Bezier curve? It is the curve which is formed by repeatedly connecting the midpoints of the lines formed by four defining points. "Come again?", you are probably saying. Well, imagine (or draw) four points. Using three lines, you can connect these four points (to form a U shape if the points are positioned carefully). Next, you can draw two more lines connecting the midpoints of the previous 3 line segments. You will now have four inner lines, which you can draw more line segments to connect their midpoints, and so on. This can be repeated many times (infinitely, in fact, which is where Calculus comes into play) and in the end a curve is formed.

Ok, so what? Kinda neat, but how can Bezier curves be used in "real life," like computer programming? Well, assuming computer programming is "real life," Bezier curves are reportedly being used in scalable font technology, since you can define four general points and have a smooth curve be calculated at any size. Since the midpoints can be calculated an infinite number of times, a font made out of bezier curves would be infinitely scalable. Although the word "curve" is used, you can also create straight lines by simply having the four defining points line up in a row.

The equations used to calculate a Bezier curve are third degree equations, meaning they have variables raised to the third power. Let's say our four points are named (x0,y0), (x1,y1), (x2,y2), and (x3,y3). Also, the variable "k" can be used to count from zero to one, so when k=0, the curve is at (x0,y0) and when k=1, the curve is at (x3,y3). (x0,y0) and (x3,y3) are known as the endpoints and (x1,y1) and (x2,y2) are known as "direction" or "control" points. The Bezier curve equations turn out to be:

$$x(k)=(1-k)^3x_0+3k(1-k)^2x_1+3k^2(1-k)x_2+k^3x_3$$

$$y(k)=(1-k)^3y_0+3k(1-k)^2y_1+3k^2(1-k)y_2+k^3y_3$$

Wow! Looks a little complex? Don't worry! Your CoCo can handle it! Let's write a small BASIC09 program to handle these equations for us and draw the resulting Bezier curve. To let this program be compatible with the MM/1 (which is what I'm currently using), I shall change window calls such as LINE, down to BYTE arrays since the MM/1 does not have a GFX2 module, but does have the same windowing codes. The parameters for the program will be the four points (x0,y0)(x1,y1)(x2,y2)(x3,y3) and a resolution variable. Since we don't have infinite resolution on our computers (that would be interesting...) we don't have to go through the calculations an infinite number of times! We only need to go through the calculations the number of times necessary to meet our screen resolution. If you are on a 640x200 screen, use 640. Anything higher will not give you a better graph, since you only have 640 dots across your screen. If you choose a number less than 640 (say 100), the computer can draw the curve faster, but it will be less smooth.

Note: BASIC09 takes a very long time to calculate powers (^), so in the program I've changed the power functions into multiplication, since k^2 is the same as k*k, etc.

PROCEDURE bezier

```
param x0,y0,x1,y1,x2,y2,x3,y3,res:integer
dim k,r,x,y:real
dim xplot,yplot:integer
dim setdptr(6),linem(6):byte
base 1
setdptr(1)=$1b \ setdptr(2)=$40 \ setdptr(5)=0 \ (*SetDPtr win
dow code*)
linem(1)=$1b \ linem(2)=$46 \ linem(5)=0 \ (*LineM window
code*)
r=1.0/float(res)
k=0.0
setdptr(3)=(x0/256) \ setdptr(4)=land(x0,255)
setdptr(6)=land(y0,255)
put #1,setdptr \ (*Set draw pointer on stdout*)
while (k <=1.0) do
x=(1-k)*(1-k)*(1-k)*x0+3*k*(1-k)*(1-k)*x1+3*k*k*(1-
k)*x2+k*k*k*x3
y=(1-k)*(1-k)*(1-k)*y0+3*k*(1-k)*(1-k)*y1+3*k*k*(1-
k)*y2+k*k*k*y3
xplot=int(x)
yplot=int(y)
linem(3)=(xplot/256) \ linem(4)=land(xplot,255)
linem(6)=land(yplot,255)
put #1,linem \ (*Draw line on stdout*)
k=k+r
endwhile
end
```

Enter this into BASIC09 (or BASIC on an MM/1) and PACK it to your CMDS directory as instructed in your BASIC09 manual. To use the program, you must be on a graphics screen. On the MM/1, this is no problem since you are always on a graphics screen. On the CoCo, if you want to set up a graphics screen on, say, window 5, use:

```
wcreate /w5 -s=7 0 0 80 24 1 0 4
shell i=/w5&
```

Then CLEAR over to the newly created graphics window. Now, run the program using the format:

```
bezier(x0,y0,x1,y1,x2,y2,x3,y3,res) ; for the CoCo or
bezier x0 y0 x1 y1 x2 y2 x3 y3 res ; for the MM/1.
```

Try some of the following for some interesting curves:

```
bezier(50,50,20,80,100,150,60,10,100)
```

```
bezier(50,190,20,80,200,150,60,10,100)
```

```
bezier(600,100,340,20,310,190,610,55,100)
```

```
bezier(320,100,0,200,640,200,320,100,100) (Hershey's Kiss)
```

```
bezier(320,50,320,200,200,200,180,140,100) (The letter "J")
```

Wanted / For Sale

For a limited time (until they are relocated) the following items are looking for a new home:

New! IN BOXES WITH ORIGINAL BOOKS!

2 CoCo 2's

Asking price.....\$25.00 each

Contact.....Herb Merle

708-541-2471 (Home)

708-426-8881 (Work)

For Sale: Color Computer DRIVE 0 1/2 HEIGHT DOUBLE SIDED W/CABLE & HDS CONTROLLER W/RS-DOS ...\$150 SANYO BETA STEREO HI-FI RECORDER W/REMOTE & MANY PRE-RECORDED ORIGINAL TAPES & USED BLANK TAPES \$375 DEC dual disk drives in a single housing, J&M controller with RS-DOS \$75 PRICES NOT FIRM CALL Rich Polk h708-830-0043 LEAVE MESSAGE

The following items are available from:

Mr. Martin Boisen 708-426-3059

CoCo 3 50.00

2-SSDD drives, PS & case 100.00

Aftermarket keyboard 45.00

CM-5 monitor adapted for CoCo3 150.00

DMP-132 150.00

CCR-83 (player/recorder) 25.00

For Sale:

COCOMAX 3 W/4 FONTS DISKS

QUICKPRO 2

COCO GRAPHICS DESIGNER W/ PICTURE DISK #1

VCR TAPE ORGANIZER

WORD POWER 3 W/SPELL & FIX

NEWSPAPER

PRO FOOTBALL HANDICAPPING

FLIGHT SIMULATOR 2

MULTI LABEL 3

4 RAINBOW ON DISK (ISSUES UNKNOWN)

PRICES SHOWN ARE NEGOTIABLE...MAKE AN OFFER ON ANY OR ALL

ALSO AVAILABLE:

THOMPSON 14" COLOR CGA MONITOR \$130.00 FIRM

Please contact:

Pam Dado

112 Flamingo Dr.

Beecher, IL 60401

708-946-6711

If you are interested in any of the following:

The Rainbow Magazine & Rainbow on tape

1983

Feb-Dec (missing Feb & June tape) (missing May magazine)

1984

All issues and tapes 1985

Jan-Mar complete

Rom-Paks:

Canyon Climber

Math Bingo

MegaBug

Peanut Butter Panic

Dinowars

Doubleback

Cassette Games

Star Trap

Bustout

Pinball

For Sale:

Tandy CGP220 Color Printer with manual, dustcover, paper and 3 color and 3 black inkjet packs. Also included, CGP*Max software.

Asking \$160.00 Contact Dave Barnes (708) 587-9820

For Sale:

Tandy DMP-105 printer with manual, dustcover and 3 ribbons. Also included is DMP*MAX software. Asking \$60.00 Contact David Barnes (708) 587-9820

Contact Jeff Chapin for any of the following items.

COCO3 w/ 1 Meg of memory \$175.00

COCO3 w/ 512k of memory \$125.00

COCO3 w/ 128k of memory \$75.00

Tandy 40 col. green mono \$25.00

B&B w/rtc w/ XT ROM v2.4b \$90.00 w/st225 mfm HD \$170.00

Tandy Rs-232 \$30.00 Orion Tech telepak rs232 \$30.00

(2) Hard Drive cases w/ps \$25.00 ea.

Tandy DMP 130a Printer \$100.00

2 2/3 hgt 5.25" case/ps \$40.00

1 full hgt 5.25" case/ps \$25.00

Start OS9 w/disk \$25.00

C Compiler \$10.00

Sub Battle Sim \$10.00

Carmen Sandiego/world \$10.00

Kings Quest \$10.00

And MORE! Lots of SOFTWARE... Too much to list. Rom Packs too! All offers come with the Or BEST OFFER Disease. All items work as to the best of my knowledge. Of yeah... 1-708-428-8219. I've Got more stuff but this is all I can Remember.

FOR SALE

Hardware

Color Computer 3 with 512k memory & service manual \$70.00

Multi-Pak Interface (White new style) & service manual \$60.00

CM-8 RGB Monitor & service manual \$90.00

CGP-220 7 Color Ink Jet Printer & service manual \$100.00

5 Meg Hard Drive with Power supply & Disto interface \$90.00

Tandy Disk Controller \$30.00

Performance Peripherals No Halt Floppy Controller with Tandy DOS & A-DOS-3 \$60.00

2 - Tandy RS-232 Program Paks \$30.00 ea

Tandy 5 1/4" Drive 0 with Case & Power supply \$30.00

2 - Tandy 3 1/2" 720K Floppy Drives with Case \$30.00 ea

Color Computer Plug 'n Power Controller \$30.00

Tandy Hi Resolution Joystick Interface \$5.00

Tandy Deluxe Joystick \$5.00

Tandy Pistol Grip Joystick \$10.00

Tandy Color Mouse \$5.00

Wanted / For Sale

Continued From Page 9

Touch Pad \$15.00
Tandy Speech/Sound Program Pak \$10.00
GoldStar 2400 baud modem \$50.00
Light Pen with software \$5.00

Cables

Cassette Interface Cable \$1.00
RS-232 Cable \$1.00
4 Pin DIN / 26 Pin Cable \$1.00
4 Pin DIN Cable \$1.00
Tandy Floppy Cable \$5.00
Printer Serial / Parallel Interface Cable \$30.00

Software

OS-9 Level 1 & 2 and Multi-View \$20.00
OS-9 Development System \$40.00
C Compiler \$40.00
Games
Seastalker \$1.00
The Hitchhikers Guide to the Galaxy \$1.00
Zaxxon \$1.00
Robot Odyssey 1 \$1.00
Koronis Rift \$2.00
Rescue on Fractalus \$2.00
King's Quest 3 \$2.00
Trivia Fever \$2.00

Rom Pak

Thexder \$1.00
Springster \$1.00
Dungeons of Daggorath \$1.00
Roman Checkers \$1.00
Pinball \$1.00
Bustout \$1.00



From the Editor's Desk

In this month's issue, Tony made mention of an ad from CoCoPRO! detailing the upcoming CoCoFest in May. As I finish this newsletter, March 3 appears on the calendar. I realize Dave Meyer has forgot-

ten to upload the file needed to place in this issue.

We are under a deadline though, and I really can't afford to wait any longer for this issue. I must get it into the printer's hands so we can have the newsletters in your mailbox prior to the next meeting. I expect Dave will send me the necessary file for the next issue of our CoCo~123.

Project Nebula \$1.00
Edtasm+ \$5.00
Diagnostics \$ 2.00

Misc.

Monitor Pedestal \$5.00
Black Ink Pak (For CGP-220) \$12.00
Tri Color Ink Pak (For CGP-220) \$18.00
Box of CGP-220 paper (3 Rolls) \$10.00

Total	\$995.00
Entire System & Software	\$750.00
Many Pluses Save	\$245.00

If interested, call George at (414) 279-6733

For Sale:

Tandy DMP-110 printer with manual and ribbon. Asking \$45.00
FIRM... 708/393-6469 Greg Cramsey / Warrenville, IL.

Have an item for sale?
Looking for something special?

Why not contact one of the Glenside club officers. Ads are free to paid Glenside members!

While I am on the subject of sending articles... let me reiterate the fact that I need pure ASCII files. I cannot use any file which has printer codes for bold, or underlining, or top/bottom margins. In as much as I hate to admit this, this newsletter is not produced on a CoCo. Non-ASCII files are hard for me to deal with, as I must manually convert them to ASCII. Sorry, but in the future, no articles will be printed unless they are in ASCII.

I am also finding less time to edit your articles for grammar and finding even less time to solicit those articles. I really need a coordinator to assist me in this venture. Any volunteers?

This issue is also missing the rest of the CoCo software list; as promised in last month's issue. Look for it next month. Also, since the CoCoFest is approaching, lets all get together and help produce some great looking newsletters to pass out... lets get some articles...

Location:

Glenside Public Library
25 W. Fullerton Avenue
Glendale Heights, IL. 60172

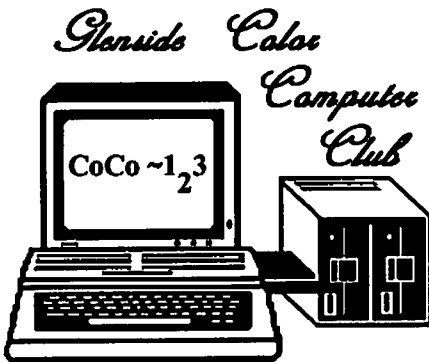
Directions:

Fullerton avenue is about 1 mile North of North Avenue (Route 64). The library is located West of Bloomindale Road in Glendale Heights. Bloomingdale Road is aproximately 2 miles West of Route 53 (or I-355).

Glenside Color Computer Club

Next Meeting Date...

MARCH 12



119 ADOBE CIRCLE
CARPENTERSVILLE, IL. 60110

