

# CoCo~123



Glenside Color Computer Club, Inc.  
Volume 33, Number 4

Carpentersville, Illinois  
Winter 2013

## CoCo ~ 123 Memory Map

### Routines

### Address

GCCC Officers .....	1
GCCC Information .....	2
GCCC Contributions .....	2
Contributors to this Issue .....	2
GCCC Meetings .....	2
From the President's Platen .....	2
Treasury Notes .....	3
Secretary's Notebook .....	3
Editor's Clipboard .....	3
ARTICLES .....	3

**The 23<sup>rd</sup> ANNUAL "Last" Chicago CoCoFEST!**  
**LogiCall Review for CoCoCoding Contest 2013**  
**By Kip Koon**

CoCoFEST! 2014 Information - The 5 "W's".....	22
Calendar of Events .....	22

### Upcoming Events:

The 23<sup>rd</sup> Annual "Last" Chicago CoCoFEST! **April 26-27, 2014**  
 Regular meetings every 2nd Thursday @ Schaumburg Library

### G.C.C.C. OFFICERS

Here is the list of 2014 club officers and how to contact them.  
 If you have questions about the association call one of the  
 officers for the answers.

POSITION	NAME	PHONE	PRIMARY FUNCTION
President	Tony Podraza	847-428-3576	The buck stops here...
Vice-President	Chris Hawks	815-943-4690	Meeting planning, etc.
Treasurer	Geo Schneeweiss	815-832-4441	Dues and Purchasing
Secretary	Bob Swoger	630-837-7957	Records and Reporting
Director	Tony Podraza	847-428-3576	CoCoFEST! Organizer
Librarian	Brian Goers	708-805-1888	Software/Hrdwr Manager
Editor	John Mark Mobley	847-409-8604	Newsletter Production

Copyright ©2014 Glenside Color Computer Club, Inc.



Tony Podraza



Chris Hawks



Robert Swoger



George Schneeweiss



Brian Goers



John Mark Mobley

**CoCo~123 - A Glenside Publication Since 1985**

## CoCo~123 INFORMATION

CoCo~123 is the newsletter of the Glenside Color Computer Club. Your annual contribution of \$15.00 helps to keep 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 and good times with fellow CoCo users at our Annual "Last" Chicago CoCoFEST! and Annual Glenside Picnic.

## CoCo~123 CONTRIBUTIONS

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

**John Mark Mobley**  
**4104 Wren Lane**  
**Rolling Meadows IL 60008**  
**johnmarkmelanie@gmail.com**

## CONTRIBUTORS TO THIS ISSUE

Brian Blake  
Len Cooper  
Salvador Garcia  
Kip Koon  
John Mark Mobley  
Boisy Pitre  
Tony Podraza  
Randall Reid  
George Schneeweiss  
Robert Swoger  
Aaron Wolfe

## G. C. C. MEETINGS

The Glenside Color Computer Club meets the second Thursday of each month at the Schaumburg Township District Library at 7:00 pm. If you need a map, see our Glenside Homepage at:

<http://glensideccc.com>

A social get-together always follows the meeting at a nearby restaurant, lovingly called, "The Meeting After".

## FROM THE PRESIDENT'S PLATEN

As Charlie Brown would say, "Good Grief"! Here it is, the 6th of March, and the FEST! is looming larger by the moment. Still so much to do, too. I will not bore you with that.

Last year, while no one missed the FEST!, some were interestingly diverted a few moments by the need to turn around, twice, to find the driveway. Well, there is a back way in ... if you go past the North Avenue (IL Rte 64) entrance (eastbound), you do not have to turn around ... just turn right (south) at the next intersection and right, again, about 100 feet down the road.

I read an interesting article not too long ago, about Dr. Roget; yes, the very person who compiled lists of words that are variations of degrees of other words. Did you know that the word "thesaurus" actually means "treasury"? Something new, every day. Well, the good doctor also postulated that the human eye actually captured individual images and transmitted them to the brain so rapidly that we perceive them as "real-time" movement.

His paper on the subject in the early 1800s is one of the earliest concepts that led to the development of the motion picture industry. Furthermore, he is credited with placing one logarithmic scale above another, creating (wait for it) the slide rule, with which engineers calculated (dare I say, computed) trajectories, force required to lift mass, gravitational pull, distance, length of burn time for propulsion engines, etc. that sent humans into space, around and onto and off of the Moon, and "returned them safely to the earth". (Thanks, Jack, for that phrase.) Today, formulas are plugged into these fast "adding machines" that we call "computers" and the mathematical questions are answered faster that we can say, " ", well, never mind .... they are fast, just so.

Never did I imagine that I would be living in an era when these computing devices would be so commonplace. There is more computing power in our pockets than the engineers who designed the Mercury, Gemini and Apollo equipment had at their disposal from the most advanced university Cray. We are truly blessed, as anyone who has had to a math exam with a "slip-stick" will tell you.

A somber moment, if you will indulge me, please. Take time to remember the good times that we have had with those of our "family" who are no longer "hitting the keys". More so, remember those that they left behind. Encourage them, if you have the opportunity to contact them. It is through our ties with each other that we grow closer. I really do look forward to our annual gathering to share stories, learn about what you have been doing, and most of all, laugh with you. It is no secret that I enjoy reading, and reading Samuel Clemens in particular.

I leave you with one of his best.

"For your race, in its poverty, has unquestionably one really effective weapon -- laughter. Power, Money, Persuasion, Supplication, Persecution -- these can lift at a colossal humbug, -- push it a little -- crowd it a little -- weaken it a little, century by century: but only Laughter can blow it to rags and atoms at a blast. **Against the assault of Laughter nothing can stand.**"

Until next time, I bid you "Peace".

Tony Podraza, President  
Glenside Color Computer Club

## TREASURY NOTES

We have \$7755.90 in checking. We have 70 paid members in 2013, down from 136 in 2011, and a total of 424 members to whom we send newsletters.

George Schneeweiss, Trea\$urer  
Glenside Color Computer Club

## THE SECRETARY'S NOTEBOOK

I have been wondering why nothing about *LogiCall* V7.0 ever shows up on the CoCo-list over the past two years since its release. We now give it away FREE and still I see nothing nor do I get requests for it. We poured months of time into it.

Years ago I had a friend who got me into Amateur Radio. He had the highest priced receiver on the market given to him by his parents. A few years later I sent him a very expensive SSB transmitter and a 500-watt linier to go with that receiver so that we could talk to each other between here and Florida. I later asked him how all that gear was doing. He said he wasn't using it so he put it all out on the curb with the trash. He hadn't paid for any of it so to him it had no value.

Is this what has happened to *LogiCall*? It is FREE so you think it has no value? Well, Kip Koon tried it out and he thinks otherwise. Please read the review he wrote about *LogiCall* for the magazine that was to support the 2013 CoCo Coding Contest. (It never went to print.) Maybe when you find out more about *LogiCall* you will start using it. After you use it once I am sure you will ALWAYS use it. *LogiCall* runs on all CoCos with or without DriveWire and also runs on Vcc.

Someone asked me; "What does it do?" My answer, "It does it all!"

Robert Swoger, Secretary – rswoger@aol.com  
Glenside Color Computer Club

## THE EDITOR'S CLIPBOARD

Our theme for this year's CoCoFEST! is "Eight bit add with carry on". This theme is designed to match a Wheel of Fortune puzzle category called "Before & After".

Examples of "Before & After" puzzles are:  
WHEEL OF FORTUNE COOKIE  
LAMP STAND UP  
MOUNTAIN RANGE ROVER  
PUPPY LOVE TRIANGLE  
TRIAL BY FIRE ANTS  
EIGHT BIT ADD WITH CARRY ON

So it is actually two phrases. Eight bit add with carry, and carry on. Add with carry A accumulator (ADCA) is an assembly language instruction for the 6809 for doing an eight bit add with carry. Carry on is a way to encourage someone to keep on doing good work. So we encourage you to continue using your eight bit computer.

I hope this helps explain this year's theme



The theme of this year's CoCoFEST!

If you have any articles or article ideas, please submit them to me. You can contact me through the club website using the contact us section or the following link:  
<http://www.glensideccc.com/contact/index.shtml>

John Mark Mobley, Editor  
Glenside Color Computer Club

## The 23<sup>rd</sup> Annual "Last" Chicago CoCoFEST!

by  
John Mark Mobley

The CoCoFEST! is a wonderful gathering of interesting people. Check here for a copy of the exhibitor contract:

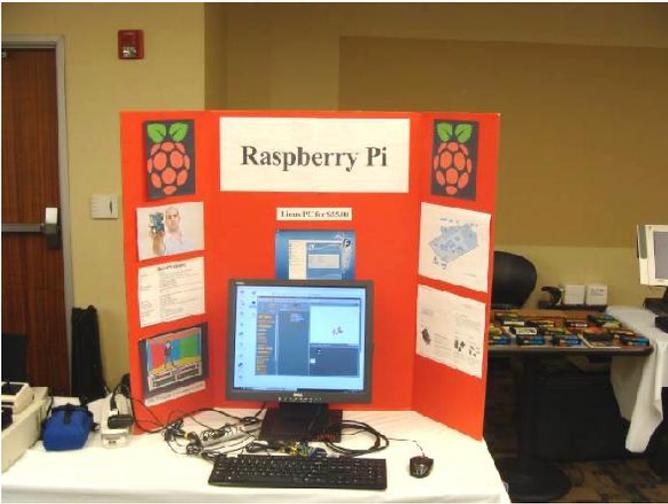
<http://www.glensideccc.com/documents/index.shtml>

What follows are pictures from the 2013 CoCoFEST!  
The 2014 CoCoFEST! is April 26 & 27, 2014 in Lombard, IL.

### Pictures from the 2013 CoCoFEST!



David Keil working with his emulators



Raspberry Pi display



Dave Pellerito watches William Astle



David Kiel giving seminar on emulator on VirtualBox



Aaron Wolfe working on CoCo Coding Contest



Dan Keller shows Brenda Crislip his works of art



You can see Cloud-9's booth in the distance



Tony Podraza and John Chasteen catching up



Jim O'Keefe



Rich Bair and Tony Podraza at check-in table



And the winners of the CoCo Coding Contest are...



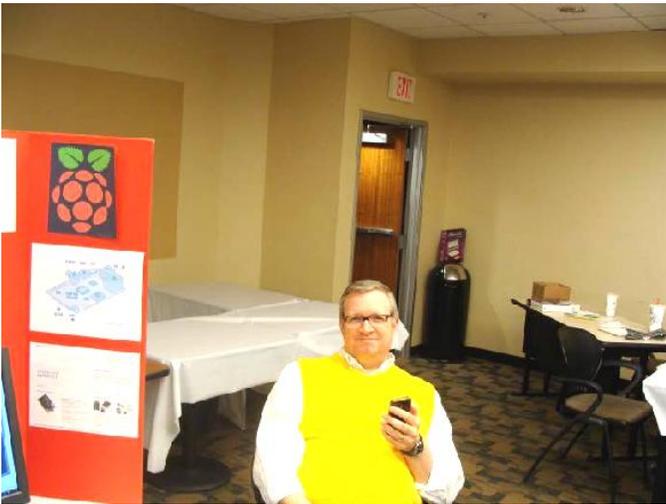
Karl Sefcik with plenty to show



Christopher Hawks, Mike Rowen and Brian Goers



We can fix it – Mark, Boisy and 2 Brians



Mike Rowen at his booth



Tony at the auction table loaded with goodies to go

## Chicago Area Attractions

John Mark Mobley

If you are coming to the CoCoFEST! from out of town on an extended stay you may be interested in other things to see while you are here. The ladies may enjoy

a trip to the mall or antiquing and shopping in Long Grove, IL or Geneva IL.

### Adler Planetarium

1300 S Lake Shore Drive  
Chicago, IL 60605

<http://www.adlerplanetarium.org/>

(\$12.00/person)

### Brookfield Zoo

8400 W 31<sup>st</sup> Street  
Brookfield, IL 60513

<http://www.brookfieldzoo.org>

(\$17/person – kids \$12)

### Chicago Chinatown

W Cermak Road and S Wentworth Avenue  
Chicago, IL

<http://chicagochinatown.org/>

### Field Museum of Natural History

1400 S Lake Shore Drive  
Chicago, IL 60605

<http://fieldmuseum.org>

(\$18.00/person)

### Geneva

3<sup>rd</sup> Street and State Street  
Geneva, IL

<http://www.geneva.il.us/>

<http://www.genevachamber.com/shopping.html>

(Antiquing and shopping)

### Illinois Railway Museum

7000 Olson Road,  
Union, IL 60180

<http://www.irm.org/>

(\$10.00/person)

### Leaning Tower YMCA

6300 W Touhy Avenue  
Niles, IL 60714

(It is a replica of the Leaning Tower of Pisa)

### Long Grove

307 Old McHenry Road  
Long Grove, IL 60047

<http://www.visitlonggrove.com/>

(Antiquing and shopping)

### Medieval Times Dinner & Tournament

2001 N Roselle Road  
Schaumburg, IL 60195

<http://www.medievaltimes.com/>

(\$60.95/person)

### Museum of Broadcast Communications

360 N State Street  
Chicago, IL 60654

<http://www.museum.tv/index.htm>

(\$12.00/person)

### Museum of Science and Industry

5700 S Lake Shore Drive  
Chicago, IL 60637

<http://www.msichicago.org/>

(\$18.00/person)

### **Navy Pier**

600 E Grand Avenue  
Chicago, IL 60611

<http://www.navypier.com/>

(Amusement rides, boat rides, IMAX Theater, restaurants and ship cruises)

### **The Oriental Institute**

1155 E 58<sup>th</sup> Street  
Chicago, IL 60637

<https://oi.uchicago.edu/>

(A museum about ancient Middle Eastern cultures)  
(Free)

### **Six Flags Great America**

1 Great America Parkway  
Gurnee, IL 60031

<https://www.sixflags.com/greatamerica>

(\$65.00/person)

### **Shedd Aquarium**

1200 S Lake Shore Drive  
Chicago, IL 60605

<http://www.sheddaquarium.org/>

(\$8.00 general admission)

### **Twin Lakes Golf Course & Recreation Area**

1200 E Twin Lakes Drive  
Palatine, IL 60074

<http://saltcreek.multisportssystem.com/page/show/6812>

(Golf and paddle boats)

### **Underground Retrocade**

121 W Main Street  
West Dundee, IL  
331-642-8274

Hours: Mon-Thurs 5PM-11PM,

Fri 5PM-1PM,

Sat 11PM-1AM,

Sun 11AM-11PM

[info@undergroundretrocade.com](mailto:info@undergroundretrocade.com)

<http://www.undergroundretrocade.com/>

(A vintage arcade)

### **Woodfield Mall**

5 Woodfield Mall  
Schaumburg, IL 60173

<http://www.simon.com/mall/woodfield-mall>

(Shopping and indoor glow-in-the-dark miniature golf)

## **Lombard Area Restaurants**

John Mark Mobley

### **Jimmy John's**

1000 N Rohlwing Road  
Lombard, IL 60148

<http://www.jimmyjohns.com/>

(sub sandwiches and lettuce wraps)

(Just walk across the street)

0.22 miles from the CoCoFEST!

### **Brauer House**

1000 N Rohlwing Road  
Lombard, IL 60148

<http://www.brauerhouse.com/>

(hamburgers just across the street from the CoCoFEST!)

### **Portillo's Hot Dogs**

635 W North Avenue  
Villa Park, IL 60181

<http://www.portillos.com/portillos/>

(Chicago-style hotdogs, Italian beef sandwiches, hamburgers, chicken sandwiches)

2.07 miles from the CoCoFEST!

### **Casey's Restaurant & Bar**

415 E North Avenue  
Lombard, IL 60148

<http://www.caseysrestaurant.com/>

(American food)

1.46 miles from the CoCoFEST!

### **Ki's Steak and Seafood Restaurant and Bar**

705 North Avenue

Glendale Heights, IL 60139

(630) 469-4757

[www.kissteakandseafood.com](http://www.kissteakandseafood.com)

(\$28 a person for lunch and \$47 a person for supper)

1.52 miles from the CoCoFEST!

## **Odds and Ends**

Message from: Len Cooper

Email Address: [lacoop715@gmail.com](mailto:lacoop715@gmail.com)

Message Subject: your location ?? And info on my old coco

I searched the website but could not find where Glenside is located. I'm 80 years old with macular degeneration. I'm fairly certain I'll never be able to resurrect my old coco. If someone in your club might be interested, please give them my email address.

Merry Christmas to you!

Message from: Randall Reid

Email Address: [randall.h.reid88@gmail.com](mailto:randall.h.reid88@gmail.com)

Message Subject: CoCo hardware

I have numerous CoCo's, hard drives, expansion ports, software, most of the past issues of rainbow and hot coco and I would love to find a new home for them. I don't want anything for them, but I am located in Ontario, Canada. I think there are at least 9 large boxes of stuff. I hate to see them end up in a landfill, but I need the space. Any ideas?

Randy

Message from: Aaron Wolfe

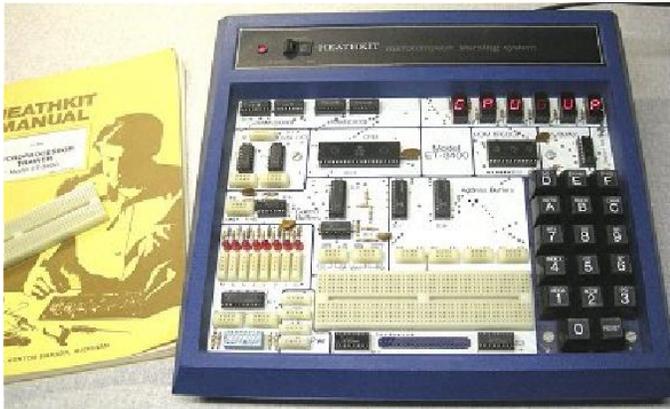
Email Address: [aawolfe@gmail.com](mailto:aawolfe@gmail.com)

Message Subject: Heathkit 3400 computer trainer

Picked up one of these 6800 based computer kits (already assembled) at a hamfest today:

It's in apparently good condition and with manual. It was going cheap so I rescued it before thinking about how unlikely it is that I'll ever have time to mess with it.

Anybody want it? I'd rather see it in the hands of an experimEnter than sitting on a shelf here. Feel free to send private email if so.



It's in apparently good condition and with manual. It was going cheap so I rescued it before thinking about how unlikely it is that I'll ever have time to mess with it.

Anybody want it? I'd rather see it in the hands of an experimEnter than sitting on a shelf here. Feel free to send private email if so. [aawolfe@gmail.com](mailto:aawolfe@gmail.com)

## CoCo: The Colorful History of Tandy's Underdog Computer

By Brian Blake

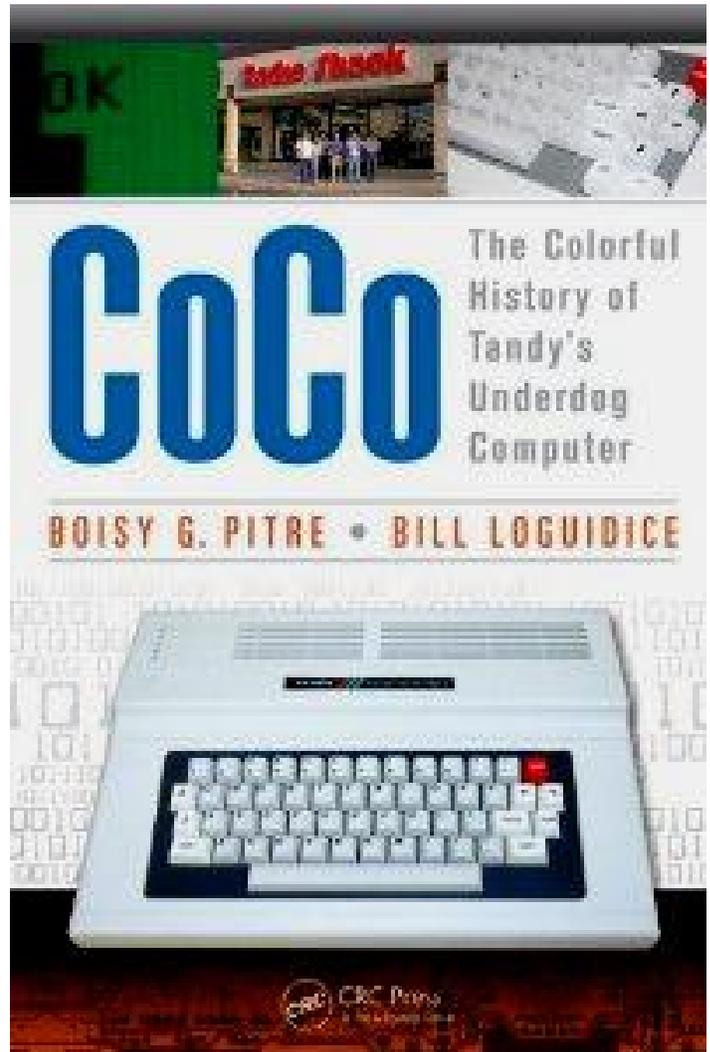
Boisy Pitre and Bill Loguidice have written a new book on the CoCo. The book for some arrived in time for Christmas.

Brian Blake

Wed Dec 25 08:09:40 EST 2013

Not sure about that Nick! I've been reading Boisy & Bill's book every spare minute I have. Almost done. Once you pick the book up, it's difficult to put it back down.

*Floppy Days* podcast host Randy Kindig interviewed the authors in Episode 12. <http://floppydays.libsyn.com/>



# **LogiCall Review for CoCoCoding Contest 2013**

**By Kip Koon, The ComputerDoc**

I have been on the CoCo List for about 2 years now, gaining much knowledge about all the changes that have taken place since I left the CoCo behind in the middle of the 1980s. When the invitation was given to everyone to review a program entry for the CoCoCoding Contest, I thought for a little while about it, not sure if I wanted to review any programs since they were mostly games. When I saw there was also a disk utility entry, I really wanted to review that one, so I jumped at the chance to give back to the CoCo Community. When asked what type of program I would like to review, I responded that I would like to review a utility program of some type. Not being sure what utilities were left, if any. I was surprised when I was offered *LogiCall*! I was very glad to get that program to review.

Before I begin the review, I thought I would share with you the history and origin of *LogiCall* as it was passed to me from Bob Swoger by way of John Mark Mobley.

## **History (by: Bob Swoger):**

Back in the early 80's, a Hoffman Estates, IL based firm, Microsystems Engineering Corporation (MEC), won a bid to provide NASA with a computer automated testing package using Fluke test equipment. When the project was finished, they turned to making an integrated software package for the Digital Equipment Corporation (DEC) PDP-11 mini computer series used by big business. Argonne and Sandia National Labs, Dow Chemical, Coopers & Lybrand, Goldman Sachs, Northern Trust, Shell Oil, Sun Microsystems, Texas Instruments, Dupont, Edwards AFB, and MOTOROLA Research were some of many worldwide users. Their user groups, Beta testers and steering committees looked like a Who's Who of Fortune 500 companies. MEC's product was called MASS-11. You didn't buy this software, you leased it. The MASS part stands for Management Administration System Software and the 11 part stands for the computer series it ran on, the DEC PDP-11. MASS-11 contained a word processor, spreadsheet, database, DRAW application and modem package along with a disk management system. Any data created could be seamlessly moved from one application to another. Later, MASS-11 was made to run on the DEC Rainbow Desk Top computer. When the IBM XT, AT and DEC VAX entered the computing arena, MASS-11 was again updated to run on those machines keystroke for keystroke, a great selling feature. Remember, hard drives back then were only 10 Megabytes! MASS-11 was menu driven requiring only 3 keystrokes to launch and manipulate any application. Microsystems Engineering and MASS-11 still exist to this day, but both original owners, Hank and Everett Karels, have passed.

Hank Karels lived two doors from me. My wife went to work for MEC - so I became familiar with the MASS-11 product. It was the high-level human interface that interested me. Having at that time a \$99 ZX81 computer, I felt that if MASS-11 could call their applications using three keystrokes, I could do it on an 8 byte microcomputer using only one keystroke. *LogiCall* was born. In 1984 *LogiCall* moved from the ZX81 to the TS2058 and Spectrum computers, all being Sinclair machines. Using the LarKen Disk Interface *LogiCall* could run on either machine, even though they didn't use the same firmware ROMs. *LogiCall* could tell which machine it was on and switch systems on the fly. I sold it in the continental US and Canada. In 1995 *LogiCall* was released to two vendors, Frank Davis in Mexico, Indiana and Rod Gowen in Oregon City, Oregon. Now John Mark Mobley and I have migrated *LogiCall* to the CoCo. Chris Hawks jumped in many times when we hit a brick wall.

## **More History by John Mark Mobley**

A couple of years ago, Phil Kwitkowski, a friend of Bob Swoger, wanted to give away his Timex Sinclair 2068 system, so Bob arranged a time for me to come and pick up Phil's system. Since *LogiCall* ran on the Timex Sinclair, Bob taught me how to use both the Timex Sinclair 2068 and *LogiCall*. Bob had plans for many years to rewrite *LogiCall* to run on the CoCo, so we began working on this project. Bob would develop the code to work on Vcc, and I would test the code on real hardware. Bob and I connected by Skype, and I could show him how the code ran on my CoCo. Christopher Hawks helped us get a directory listing with two files per line, and helped us with setting or detecting caps lock.

John Mark Mobley

## **More History by Christopher Hawks**

I merely supplied the technical know-how. If Bob or John Mark needed to know how to make BASIC do something or where something was, I could supply that knowledge. (Change keyboard entry to upper/lower case, POKE 263,255 for upper, POKE 263,0 for lower. Sometimes programs run by *LogiCall* would change the case to lower and *LogiCall* needed upper case entry to continue running.) (And I did a lot of testing.)

Christopher R. Hawks, HAWKSoft

After another phone call with Bob Swoger, I have some more historical information. The following are notes I took of Bob's comments from that conversation:

“The Spectrum computer has a syntax checker. A beginning programmer could not make a mistake writing a BASIC program that would cause a Syntax Error at run time.

Here is a sample Sinclair BASIC command line to save a file.

RANDOMIZE USER 100: SAVE “filename.ext” LINE 600 <Enter> - That’s a lot of key strokes. Wouldn’t pressing <S> save a lot of typing? That was the reasoning behind *LogiCall*’s creation. Necessity is the mother of invention, Laziness is the father. Therefore *LogiCall* was born.

As a young engineer, I began searching for lost endings of old sayings.

“Beauty is only skin deep, but ugly is to the bone.” (Red Foxx)

“Necessity is the mother of invention, Laziness is the father. “

“There’s more than one way to skin a cat, but only one way so as the holes don’t show.”

Engineering Quotes:

“There is nothing more permanent than a temporary installation.” (Robert Loving)

“The pressure on an object applied by a soldering iron is inversely proportional to the heat of the iron.” (George Hawkins)”

Thus endeth the history lesson. I thought that it was very interesting to find out about how *LogiCall* came to be created. I’m always interested in what spurred on the ideas and beginnings of computer products both hardware and software. Now on to my experience learning about, using and ultimately writing a review of *LogiCall*.

This version of *LogiCall* has been in the making for 18 years since it was first shown at a Glenside Color Computer Club meeting. *LogiCall* is actually an ensemble of many programs. L.BAS is the main program. John Mark Mobley wrote MOVE and FORMAT for both CoCo and DriveWire. Chris Hawks would fix any problems that arose. If it couldn’t be found in the manual, they’d ask Chris. Function routines and a POKE to change keyboard to all caps are but few of the many things Chris helped with. Chris would write routines for the functions that Bob needed to replace Sinclair keywords missing in CoCo BASIC. Bob didn’t compile *LogiCall* into machine code because BASIC is just the right speed to run *LogiCall*. Also, he wanted to allow the user to make modifications to the programs on his own.

## **My Introduction to *LogiCall***

As soon as I downloaded *LogiCall*, I began to read its documentation file (Manual). I really don’t know why, but after reading the entire Manual, I could not wrap my head around how to use *LogiCall* at all and understand how the program worked. Now normally I’m very intuitive when it comes to figuring out software, but this time, I was stumped. I could not get it to boot up on XRoar with the Becker port activated no matter what I did. I had DriveWire 4 Server running so it should have come up running but it didn’t.

So I sent out an email to all three programmers who had a hand in its creation including the original author who got back with me with very helpful responses. Thank you guys. The original author of *LogiCall* for the TIMEX/Spectrum TS2068 computer, Bob Swoger, wanted to call me to help me through understanding the program, so I gave him my phone number and we chatted for quite a while about his background and how he came to create *LogiCall*. I wish I had a recording of that conversation. Bob is a very interesting man to talk to. Since I did not record the conversation, I will just include pertinent parts of our conversation to the best of my memory as we go through this review.

Before our conversation, there were so many files in the *LogiCall* zip file to figure out that I did not know where to begin. So now that I have received a guided tour of *LogiCall* from the original Master Programmer of the Spectrum version, I will attempt to pass on to you all the information that Bob Swoger gave to me.

## **First we went through the setup for Vcc.**

1. The MultiPak Interface (MPI) must be inserted into the cartridge port slot.
2. The MPI Slot 4 must have the FD-502 Floppy disk controller cartridge pak installed.
3. The MPI Slot 3 must have the Hard Drive plus the Cloud9 RTC (Real Time Clock) installed.
4. The MPI Slot 2 must have the Orchestra-90 Cartridge pak installed.
5. The MPI Slot 1 can be left empty.
6. FD-502 Drive 0 must have the disk image BasicA.DSK inserted.
7. FD-502 Drive 1 must have the disk image BasicB.DSK inserted.
8. FD-502 Drive 2 must have the disk image BasicC.DSK inserted.
9. FD-502 Drive 3 must have the disk image BasicD.DSK inserted.
10. The FD-502 Configuration must have:
  - a. The RGB DOS must be selected.
  - b. Persistent Disk Images must be checked.
  - c. The Clock at 0xFF50-51 must be checked.
11. The HD Drive should have the NitrOS-9.vhd file inserted.

12. Under menu item "Configuration > Config > Vcc Options > CPU tab", these options should be selected.
  - a. 8192KB of RAM
  - b. A 1.788 MHZ clock rate
  - c. The Hitachi HD6309 CPU
13. Under the Display tab the RGB option should be selected.
14. Allow Resize should be checked.
15. Under the Keyboard tab > Keyboard Mapping pull down menu, select Basic to allow the <F1> key to work. The Keyboard layout of Vcc is changed from the original CoCo layout to match as much as possible the layout of the typical IBM PC compatible keyboard of today.
16. All other settings can use their respective defaults.

Now power cycle your virtual CoCo 3 and *LogiCall* should load and run automatically. The first file saved to the disk determines the disk's name, so don't save L.BAS (the main *LogiCall* program) to the floppy disk first. Instead, first install the program with the name you wish to also name the disk.

If you are running Vcc or DwiseWire then at the Drive? prompt you can control whether or not you have floppies or virtual floppies in your system set-up. You can turn on hard drives 0 thru 3 by entering ON. You can also turn your floppies on by entering OFF0 thru OFF3.

The following picture is the initial boot screen.



I really like the rich blue color for the background. Bob said that long ago people had discovered that this scheme was the most comfortable for your eyes.

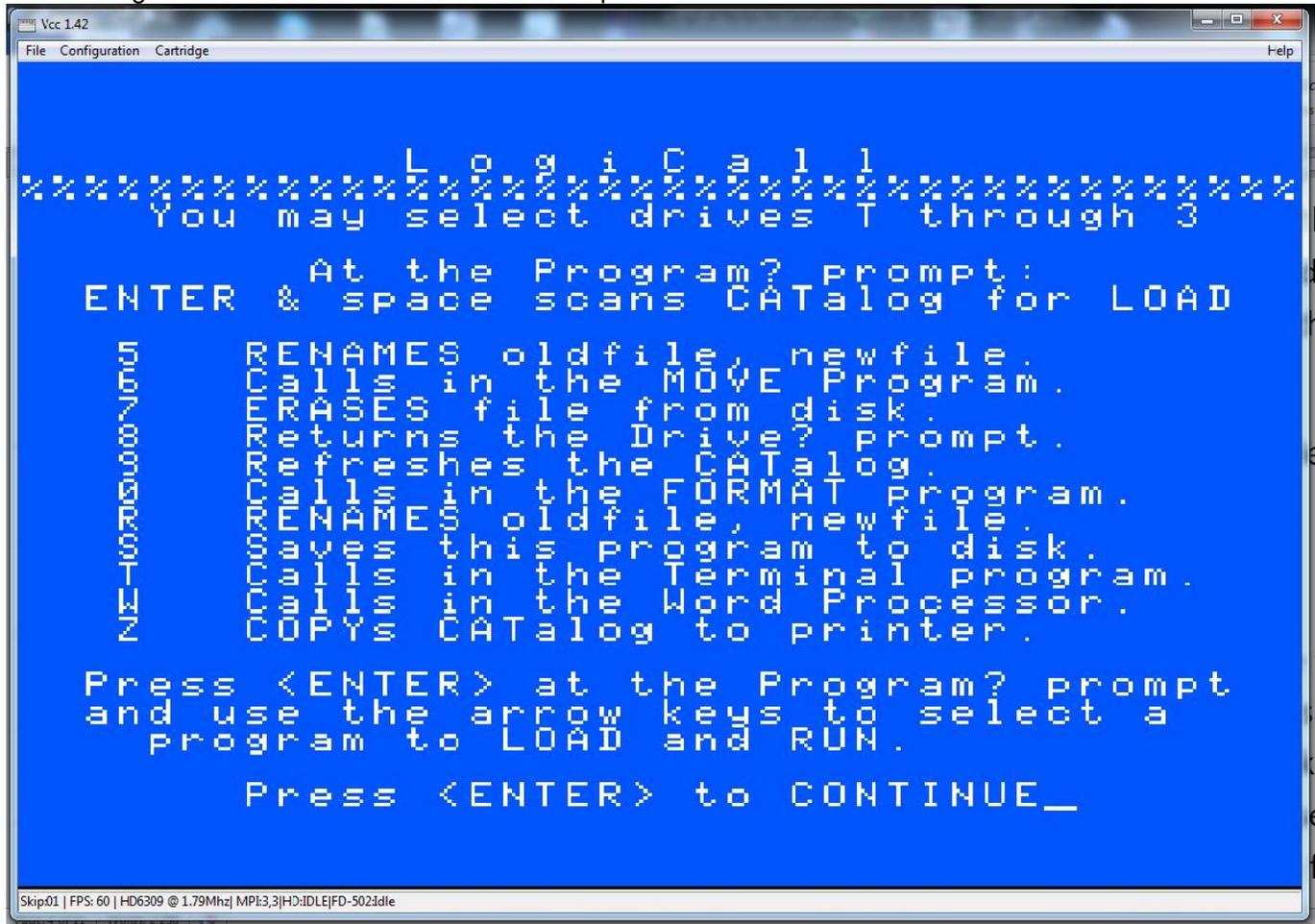
*LogiCall* first asks what drive you wish to see. Once you enter the drive number *LogiCall* puts that disk's CATalog on the screen and next asks you for a program to run (or command to execute). More on this later. You will immediately notice that *LogiCall* booted to Drive 3. Bob said that he liked coming up on Drive 3 initially so as to not accidentally corrupt important files on Drive 0, his *LogiCall* install disk. After using *LogiCall* for a few days, I think I am beginning to see why. Most important programs tend to like to live in Drive 0, so having *LogiCall* boot to Drive 3 makes sense to me. Upon booting the CoCo, the AUTOEXEC.BAS file on VHD Drive 0 executes the high speed POKE, installs the 4 virtual floppy drives and sets the system pointer to virtual floppy Drive 3.

*LogiCall* itself is only 3 granules, so it can be put on just about any disk you like. Bob explained that *LogiCall* (L.BAS) should be saved on each and every populated disk. Again, since the disk name is picked up from the first file in the CATalog, don't save L.BAS to the disk until the main program is first installed. *LogiCall* always comes up listing just BASIC programs on the current drive, so if there is a Binary file or any other file type for that matter, just press the <V> key, which stands for Verbose, and all files on the disk will be displayed. Press the <B> key to return the Brief CATalog.

Most of the "Program?" prompt commands also work at the "Drive?" prompt. When I first started using *LogiCall*, I thought I could only use drive numbers. Not true! I can use just about all the single letter commands also. "T" is one exception. At the "Drive?" prompt "T" calls the Tape Drive. At the "Program?" prompt "T" calls the Terminal program.

At the "Drive?" prompt, to change to another drive, just press the <0>, <1>, <2>, <3> or <T> keys and the system pointer will point to that drive and display its contents or in the case of <T> will list the programs on the tape. In fact, all the controls for this program are only single keystrokes! One key followed by <Enter> and that function takes place immediately! To display the programs on a cassette tape, just press <T> and the "Play Tape" prompt appears in the middle of the screen. The program then waits for you to begin playing a program or data tape on the cassette recorder.

If the numbers 1 through 4 or 10 through 255 are entered at the "Program?" prompt, the system pointer points to that drive and its CATalog is displayed. The keyboard numbers 5 through 0 were used in the *LogiCall* for the Sinclair long before a CoCo version was ever developed.



One of the first functions Bob showed me was the Help Screen, there are 2. The first Help screen is shown above. You get the Help screen using <H>, <?> or <F1> and <Enter>.

I immediately saw something strange. The key <7> erases a filename. Huh? So I asked Bob, "Why? That doesn't make any sense." He said that the Timex TS2058 and Spectrum computers have all the BASIC commands printed on every single key of the keyboard and ERASE is printed on the <7> key. *LogiCall* is keystroke for keystroke compatible on both the Sinclair and the CoCo as was MASS-11 on all the machines it ran on. He said it was impossible for a beginner to miskey any command, because the Sinclair had a syntax checker that wouldn't allow the user to enter a bad line of code. Of course having all the keywords printed on the key caps helped the new programmer and saved extra typing too. In fact every key on a Sinclair has five or six separate functions! I said, "Oh, that makes a lot more sense." So he set out to show me what every single letter command in the HELP file did in *LogiCall*.

## RENAME

So, to rename a file on the current disk press the <5> key or <R>, and the "RENAME Old? " prompt appears. Enter the old filename, press <Enter> and the "New? " prompt appears. Enter the new filename and press <Enter> to complete the operation. (He had me rename L.BAS to L2.BAS)

## ERASE

At the "Program? " prompt, pressing the <7> key or <E> will display the "ERASE? " prompt. Entering a filename and pressing <Enter> will immediately erase that program file from the current disk. (He had me erase L2.BAS. Wow *LogiCall* was no longer in the disk. What is he doing?)

## Saving *LogiCall*

At the Drive? or Program? prompt pressing <S> will save the *LogiCall* program itself to the current disk with the filename "L.BAS". (L.BAS reappeared in the CATalog. The disk was now back in the state it was in before we called RENAME and ERASE. WOW)

## Drive?

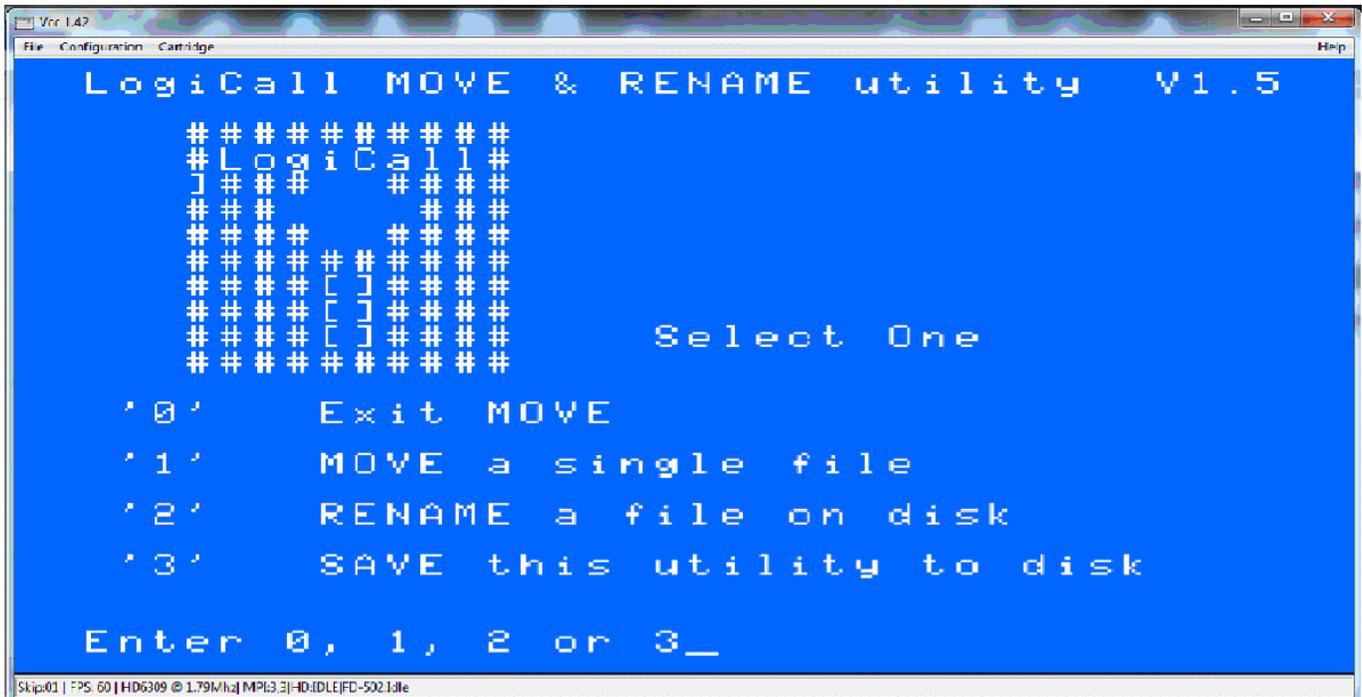
If you press <Enter> at the "Drive?" prompt like I accidentally do so many times, pressing <8> or <D> at the "Program?" prompt will return the "Drive?" prompt instead of having to execute a program just to get back to the "Drive?" prompt. You can also just press the <End> key in Vcc or <Q> or the <Break> key on a real CoCo to halt the program, then just enter the "RUN" command to begin *LogiCall* once again to return the "Drive?" prompt. Typing ON or OFF3 will turn the real or virtual floppies off or on when using Vcc or DriveWire. (*The disk name will not update until you change drives.*)

## CATalog

At the "Program?" prompt pressing <9> or <V> displays the CATalog or directory of the current disk, so basically it refreshes the CATalog display.

## MOVE

At the "Program?" prompt, pressing the <6> key or <M> calls in the MOVE program. The Move Utility gets loaded into BASIC's program memory replacing *LogiCall*. Within the Move Utility program, you can move a single file from one drive to another drive by entering <1> or <M>, rename a file on a disk by entering <2> or <R>, and save the Move Utility to disk by entering <3> or <S>. To exit back to *LogiCall*, enter <0> or <E> and *LogiCall* is loaded back into BASIC's program memory. Here is the MOVE & RENAME Utility screen.



## FORMAT

At the "Program?" prompt pressing <0> or <F> calls into BASIC's program memory the FORMAT program replacing *LogiCall* just like the MOVE program did. You can format a new disk by pressing <1> or <F>; to copy an entire disk to another disk press <2> or <C>; save the FORMAT program to the current disk press <3> or <S>.



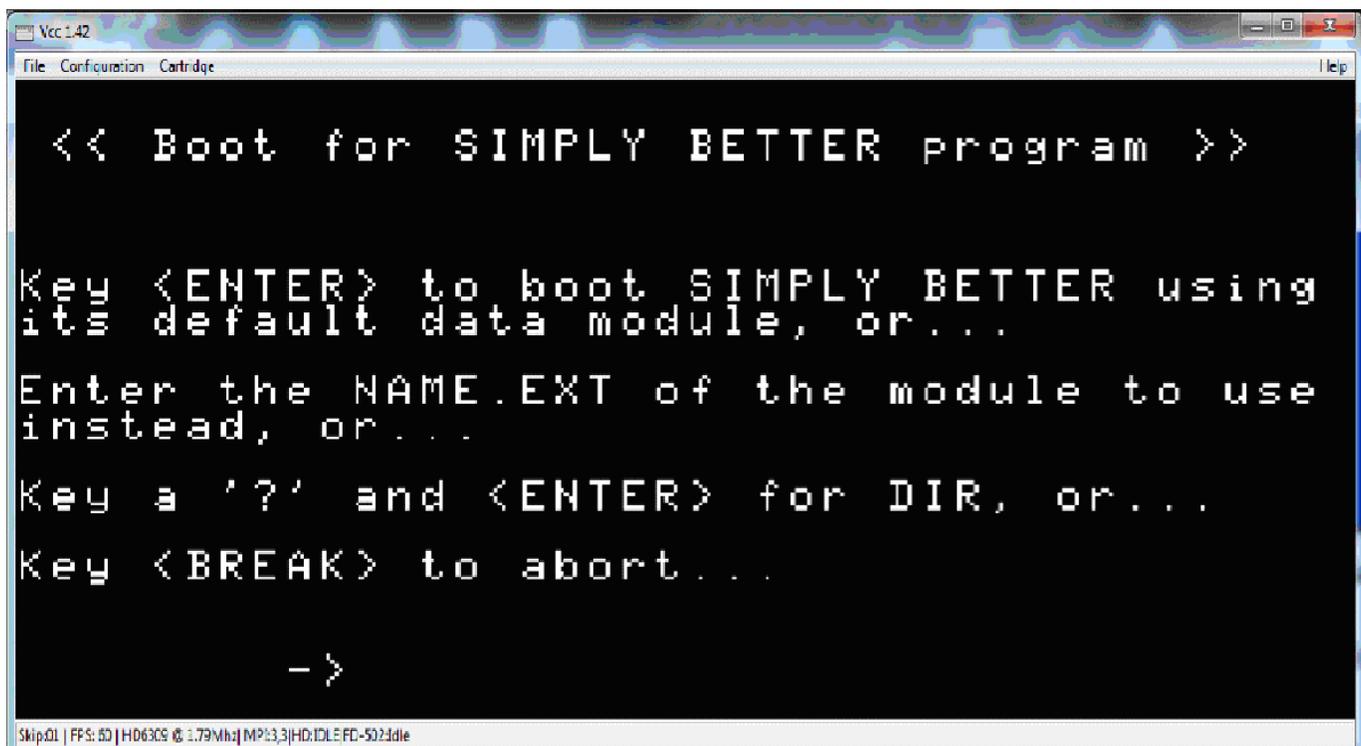
To run a terminal application, press <1> or <R> and the terminal application will load into memory. *LogiCall* defaults to loading "V-TERM Terminal Emulator". To SAVE downloads to disk press <2>; to save this terminal application launching program to disk press <3>. To exit V-TERM, press <Alt> and <Q> together, or if QUIT is highlighted with a black background press <Alt> and <Enter>.

### Word Processing

At the "Program? " prompt, pressing <W> will call the Word Processing Application launching program into memory. Its screen is shown below.



Pressing <1> will launch the Simply Better program into memory. <2> will save a document to disk and <3> saves the Word Processing Application launching program to the current disk. The Simply Better boot screen is shown below.



Pressing <Enter> will boot Simply Better with its default data module, or enter the NAME.EXT of the data module to use, or press <?> and <Enter> for a directory. A directory is shown below. You will notice the directory of drive 50 is being shown.



Pressing <Enter> returns to the Simply Better boot screen. And finally, pressing the <Break> key aborts. Entering RUN"L returns to *LogiCall*. Unfortunately I do not know the difference in the different data modules beyond what the filenames imply. If there is ever an opportunity in the future to expand this review to include more detail, the differences in these data modules can be explored.

### Printing the CATalog

Pressing the <Z> key displays "Printing..." at the bottom of the screen letting the user know the CATalog is being sent to the printer. Place the printout in the disk sleeve with the disk for future reference.

### Adding (Creating) AUTOEXEC.BAS

Before *LogiCall* the user had to create his own AUTOEXEC.BAS file. *LogiCall* practically writes it for you. Pressing the <A> key adds the "AUTOEXEC.BAS" file to the current disk. Typing "LIST" instead of "RUN" in the prompted AUTOEXEC creation sequence allows the user to modify the small AUTOEXEC program. After your modifications, type "RUN" to save the new AUTOEXEC.BAS program to the current drive.

### Activate AUTOEXEC.BAS

If AUTOEXEC.BAS is on the current drive, pressing the <N> key for NEW activates the AUTOEXEC program which among other things re-launches *LogiCall* as if you had just powered on your CoCo or booted Vcc.

### Brief CATalog

Pressing the <B> key displays a brief CATalog. In other words, only BASIC program files are listed. This is the default display mode of *LogiCall* when it first boots. Most programs written in machine code have a BASIC driver that calls a screen file and then the machine code file. It is the BASIC driver that the user can modify to provide a logical return to *LogiCall*.

### Verbose CATalog

Pressing the <V> key displays a verbose CATalog. In other words, all program files are listed.

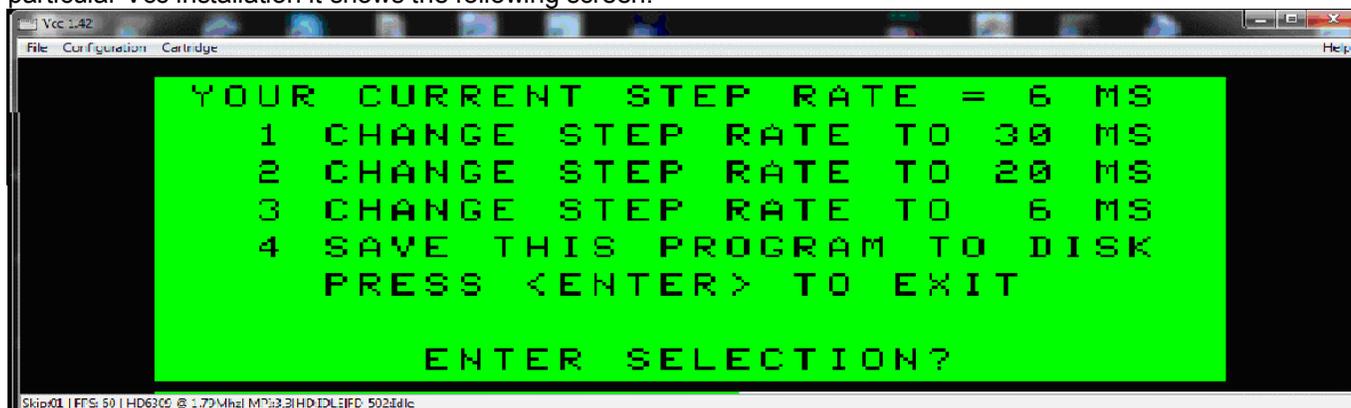
If you select a .DOC or .TXT file *LogiCall* will display the file on the screen without first calling a word processor.

If you select a .BIN picture file, *LogiCall* will display it on the screen without first calling a picture displaying utility. Picture files can be found starting at disk 200 when using Vcc.



## STEPRATE.BAS

STEPRATE.BAS allows you to change the head step rate of your floppy drives. When I run STEPRATE on my particular Vcc installation it shows the following screen.



As you can see, pressing <1> changes the step rate to 30 milliseconds, <2> changes the step rate to 20 milliseconds, and finally <3> changes the step rate to 6 milliseconds. Pressing <4> saves the program to the current disk. Pressing <Enter> exits the program and returns to *LogiCall*. Pretty simple, huh? ☺

### Summary (by Bob Swoger)

Ever hear your floppy drive chatter when loading in a program? This is because Floppy Drive Controllers are programmed for a 30 ms head step rate. The later drives could handle 6 ms or less for faster load time. STEPRATE.BAS allows the user to change the head step rate to match the drive. The result is NO MORE DRIVE CHATTER and faster read and write speed.

## DISKS.BAS

The DISKS.BAS program is considerably more complex. Think of this program as a file card box. It holds a catalog of 40 cards (BOXes of disks - 0 thru 39) with 10 disks per box with notes on the right.

### Summary (by Bob Swoger)

DISKS allows the user to peruse up to 400 program files to find their location on your now 256 sectors of your virtual hard drive. It was the need for this program with today's Vcc and DriveWire's VHD both with 256 drives that showed us at Glenside that there was a new need to locate programs. The TAPES version handles 800 tapes with no notes.

After creating a new disk you add the information about that disk in this file so that you can find it again in the future. Remember the old saying; "The job is not finished until the paperwork is done." DISKS was created to help you fulfill that need. The initial screen showing Box 0 is shown below.



Entering a two digit number goes directly to that box number. There are some special cases though. Pressing <0>, <4>, <5>, <6>, <7>, <8> or <9> for box 0, 4, 5, 6, 7, 8 or 9 respectively is automatic, the box is immediately displayed. Pressing <1>, <2> or <3> requires the user to press <Enter> afterwards. This is because 1, 2 or 3 is waiting to see if you want to press yet another number to call boxes 10 to 39.

**<B>ack or <R>everse or <left-arrow>**(Back to previous lower box number)

**<N>ext or <F>orward or <Space> or <right-arrow>** (Next higher box number)

Although the menu at the bottom of the screen does not show it, <B> or <R> or <left-arrow> go to the previous lower box number, and <N> or <F> or <Space> or <right-arrow> goes to the next higher box number. If you are at Box 39 and press <N> or <F> or <Space> or <right-arrow>, the program will go around to the beginning of the list and display Box 0! As you might expect, if you are displaying Box 0 and press <B> or <R> or <left-arrow>, then Box 39 is displayed! The program does not bomb out!. Good Work Guys! You thought of everything.

As an example of how to use this program, let us imagine you want to find V-Term, the Terminal program. From *Logically* on Disk 3, press <Enter> three times. BOX 0 of DISKS is displayed, Press the <Space> bar until you see V-TERM (in BOX 7). The note to the right says the program is on Drive 49. Press <Q> and DRIVE 3 is displayed. Enter 49 at the Drive? Prompt and <Enter>. Press <Enter> three times and V-TERM is now running.

Now to "Do the Paperwork". Maintaining the information in these 40 boxes is what the short menu at the bottom of each for is for. You can Add, Delete or Move information to any slot in the 40 boxes. It is a little tricky at first but gets easier the more you use it.

### HELP Screen

**<H> or <?> or <F1>**

Pressing <H>, <?> or <F1> displays DISKS Help screen which is shown below.



As you can see there is sometimes more than one key that can be used to accomplish a function. Pressing <Enter> takes you back to the Main DISKS display screen showing the current Box number.

**nn** (two digit box number 0 - 39) takes you to the desired box.

### **<A>dd or <+>** (Add entry into a slot)

Pressing <A> brings up the prompt "ADD MODE – SLOT(1 – 20) ?" and then the user enters a slot number 1 through 20 and then presses <Enter> indicating into which slot the user wishes to enter data. The DISKS program then displays the "TITLE?" prompt, then the user enters the title of the disk for that slot in the current box and presses <Enter>.

### **<D>elete or <-> or <7> or <0>** (Delete entry in a slot)

Pressing <D>, <->, <7> or <0> enters the delete mode with the prompt "DELETE MODE – SLOT(1 – 20) ?". The user enters a number 1 – 20, then <Enter> and the data in that slot is deleted.

### **<M>ove or <6>** (Move slot data from a slot in the current box to a slot in another box (or the same box))

Pressing <M> displays the prompt "MOVE FROM SLOT(1 – 20) ?". The user enters a slot number and presses <Enter>.

The prompt "DELETE FROM OLD SLOT (YN)" is displayed and the user responds with <Y> to delete the data in that slot or <N> or <Enter> to leave the data unchanged.

Then the prompt "MOVE TO WHAT BOX (0 - 39)?" is displayed. The user enters the box number for the box the user wishes the data to be entered into and presses <Enter>. If a number is not given *LogiCall* assumes you want the current box.

The prompt "MOVE INTO SLOT (1 – 20) ?" is displayed and the user enters the slot number to receive the data and the data is automatically entered into that slot.

## **Printing**

### **<C> or <K> or <L> or <V>**

Pressing <C>, <K>, <L> or <V> will print the entire database from Box 0 – Box 39.

## **Copy**

### **<P> or <Z>**

Pressing <P> or <Z> copies the screen to the printer. If using Vcc, printing works by activating the bit-banger port and opening a text file for the printout to be stored. After the printout, the program returns back to the current box.

## **<U>pdate – Update Drive Pointer**

Pressing <U> will display "Drive?" in the middle of the screen. The user enters the desired drive number to change to in order to save another or separate copy of the program and database file on the new desired drive. You can also turn on hard drive drives 0 thru 3 by entering ON. You can also turn your floppies on by entering OFF0 thru OFF3.

## **<S>ave**

Now, last, but definitely not least, pressing <S> displays "Saving on Drive 3" which saves all of DISKS database information and the DISKS.BAS program itself to the current drive, which was the drive I was on when I started the DISKS.BAS program in the first place. Don't forget to save all your data changes. If you quit DISKS.BAS without saving, then all your changes are gone and you have to make your changes all over again!

## **<E>xit**

Pressing <E> saves the entire database file and the program DISKS.BAS to the current drive and exits the DISKS program and returns to *LogiCall*.

## **<Q>uit**

Pressing <Q> just quits the DISKS program without a save and returns to *LogiCall*. All changes are lost.

## **TAPES.BAS**

TAPES.BAS operates exactly the same as the DISKS.BAS program since all the controls are exactly the same. The only difference is you store 20 tape names in the 20 slots in each box for a total of 800 tapes instead of 400 disks with notes.

This completes the review of all the commands of the *LogiCall*, STEPRATE, DISKS and TAPES programs. I will be using *LogiCall* quite bit in all my DECB only installations, both emulators and real CoCos, as much as possible. It really saves a lot of time! Of course I will not be able use it for NitroS-9 since it is written in Disk Extended Color Basic and cannot read NitroS-9/OS-9 formatted disks. Of course maybe the *LogiCall* programming team might create a NitroS-9 version some day, but hey, this is definitely my own speculation. I do not have any knowledge of such an undertaking at this time, but who knows...

There is so much information in *LogiCall* to review. Since this has to be typeset tomorrow, I must put this to bed.

**Further Information about *LogiCall*** (given to me by John Mark Mobley from YouTube.)

The link for an excellent introductory video of *LogiCall* by Bob Swoger himself on YouTube follows along with the caption listed below the video. The history portion has been integrated into the beginning of this review.

[http://www.youtube.com/watch?v=f-R4UfU9\\_Cw&feature=youtu.be](http://www.youtube.com/watch?v=f-R4UfU9_Cw&feature=youtu.be)

This is a glance at the *LogiCall* operating system as part of the Vintage Computer Festival Midwest Version 6.0 and Emergency Chicagoland Commodore Convention held on Sept. 24-25, 2011 in Lombard, IL. The computer used in the video is a Timex/Sinclair TS-2068 computer running *LogiCall*. *LogiCall* is an Operating System (written in Cambridge BASIC) that provides disk management and program selection from the disk catalog/directory. The program is written by Bob Swoger of ---GATOR--- Software Development.

Information on various computers mentioned in this review in no particular order:

- [http://en.wikipedia.org/wiki/Sinclair\\_ZX81](http://en.wikipedia.org/wiki/Sinclair_ZX81)
- [http://en.wikipedia.org/wiki/Timex\\_Sinclair\\_2068](http://en.wikipedia.org/wiki/Timex_Sinclair_2068)
- [http://en.wikipedia.org/wiki/ZX\\_Spectrum](http://en.wikipedia.org/wiki/ZX_Spectrum)

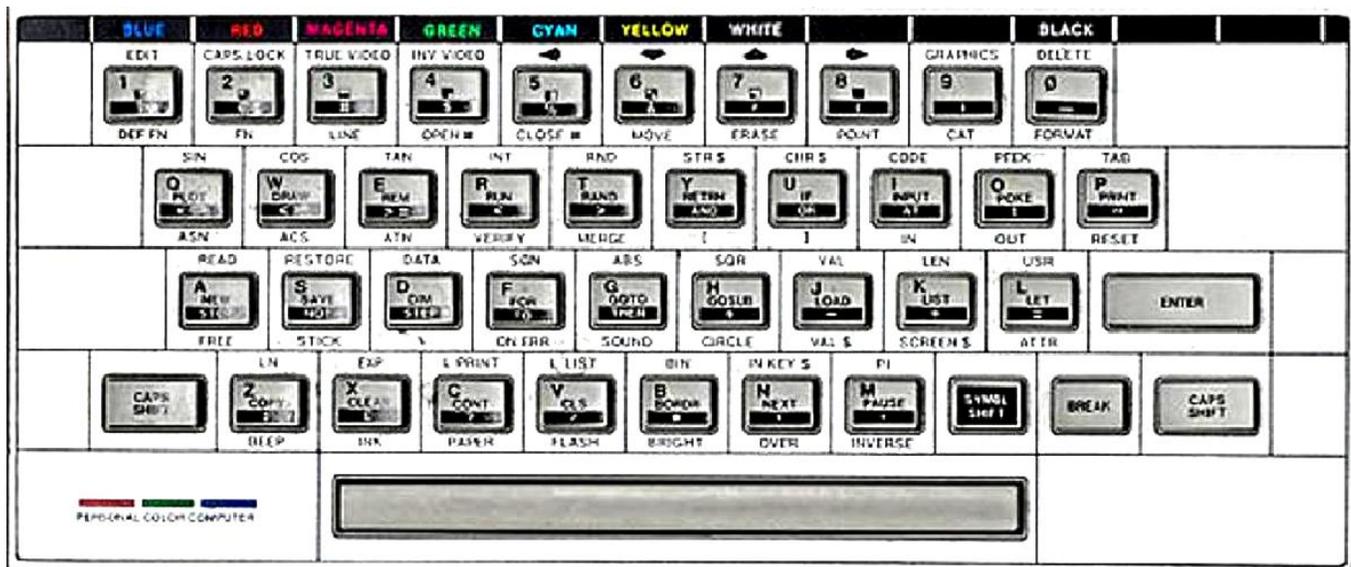
For further information about the Timex/Sinclair TS-2068, access the following link.

[http://en.wikipedia.org/wiki/Timex\\_Sinclair\\_2068](http://en.wikipedia.org/wiki/Timex_Sinclair_2068)

Many thanks go to Bob Swoger, John Mark Mobley, Christopher Hawks and Aaron Wolfe for all their help without which this review would not have been possible.

Personally, I think John Mark and Chris did a lot more than they let on in the histories they provided. I know Bob Swoger did for sure. Writing a comprehensive software package and testing that package requires a lot of work, not to mention converting that software package to run on other sometimes dissimilar computing platforms. In order to create a cohesive software package like this much research, planning, coding and testing, not to mention more research, more coding, and more testing go into a big project like this. The cycle continues until you feel you have included everything you wanted in your creation. Once you feel it's complete, then you allow others to do alpha testing and beta testing until ultimately a final version of the software package is released, hoping people will like it.

Check out this collection of programs for yourself. You just might be glad you did. I know I am. I hope this review has given you some idea of what *LogiCall*, STEPRATE, DISKS and TAPES can do for you. Happy **LogiCalling** on your favorite computer – The Great and Mighty Color Computer 1, 2 & 3! Qaplah! StarFleet Out. End Transmission. ☺



Above is a Timex/Sinclair TS-2068 keyboard which explains the choice of key selection used in *LogiCall*. Note that some keys select as many as 6 different functions.

In the BELFRY directory are many files that allow the user to modify files for *LogiCall* or for any other reason you desire using the utilities in ToolShed. A partial menu of these batch calls is provided. Files beginning with “move” move edited files from the Files directory to the virtual floppies. Files beginning with “rtrn” return files from the virtual floppies back to the Files directory. Viewing these batch files will show you how to create others.



**Here are the 5 "W's"**

- WHO?** 1) Glenside Color Computer Club, Inc. PRESENTS
- WHAT?** 2) The 23rd Annual "Last" Chicago CoCoFEST!
- WHEN?** 3) April 26 & 27, 2014  
(Sat. 10 am-5 pm; 8 pm-11 pm; Sun. 10 am-3 pm)
- WHERE?** 4) Fairfield Inn & Suites Lombard  
645 West North Avenue  
Lombard, IL 60148  
(Near the intersection of IL-355 and North Avenue)  
*(Same location as 2013!)*
- Overnight room rate:**  
\$79.00 plus 11% tax (\$87.69 Total)  
Call 1-630-629-1500 for reservations.  
You must ask for the Glenside "CoCoFEST!" rate.  
>>> YOU MUST REGISTER UNDER "CoCoFEST!" <<<  
>>> TO GET THIS RATE <<<
- WHY?** 5) A. To provide vendor support to the CoCo Community  
B. To provide Community support for our CoCo Vendors  
C. To provide educational support to new users.  
D. TO HAVE AN OUTRAGEOUSLY GOOD TIME!!!

And now, the "H" word.  
**HOW MUCH?** All Attendees - General Admission  
 Saturday & both days: \$5.00 1st - \$5.00 2nd & more  
 Sunday Only: \$5.00 1st - \$5 2nd & more  
 \*\*\*\*\* Children 12 and under - FREE \*\*\*\*\*

For further information, general or exhibitor, contact:  
**Tony Podraza, GCCCI**      **Robert Swoger, GCCCI**  
 847-428-3576, VOICE      630-837-7957, VOICE  
 tonypodraza@gmail.com      rswoger@aol.com

## Calendar of Events

by  
 John Mark Mobley and Salvador Garcia

- Saturday, & Sunday April 5-6, 2014  
 Vintage Computer Festival East (VCF East)  
 Wall, New Jersey, USA  
 Link: <http://www.midatlanticro.org/>
- Sunday April 6 to Monday April 14, 2014  
 MSI Robot Block Party!  
 Museum of Science and Industry  
 Chicago, IL, USA  
 Link: <http://www.nationalroboticsweek.org/events.php>
- Thursday April 10, 2014  
 7:00 PM to 9:45 PM CST  
 Glenside Color Computer Club, Inc. Business Meeting  
 Schaumburg, IL, USA  
 Premium Skype access available via: john.mark.mobley
- Saturday, & Sunday April 26-27, 2014  
 The 23rd Annual "Last" Chicago CoCoFEST!  
 Lombard, IL, USA  
 Premium Skype access available via: john.mark.mobley  
 Link: <http://www.glensideccc.com/>  
 Link: <http://www.glensideccc.com/cocofest/index.shtml>
- Saturday May 3, 2014  
 Maker Faire  
 Carl Schurz High School  
 3601 N. Milwaukee Ave  
 Chicago, IL 60641, USA  
 Link: <http://makerfairechicagonorthside.com/>  
 Link: <http://www.schurzhs.org/>
- Saturday, & Sunday May 3-4, 2014  
 Vintage Computer Festival Southeast (VCFSE)  
 Roswell, Georgia, USA  
 Link: <http://athcs.org/>  
 Link: <http://www.vintage.org/2014/southeast/>
- Monday May 12, 2014 (*note date change from Thursday*)  
 7:00 PM to 9:45 PM CST  
 Glenside Color Computer Club, Inc. Business Meeting  
 Schaumburg, IL, USA  
 Premium Skype access available via: john.mark.mobley
- Thursday June 12, 2014  
 7:00 PM to 9:45 PM CST  
 Glenside Color Computer Club, Inc. Business Meeting  
 Schaumburg, IL, USA  
 Premium Skype access available via: john.mark.mobley
- Tuesday, July 22, through Sunday, July 27, 2014  
 KansasFest 2014, APPLE II FOREVER  
 Rockhurst University in Kansas City, Missouri, USA  
 Link: <http://www.kansasfest.org/>
- Be sure to visit our Website to see up to date information on upcoming events.

# The 23rd Annual "Last" Chicago CoCoFEST!



BEFORE & AFTER

2014 CoCoFEST!

Proudly Presented By  
The Glenside Color Computer Club  
Fairfield Inn, Lombard, Illinois

Saturday 26 April 2014, 10:00AM to 5:00PM  
Saturday Evening Social 8:00PM to 10:00PM  
Sunday 27 April 2014, 10:00AM to 3:00PM

Heron Point Building  
(Next to Fairfield Inn & Suites)  
Basement/Lower Level  
665 West North Ave.  
Lombard, Illinois 60148  
Hotel Phone: 1-630-629-1500



Tandy Color Computer 3 (CoCo)

The CoCoFEST! is a festival centered around the Radio Shack Color Computer and other 6809-based hardware and operating systems.

Other 8-bit computers and operating systems are welcome.

The festival is hosted by the Glenside Color Computer Club, Inc.

Admission for the two day event is \$5.00. Parking is free!

Tony: 1-847-340-1801, Bob: 1-630-837-7957

[glensideccc.com](http://glensideccc.com)