UpTime

The newsletter for: RS-DOS, OS9, OSK, CoCos, and 68xxx's.

Volume 1, Issue 11 July 1993

Overview

This month brings more news on two hot topics in the CoCo Community, both in the Rocket project from Burke & Burke and the new status of the OS-9 Users Group.

As you may have read last month, the OS-9 Users Group had been handed over to a new president, Jim DeStefano, from the previous officers because of a conflict between their jobs (at Microware) and the product that the group supports (namely OS-9 and OSK, both produced my Microware). From the information I gathered, Jim had previously tried to publish his own newsletter/magazine which ended up failing. Many people on the networks felt as though Jim tried to use the user group's newsletter, MOTD, as a new attempt to run a publication. Eventually it did not live up to his expectations in one way or another, so he decided to totally disband the group. In so doing, he returned member's dues by way of checks from his own personal checking account. Now, first off, I don't think

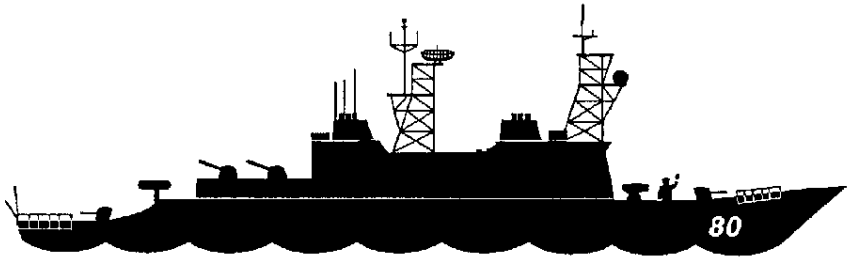
Overview cont'd, page 2

In this issue...

Overview 1
Editorial 1
Classifieds 16
Life on the Internet . . . 7
Pipeline 10
TidBits 8

The Users Group Battle Continues...

AUG 93



Guest Editorial

From One CoCoist to Another

Most of us have heard about the flooding along the Mississippi River. People in eight states (is memory serves) are affected by the rains. Everyone seems to be pitching in to help those in need. In Florida, people are sending truckloads of clean water to cities and towns whose water supply has been contaminated. Citizens and tourists are also helping in whatever way they can. Even the President himself pitched in by filling sandbags. It's this kind of community love and effort that makes sad events like the flooding I just talked about a whole lot better than it might have been. True, people did lose their land and other property. But think of the people who were taken by complete strangers and helped. Words I'm sure will not express their gratitude.

It's the community spirit that brings me to talk about the CoCo community. With the largest CoCo magazine gone, third party dealers may lose a lot of sales. And, of course, the consumers will also suffer. You are probably asking yourself, "How many times have I heard this message?" The reason you have heard and/or read this type of message before is because it is an important one. We all love our CoCos. That is why we subscribe to this and other newsletters. UpTime is dedicated to the CoCo and OSK and OS-9, and so are the dealers who advertise in these magazines. It is their dedication that started the "CoCo Fire" as I like to call it. It is our job as ordinary people to feed that fire. But how? You may find yourself asking this question. Well, there are several ways of doing it. The simplest way to help the fire

Editorial cont'd, page 3

UpTime

Editor: Jordan Tsvetkoff

UpTime is published 12 times a year by **JWT Enterprises**, 5755 Lockwood Blvd., Youngstown, OH, 44512. Yearly subscription rates are $15.00, or $7.50 in two installments. Foreign orders (except Canada and Mexico) add $7.00 postage.

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Overview cont'd from page 1

anybody should include a club or group's dues in their own personal account, because it's not really their own money. In addition, it seems as though Jim wanted to run the group like his own business, which is not the way it was intended.

At any rate, if you subscribe to the "Book of Jim", the group is no more— cash your checks and move on. However, if you aren't ready to see the group go away, the group is reforming under, in my opinion, much more dedicated leadership. Carl Boll, from the club that has put together the last few Chicago CoCoFests, has announced a new address for the club:

OS-9 Users Group, Inc.
6158 W. 63rd St.
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Chicago, IL 60638

In their own words, here is how current membership fees are being taken care of:

"If you were a member during the month of July, your membership has been extended to the end of the year. You *don't need* to send in any money. We know who you are, so don't panic. I would add that if you want to send in a donation, by all means feel free to do so. Just be aware that if you send in any money, it will be considered a donation and *not* dues. Either way, you're OK until the end of the year. At that time you'll be send a renewal notice for the following year's membership.

"If you were not member during the month of July, you may become a member by sending in $25.00 US/CA or $30.00 foreign. Your membership will commence on that date (or soon thereafter)."

So there you have it. I would highly recommend that you do endorse the new group, and don't allow the actions of one individual to cast doubt on the entire group.

In other news, the Rocket project from Burke & Burke has been stalled because they have not received their quota of 100 orders. Rather than paraphrasing, here is Burke & Burke's own announcement:

"Burke & Burke received fewer than 100 orders, but orders continue to come in. In the meantime, Microware has restructured their product line, effectively discontinuing the Industrial OS9 package planned for The Rocket.

"The deadline has elapsed with fewer than 100 orders. From a 'contractual' standpoint I believe this means two things. First, anybody who 'wants out' can cancel their order; a letter will go out shortly offering this option. Second, Burke & Burke is not obligated to honor orders (although clearly if they don't they must return all deposits and prepayments).

"Burke & Burke is still very interested in producing The Rocket, and continues to work on the software. At this point, the development tools (ASM-like assembler and editor) are in early alpha testing at Burke & Burke. Work on the hardware prototype was suspended to get these tools up, and can now continue.

"The decision to go into production now depends on whether Burke & Burke can secure acceptable pricing on either Industrial OS9 or the equivalent Embedded OS9. A final alternative would be to go with Atomic OS9, but this would require a lot more software development from Burke & Burke (Atomic OS9 has no SCF, no RBF, no PIPEMAN, no utilities) and could make the project unprofitable.

"Those who have placed orders for The Rocket have demonstrated great enthusiasm and support. The CoCo and OS9 magazines, too, have been very helpful. I hope to have good news on the production decision by August 15th.

So there you have it. Next month we'll have some follow ups on these two stories and more. See you then!

- Jordan Tsvetkoff

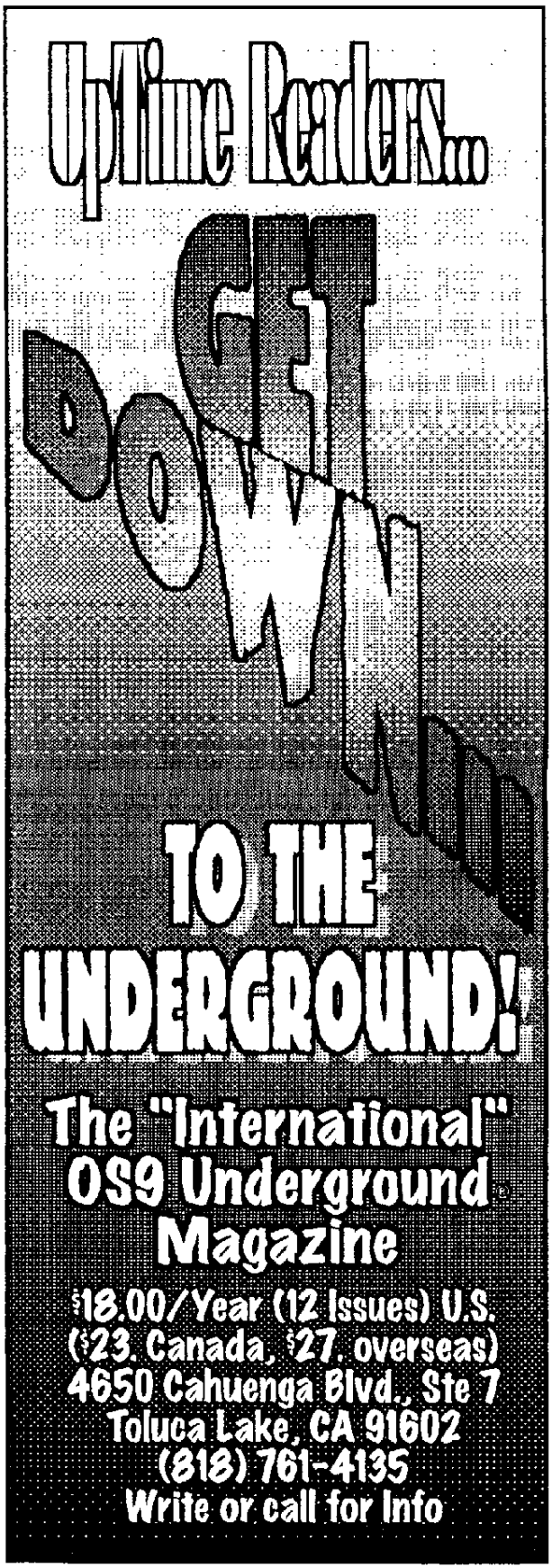
Editorial cont'd from page 1

spread is to stop pirating. There are a lot of people who get a copy of a game or other program rather than just buying it. True, copying is faster and cheaper than buying an original soft/hardware package. Yes, there are people who make hardware packages by studying and then making their own gadgets. Not only is pirating fast, easy, and cheap, but it is also illegal! "It's only a game," you may say. Several thousand people copying one game means a lot of lost revenue for the dealers affected. "So what?" Well, the money earned by the dealers is used to fund other projects. Suppose you bought a word processor and thought it was the best you had ever used, but it didn't have a built in dictionary or thesaurus. The revenue that you supplied would likely bring the changes or updates that you would want.

You know that by not pirating, you can reap the rewards. But there is more you can do. It's likely that you know some language that your computer uses. And you probably have a pretty good program of your own stashed away somewhere. Why not market it? It doesn't cost much to take out an ad in this magazine. And you can have UpTime do a review of your software too. A good word from UpTime may mean a lot for you and of course, the rest of the CoCo community.

Remember that fire I wanted you to feed? Here's a little food for thought: a big fire is powerful and hard to stop. From the great land above, so long and take care.

-Sheldon Parsons



CoCo Doctor

Now that there is no longer a source for new CoCo units and perhaps even CoCo repair, it will be very important for CoCo users to be able to fix their own computers whenever possible. This means if you love your CoCo, you had better learn how to read circuit diagrams, use simple test equipment, and solder. It will also be very important that CoCoists report to the CoCo community examples of perplexing problems and the solutions— one of mine follows.

A CoCo 3 system consisting of a Multi-Pak interface, Disto SCII controller, Kenton hard drive controller, and RS-232 Pak became increasingly unreliable. The symptoms, which were never constant, included freeze up during modem use, hard drive I/O errors (unit not ready), intermittent floppy drive motor non-response to commands, loss of disk ROM on cold start reboot (Extended Basic message), and periodic loss of everything after seeing the terrible trio graphic.

My initial thought was that some of my mods to the SCII had bad connections (I had added wire-wrap connected switches) but this proved not to be the case. Removal, independently, of the hard drive controller or RS-232 Pak from the MPI changed symptoms but did not remove all problems. Removal of the MPI seemed to prevent the appearance of problems but did not always correct them if they had already developed.

If you have never done trouble shooting of any equipment or software, let me assure you that the above is the technician's worst nightmare, an intermittent. The problem condition does not remain in effect long enough to find a source with test equipment.

The first clue to the answer was found while I was using EDTASM in the Zebug mode. All of the hard drive I/O bytes read $FF during drive malfunction. Since I had more or less (but not rigorously) eliminated the Kenton controller from consideration, I

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started thinking that the MPI slot selection (or at least access) was failing.

I had no information on the MPI circuit so I called the nearest CoCo BBS and asked for help. Within a few days, I had info on the functions of the MPI integrated circuits, history of some common repair problems, and a suggestion to check for failure of the power supply electrolytic capacitors.

The last suggestion, while not the answer, proved to be the key to the problem. Before testing the capacitors, I put a scope on the 5 volt power supply line and turned the system on. At first, the 5V supply was great— 5.03 volts DC with about .02V AC. Just as I was thinking, "There can't be anything wrong with the power!?" the supply dropped to 2.3V.

Now I knew what was happening; the MPI 5V supply was intermittent. Every time the voltage dropped, all devices plugged into the MPI went nuts! However, was the CoCo 3 supply involved or was it only the MPI?

I unplugged the MPI, installed all three Paks, and turned it on. After several minutes, the 5V supply began dropping out, but now it was dropping to 0V DC, not 2.3V.

It seems that the CoCo and MPI 5V supplies are not isolated from each other. When the MPI failed, the CoCo tried to pick up the slack. Eventually the CoCo went into with thermal or current overload and shut down. This was the condition that caused total failure immediately after the terrible trio graphic. The random flaky conditions occurred after MPI shutdown but before CoCo shutdown.

Well, how could it be fixed? The MPI power supply active components are a 723 voltage regulator, a 2N6594 PNP power pass transistor, and an MPSW01 driver transistor. The supply is rated at 5.0v 1.3 amp DC.

The voltage regulator IC is common but the transistors no longer are. Should I try a repair or scrap the parts for a 7805 5V 1.5 amp three terminal regulator?

In cases like this, I try to be sure a part is bad before going to

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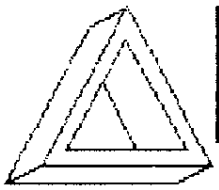

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much effort for an identical or equivalent part. Inspection of the MPI circuit board showed no bad soldering or traces, no burn marks, no visual indication of any kind for failure. I did notice that tapping the power transistor with a screw driver handle seemed to initiate power loss some of the time.

The power transistor is mounted on the board on top of a heat sink with two large screws, lock washers, and nuts. To test the transistor, I intended to remove it from the board, so I removed the not/lock washer assemblies. Here was where experience and inspiration took over with, if not a blinding flash, at least an "Aha!"

One of the three leads of the power transistor is actually the case. The surface of the case beneath the lock washers did not look quite normal for either color or luster. Could all the above trouble have been caused just by an oxidized connection?!

De-ox solution was swabbed over the case/screw/nut parts, the nuts retightened, and the voltage monitored. Finally, stable voltage— could it be this easy?! After several weeks of use, there has not been any reoccurrence of the above problems.

Those readers still using (or trying to use) a CoCo 1 should note that your unit has an almost identical power supply to the MPI. A little de-ox compound and a socket wrench might be in order. And please don't forget your local CoCo BBS. It can be a great source of help.

-Robert Gault
Member Color Computer Owners Group of Detroit, MI.

Life on the Internet

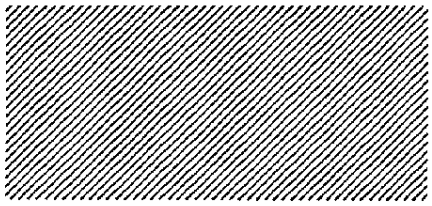
In the last installment of this column, we briefly discussed how the electronic medium is changing the way information is handled across the globe. One of the driving forces behind this change is the *Internet*, a global network of communication lines connecting everything from educational institutions to government agencies to commercial companies to private users like you and me. The Internet connects over a million computers, and that number grows exponentially each year. These computers are connected by phone lines, microwave links, transatlantic cabling, satellite uplink, and just about any other form of transmission you can think of. It's not important *how* the services are connected, but that they are all interconnected and reach each other in some way.

The Internet started as the DARPANet, which was originally conceived by the government to transfer information between various research facilities and eventually universities where a lot of government research is accomplished. Eventually, the net began to take on other job loads and blossomed into what it is today.

The original Internet, or DARPANet, specification called for an extremely high fault tolerance, or guarantee that information could be moved from one point to another, even if certain communication links failed. In attaining this goal, the designers settled on a point-to-point system, where a packet, or bundle of information, sent over the network may travel through many different links before it reaches its destination. For example, a packet (which is the basic transportation carrier on the Internet) from Arizona may travel to Missouri, Ohio, and New York before it is sent overseas to a site in Europe which transmits it via satellite to its final destination in Australia, which can take on the order of one to fiveseconds. In fact, even by using this path, a person can chat in real time with an Australian user without a significant delay in the conversation.

"Who pays for all of this?" you may ask. The major cost involved is in supporting the links between various "stations". For example, if you wanted to connect to the Internet, you need only establish a link to a university or other existing station, and from there you would be connected to all other nodes on the network. Your only cost is one line to another node. Now, if you are an isolated user, chances are only your own information would be transferred on that link. But if someone else connects to you for access, your combined traffic will be carried on the link. In fact, everyone with a link understands that not only their information but others may flow across their line, and this is the secret that makes the entire Internet possible.

-Jordan Tsvetkoff



TidBits

New CoCo BBS

There is a new CoCo BBS located in the Wellsville, Ohio, area. The telephone number of the *980 Main BBS* is (216) 532-2742, and the main SysOp is Sparky Miller. Jason Reighard is the CoCo files manager and he is looking for both CoCo and OS-9 files. There are electronic message bases for both RS-DOS and OS-9 discussions. For more information, contact *Jason Reighard, 441 Ridgeland Dr., Toronto, OH, 43964-2022.*

Address Change

Due to unfortunate circumstances, Hawksoft's old address is no longer accepting mail. The mail drop's owner mysteriously vanished and some of the old mail (sent within the last month) cannot be reclaimed. If you have sent any orders to Hawksoft and have not received a reply, Chris Hawk would appreciate it if you could notify him at the address or phone number below. He apologizes for any inconvenience this may have caused. *HawkSoft, 22 N. Aldine St., Elgin, IL, 60123, (708) 742-3084.*

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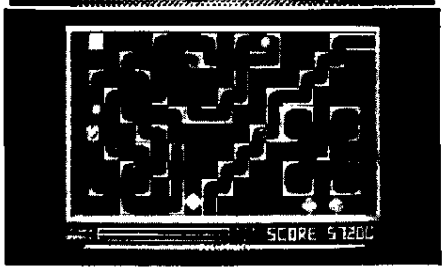

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GrafExpress 2.0 is a complete graphics and music programming environment. From the beginner to the accomplished professional, you can use GrafExpress to create lightning fast arcade games, graphic applications and utilities, and windowing multimedia demonstrations! The GrafExpress package includes two incredible systems. GrafExpress 16 works on all monitor types and offers support in 12 graphic resolutions (from 128x192 to 320x225). GrafExpress 256 offers 6 resolutions (from 128x192 to 160x225 on a composite monitor) in an astounding 256 colors! Ever see a CoCo do that before? Both systems include standard graphics commands (CIRCLE, FILL, etc.) that blow away the competition. For example, the BOX command peaks out at over 2 MegaPixels/second; that's 300 times faster than BASIC! 255 separate sprites of up to 100x100 pixels each are supported with window clipping and high-res pixel level collision checking. The 8-octave/4-voice music synthesizer has independent envelope, waveform, and volume controls, a 7 + KHz sampling rate, and much more. Other features include text/graphics mixing, different font sizes, fast window copying and scrolling, picture save/load, easy implementation from both BASIC and assembly language, multiple screen animation, and support for 128K/512K, double speed, and the high-res joystick interface. The package also contains support programs that are worth the purchase price of GrafExpress alone! These include an introductory demo, a picture editor, a waveform editor, and an art program that supports 256 colors! GrafExpress also comes with a 50 page manual that fully explains all of its incredible features. If you do any graphics programming or simply want to see what your little CoCo is capable of, GrafExpress is a must! Req. 128K CoCo 3 and disk drive.

$34.95

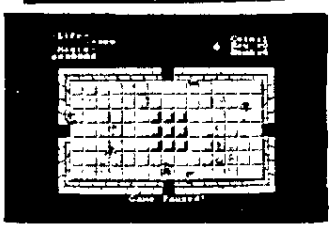
War Monger

NEW!

The world is in unrest. Power-hungry villains and evil warlords are readying their forces. It falls to you to lead your people against these armies, and only your best strategic plans can save the day. Fight the good fight in any era or locale. Play a simple game of capture the flag armed with water balloons, or climb into the cockpit of a 100 foot high armored warrior. Explore the deepest dungeons, defend your galaxy, or create your own scenarios with this incredible war game construction set/simulator. Your imagination is your only limit. You will deploy your forces with total control over hostile terrain while you scroll a graphic bird's-eye window over an immense world. War Monger has terrific 320x200 resolution, 16 color graphics and includes a tile editor to create or edit your own. Play against the computer, battle with another player, or simply watch the computer plot against itself. The enemy is everywhere. Are you ready to take on the challenge as the War Monger? Req. 128K CoCo 3 and disk drive.

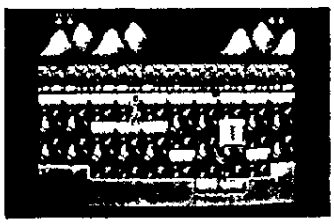
$29.95

The Quest for THELDA



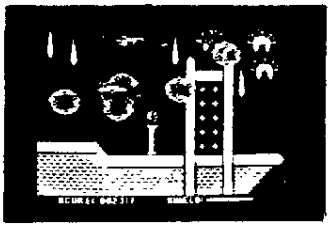
An immensely popular 128K CoCo 3 arcade/adventure. Over 500 screens of fast fantasy action and puzzle solving. Great graphics and sound effects. **$34.95.** Hint book only $4.95.

THE CONTRAS



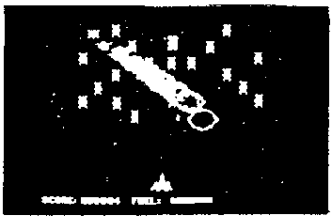
A 512K two player futuristic combat arcade game. Full screen 320x225 hardware scrolling and smooth animation. Back-ground music score and sound effects! 512K Coco3 only. **34.95.**
Shipping soon!

Crystal City



This was THE game of '91! Ultra-fast space action with hardware scrolling on a 128K CoCo 3. Wild sound effects and over 30 MegaBytes of amazing graphics! **34.95.**

ZENIX

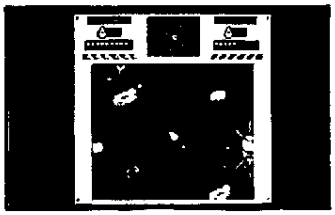


Lightning fast arcade game for the 128K CoCo 3. Terrific 320x225 graphics, back-ground music score and sound effects, and out-of-sight game play. **$29.95.**

ALSO AVAILABLE

Warrior King CoCo 3	$29.95
In Quest of the Star Lord CoCo 3	$34.95
Hint Sheet	$3.95
Hall of the King 1, 2 or 3 CoCo 1 · 3	$29.95 ea
Hall of the King Trilogy	$74.95
White Fire of Eternity CoCo 1 · 3	$19.95
Dragon Blade CoCo 1 · 3	$19.95
Champion CoCo 1 · 3	$19.95
Paladin's Legacy CoCo 1 · 3	$24.95

Sinistaar



Everyone loves this 512K arcade game. 3 disks packed with spectacular graphics and eerie background digital sound effects. 512K CoCo 3 only. **$34.95.**

Sundog Systems Discount Special

15% off

Buy 2 or more CoCo 3 products and save 15% on each!

Coupon must be mentioned at time of order to receive discount. Offer excludes The Contras. Expires August 31, 1993. See prices and ordering information elsewhere in this issue.

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Visa, Mastercard, Check, Money Order and COD (USA only, please!) accepted. All foreign orders must be sent in US currency. Money Orders. Include $2.50 for shipping in USA and Canada. $5.00 Foreign. $3.00 extra for COD orders. PA residents add 6% sales tax. Dealer inquiries welcome. Authors, we're looking for new software.

Sundog systems

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P.O. Box 766 Manassas, VA 22111
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PIPELINE

Radical Electronics has recently announced four products for release in August 1993.

The first product, **PCB Designer**, is a feature packed graphics editor for Printed Circuit board design. Features include laser printer support, 160 cm by 160 cm workspace (64 in. X 64 in.), variable zoom function, nodelist generator, limit checking (physical and electrical), library functions, device library and pad layouts for common devices, mouse driven with single key commands.

Also announced was **Nodelist Analyzer**, which merges, compares, and reduces nodelists generated by the **PCB Designer** and **Color Schematic Designer**, another product. Merged output is used to combine several PCB or schematics into one nodelist for simulation or auto routing. Compare functions are used to verify that the schematic nodelist and the PCB nodelist are the same and to flag differences.

PCB Autorouter takes a nodelist and an incomplete PCB layout and finishes it automatically. The incomplete PCB will be optional. It is also capable of handling one- and two-sided boards. The **PCB Autorouter** requires both **Color Schematic Designer v3.0** and **PCB Designer**.

The last product was the **Spice Deck Generator** which converts a nodelist into a spice deck for simulation of electrical circuits.

No advance pricing information or system requirements were given. *Radical Electronics, Inc., P.O. Box 1350, Saskatoon, SK, Canada, S7K 3N9. Temporary phone until September 1, 1993: (306) 664-8724.*

If you would like information about your "soon-to-be" products to appear in Pipeline, *send information about the product as well as mailing address and telephone number to* UpTime Pipelines *at the regular mailing address.*

INTRODUCING

#GS01—Pensave Graphic System
Disk Includes:
Pen and Paint 3-Doodle program
Pensave-Pixel drawing System
Coco Colorbook-Paint and Edit
Plus Five Graphic Files

Req: 128k Coco III & Disk Drive
$4.95 Ppd. Check or Money Order
MO Residents Add 23¢ Sales Tax

Southern Missouri Softworks
HCR 7 Box 218
Doniphan, MO 63935
(314) 255-3722

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 lv 2.

$20

Dual hi-res joystick adapter (Tandy/Colorware/lo-res)	**$40**
Hi & Lo-res joystick adapter	**$27**
HAWKsoft keyboard extension cable	**$25**
Domination (Risk-like wargame)	**$18**
MyDOS full-featured DOS extension	**$15**

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The Rocket

...Color Computer Replacement CPU

ROCKET-CPU (0K kit + OS-9/68K) $195
ROCKET-2MB (2Meg kit + OS9/68K) $295
Need More Power? Ride The Rocket!

Imagine turning your CoCo 3 into a blazing fast 68000 computer with OS-9/68K, without giving up your existing floppy disk drives and other peripherals. That's what you can do with The Rocket from Burke & Burke. But there's a catch ..

The Rocket plugs into your CoCo's 6809 microprocessor socket, replacing the old 2 MHz 8-bit processor with a 14 MHz 16-bit 68306. Up to 8 megabytes of on-board 16-bit memory, a 32K boot ROM, built-in 6309 emulation software, OS-9/68K, and a windowing system you'll recognize from OS-9 Level 2, make The Rocket a powerful answer to the quest for the CoCo 4. If that isn't enough, the flip of a switch enables The Rocket's on board 6809 or 6309 CPU for true CoCo 3 compatibility.

What's the catch? To build The Rocket cost-effectively, we need at least 100 orders (at this writing, we've received the first twenty). We also have to leave out the OS-9/68K C compiler, BASIC 09, and a few other frills.

If you're interested in The Rocket, please place an advance order for either the ROCKET-CPU or the ROCKET-2MB before July 30, 1993 for shipment 10/93. As always, no check will be cashed or card charged until we actually ship The Rocket to you. If we don't get enough interest, we'll cancel the project and return your check. Call or write for more information.

MasterCard
VISA

CoCo-XT Hard Disk Interfaces

Hundreds of Color Computer enthusiasts in the US, Canada, Europe, South America, and Australia love our affordable high performance hard disk interfaces! Look at these features:

NO HALT • 1 or 2 hard drives • 30% faster than SASI • Uses PC-type hard disk drives & MFM / RLL controllers • 5 Meg to 120 Meg per drive • Does not use interrupts • Multi-PAK recommended • Works with 12 Volt Y-cables • Includes EZGen boot file editor for easy installation

Each interface includes a user manual and software for use with HYPER-I/O or OS-9. The CoCo XT hard disk interface is $69.95. The CoCo XT RTC model, $99.95, adds a battery-powered real time clock / calendar for OS9 and BASIC.

Native Mode for $34.95!

Burke & Burke's $34.95 PowerBoost kit replaces your CoCo's 6809 with a high- performance Hitachi HD63B09E microprocessor. PowerBoost comes with our exclusive "tuneup" program, which uses the HD63B09E's advanced instructions to speed up many OS9 operations by an average of 40%. PowerBoost now includes software to run the 63B09E microprocessor in Native Mode for a 10% average speed increase over previous versions. Our implementation of Native Mode updates only the REL, BOOT, OS9P1, OS9P2, and CC3DISK modules; other modules require no modification.

POWERBOOST (INCLUDES HD63B09E MICROPROCESSOR) $34.95 POWERBOOST (SOFTWARE ONLY) $24.95

XT-ROM - allows OS-9 startup from CoCo XT hard disk	**$19.95**
THEXDER-OS9 (requires THEXDER cartridge)	**$29.95**
PERTASCII - OS-9 Multi-User & BBS word game	**$19.95**
OS9 World Class Chess (requires CYRUS cartridge)	**$29.95**
File System Repack - OS-9 graphical disk defragmenter	**$29.95**
File Recovery System - Helps recover damaged OS-9 disks	**$24.95**
EZGEN - Fast OS-9 boot file editor (uses RAMDisk work files)	**$19.95**
WILD & MV - OS-9 wildcard and file moving utilities	**$19.95**
ZCLOCK - Continuous date / time on Level 2 OS-9 windows	**$9.95**
RSB - Complete CoCo BASIC, for OS-9 (requires DECB ROM)	**$39.95**
OS-9 is a trademark of Microware Systems Corp. and Motorola	
Daggorpatch for RS-DOS (requires DAGGORATH cartridge)	**$9.95**
HYPER-I/O - Use 720K floppy disks, hard disk from BASIC	**$24.95**

2nd Edition of "The 6309 Book", $29.95

Learn about new 6309 instructions and address modes. Includes OS-9 assembler, disassembler, and debug patches.

SCSI-512 Drivers, $29.95

Use SCSI hard drives with 512 byte sectors. For DISTO 4-in-1 and HDISK, OS-9 only.

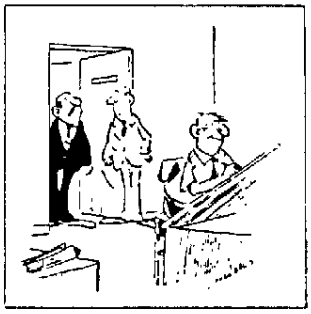
MC68B09E 2MHz uP	**$14.95**
HD63B09E 2MHz uP	**$19.95**
27128 EPROM (Blank)	**$9.95**

CoCo Classifieds

Wanted

Rainbow on disk to December 1988. Also old CoCo magazines excluding Rainbow. Quote prices and write: James Kelly, P.O. Box 3244, Astoria, NY 11103.

To place an ad, simply print out your ad copy, specify which classification you wish it placed under, and send it to ***UpTime*** **Classifieds, 5755 Lockwood Blvd., Youngstown, OH, 44512** along with your name, address, phone number, and payment. We reserve the right to refuse any ad we deem inappropriate (such as offers to trade commercial software, vendor ads, etc.). Cost for an ad is $5 for the first 120 words, $3 for each additional 20 or portion thereof. Ad deadline is the 25th of each month for publication in the following month's issue. Ad copy will not be taken by phone. *UpTime* shall not be held responsible for any transactions that take place in this section.



"He comes early, takes no lunch, and works late. Now if only he did some work!"

Advertiser's Index

Atlanta Comp. Society . . 6
Burke & Burke 11
Canaware 6
ColorSystems 6
Hawksoft 10
JWT Enterprises 4
Kala 5
Mid Iowa & Country C'b . 4
OS-9 Underground . . . 3
Southern Missouri . . . 10
SunDog Systems 9

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