OS-9 Newsletter®

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CoCo-3 Emulator $25

I have uploaded to SimTel, the Coast to Coast Software Repository (tm), (available by anonymous ftp from the primary mirror site OAK.Oakland.Edu and its mirrors): "/msdos/emulator/coco2-14.zip" the **TRS-80 ColourComputer2 emulator, v1.40**

This package allows a PC with at least MS-DOS 3.3, 256K and EGA graphics to operate as a full-featured TRS-80 Colour Computer 2, running virtually all programs available for that machine. At least a 16MHz CPU is recommended for reasonable performance.

The new package features such enhancements as direct-disk access to real CoCo disks from within the emulator, read/write CoCo cassettes through a cassette recorder connected to the SoundBlaster, game-port joystick support, Sound Blaster output for realistic reproduction of CoCo sound, and more. A new utility is also included which can move files between CoCo disks and your MS-DOS directory. The emulator also features the "virtual disk" capability of earlier releases, where the contents of CoCo disks can be stored, in their entirety, on your PC's hard drive.

Due to copyright restrictions, the CoCo ROM is not distributed with this pacage, however, simple instructions are included for obtaining the ROM image from a genuine CoCo 1, 2, or 3

— OS-9 users can boot direct — — w/o CoCo Roms —

This package is ShareWare. **If you register** ($25), you will receive the new **CoCo 3 emulator**, which is based on the same design but incorporates all the hardware enhancements of the 512K CoCo 3 (on a properly equipped PC). See the COCO.DOC file in coco2-14.zip for details. Coco2-14.zip has replaced coco2-13.zip. ShareWare. Uploaded by the author.

==Jeff Vavasour==
jeffv@physics.ubc.ca

Editor's Note-1: See revue of CoCo 3 emulator on page2

Editor's Note-2: "Sim Tel" is a multiple FTP access for uploading files to several FTP sites at once. The most popular FTP site to download ***Coco2-14.zip*** *is* ***oak.oakland.edu*** *in the* ***pub/msdos/emulator*** *directory. It is also available from* ***GEnie*** *on the* ***Tandy RoundTable Software Library.***

Our Last Issue

Last month it was reported in this newsletter that the ***Up Time*** Magazine was folding and that ***'The World of 68 Micros'*** would fill the remaining subscriptions.

Now it appears that the ***'OS-9 Underground'*** is soon to dissolve.

As this is also that last issue of the ***OS-9 Newsletter*** it would seem that we are now left with only one magazine/newsletter: ***The World of 68 Micros.*** In a sense I am very pleased to see the success of *68 Micros* due to the similar format between it and my own *OS-9 Newsletter.* The range of articles are similar although you will find more articles on Extended Basic for the CoCo and OSK for the 68K machines. The subscription rate is $25 (ouch) but then again you are getting an average of 28 pages per issue which is more then double this newsletter.

In other words, I would highly recommend that if you have enjoyed the *OS-9 Newsletter* that you consider subscribing to *the World of 68 Micros.* Send in your subscription request to: FARNA Systems; Box 321; Warner Robins, GA 31099. Phone (912) 328-7859

==Rodger Alexander==
Editor, OS-9 Newsletter

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Review

CoCo-3 Emulator

After Beta Testing this emulator, I have to say Jeff Vavasour did a wonderful job. This is a masterpiece! Yes, it is quite awesome, the capabilities of it all.

We can actually run OS/9 Level II?

Absolutely! And Multi-Vue as well!

Do we hit HOME to change windows?

Yes. HOME changes windows and acts like the CLEAR key does. It also acts as a normal CLEAR key in RS-DOS as well. F11 is the CoCo 3's F1 key and F12 is the CoCo 3's F2 key. The full CoCo 3 keyboard is supported. You may also redifine the PC keyboard yourself to use in the emulator. There is an options in the options menu to do that as well.

If we open a com port (i.e. /T2) is it possible to send information to it (like to run a BBS package on the IBM that we've used on the CoCo)?

Unfortunately, at this time there is no com port support. Also, just thought I'd mention, there is no Hi-Res Joystick interface support either. I hope that somehow Jeff can get the information he needs someday and add that in, but at this time, those features are not available in the CoCo 3 emulator.

Everything sounds GREAT so far.. Only problem for me & OS/9 will be the fact that everything I got is modified for the 6309 chip (and will probably crash on the IBM?)..

The CoCo 3 emulator only emulates the 68B09E CPU at both CoCo clock speeds. But even at that, you're getting alot of emulator here. Fully CoCo 3 on a PC Compatible. I must admit, I too am amazed.

Please give me some more info on the emulator (like where I can get it, if it's shareware or commercial, etc)

Information on ordering the CoCo 3 Emulator is contained in the latest release of the CoCo 2 emulator (File name is COCO2-14.ZIP). Try to locate that file. In that CoCo 2 emulator archive, you will find utilities to test and see if your PC Compatible will be able to handle the CoCo 3 emulator (it does use VGA video and you'll need to test the disk drives to see if they'll read the CoCo disks). Instructions are included on testing your system and how to order the CoCo 3 emulator.

The CoCo 3 emultor is NOT freely distributable. You cannot download it anywhere. It is only obtainable through Jeff.

If you have access to GEnie, you can get the COCO2-14.ZIP from the Tandy RoundTable Software Library. If you have access to Internet you can FTP (File Transfer) it from **oak.oakland.edu** in the directory **pub/msdos/emulator**. Or, you can E-Mail Jeff Vavasour for more information at: JEFFV@PHYSICS.UBC.CA

I hope there will be alot of interest in the emulator.

==Tika Carr==
Tika@GEnie (DELTA.T@GEnie.geis.com)

OS-9 Newsletter
Editor: Rodger Alexander

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The ***Bellingham OS-9 Users Forum*** is a hobbyist club, organized for the purpose of providing information, services, products and events that support the OS-9 operating system for 6809/68xxx based computers. Our efforts are not intended to earn or generate any profit for the club or any of it's members.

SPECIAL NOTICE

The December '94 issue of the *OS-9 Newsletter* will be the last publication. Due to declining subscriptions and an increased demand of my time on other computer sytems, I find it necessary to bring the *OS-9 Newsletter* to an end.

Renewals and new subscriptions will not be honored. Rebates will be paid to subscribers who's subscriptions go beyond the December '94 issue.

OCN NETNEWS

OS-9 COMMUNITY NETWORK

ON-LINE MONTHLY NEWSLETTER

Telecommunicate on your
FIDONET OS-9 ECHO

You've got the questions, We've got the answers!
Tandy

Q: Does the emulator only use 128k or does it use the full memory of the PC. I have 12 megs. It would be funny to see a CoCo 3 with 12 megs. That's something I want to know, too... Expecially for OS/9, like if I can have tons of files in RAM.. And also I'm wondering about using 1.44 MEG floppies. And it would be nice too if it's possible to partition part of the hard drive off for it...

Fred Salerno
(salernof@POLARIS.NOVA.EDU)

A: The emulator doesn't do non-standard hardware. At the moment, to include oddities like too much RAM would reduce compatability. Not only that, we'd need custom drivers. Maybe someday, the emulator can be evolved beyond the CoCo 3, but for now I'm going for compatability.

As for the hard drive though, if you are familiar with the CoCo 2 emulator, you'll know that you can in effect partition off part of your hard drive by creating "virtual disks". These are normal sized CoCo disks, but they reside in files on your hard drive. The number of these virtual disks is limited only by hard drive space.

==Jeff Vavasour==
<jeffv@PHYSICS.UBC.CA>

Q: Is there a way to load the OS-9 boot directly skipping DECB; the only Color BASIC command I used once I had OS-9 was "DOS," and it seems like a waste to buy a CoCo to get the contents of ROMs only to use a miniscule piece of it.

==James Jones==
jejones@microware.com

A: Currently, there is a way, but now that you mention it, I may work on a faster way. If you can boot OS/9 in someone's copy of the emulator, save it as a snapshot once the "time/date" prompt appears. Then, you can run the emulator any time with "COCO3 OS9" (or whatever name you gave to the snapshot) to immediately be launched into OS/9.

Once you have the snapshot, you wouldn't even need the ROM file, just a short 18-byte file of the following form:

First two bytes are F0, BF.
The remaining bytes are the CoCo's vectors stored at FFF0 through FFFF.

Now that you mention it though, it should be pretty straight forward for me to write a "dummy ROM" that will do the equivalent of the DOS command. In fact . . . . I just wrote it! There is now a small (258 byte) ROM file which will do the equivalent of executing the "DOS" command in Disk BASIC. This means you'll be able to run OS/9 Level II on my CoCo 3 emulator without having need of the CoCo 3 ROM itself. Of course, you're still going to need a copy of OS/9 Level II, I'm not about to write a substitute for that! :-)

==Jeff Vavasour==
<jeffv@PHYSICS.UBC.CA>

Q: What I'd like to see is something to remove all the crap that 6809 C puts around goto's and labels.

==Mike Knudsen==
knudsen@IHADES.ATT.COM

A: Well...that's going to be a rather more convoluted proposition. Here's the deal: Space for automatic variables in anonymous blocks in the 6809 compiler, and in the 3.2 68xxx compiler, is really allocated and freed at block entry and exit. If you're desperate to save stack, I guess this makes sense, BUT...then, what about jumps across block boundaries? If you can't tell for sure how you got to a label, you'd better make sure the stack is adjusted for where you are. In a one-pass compiler, you can tell sometimes (remember the stack depth at beginnings of loop/switch constructs, and remember the current stack depth, and you can tell whether you need to adjust the stack as well as doing a goto for "break" statements), and sometimes you can't. Full generality would entail a pass over the whole function, which peephole optimizers by their nature don't do...though you could probably do a significant fraction of the job with less.

Various other C compilers, the Ultra C compiler being one of them, allocates all the stack space for automatics once at function entry and frees it all once at function exit. Those compilers don't have to worry about adjusting the stack for gotos or labels. (We're talking automatics you declare; how actual parameters are passed and space set aside for them depends on the target processor.)

James Jones

Thank you

Scott Honaker
Donald Zimmerman
Terry Laraway
Bob van der Poel

for all of your support throughout

Multi-Vue

Recently I had the task to repair and restore Donald Zongker's Color Computer III that had been installed into a mini tower case with a PC power supply. The joystick ports were not functioning properly and Donald wanted Multi-Vue installed on his hard drive. OK, no big deal right? Wait a minute, when was the last time you saw an article about installing Multi-Vue on a hard drive?

So lets try to approach this task by logic. Multi-Vue has only a few different modules in it's boot then does the stock OS-9 Level Two boot; so if we add those modules to our boot we should be able to simply add the necessary executable modules from the Multi-Vue CMDS directory, plus the ICON directory and the AIF modules and be done with it. Actually this is quite a practical solution with one exception. The standard TERM module in the OS-9 Level Two bootfile is either the old OS-9 Level One type of graphic terminal module or the Level Two Window module depending on which one you selected when you originally "**configured**" your system disk. So it will be necessary to replace your *TERM* module with the one from the Multi-Vue module directory.

Of course you could add the necessary Multi-Vue modules from the Multi-Vue modules directory to you OS-9 Level Two configuration disk's module directory and then **configure** a new boot (don't forget your hard drive modules)

-OR-

You can use *EZGEN* (or QWIKGEN) and simply add and/or update the necessary modules in your current boot file.

Obviously I am going to use the EZGEN method. If you don't have EZGEN, borrow a copy from a club member. Hopefully Burke & Burke will become active again and you will be able to buy the latest version. This is a "must have" utility for OS-9.

Step by Step:

1. Place original Multi-Vue disk in drive one back side up (Flipped). Make sure your boot disk is in drive zero.

   EZGEN -m /d0/os9boot

L GrfInt	(*Link to GrfInt)
U /d1/modules/windint.io	(*Update GrfInt with WindInt)
L Term	(*Link to Term)
U /d1/module/term_win.dt	(*Update Graphic Term with Multivue Term)
L w7	(*Link to window7 module)
N	(*goto next module)
I /d1/modules/w8.dw	(*Insert window8 module)
I /d1/modules/w9.dw	(*Insert window9 module)
I /d1/modules/w10.dw	(*Insert window10 module)
I /d1/modules/w11.dw	(*Insert window11 module)
I /d1/modules/w12.dw	(*Insert window12 module)
I /d1/modules/w13.dw	(*Insert window13 module)
I /d1/modules/w14.dw	(*Insert window14 module)
I /d1/modules/w15.dw	(*Insert window15 module)
Q	(*Quit and write new boot to disk)

2. Copy the following files from the original Multi-Vue CMDS directory to /H0/CMDS directory

pmpts	control	fstat
gcal	gcalc	gclock
gprint	gport	gshell
gsort		

3. Copy the *ICONS* directory from the original Multi-Vue CMDS directory to /H0/CMDS/ICONS
4. Copy the ***env.file*** from the original Multi-Vue SYS directory to /H0/SYS directory

Use *Edit* or some other text editor to modify the first line of the *env.file*

RBF=/H0, /D0, /D1 (*This should reflect your systems disk drive setup)

Optional:

- If you have an RGB monitor such as the Tandy CM-8 then edit: **MONTYPE=1**
- If you have 512K of RAM then remove the asterisk from the "*RAM=512" and place the asterisk in front of "RAM=128. This tells Multi-Vue that you have 512K of memory
- If you have a high resolution mouse then edit the pointer resolution to: "**PTRRES=1**"

Also make sure that your default SYS directory contains the following files from your Multi-Vue SYS directory:

stdfonts **stdpats_2** **stdpats_4**
stdpats_16 **stdptrs**

To start Multi-Vue, simply type in the following command lines (or make a script file of these lines)

merge sys/stdfonts sys/stdpats_2 sys/stdptrs
control -c
gshell.

Suggestions:
Warning.... *Gsort* has a major bug in it that can eventually cause a crash to your hard drive by messing up the file allocation table. REPLACE WITH **GSORT version 12** available from most download sources.

There are several upgrades to the multi-vue command files that you might consider. *GCal* is a Calendar program that has been updated by a file called **GCal version 1.1.** It is much more powerful and attractive with calendar appointment script files for each month so that holidays, birthdays, etc. will always be a part of you calendar display.

UPDATE MULTI-VUE with all of the latest patches using ***gshell32.ar*** by Shawn Driscoll. This one applications applies all of the known patches and bug fixes to all of the necessary modules. Also be sure that you have the fast version of GRFDRV (Edition 13, CRC $3887D3)

Related Multi-Vue Articles:
Configuring Multi-Vue to your Hard Drive, *OS-9 Newsletter,* page 3, June 1990
How to properly set up your hard drive for Multi-Vue, *OS-9 Newsletter,* page 2, May 1991
Getting Started with Multi-Vue, *OS-9 Newsletter,* page 7, February 1992
Multi-Vue, Initial comments *The Rainbow*, page 168, July 1987
Multi-Vue, First Look, *The Rainbow,* page 180, Mark 1988
Getting Started with Multi-Vue, *The Rainbow*, page 182, November 1988
GShell+, Enhanced version for Multi-Vue, *The Rainbow,* page 178, November 1988
How To for Multi-Vue ICONS, *The Rainbow*, page 154, February 1989
WPShell, Multi-Vue Word Processing Shell, *The Rainbow,* page 24, December 1990
The impact of Multi-Vue, *The Rainbow,* page 152, February 1988
Multi-Vue—Download Report, *Clipboard,* page 39, May 1988

CNOY Utility: Y Filter for 'C'

I was involved in a discussion a couple months ago about how a Level 2 OS-9 system didn't need all those ,Y (or ,U for assembly) base-addressing modes, since the hardware did the relocation for you and both Y and DP were guaranteed to be 0 all the time?

I wrote a filter program last month to go thru the .A assembler file generated by *c.pass2* and take out those references.

LEAX var,Y goes to LDX #var
likewise LEAU, LEAS, etc., and
LDD var,Y goes to LDD >var
likewise STD, LDA, etc.

I recompiled the entire UltiMusE-III system (8 executables) with this filter, and it all works! Sizes were reduced by only a few percent -- but I'd already made extensive use of Direct Page variables, so other C programs may benefit more, and maybe the speedups will occur inside nested loops and pay off bigger in seconds than in bytes.

The filter is called "CNOY" (C - no - Y) and should be piped in *ahead* of the *c.opt* omptimizer phase. I've already built *cnoy* into my personal C-compiler driver utility. If anyone is interested, I have provided my source code for the filter that simplifies two classes of 6809 opcodes that use the ,Y offset mode, which is not needed in L2 OS-9. This is easy to compile -- needs nothing but <stdio.h>.

==Mike Knudsen==
knudsen@IHADES.ATT.COM

```
/* CnoY.c 94/10/27 To filter out ",Y" stuff not needed in
OS9-L2:
* Pipe the .a file thru this BEFORE C.opt
*
* LEAr offset,Y    --> LDr #offset
* op  offset,Y     --> op >offset
* Based on Coco List discussions of 9/94
*/

#include <stdio.h>

#define NULLC '\0'
#define TRUE 1
#define FALSE 0

typedef int bool;

char inb[81], outb[81], saveb[81];
bool speedup();

main() {
   bool res;

   for( ; ; ) {
      if( gets(inb) == NULL) /* EOF */
         exit(0);
      strcpy(saveb, inb);
      res = speedup(inb, outb);
      puts(res ? outb : saveb);
/* For debugging only */
#ifdef DEBUG
      if(res)
         fprintf(stderr, "%s -->%s\n", saveb, outb);
#endif
   }
}

bool speedup(in, out)
 char   *in, *out;
{
   char buff[33];
   char *label, *op, *rand, *end;
   char ch, sert;
   register char  *cpi;

   op = rand = NULL;
   sert = NULLC;
   label = cpi = in;
   for( ; ;) {
      if((ch = *cpi++) == ' ')
         break;
if(!ch)
         return(FALSE);
   }
/* Now cpi points to 1st char beyond the 1st blank */
   *(cpi - 1) = NULLC; /* blank --> NULLC */
   op = cpi;     /* so opcode starts here */
   for( ; ;) {
      if((ch = *cpi++) == ' ')
```

(Continued on page 7, Column 1)

(Continued from page 6)

```
            break;
        if(!ch)
            return(FALSE);
        }
/* Now cpi oints to just beyond 2nd blank */
    *(cpi - 1) = NULLC;
    rand = cpi;    /* so operand starts here */
    for( ; ;) {
        if( ((ch = *cpi++) == ' ') || !ch)
            break;
    }

*(end = cpi-1) = NULLC;  /* end of string */

/* Act if rand ends in ",y" */
    if( (*(end-2)==',') && (*(end-1)=='y') ) {
        *(end-2) = NULLC;  /* delete ",y" off end */

        if( (*op=='l') && (*(op+1)=='e') && (*(op+)=='a') )
{
            sert = '#';
            if(*rand == '>')    /* "#>var" is illegal */
                rand++;        /* so trim off the '>' */
    /* Change opcode leaR to ldR */
            *(op+1) = 'd';
            *(op+2) = *(op+3);
            *(op+3) = *(op+4);  /* should be NULLC */
        }

    /* Not LEAr, so force non-DPage.  Needed?  Can't hurt
(?) */
        else if( *rand != '>') {
            sert = '>';
        }

    /* Insert # or > if requested */
        if(sert) {
            *buff = sert;
            strcpy(buff+1, rand);
            rand = buff;
        }
/* Subtly tag each modified line with two trailing Blanks */
/* Could replace this with several strcat() calls */
        sprintf(out, "%s %s %s  ", label, op, rand);
        return(TRUE);
    }
    return(FALSE);
} /* speedup() */

/* eof CnoY.c */
```

Pentium Bug Humor

Q: How many Pentium designers does it take to screw in a light bulb?
A: 1.99904274017, but that's close enough for non-technical people.

Q: What do you get when you cross a Pentium PC with a research grant?
A: A mad scientist.

Q: What's another name for the "Intel Inside" sticker they put on Petiums?
A: Warning label.

Q: Complete the following word analogy: Add is to Subtract as Multiply is to
1) Divide
2) ROUND
3) RANDOM
4) On a Pentium, all of the aboe
A: Number 4.

Q: What algorithm did Intel use in the Pentium's floating point divider?
A: "Life is like a box of chocolates." (Source: F. Gump of Intel)

Q: Why didn't Intel call the Pentium the 586?
A: Because they added 486 and 100 on the first Pentium and got 585.999983605.

Q: According to Intel, the Pentium conforms to the IEEE standards
754 and 854 for floating point arithmetic. If you fly in aircraft designed using a Pentium, what is the correct pronunciation of "IEEE"?
A: Aaaaaaaiiiiiiiieeeeeeeeeeeee!

THE TOP TEN REASONS TO BUY A PENTIUM PC

10. YOUR CURRENT COMPUTER IS TOO ACCURATE
9. YOU WANT TO GET INTO THE GUINNESS BOOK AS "OWNER OF MOST EXPENSIVE PAPERWEIGHT"
8. MATH ERRORS ADD ZEST TO LIFE
7. YOU NEED AN ALIBI FOR THE I.R.S.
6. YOU WANT TO SEE WHAT ALL THE FUSS IS ABOUT
5. YOU'VE ALWAYS WONDERED WHAT IT WOULD BE LIKE TO BE A PLAINTIFF
4. THE "INTEL INSIDE" LOGO MATCHES YOUR DECOR PERFECTLY
3. YOU NO LONGER HAVE TO WORRY ABOUT CPU OVERHEATING
2. YOU GOT A GREAT DEAL FROM JPL

And the #1 reason to buy a Pentium machine:

1. IT'LL PROBABLY WORK

OS-9 NEWSLETTER 1990 INDEX

HARDWARE:

1Meg of Ram
Description and Installation of Disto's 1Meg Ram
CoCo@pucc.Princeton.edu 3/90

Big Fan for your CoCo
Diagrams and instructions for installing a fan under the keyboard of your CoCo to keep those ram cool.
Tim Koonce 7/90

CM-8
Pin-out comparison of the CM-8 vs. the Amiga Monitor
Kevin Darling 4/90

Convert 300 buad modempak
Concepts on modifying Radio Shacks 300 baud modem pak to a MIDI for use with UMuse
John Sheer 4/90

CoCo in a Tower
Description and diagram of CoCo component installation in a PC vertical tower type case
Rodger Alexander 8/90

PC to CoCo Connection
Connecting a PC 9-pin RS-232 port to the 25-pin RS-232 Deluxe Program Pak for data transfer between a PC and a CoCo
Craig DuBois 3/90

Review of PC-Keyboard Interface
Description and installation of Puppo's PC Keyboard adapter (includes diagram and on screen menu)
Rodger Alexander 12/90

RS-232
Graphic comparison of the CoCo's 4-pin din jack, the standard 9-pin RS-232 and the 25-pin RS-232
Craig DuBois 2/90

Speech Sound Pak Fix
Hardware modification required to make Radio Shack's Speech Sound Pak work at the 2MHz speed of OS-9 Level Two
Bill Boogaart, Mario Dillallo and Bruce Isted 9/90

The Blob
How to correct the Boot Order Bug with the Disto Super Controller-II using the CC3Disk.irq and a hardware hack to the Radio Shack Disk Controller
Paul Campbell 6/90

MISCELLANEOUS:

Announcements
1. Official News Release of the MM/1 68000 Computer from IMS
2. Announcement of a new OS9 publication, "the OSKer"
CoCo@pucc.Princeton 5/90

Atlanta CoCoFEST
Description of all that is planned for the first annual Atlanta CoCoFEST in October
Newton White 6/90

Atlanta CoCoFEST
Listing of attractions, scheduled events and an overall review of the entire event
Mark Griffith 10/90

CoCo Videos
Video taping instructional lessons produced by Port O'CoCo and Bellingham OS-9 Users Group
Rodger Alexander 12/90

CoCo-3 Status
Questions & Answers regarding:
Rumors of discontinued status of the CoCo-3
Software availability
Memory upgrades (512K & 1Meg)
Hard Drive Systems
State of the Rainbow Magazine
New OS9 Computers
Zack Sessions & Mike Knudsen 6/90

CoCo-4
Overview of what will be included in the new OS-9 Computers by Frank Hogg and KLE
Kevin Darling 1/90

Computer/Printer Communications
Description of Serial vs. Parallel data transfer protacols with diagram of single character byte as seen by a printer in serial mode.
Scott Honaker 1/90

FHL's Tom Cat
News release of the TC-9 by Frank Hogg
Compuserv 3/90

Freeware/Shareware/Public Domain
"Legal" definitions of the meanings of these commonly used terms to describe "free" software
Tim Kientzle 10/90

History of the CoCo
Report on the demise of Puckett's book
Kevin Darling 9/90

Just for Laughs
Reference to last page of radio shak's flyer #460
Zack Sessions 8/90

KMA
MM/1 and the TC-9
Kevin Darling 2/90

MM/1 Conference
Questions about the MM/1 posed to Paul Ward on Delphi's OS-9 Sig on July 25th and answered "LIVE" on the conference.
Delphi:OS9 Sig; Paul Ward 7/90

MM/1 Report
Diagrams of MM/1's PC type case and component layout and a report on the video capabilities of the MM/1
Kevin Darling 6/90

MM/1 Update
Explanation of why the MM/1 has not been shipped out yet (F.C.C. approval) and what IMS is doing about satisfying it's customers in the meantime. Also SOFTWARE report and some more comparisons between the MM/1 and the TC70
Paul Ward 12/90

MM/1 vs. TC9/TC70
Biased comparisons and comments regarding the 6803 TC9 and the more evenly matched 68030/68070 MM/1 and TC70
Tim Kientzle, David Halko and Mike Knudsen 10/90

OS-9 Level Two Upgrade
Description of the yet to be released upgrade for OS-9 Level Two written by Kevin Darling, and why it hasn't been released yet.
Kevin Darling 3/90

Other Sources
Listing and description of the CoCo/OS-9 Magazines
Rodger Alexander 4/90

PC Keyboard on a CoCo
Theory and data on connecting a PC type keyboard to a CoCo
Tim Koonce & Mike Knudsen 7/90

PT68K (Another CoCo-4)
Description of the PT68K 68000 computer running OS9 standard PC-XT bus and standard PC-XT type plug in boards.
David Philipsen 11/90

RAM Disk
Using RAM to unfragment and optimize your floppy disk storage
F.Calcraft 11/90

Rainbow's End?
A collective discussion about the future (doom and gloom) of the Rainbow Magazine
Howard Wilson, Eddie Kunz
Mott Pratap & Howard Wilson 9/90

RBF & SCF Drivers
Basic concepts of the functions of the MMU, RBF and SCF. (Diagrams included)
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Farewell to subscribers . . . . *I have included the index of all 60 issues of the newsletters. If you see some articles that you are particularly interested in you can purchase back issues for a special discount price of 50 cents each. Non subscribers are also welcomed to order back issues at the regular price of $1 each.*

It's been a fun 5 years. And looking back I take great pleasure in seeing how the newsletter has matured and improved in content, style and format. Of course I have lots of people to thank for all of their help in contributing articles and encouraging my efforts. Special thanks to Scott for help with the printouts and my wife for her support and hours of proof reading. I hope you have enjoyed the newsletter as much as I have.

Bob van der Poel Software

Great Stuff for your OS-9 System

We've been in the software business for over 10 years--and we've developed lots of excellent software over that time. We don't have room in this space to tell you everthing, but we'd love to send you our catalogue listing all of our products. Great stuff like our ***Ved*** text editor, ***Vprint*** text formatter, ***Cribbage, Magazine Index System, Ultra Label Maker, Vmail, Basic09 Subroutine Pakage, RMA Assembler Library, Stock Manager, ●S-9 Public Domain Disk,*** and more.....

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Club Activities Report

Bellingham OS9 Users Group - Longview/Kelso CoCo Club
Mt. Rainier CoCo Club - Port O'CoCo Club - Seattle 68xxx Mug

Port O'CoCo

The last meetings of the year were the grandest, grandest at least in terms of bites. That's bites, not bytes. The morning meeting of Kitsap County Seniors (KCS) had both the sweet taste of food and revenge. December's meeting, since it's so close to the end of the month, was a potluck and just a little bit of meeting tossed in. There's no need to go into details about the food. Computer people, as we all know, know how to eat and enough of them knew how to prepare food so the 85 people could eat to their heart's delight.

The taste of revenge was by the non-PC people in the form of an open discussion by the president to the group about the newly announced flaws in the PC world. The first buried within the Pentium chip. The second snafu [Look this up to really appreciate its meaning!] is in Microsoft's Windows. It's math calculator has a funny way of subtracting. There was some egg on face as well as food on table!

After filling ourselves the CoCo people just rested up for the evening meeting and more or less filled up again. **Tom Brooks** and **Terry Laraway** took on the responsibility of putting on a party for Port O' CoCo. We had over 4 feet of pizza from Domino's and other yummies from the store we meet in and from a couple of the CoCo cooks.

Donald Zimmerman reported that the newest version of Rick's CoCo Registry has just arrived with an additional 102 names. If you are not in his free registry, just write to Rick's Computer Enterprises, PO Box 276, Liberty KY 42539. The final version of this valuable reference networking tool will come out in March. Rick has also announced the availability of the CoCo 3 Emulator. Over 120 people contributed to the escrow account which was given to software developer Jeff Vavasour upon completion of this software that allows us to run CoCo 3 software on a PC. The CoCo 3 Emulator is available only from Jeff for only $25 (c/o Dept. of Physics, 6224 Agricultural Rd, UBC, Vancouver, BC CANADA V6T 1Z1).

All was not just feeding our faces and news about software. Terry praised the Tandy VIS interactive system, which Tandy dropped a few months back. They listed for about $700 with CD-ROMs going for $50-$80. He found a source for them at $99.95 including 30 CD-ROMs. That's about a $1,800 package! **Buzz Jones** was so interested that he left the meeting room to call in his order. He came back with the news that all 10,000 of them had been sold! Later word is that a few more may be found for later sales. Contact Terry if you are interested.

Tom capped off the evening with a drawing of computer stuff for the group. A great end to an eventful year. Thanks Tom & Terry for pulling everything together!

We will get back to electronic bytes at our next meeting, January 16th.

==Donald Zimmerman==

Seattle 68xxxMug

The December meeting was poorly attended. However, the presentation was very interesting. **Pat O'Neal** shared with us the software that he has developed to keep track of power grid loads based on multiple parameters. The presentation almost didn't happen because someone forgot to bring a computer. Fortunately, Pat's wife was considerate enough to bring his computer to the meeting. An old gray CoCo 1.

Pat works for Puget Power and is responsible for recording and predicting power requirements based on time of day, weather conditions, population variations, holidays, etc. Any factor that may cause an effect on the power requirements are recorded so that the statistical information gathered on his faithful old CoCo I can be referenced quickly in order to predict power generation needs in the Puget Power area.

Pat showed off the software that he wrote. His data entry routines are similar to most standard database applications. His printouts are similar to a spreadsheet. This allows him to quickly scan data for cross references. Over the years, Pat has modified and improved his software until he now can predict load needs within a few percentage points. Understand that this is very important to Puget Power especially when they have to purchase power from other power companies. If they can pay for only what they actually need rather than purchase extra power as a safety factor then operating cost can be kept low.

The poor attendance was disappointing. Jesse Obereuter was also expected to make a presentation at this meeting but was a no show. Construction projects on the UW campus eliminated nearby parking which was just one more negative factor. Hopefully January's meeting will be better attended.

==Donald Zongker & Barbara Alexander==

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Bellingham, WA 98226-4238