OS-9 Newsletter ©

PACKET RADIO

I have interfaced my CoCo computers here to 2 meter amateur radio. The setup I am using works with either my CoCo 3 or my CoCo 2's. I am using an Icom 2-GAT handheld radio and a Kantronics KPC-3 **terminal node controller** (TNC). This TNC works at 1200 baud and is linked to the computer through a DB-25 connector. It will work out the bit banger or the RS-232 pack.
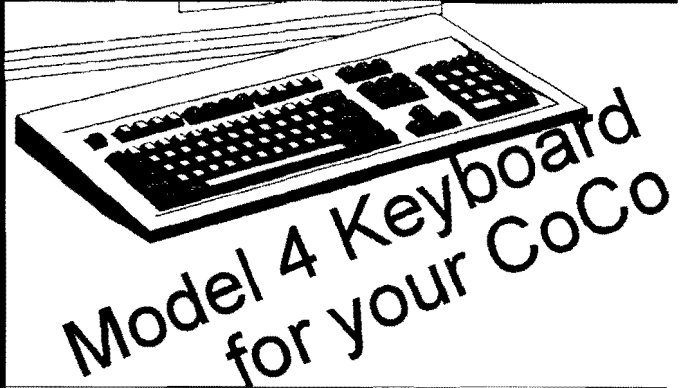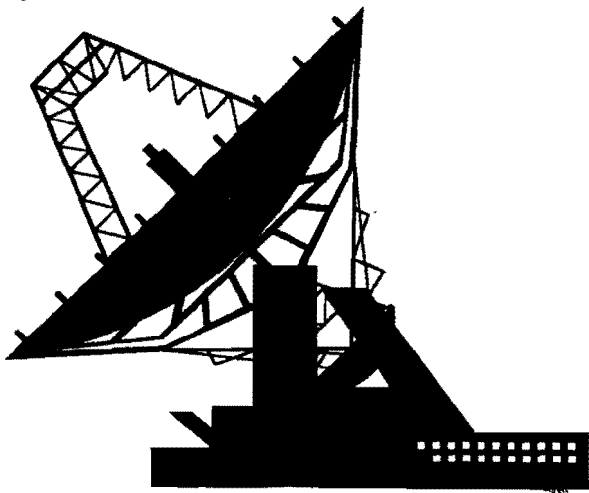
When using the CoCo 3 it works with OS-Term and allows access to the hard drive on that system. When using the CoCo 2 I have used Mickey-Term and Greg-E-Term. I am looking for an OS-9 terminal program that will work on the CoCo 2 with 2 double sided 5 1/4 inch drives.

There are many Packet BBS's around the world that are linked very similar to the Fido Network but go wireless. You do however have to be a licensed amateur radio operator to be able to do this.

=Richard Baisinger - N7WNL=

Origin: The Diamond Mine, Spokane, WA. (1:346/23)

Model 4 Keyboard for your CoCo

These are some pictures that I made up to show what traces to cut and what jumpers to add, to convert a Model 4P keyboard matrix to a CoCo 3 matrix. The only drawback to using this keyboard is the lack of an ALT key on the 4P. Instead of an ALT key, the 4P has an F3 key which can be wired as an ALT key. Then the inconvenience is that the F3 key is on the right side of the keyboard instead of the left.

Even with the ALT key thing, this is still a great keyboard to use with the CoCo. If you have put your CoCo into an ibm box, the 4P keyboard makes a neat/professional looking keyboard to place on the table in front of it.

=Larry Olson=

CIS: 72227,3467; Delphi: LARRYOLSON

Diagrams on pages 3 and 4

Note: *There is now a No Code Technician Class License. Tandy sells a FCC License Preparation manual for this specific license exam. Takes about two to four hours to read through the questions sufficiently to pass the test.*— Editor

Q&A

Q: How does the 6809 cpu differ from the 65xx series? Does it have a particularly large stack? Is the stack relocatable (for pseudo-user/supervisor switching)? Are the registers more flexible than usual for an 8-bit processor? Does it have any addressing modes that, say, the 65xx series doesn't?

A: I will briefly describe the 6809:

There are two stacks, each relocatable and each can be as large as the address space (64k) if you need it that big. One is a hardware stack used by interrupts and subroutine calls. The other is a user stack. The registers are flexible. The two stack registers are also index registers. There are two 'normal' index registers also, X,Y. All 4 index registers are 16 bit and some arithmetic operations can be performed on them. There are four interrupt types, a normal type, IRQ which saves all registers, a fast type, FIRQ which saves only two regsisters, a non-maskable type, NMI and 3 software interrupts, SWI, SWI2, SWI3.

Unlike the 65xx series, the DP is relocatable and the 6809 has more indexing modes. Better than the 6809 for multitasking is the 68xxx series, it has 'tons' of different interrupt levels, relatively speaking.

=BRIAN ONEILL=
* Origin: Top Hat BBS [+1 206-244-9661] (1:343/40)

Q: Now that *The Rocket* is gone, I guess I will not be getting into OSK due to the high prices of other available systems.
==Rodger Alexander==
FidoNET:1:301/3401

A: How about a Kit?
68000/10Mhz, 8 XT slots, 2 rs232 ports, IBM keyboard, 4MB memory. The KIT (PCB, and ROM's on y) sells for $200 (Australian funds), and Professional. OS9 for $400 (Australian funds).
Contact:
    SECAD SYSTEMS
    66 Albert Street
    Brunswick East
    Vic. 3057
    Australia.
    Phone: +61 3 380 9036

=Bob Devries;Australian National OS-9=
bob@paxnet.com.au
FidoNET: 3:640/231

Another Keyboard Solution

Use a Model 4P Keyboard with a Color Computer 3

Diagrams show the traces to be cut represented by **BLACK** markings

BLACK lines (▬▬▬▬) indicate jumpers to add
BLACK marks (-) denote traces to be cut

BLACK lines (▬▬▬▬) indicate jumpers to add
BLACK marks (-) denote traces to be cut

European Forum For OS-9

We Are Not Alone

My name is Werner Stehling. I am president of the **European Forum For OS-9** (EFFO). We are very much interested in contacts to all OS-9 users groups around.

At the beginning of international collaboration, we think, it's important to get an overview of the existing OS-9 software and where to get it. We are just on the way to clean up the directory of our old Forum disks. We hope all users groups world wide will publish a list of their ports in a similar fashion and someone will collect everything together. The next step would be the coordination of ports.

We are interested to hear, how the OCN is doing. Actually we have no idea what is going on in FIDO net with regard to OS-9. I think there might be several projects we can get into together.

EUROPEAN FORUM FOR OS-9

EFFO stands for European Forum For OS-9 and was founded in 1988; its main goal is to support Microware's multi-user multi-tasking operating system OS-9 that runs on the 68k family of Motorola microprocessors. This support primarily consists in providing a means of communication between people who already use and appreciate OS-9 and those who do not yet but would profit by doing so.

EFFO is independent from and not commercially related to any company. It's members are companies offering OS-9 compatible hardware, OS-9 system programmers, computer clubs as well as end users such as private computer owners, research institutes and university departments.

EFFO intends - to provide a collection of public domain software that is of general interest and that helps to make OS-9 more attractive to programmers and users, - to coordinate ports of (mainly UNIX) software (e.g. to avoid that a particular software is ported many times and other equally important software still is not), -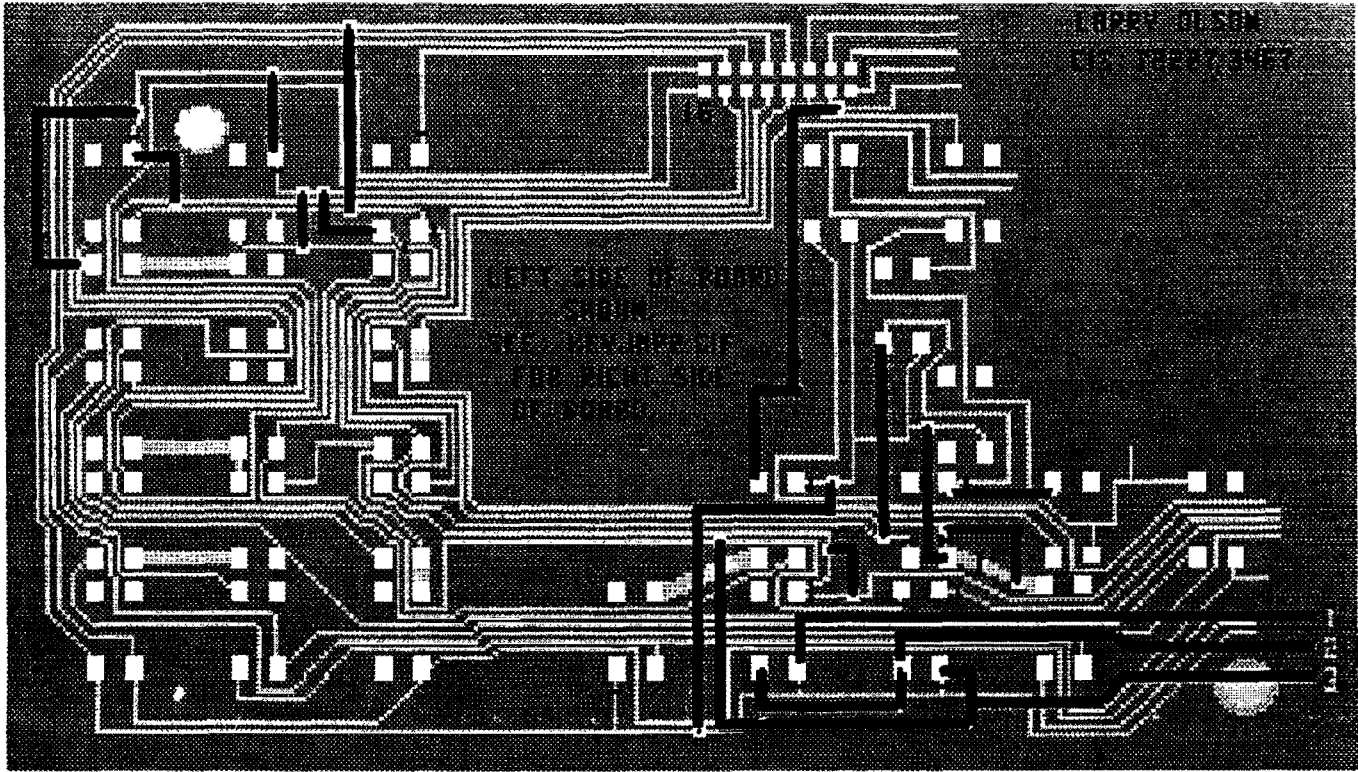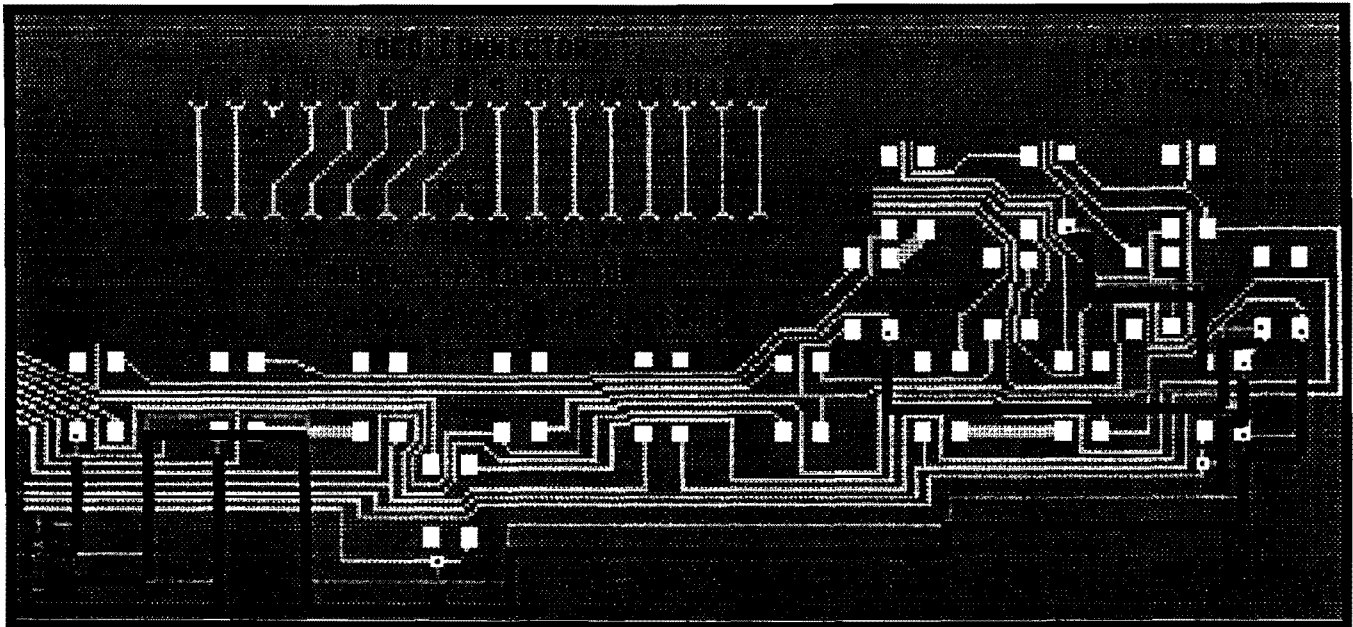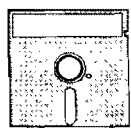 to make all the nuts and bolts of managing an operating system available to everybody so that "the wheel has not to be re-invented all the time".

Until the end of 1992, the rules of the game were that disks containing the EFFO software pool were available without charge, and everybody taking part in this service was expected to make contributions to the pool. Initially, this concept - although somewhat idealistic and similar to an economic system that has been abandoned recently - worked quite well. Over the years, however, less and less contributions have been made so that, starting in 1993, a new concept was created.

First the bad news:
The distribution is no longer free of charge, there is a handling fee in an order of magnitude comparable to all other PD pools still being incompatible to OS-9.

And now the good news:
The disks contain ready-to-use software that has been thoroughly tested. The software is maintained and updated continuously. All disks come with printed guidelines of how to install and to use the software. Some of them even have a complete user's manual in printed form.

The 23 forum editions and the 10 PD disks representing the EFFO software pool as at the end 1992 will - although no longer maintained and upgraded - still be available.

In addition, EFFO now has a printed forum: every issue of the newly founded journal OS-9 International contains several pages with EFFO information including the most recent version of its public domain software list. This software list will also be made available on the EFFO bulletin board and through regular postings to international network boards.

For more information please contact EFFO at

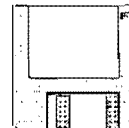P.O. Box
CH-8606 Greifensee
Switzerland
==Werner Stehling==

Bellingham OS-9 Users Forum
Public Domain Library "*Update*"

PATCHES:

BOOTROM: IPatch to REL module and Extended Basic program to create a ROM boot routine that can be burned into an EPROM to accomplish true Boot ROM capability.

VDGINT: CoCo-3 update to original stock VDGInt. Eliminates CoCo-2 compatibility codes reducing the size considerably. Two patches included. One eliminates bug and is 6309 native mode.

VRN: The VRN driver and it's associated FTDD, Nil and VI descriptors are not only intended to replace subLOGIC's FT+FTDD and Sierra's AGIVIRQDr+VI, but also intended to provide a general user interface to VIRQs and MMU RAM blocks. See "read.me" text in archive.

RMA6309 Purpose: Ipatch to add 6309 commands to the Relocattable Macro Assembler for OS-9 Level II found in the OS-9 Development Pak.

BIGDISK Purpose: Ipatch file modifies stock cc3disk so that the 8" drive bit in the drive descriptor is detected. This can be used to switch data transfer rate on a "hacked" original (12 volt) Radio Shack Controller. Two new drive descriptors are included (5" 1.2meg and 3.5" 1.4meg).

PROGRAMMING:

DEVSYS22 : C-Compiler menu driven Interface Program. Will also work with Pascal and ASM or RMA assemblers.

C_PREP : (Version 1.9) Standard ANSI C pre-processor for Microware's OS9 Level 2 C Compiler.

BAWK : AWK / GAWK utilitiy that find string matches and acts upon them according to arguments given. Generally used to find and modify C source code. Recognizes C constucts.

MISCELLANEOUS:

PPRINT : Device descriptor and driver for a parallel port for OS-9. Construction article and schematics available in the NovDec 87 "Rainbow" by Tony Di Stefano.

COCOAIDe : Printout listing of OS9 display and window codes for handy reference.

FASTCOCO : Text file of instructions for changing the crystal in a CoCo to a faster (higher frequency) crystal to obtain increased speed operation. From stock 28MHz crystal to 38Mhz crystal. Text also describes necessary adjustments to monitors.

M4PKYBRD : Text file with 4 GIF pictures describing modifications to the Tandy Model 4 Computer Keyboard for use with a CoCo. No interface required. Simply cut traces on the keyboard as indicated in the GIF pictures and plug into coco.

TELECOMMUNICATIONS:

SACIA : Replacement modules for ACIAPAK. Two modules included: Sacia.dr for use with RS-232 pak plugged directly into computer or in any slot of a "hacked" Multipak; Sacia.mpi is for use with an un-"hacked" Multipak with the RS-232 pak in slot-1 only. Also a copy of Bruce Isted's "xmode" replacement for stock utilitiy. Setup the same as K.Darling's "Dmode".

INTADR : Text file listing all of the networks available from Internet and the proper addressing to send mail to them. Also proper addressing from the other networks to Internet.

RZSZCOCO : ZMODEM protacol file transfer modules. One for receive, other for transmit. Permits bi-directional error checking of data transfer via an RS-232 port.

UTILITY:

MEREGE5 : Replacement for version 4. New features: OSK like options and command line parsing; Built-in Help.

LHA211B : Version 211 of LHA Archiver/DeArchive Utility for LZH extension files writiten by Haruyasu Yoshizaki. Includes complete original IBM executable file and docs as well as the OS-9 version by . E.M. Krenciglowa (1993).

BSUBS1 : Collection of 17 Basic09 subroutines inspired by the ANNEX Subroutine Archives in Micro Soft's QuickBasic. See documentation files for list of sub routines.

BSUB2 : More Basic09 subroutines. See documentation files for list of sub routines.

BACKAR_4 : Hard Drive Backup utility, similar to DOS backup utility. Ipatch file included to modify

     stock RBF manager.

IDIR2   : Improved replacement for Kevin Darlings 'IDir' utility in his KUTIL package. Corrects a problem left in K.Darlings version.

XXMODE   : To report or alter current option settings of SCF device descriptors in memory or on disk in single module files.

A complete listing of the *Bellingham OS-9 Users Forum Public Domain Library* is published in the August issue of the *Newsletter*.

The complete library is available on 11 3-1/2 inch 720K Diskettes for $11. -OR- 23 5-1/4 inch 360K (or 157K flippy) disk for $23. Individual disk may be purchased for $1 each. Shipping, handling and disk media are all included in the price. Please specify desired format.

All the files included in this *"update"* listing are available on the **December Update Disk**

Send orders to:

     OS-9 Users Forum
     3404 Illinois Lane
     Bellingham, WA 98226
     (206) 734-5806

CLASSIFIEDS

For Sale: Macintosh software

LPA MacPROLOG   Asking $30 including shipping
Consulair Professional Development Tools   Asking $30 including shipping
Winner of the Best Development Language (MacUser). Mac C/Toolkit & Linker (A complete C development System) HFS compatible
**HyperEngine by Symmetry DA**   Asking $30 including shipping

$75 for all three!

All are complete with original disks and documentation in original blister packing. Since none have been opened I can not tell you any more than what found on the outside. Mail check or money order to Donald Zimmerman, 3046 Banner Rd SE, Port Orchard WA 98366-8810. Only one copy of each, first paid orders get the deal!

For Sale: CoCo Hardware

65Meg RLL Hard Drive $65
2 - Deluxe RS-232 ROM Pak $25 each, including shipping
Tandy External Disk Drive Cases w/o power supply $5
Mail check or money order to Rodger Alexander, 3404 Illinois Lane, Bellingham, WA 98226
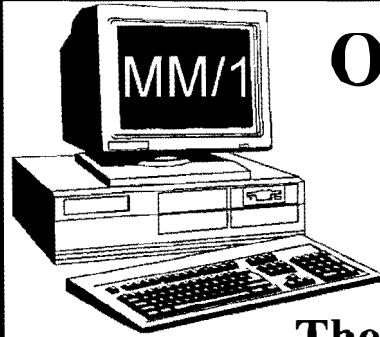
OSK - -MM/1

The future?

Having taken over the rights to produce the MM/1, I find myself with 50 systems ready to be shipped from the factory, and no cash with which to pay for them! So, for the next three months only - only until March 31st, 1994! You can save and save big on MM/1 systems. This is the way it works - You send me Ten dollars ($10) deposit, and your order for one of the systems below. Thats all. Just $10; that will count against your purchase price.

     I'll take these orders to the bank, and if the bank will loan BlackHawk Enterprises, Inc the money - you'll have your system within 60 days of receiving the loan. If not, I'll send your money back! This offer is limited to the first 20 systems sold.

Choose from these great values!

The Developers System
MM/1 Extended with 1 Meg memory, floppy drive, and Case and power supply. Includes OSK 2.4 with C and Basic, and Microware documentation with all available KWindows documentation.
     Suggested Retail Price : $1125   Introductory price:
                            $975

The Professional System
MM/1 Extended with 1 Meg memory, floppy Drive, and Case and power supply. Includes OSK 2.4 with C and Basic, and all available KWindows documentation, but no Microware documentation.
     Suggested Retail Price : $1025   Introductory Price:
                            $875

The Extended Kit
MM/1 Extended board set - no floppy drive, case or power supply. Includes OSK 2.4 with C and Basic, and all available KWindows documentation.
     Suggested Retail Price : $900   Introductory Price:
                            $825

=David Graham=
BlackHawk Enterprises, Inc at (405) 234-2347

Null Modem

Sometimes terminology gets in the way of facts. *Null Modem* is one of those "techie" terms that causes a lot of confusion. In fact, it is simply a "serial" cable that has the "transmit" and "receive" lines reversed at one end. Reversing the connection of those two wires to the plug or jack at one end of the cable is probably the simplest hardware project you can do, but if soldering a couple of wires is not your forte then you can actually buy a *null modem* from your local Radio Shack Store.

Figure 1 shows a drawing of a commercial 25 pin *null modem* that sells for about $5. Figure 2 shows the pin outs and wiring modification for a 4 pin DIN connector that plugs into the back of a Color Computer (bit-banger port).
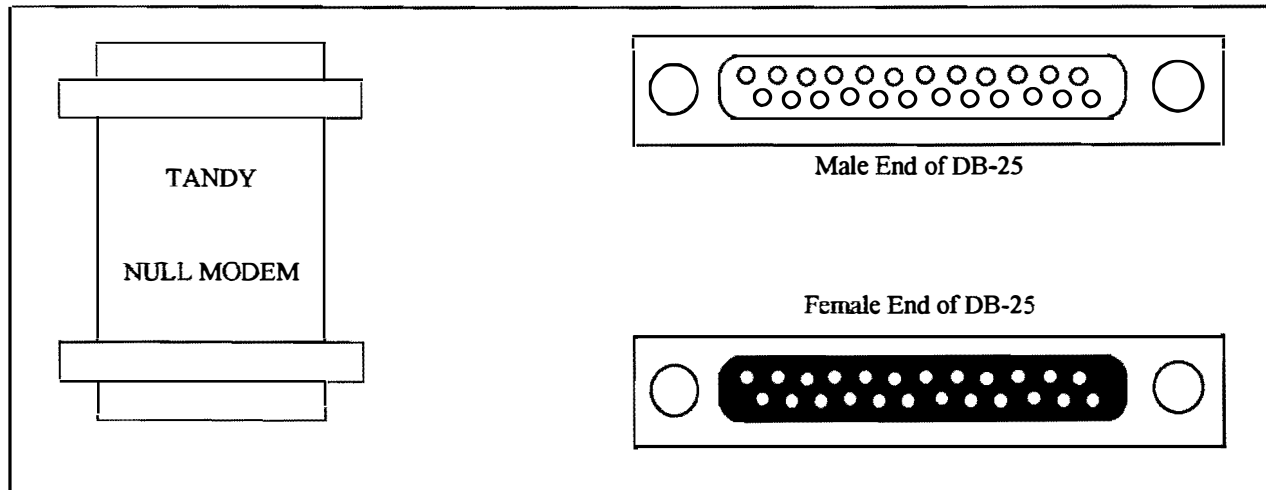
TANDY

NULL MODEM

Male End of DB-25

Female End of DB-25

Figure 1

Carrier Detect

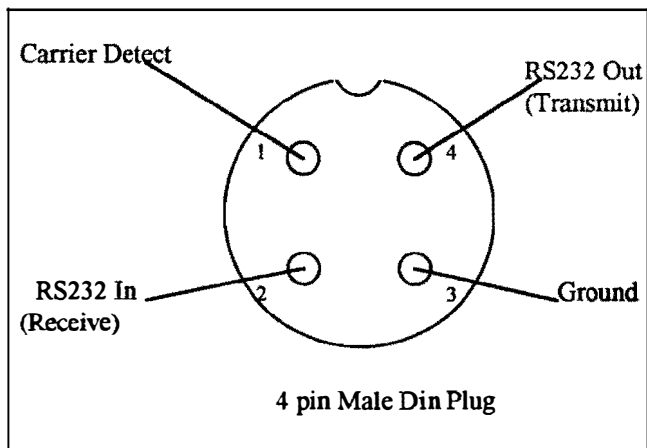RS232 Out (Transmit)

RS232 In (Receive)

Ground

4 pin Male Din Plug

In Figure 2 the 4 pins are labeled according to the end view of the plug. By simply unsoldering the wires to pins 2 and 4 and then soldering them back in reverse order (RS232 Out to Pin 2 and RS232 In to Pin 4) you will have created a Null Modem Cable for the Serial Port on the back of the Color Computer.

Figure 2

You could also modify your 25 conductor RS-232 Cable in the same manner. Reverse the wires that connect to pins 2 and 3. Pin 2 is the RS-232 Out (Transmit) and Pin 3 is the RS-232 In (Receive). By reversing these two connections you will convert your standard RS-232 cable into a *Null Modem*.

==Rodger Alexander==

JUST FOR FUN

This page has nothing at all to do with OS-9, but I have had a lot of request to print this in the Newsletter. The graphics "picture" displayed below is actually a 3-dimensional drawing created with a paint program for a PC (MS-Dos). I noticed that these pictures have become very popular at the local shopping malls. You now have your very own peronal "Stereo Art". To observe the 3-D effect, turn the page sideways and stare into the middle of the picture focusing your eyes about 2 feet beyond the actual surface of the picture, then just relax your eyes Within a couple of minutes your eyes will focus on the "hidden objects".
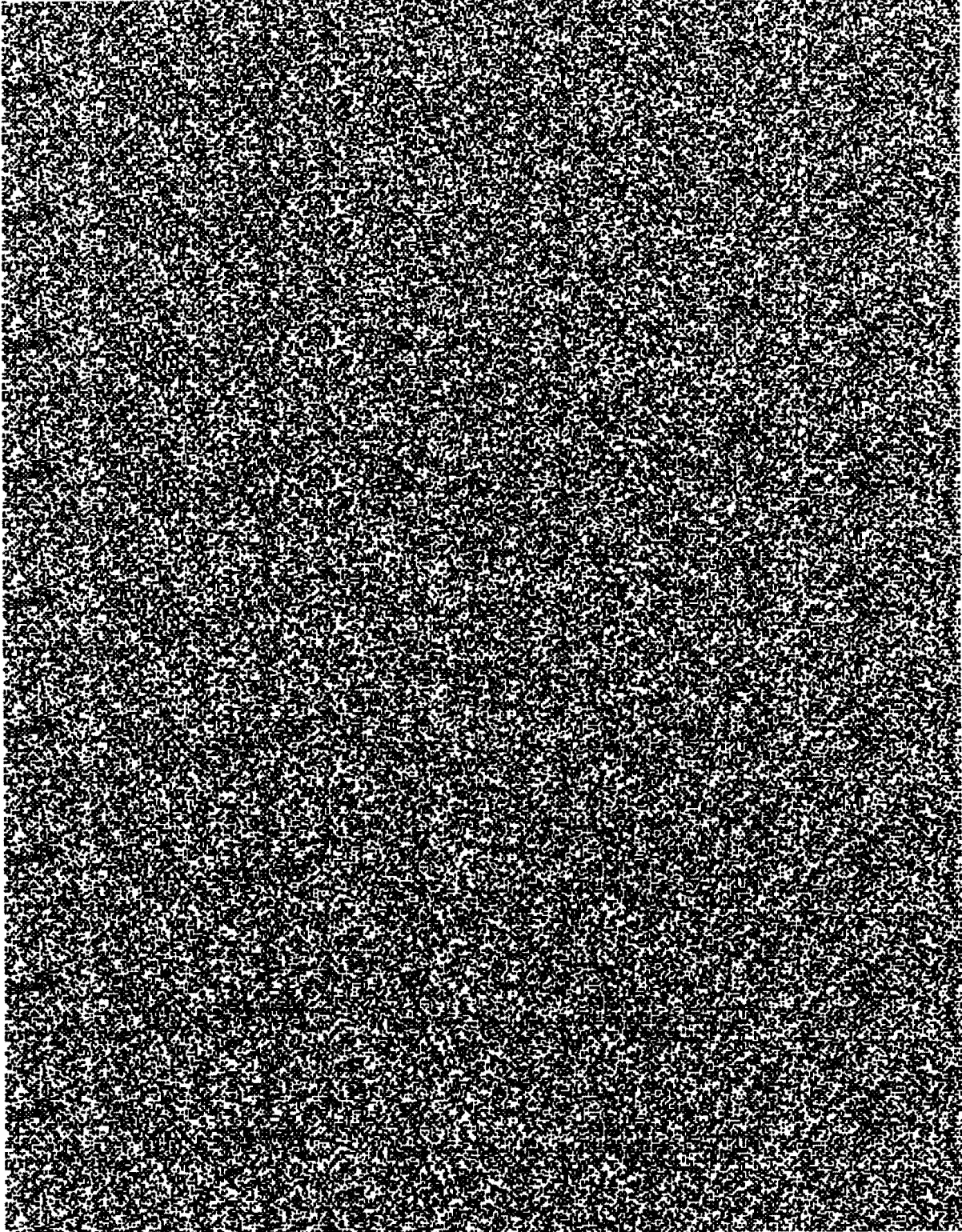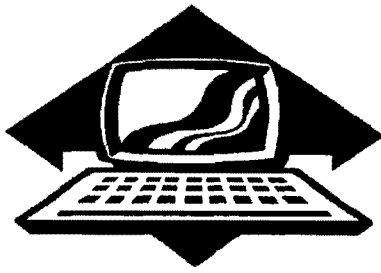
Club Activities Report

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

Bellingham OS-9 Users Forum

The December meeting was cancelled due to the holidays. We will see you in all January at Fairhaven Middle School on the 4th Wednesday, or are we going to be meeting on Thursday. Did you see the calendar? <g>

    ===Barbara Alexander===

Port O'CoCo Club

Party! Party! Boy, talk about non-computer meetings! We saw a parade of men, women and children coming to Stock Market Foods. We mailed out 130 invitations and calendars for the CoCo community. A few were way out of town. We just wanted to let people know that we are alive and well in the Pacific Northwest. The remaining 100 or so were people who could attend our party if they so desired. Even those who can not attend will have the schedule of our various meetings in the Puget Sound area for the entire year of 1994. The calendar is great to sick on the computer wall or on the refrig. Also there was a flyer of events that we know about now.

So we hope we have planted seeds, although we can not see the results now. We gave addresses, phone numbers, and dates for upcoming events. Anyone who would like to have a calendar and flyer sent to them just need to contact us with SASE. We will keep you informed of other news as time passes.

Monday the turnout was great. Some came later in the evening, as their schedules allowed. When it was all said and done we have over 30 people celebrating the strength of the CoCo community.

Dominos Pizza keep the pizzas coming in the door. This was complimented by a complete array of Subway Sandwiches. To top everything else, several people brought their own holiday treat! Calories came in the pan and went out in us!!

And then there was the wheeling and dealing of the little and the large. One man hauled in his whole system. It included drives and a color TV, plus software. He set it up and had it working for the kids to play with. And someone walked away with the whole set up for only $75. Can you believe that? (And we have leads on other equipment available.) So there was a lot of exchanging of "stuff."

Oh, yes, there was some serious conversations mixed into the eating and the fun. We had several systems running for games and OS-9 questions.

The last dog to hang in there lasted to about 11:20. That's latest any of our meetings have been when we had heavy stuff to talk about!

Our January meeting (on the 17th) may equal this party in size. We are going all out to get the word out. **Mike Schuyler** of the Kitsap County Regional Library system is one of our too speakers. He will be talking about Internet. The library system is tying into Internet and going to make it available to the public. What does this mean? What other things will the library be doing?

The Kitsap system now offers the entire card catalogue on-line. So you can search by topic, key work, author and see what's available. Then you can find out where the books you want are located, which branch.

The library has a wide selection of CD-ROM's available at the main branch. They include the Federal US Code, Washington Revised Code, Kitsap County Code (these are all law stuff), National telephone book, small

business information, health & medical research. All of this information will eventually be available on-line. And Mike will be giving us the "Big Picture." Along with Mike, **Craig Buckman** will talk about BBSs. Craig is SYSOP in Tacoma for a board that focuses on weather and outdoor parks and camps information.

Finally, we will show a video of BBS as a concept of connecting to the rest of the local, if not global, world. This will help those who are just beginning to think of dialing into the world!

Reminder: The next Computer Swap Meet is in our own back yard, the Kitsap Pavilion on January 29th. This later date gives time to recoup from the wild success of the December 11th event in Kent. Although there were two other swap meets right in the Kent area, the body count was maybe a record! Just walking around -- if that's the word for it -- was a CoCo reunion all the way from Bellingham to Tacoma!

SolderFEST: **Rodger Alexander** and **Donald Zimmerman** are looking into another SolderFEST. A great way to upgrade your system wherever you are in that process. Do you have a good date in mind? Let us know. We will mail out info as soon as the date is set.

    ==Donald Zimmerman==

Seattle 68xxxMUG

The December 7th meeting featured a report on COM-DEC in Las Vegas. Scott Honaker attended representing Microsoft.

The beg news was the five fold increase in the multimedia products. Most obvious was "X" rated interactive videos (CD's) that provided optional camera angels, etc. These booths even featured the "stars" (strippers) to sign your CD packages.

Scott explained that what is seen at COM-DEC is indicative of what "will be" during the year to follow. Last year there was only one (1) "local buss" Video accelerator card. ("Local Buss" features a 32 bit card running at the CPU clock speed.) Today, all major video card companies offer local buss products.

Scott passed out flyers he brought back from the convention. These included mostly multimedia products and very high speed modems.

The other big news at COM-DEC was the processor war with INTEL coming off very weak. DIGITAL was showing off it's newest "Alpha" computers. They now have a 380MHz model, plus a 270MHz and the standard 150MHz model. All three were on display running identical software side by side against the latest MIPS (Risc 4400 CPU), Intel's Pentium and their fastest 486.

The new Power PC's were also on display. APPLE was showing off their "System 7" on their Power PC. IBM was showing "OS/2" on their Power PC and Microware was running WindowsNT on their display. The irony is that the Apple and IBM system are not yet ready for distribution. The NT version is available NOW!

Others topics discussed at the meeting included the feasibility of having circuit boards produced for the 68K Rocket accelerator card designed by Chris Burke (Burke & Burke). Also the anticipated Puppa IBM Keyboard Interface "KIT" that was suppose to materialize in the December issue of the *68 Micros*.

Donald Zimmerman announced the Port O'CoCo Club's "Holiday Meeting" set for Monday, December 20th at the Stock Market Grocery in Port Orchard. Everyone is invited and FREE PIZZA and SUBMARINE SANDWICHES for all!

The January meeting of the Seattle 68xxx MUG will feature a demonstration of transferring data between different type of computers using a "Null Modem". How to make a null modem. How to connect up to computers and what software to use for best results. Also scheduled will be the development of an "Advance Modules Directory" to be used with the standard CONFIG program to create souped up boot disk.

Seattle 68xxxMUG meetings are scheduled the first Tuesday of each month at 7:30 p.m. in Guggenheim Hall on the University of Washington Campus.

==Rodger and Barbara Alexander==

From the Editor: ## New 512K SIMM Board

During the past several months there has been messages going around CompuServe, Delphi and FidoNET about a new 512K Memory Board being developed by the Toronto Color Computer Club. Were these messages just more pipe dreams among some of the "good old boys" or is there a real possibility that some new hardware (any hardware) will be manufactured? But a Color Computer Club successfully producing a circuit board as sophisticated as a 512K RAM for mass production? *Hum Bug!*

Well *Merry Xmas!* The official announcement was posted Christmas weekend. The 512K boards are ready for shipment and the cost is $40 Canadian currency ($30-$35 US) **WOW!**

But there's more! This is no ordinary RAM card with 18 41256 chips. This RAM card features one (1) 512K SIMM to accomplish the feat. Make's sense to me.

Message from Toronto Color Computer Club:

```
The boards are now ready for shipment. Send a
money order for $40 CAN. to:
        Paul Hazlewood
        27 Muirlands Drive
        Agincourt
        Ontario
        M1V-2B3
        Canada

Upon receipt, I will let you know that the
upgrade has been shipped,
```

==Paul Hazlewood==

* Origin: Toronto Color Computer Club BBS (Ont)
(416) 757 8903 (1:250/404)

Washington State BBS List

COLUMBIA HTS. BBS
-- Longview/Kelso --
RiBBS (FidoNET)
(206) 425-5804

DATA WAREHOUSE BBS
-- Spokane --
RiBBS (FidoNET)
(509) 325-6787

BARBEQUED RIBBS
-- Bellingham --
PC-Board (PC-Net) - CoCo Conference #5
(206) 676-5787

~~OS-9 TACOMA BBS~~
Chris Johnson has closed down his BBS
Hopefully, John Schliep will take over.
Thanks Chris for all your efforts.

ULTIMATE EXPERIENCE BBS
-- Anacortes --
RiBBS (MaxNET)
(206) 299-0491

OS-9 Newsletter
3404 Illinois Lane
Bellingham, WA 98226-4238