OS-9 Newsletter

Volume I No. 8 <<<<<<< BELLINGHAM OS9 USERS GROUP >>>>>>> August 30.1990

OS-9 MEETINGS:

Meetings are held at 7:30 p.m., the second Thursday of each month in room 109 at Sehome High School.....HOWEVER, NO MEETINGS IN JULY, AUGUST, SEPT.

BENEFITS TO MEMBERS:

As a participating member of our new Bellingham OS9 Users Group you enjoy many benefits:

1. Newsletter
2. OS9 Bulletins
3. Public Domain Library
4. Technical help
5. Lectures and demonstrations
6. Periodic group purchases
7. Membership List
8. Access to GIMIX Level-III OS9

HELP WANTED!

Our group needs editorial volunteers. If you can contribute with infor-ation or helpful experiences of your own, please contact Rodger Alexander. The health of our newsletter depends on contributions made by members of our group.

IN THIS ISSUE:

SUBSCRIPTION INFORMATION:

Newsletters are available free to those in attendance at the monthly meetings. If you would like to receive the newsletter in advance by mail. a mail-handling charge of $3 for 6 monthly issues or $6 for 12 monthly issues is required.

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(206) 734-5806

MODPATCH WINDOW DESCRIPTORS

This is a modpatch command file which will patch the original Microware OS9 Level 2 window descriptors w1 through w15 to Type 2,80 Columns, 24 Rows, Hardware type windows. It also changes the default Border Palette register from 1 to 2. This gives the windows a black border, by default.

This file contains the offsets to the original OS9 Level 2 window descriptors W1, through W7, and the additional window descriptors provided with Multi-Vue, W8 through W15. If you don't have Multi-Vue, simply ignore/remove the patch information for those window descriptors.

Create WINDOWS.SCR using EDIT or any OS9 Editor Program:

```
l W1
c 002C  1B 50
c 002D  0B 18
c 0030  01 02
c 0033  02 00
c 0034  00 01
c 0035  04 02
v
l W2
c 002C  0C 50
c 002D  0B 18
c 0030  FF 02
c 0031  1C 00
c 0035  01 02
v
l W3
c 002C  28 50
c 002D  0C 18
c 0030  FF 02
c 0032  0C 00
c 0033  02 00
c 0034  07 01
c 0035  01 02
v
l W4
c 002C  3C 50
c 002D  0B 18
c 0035  04 02
v
l W5
c 002C  13 50
c 002D  0B 18
c 0030  FF 02
c 0031  3D 00
c 0033  02 00
c 0034  07 01
c 0035  04 02
v
l W6
c 002D  0C 18
c 0030  FF 02
c 0032  0C 00
c 0033  02 00
c 0034  00 01
c 0035  04 02
v
l W7
c 0035  01 02
v
l W8
c 002C  28 50
c 0030  01 02
c 0035  01 02
v
l W9
c 002C  28 50
c 0030  01 02
c 0035  01 02
v
l W10
c 002C  28 50
c 0030  01 02
c 0035  01 02
v
l W11
c 002C  28 50
c 0030  01 02
c 0035  01 02
v
l W12
c 002C  28 50
c 0030  01 02
```

```
c 0035  01 02
v
l W13
c 002C  28 50
c 0030  01 02
c 0035  01 02
v
l W14
c 002C  28 50
c 0030  01 02
c 0035  01 02
v
l W15
c 002C  28 50
c 0030  01 02
c 0035  01 02
v
q
```

To use the above modpatch files enter the following command:

```
OS9: modpatch windows.scr
```

When modpatch has done it's thing, then either:

1) Cobbler a new boot disk. or
2) Save all window descriptors to a file for use later with os9gen

IF YOU DON'T HAVE MODPATCH:
An alternative is to use this file as a guide to dEd (Disk Editor program) a _COPY_ of the original window descriptor files. Then use those modified files to build a new bootdisk with os9gen. To do that, remember the format of modpatch commands:

```
C       002C       28       50
change location  old      new
                bit      bit
```

And don't forget to RE-VERIFY the module **AFTER** writing out the modified disk sector!!!!

Zack Sessions

COCO IN A TOWER

Everytime I brought my CoCo-3 to our computer club meetings something would go wrong or some device or part would get broken. or worse yet, I would forget some connecting cable or other miscellaneous item. At home, I hide my CoCo under the computer table so that I don't have to look at the tangle of cables, rom paks, multipak interface, etc. So I vowed to put my coco into a single case.

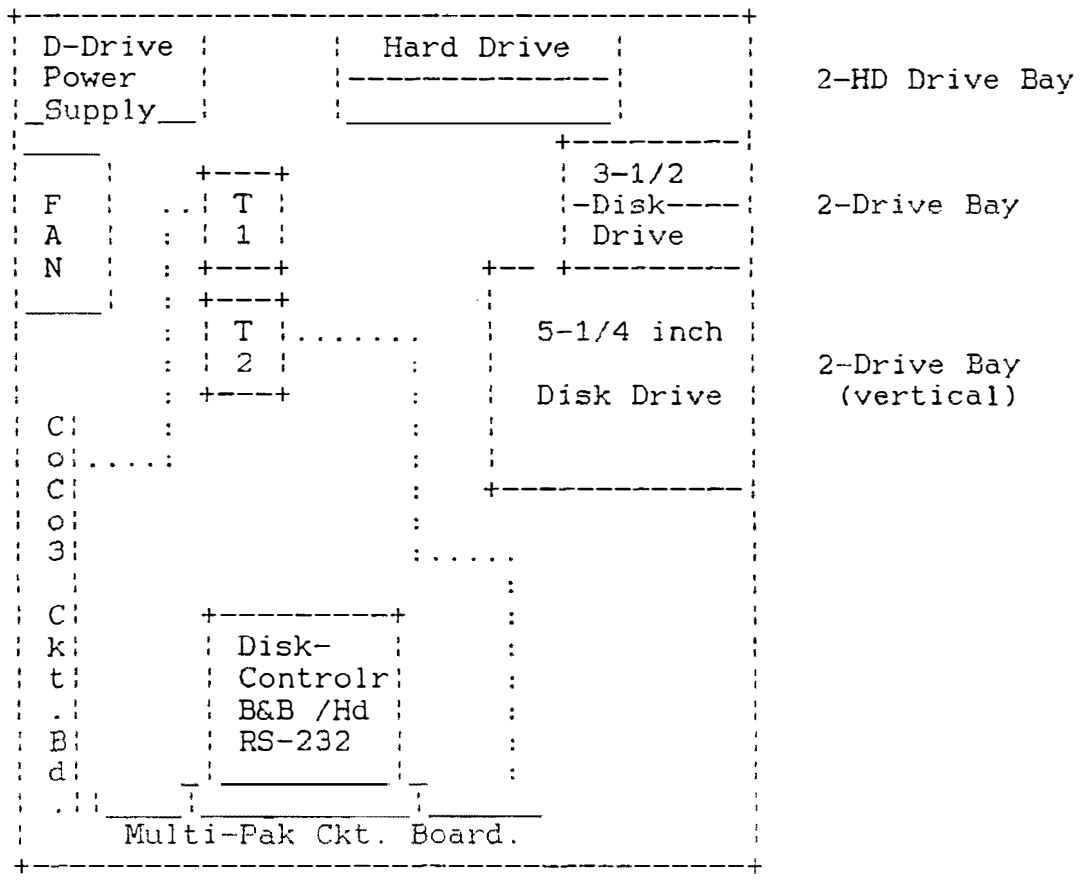
Originally I started by trying to put the CoCo into a Tandy 1000-SX case. The only way I could make it work was to mount the multipak on top of the motherboard (mounted upside down)and then, with the rom-pak circuit boards removed from their protected cases. connect them to the multipak via one 90 degree conversion board for each slot. What a pain! And after all of that. the rom-paks were still too tall to fit inside the SX case.

RATS! There must be another way. Then I tried to use the PBJ CoCo bus (6-slot multipak) which fit exactly along the side of the coco motherboard, standing on edge with the "PAKS" fitting on edge, supported on the foil sheild of the motherboard. Fit like a glove...P E R F E C T ! ! ! !

Unfortunately the PBJ CoCo Bus was designed in 1984 and although there are patches and hacks to make it compatible with the CoCo3, it would not recognize the Burke and Burke Hard Drive interface. Soooo, back to square one using the multipak and chucking the Tandy case. Fortunately, I had picked up an AT Tower case at a computer flea market for "free". I pulled it out of a garbage dumpster. REALLY!!! Turns out that the case is 1/8 inch higher than the CoCo and Multipak circuit boards are wide. No modification or jury rigging required, and plenty of room.

I have included a drawing of the installation of the circuit boards, drives, and power supplies, all neatly mounted in the case instead of sprawled across my desk. And since the case is a tower AT case, it stands along side my desk. VERY COOL!

AT TOWER CASE



External keyboard is plugged into a DB-25 jack on the back of the case, while the analog RGB output is accessed via a DB-9 jack. All of the standard DIN jack on the back of the CoCo are located

on the back of the case plus the RCA type Video/Sound jacks.

Rodger Alexander

EASY-EDIT

My program changes device-descriptors directly in the Os9Boot file. Therefore all changes are permanent (until one decides to change them again). It is written in Basic09 while I started writing the program because I got sick of having to change people's boot-files myself over and over.

The program works like a disk-editor. It first reads the Os-9boot file to find the positions of Device descriptors. After it has built a list of these it will show them on the screen. Using the arrows the user can select the descriptor to use. If one gets selected, the program checks the type of descriptor. Depending on the type, a couple of questions are asked. The answers are then interpreted (normally just copied) and changes are made accordingly. If the user decides to quit, all modules are being verified and the CRC get's updated.

The basic 09 source-code makes it is quite easy to add other questions for certain types of descriptors as well. I didn't do so to keep the questions simple enough for new users.

Peter Tutelaers

UNIX & OS9 CONCEPTS

I have been involved with the CoCo since 1984, when I purchased first F-board system for $95. I had a good friend at the local Radio Shack who was one of the few Tandy salespeople that had a heavy understanding of the CoCo. He explained what OS-9 was, but it was way over my head at the time.

But all that changed for me as soon as I got my modem ast year. In the Seattle area, there is a remote XENIX system called Eskimo North. that I happened to call since it had at the time 4 lines hooked up to it. The SysOp, Robert Dinse, is employed by the phone company. where he has access daily to UNIX. He purchased a Tandy Model 16B where he set it up as a remote system for people to learn on. He also had a good understanding of OS-9, since OS-9 has some similar UNIX services. I was a little overwhelmed by the cryptic command structure (why should I type "ls" to list a directory, when "dir" seemed a more logical command to type when I wanted to list the contents of the current directory?) and the concept of pathlists.

But. as time went on, I found that the structure of UNIX & OS-9 was easy once I overcame the fear of using such a dynamic operating system. I had trouble interpreting what a shell was (I always thought shells were those things you found on the beach), and the concept of a tree directory structure. Robert has online help files for all UNIX commands, since those files are actually volume 1 of the UNIX programmer's manual. In short. I have a better understanding of OS-9 now then I did 3 years ago after I purchased my first CoCo. Following is a description of some terms that a novice to UNIX, OS-9, and in some cases MS-DOS (which I feel is a cheap UNIX imitation).

THE NOT SO SEA SHELL

The shell is the command interpreter for the operating system. All it does is that it translates your input from the keyboard so the kernal (the part of the operating system that manages the various different tasks) can process your command. Shells are assigned whenever there are multiple terminals hooked to a system. or when you do a temporary "escape" from a program to run a UNIX or OS-9 utility.

PATHLISTS: YOUR MAP SO YOU DON'T GET LOST

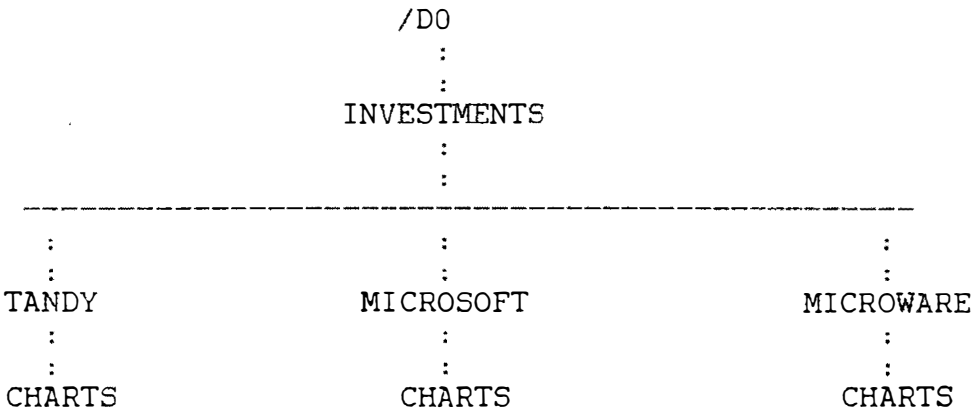
Pathlists are channels that UNIX and OS-9 use to find a file or execute a utility command. UNIX & OS-9 have a heirarchial directory structure, meaning that their can be directories within direcotories. Admittiedly, it does sound confusing at first, but once you see how a pathlist is used in an application. the concept is a snap to master. One directory is created after you format your floppy or hard disk. This is called the root directory. From here, you can have make other directories where you can organize your financial investments, checkbook, or a payroll.

Let's assume you own and run a small business. You format a disk and label it FINANCES. You make a directory called INVESTMENTS. The directory is there, so now what? Well, let's just move in to it. UNIX uses a command called CD for change directory, while OS-9 has two. One, CHD changes the current DATA directory, while CHX changes the current EXECUTION directory, to be detalied later. So. you are now inside the INVESTMENTS directory. you reivew your investments. and create directories that correspond to each investment. You then make a directory for each investment. For example, you make 3 directories. one for MICROSOFT, the other for TANDY. and the other for MICROWARE. You now have 3 directories in the directory called INVESTMENTS. which is in the root directory. So. if you want to list your investment chart for Microsoft. you need not be in the MICROSOFT directory. You would type:

LIST /D0/INVESTMENTS/MICROSOFT/CHART

Where D0 is the drive that the disk is in. INVESTMENTS is the investments directory, MICROSOFT is the Microsoft directory, and CHART is the file you want listed. The above is a pathlist that the operating system searches to find the file CHARTS. If you wanted to look at your investments for TANDY, you would replace MICROSOFT with TANDY.

If we were to diagram it out the directory tree would look like this:



EXECUTION DIRECTORIES

The execution directory is where OS-9 searches for the command that you type in. The default pathlist is: /D0/CMDS. But, if you have another directory of programs in the pathlist, such as /D0/TERMINALS, you could either type /D0/TERMINALS/XTERM, or you could type CHX /D0/TERMINALS, then type XTERM, and XTERM would load into memory and execute. This method sure saves a lot of keystrokes! But, be sure to switch the execution directory to /D0/CMDS if you want to run the pre-supplied OS-9 utilities. If your sure where you are in the directory tree, just type PWD to see what the current directory is, or PWX, to see the current execution directory.

STANDARD INPUT AND OUTPUT

The default input device for OS-9 is your keyboard, or /TERM. The default output device is your monitor. However, if you want to list your investment chart for Tandy to your printer, you would type: LIST /D0/INVESTMENTS/TANDY/CHART > /P, the ">" redirects the output, whereas < redirects the input. If you want to use a SORT utility to sort your data, you would type SORT < CHART > SORTED.CHART. SORT gets its input from a file called CHART.

PIPELINES

A pipeline is used to filter your data. If you wanted to list your current directory in a sorted order, you would type: DIR ! SORT. The DIR utility lists the current directory, sends it's data to the SORT utility, and you get a sorted directory listing.

Hopefully, this article was of some help to an OS-9 novice. The more you learn, the more you realize what you haven't learned.

Brian Wright

JUST FOR LAUGHS

Check out Radio Shack's latest sale flyer #460. On the back cover they are hawking a 23-range Digital Multimeter. (A nice meter, I have one.) In the photo, the tech is testing a TTL circuit with the range on the meter set to 3000 VAC!! And the red lead is plugged into the AMPS socket, not the VOLTS socket!!

HA HA HA HA HA

Zack Sessions