OS-9 Newsletter®

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Add a Clock to your Burke & Burke CoCo-XT Hard Drive Interface

Four years ago, when it was time to add a hard drive to my Color Computer 3, I looked around at the current advertisements in *The Rainbow* Magazine. There was hardware setups available from Disto, Owl Ware, FHL and Burke & Burke. Let me interject at this time that I claim to be of Scotch heritage (whether its true or not, I'm not sure). In other words I'm cheap! Or at least "penny wise and pound foolish". I chose to go with the Burke & Burke Interface because I already had an MFM Drive and the price was right: $69 dollars for the ***CoCo XT*** package and $99 for the ***CoCo XT-RTC*** package.

OK....Do I buy the $69 *XT* or pay an additional $30 just to get the Real Time Clock. Hey! I'm not that lazy. Typing in the current date each time I boot OS-9 is no big deal.

YEAH, SURE! "No big deal". Brave words for 10 lazy fingers. You can figure out the rest. Now I want the clock.

I borrowed an *RTC* board from the Seattle 68xxxMUG and compared the differences between the clock version (RTC) and my non clock version. The circuit boards were identical. What was missing on the non clock version was a 3 volt battery, battery holder, clock chip, crystal and capacitor. The battery holder was unusual and I had no idea of the frequency of the crystal, so I called Terry Laraway.

Terry Laraway to the rescue

If you don't know Terry Laraway, then pay attention. He has every weird part that ever came out for the CoCo and he is constantly researching new sources for parts that we may need to upgrade our little machine to a Super Computer. His efforts and stock are available under the name of *Small Grafx Etc.* Check out his ad in this issue. He even has those KEL AM 34 pin "male" IDC type connector for plugging ribbon cable into the CoCo's ROM port. They are a "must have" item when installing a CoCo into a PC Case.

Anyway, I called Terry to see if he knew where I might be able to pick up the specific parts Burke & Burke used for their *CoCo XT RTC Hard Drive Interface.* Terry not only new the specific part items but just happened to have them in stock. Best news of all was that the price was right...cheap!

I ordered the parts from Terry and found them in the next day's mail (talk about service)! I soldered in the 16 pin socket in the pre drilled holds on my *CoCo XT* circuit board. Then I soldered in the battery holder and the

(Continued on page 2)

A real "GEM" for Shell+ Users

TYME - Digital Clock

We all seem fascinated with turning our expensive computers into cheap clocks, myself included. I have used shell+ (Shell2.1), along with *DATE, DISPLAY,* and *SLEEP* to create an on-screen digital clock. It doesn't do anything but sit there and display the date and time in the middle of an 80 column window. Use it when you are going to leave your computer idle for a few minutes. To stop it, enter [CTRL]-E.

```
*tyme
onerr goto +trap
tmode -pause
display c 05 20
*repeat
display 2 3a 2b
date t
sleep 30
goto repeat
*trap
display c 05 21
date t
echo Tyme end.
```

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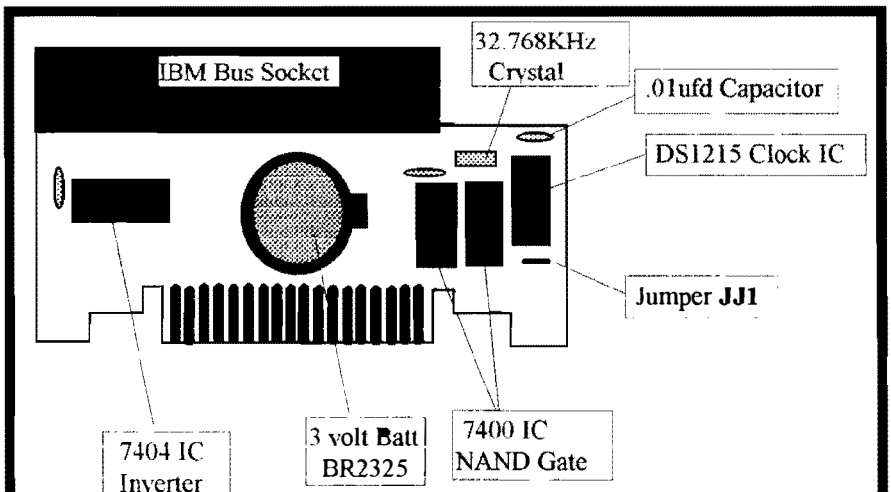
.01ufd capacitor. I plugged in the clock chip and the 3 volt battery, plugged in my hard drive controller card and plugged the complete unit into my multipak and turned on the power.

It didn't smoke, but then it didn't work either? As OS-9 was booting up, I noticed that the hard drive access light was blinking in a random manner. What the heck?

I pulled out the interface and put on my glasses to do a pin by pin comparison between the two boards. Pin 1 and 2 on the clock chip go to the crystal, pin 3 goes to Address Line 2 (pin 21 on the CoCo's I/O bus), pin 4 goes to the battery, pin 5 goes to ground, pin 6 goes to Address Line 0 (pin 19 on the CoCo's I/O bus), pin 7 goes to Data Line 0 (pin 10 on the CoCo's I/O bus), pin 8 goes to ground, pin 9 jumpers to pin 15, pin 10 and 11 go to a jumper on the board located just below the chip and then to pin 9 on one of the two 7400 nand gate chips located next to the clock chip. Pin 12 goes to pin 7 on the other 7400 chip, pin 13 goes to the 7404 inverter chip (the inverted signal goes to pin 5 on the CoCo's I/O bus), pin 14 goes to ground, pin 15 jumpers to pin 9 and pin 16 goes to 5 volts.

Everything checked out but it still didn't work. On my third examination I noticed that there was a jumper etched on the top side of the board underneath the left 7400 chip. The bottom of the jumper was hidden under the socket, but on the reverse side it appeared that the jumper connected to pin 8 of the 7400 chip, but the feed through hole looked to be damaged and there was no electrical connection between the jumper and pin 8 on the chip. **WARNING!** Apparently the lack of electrical connection was on purpose. It seems that the board had a design mistake and the feed through hole was intentionally drilled out to eliminate the conductor material. Of course I tried to repair the jumper resulting in a totally dead interface.

In the end it turned out that the only modification that needed to be done was to remove the jumper wire located below the clock chip. It is labeled clearly on the circuit board as **JJ1**. That's it!



B&B CoCo XT HD Interface

PARTS LIST

16 pin IC socket	$0.15
32.768KHz Crystal	$1.00
DS1215 Clock IC	$12.50
Battery Holder	$1.00
BR2325 3v Battery	$1.50
.01ufd Ceramic Cap.	$0 .35
Total	$16.50

==Rodger Alexander==

OS-9 Newsletter

Editor: Rodger Alexander

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Submissions are welcomed in any format and can be mailed to the above address or sent via electronic mail to the editor: Rodger Alexander, on Delphi (UserID: SALZARD) or FidoNET (1:301/3401@fidonet.org) or Internet (ralexander@nikita.bham.wednet.edu). Unfortunately, we do not have funds to reimburse authors of selected articles. However, a complimentary copy of the *OS-9 Newsletter* containing your article will be mailed to you, PLUS the satisfaction that you will have the admiration and appreciation of all of our readers.

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.

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Telecommunications Updates

CompuServe announces lower pricing

For you Information Service hoppers out there ... CompuServe recently announced a reduction in connect charges for those members on the Standard Pricing Plan. Rates are quoted in US dollars, effective 6 February, 1994:

Standard Pricing Plan:		**Alternative Pricing Plan:**	
300 baud	$ 4.80/hour	300 baud	$ 6.30/hour
1200,2400 baud	$ 4.80/hour	1200,2400 baud	$12.80/hour
9600,14400 baud.	$ 9.60/hour	9600,14400baud	$22.80/hour

Connect time is billed in one minute increments, with a minimum of one minute per session. Connect time rates do not include communications (network) charges or premium surcharges, which are billed in addition to hourly connect time charges.

==Steve Wegert==
CIS: 76703,4255
Internet: steve@wuarchive.wustl.edu
DELPHI: SCWEGERT

The three most used OS9 Internet sites

lucy.ifi.unibas.ch
chestnut.cs.wisc.edu
wuarchive.wustl.edu

You can access all three via Internet FTP. Also you may be able to access them thru mail servers. With a mail server, you send mail to the server, requesting things like DIR or a program. You then get back a series of UUENCODED mail packets. Then you decode them using a decode utility, merge the packets together and you have a program. It's kinda slow since it all has to be done as email. FTP on the other hand allows you to connect with the host computer as a guest and download directly the program. FTP has a help mode, thus will help you execute the right way to download a program. If my memory serves me right, you can not upload via FTP only download. To upload a program, you will need to use TELNET. TELNET allows you to connect with the host, but requires that you have a login and password. some sites have a guest login/password for you to telnet. These are limited access, for uploading programs into a special directory only.

O'Reilly & Associates, Inc have books out explaining in great detail about Internet,FTP,TEET,& EMAIL.

==John A. Donaldson==

OS-9 Underground Update

I know... I know... you're thinking... what happened to the *Underground*?

It's late...

Yup... it is... and what has been decided in order not to throw the schedule off, is to make this issue a Double issue (February/March). This issue will ship towards the end of this month and will be double the size of a regular issue (and will count as 2 issues)

Due to many delays caused in part by last month's earthquake, part by a 2 week bout with the flu and some serious catch-up of my regular work (finally caught up with my backlog!) I have gotten way behind with production of the magazine.... this will put it back on track again.

Financially, Fat Cat is in the Black, which is good news for a change, since the magazine has been in the RED for over a year... (Whew!)

Thank you all for being patient... and for your support!

==Alan (ZOG)==

68K Products
from
Bob van der Poel Software

Ved/68xxx Text Editor	$59.95
Update to current version	$19.95
Vprint/68xxx Text Formatter	$59.95
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Update to current version	$15.95
Cribbage for Kwindows	$19.95
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Disk Catalogue System	FREE with any order

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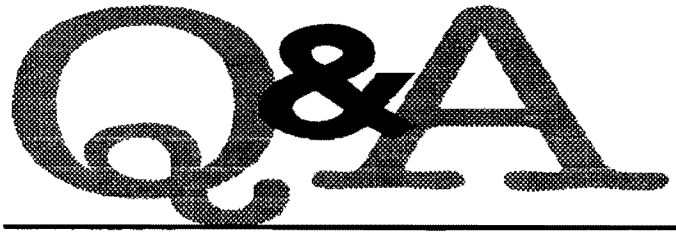
Canada V0B 2N0
CIS 76510,2203

Verified BBS Listing that support the Color Computer and OS-9/OSK

BBS Name	Sysop	Phone NO.	City & St.	Baud	FidoAddress
Fido Exchange	P.Taylor	703-573-5606	Vienna Va	9600	
Fido Exchange	P.Taylor	703-573-2246	Vienna Va	14.4	1:109/200.
Coco Workshop	B.Steward	413-593-3944	Chicopee MA	9600	1:321/312
Access Coco of La	D.Spicer	205-598-2100	FT Rucker AL	9600	1:18/75
Arrakis Ribbs H.	QC.West	405-752-8955	Okaho City	9600	1:147/61
Coco Plus BBS	E.Jones	205-341-1616	Mobil AL	2400	1:3625/461
Data Stash	K.Kowalski	414-684-4115	Whitelaw WI	2400	1:154/888
Data Warehouse	Dennis.Mott	509-325-6787	Spokane WA	2400	1:346/9
Discus BBS	Y.Souliere	819-771-3792	Quebec CAN	2400	1:163/519
Fire House Pub Sf	A.Stiebel	607-687-0944	Owego NY	2400	1:260/452
House of Fire	B.Mclaren	416-601-0085	Toronto ON	14.4	1:250/436
Kzin BBS	W.Gale	604-589-1660	Surrey BC	2400	1:153/912
MACCC	D.Stock	402-292-2417	Omaha NE	2400	1:285/16
Mustang Software	Bill Nobel	306-978-1962	Sask CAN	9600	1:140/71
Norm's Place	N.Rheaume	205-661-5298	Mobile AL	9600	1:3
Packer City	R.Margraf	414-496-1680	Green Bay WI	2400	1:139/530
Roadhouse	R.Miscavis	204-774-0247	Winnipeg MB	9600	1:348/102
TCCC BBS	M.Curley	416-757-8903	Scarborough	2400	1:250/404
Basement	Trix	615-399-1801	Nashville TN	2400	1:116/27
The Benchboard	J.Evans	517-394-2447	Lansing MI	2400	1:159/290
The Coco Library	J.Wight	808-735-3776	Honolulu HI	2400	1:345/200
Diamond Mine	Baysinger	509-325-5160	Spokane WA	2400	1:346/23
The Fun House	B.Covert	716-372-7863	Buffalo NY	2400	1:260/175
Deep Station K7	E.Carson	916-899-1069	Chico CA	9600	1:119/13
The Golden Coco	T.Goode	713-941-1542	Houston Tx	2400	1:106/941
The Keyboard BBS	J.M	403-246-6943	Galgary AB	9600	1:134/67
The Informat BBS	D.Leonard	916-646-1907	Calf	9600	1:203/348
The Score Board	E.Kistner	417-887-6706	Springfld Mo	2400	1:284/2
Tomcat's BBS	T.Brewer	405-282-8250	Okahoma Ok	2400	1:147/53
Trial Run	T.jones	512-280-6578	Austin TX	9600	1:382/107
M.T.A.C BBS	K.Patience	416-469-0611	Toronto ON	2400	1:250/610
Andromeda	T.Guzman	714-545-5156	Santa Ana CA	2400	
Eight Bit Heaven	S.Marolf	619-447-2111	EL CAJON CA	2400	1:202/1523
The Edge 2	L.Labas	613-547-4539	Kingston ON	9600	1:249/108
Ocean Beach BBS	W.Hrach	619-224-4878	Ocean B CA	9600	1:202/343
ZUUL'S Catacombs	C.Stokes	412-264-9787	Coraoplis PA	9600	1:129/164
The Node III BBS	G.Clifton	504-347-4320	New Orleans	9600	1:396/27
MECCO	B.Bruff	613-723-6537	Nepean ON	2400	1:163/306
Rainyday Ribbs	S.Ricketts	503-663-6795	Boring OR	2400	1:105/420
Coco Exchange	J.Reece	619-272-3643	San Diego Ca	2400	1:202/617
The Right Place	S.Herring	206-565-8853	Tacoma WA	2400	1:138/131
Flipside BBS	J.Fett	616-723-2370	Manistee MI	9600	8pm-9am
The Astral Plane	M.Guzzi	717-586-2771	Waverly PA	9600	1:268/342
Kansas Konnextion	G.Mccarty	316-342-3967	KANSAS	9600	1:284/3.12
CD ROM DEN BBS	R.Flemming	011-61-7-265-3187	Australia	9600	

This Bulletin Board Listing has systems that supports RSDos or OS-9 for the TRS-80 Color Computer. The listing is posted in The OS9 and CoCo Fido National on the first day of each month. Please let us know if you see errors. Contact Phillip Taylor at: Fido Exchange BBS at (703) 573-2246.

==Phillip Tarylor==



Most of the Questions and Answeres published in the OS-9 Newsletter are selected from postings on the FidoNET OS-9 echo. If you do not have access to FidoNET, mail your questions to OS-9 Newsletter, 3404 Illinois Lane, Bellingham, WA. 98226. If I can't answer your question(s), your query(s) will be posted on the OS-9 echo.

Q: Why isn't OS-9 more standardized? Why isn't Microware more responsive to it's customers?

==EDELMAR,Delphi OS-9 Sig==

A: To answer your questions requires an understanding of the flexibility of OS-9 and the manner in which Microware markets it.

With a couple of exceptions, Microware does not offer OS-9 to the end user. OS-9 is sold to the hardware manufacturer (OEM). Depending on the licensing agreement, this will include the kernel, some or all of the file managers, the utilities, assembler, linker, C-Compiler, etc. It does not include drivers or descriptors although MW does provide *unsupported* sample drivers and descriptors for some of the more popular I/O chips. It is up to the OEM to write his own drivers and descriptors. This approach was taken by Microware to permit each OEM to optimize his hardware for his market. (Microware will write drivers for OEMs under a separate contract.) Thus, the capabilities of a specific hardware package from an OEM are determined primarily by and are the responsibility of the OEM. (The exceptions I mentioned above are OS-9000 for the 386/486 and several Motorola VME boards.)

I don't have any actual figures but I believe that the bulk of OS-9 sales are for rommed, diskless applications. If they include any I/O it will be for data collection, processing and control; they will not include any human user interface. The next level might by something like CD-I. The OS is contained in a ROM and it reads and controls a optical disk. Output is to a TV set and other input limited to a few commands. The systems you and most people on the forum are familar with are disk based. The bootrom contains only enough info to find the bootfile on the disk, load it and switch operation to OS-9. (The CoCo version uses software instead of a bootrom.)

Up to a few years ago, OS-9 systems which required user interface used text terminals. These were mostly development platforms although some were used for business applications. Of course, there were always a few hobbyists. The only hardware available offering graphics was the CoCo. While Microware did write much of the code, this was done under contract to Tandy and Tandy owns the rights.

More recently, we've seen customers who want graphics capabilities. Several of the OEMs providing VME equipment wrote drivers capable of driving graphics terminals. Others have designed graphics boards for their equipment. Each OEM has selected the graphics chip he felt best suited his market's needs. Since the graphics chips are different, each driver is substantially different. And each OEM has written his own equivalent of CGFX.1 libraries and calls.

The nearest thing to a GFX standard is Microware's RAVE. Currently, RAVE supports the Vigra MMI-100, MMI-250 and Matrox VIP-640 graphics processors. So far, RAVE seems to be accepted only for a few dedicated apps. But, RAVE has been selected for Bell Atlantic's VOD system. Then, there are the various windowing packages; X-WINDOWS, G-WINDOWS, K-WINDOWS and MGR. X-WINDOWS is not practical for the 'lesser' microprocessors. Microware recommends that a 68040 be used. G-WINDOWS has probably received the greatest acceptance by OEMs and users. K-WINDOWS, so far, is limited to one hardware platform (MM/1), and MGR's use seems to be limited to a few European companies.

For the SYSTEM's IV and V Computers, we've settled on video cards using the TSENG LABS ET4000/ET4000w32i graphics chips. (TSENG LABS is also designing the Vigra chip.) Our driver for these boards supports text modes from 40 x 25 to 132 x 44 and graphics modes up to 1024 x 768 x 256. A graphics C library is available which is a sub-set of Microsoft's Quick C. While we sell and support G-WINDOWS, G-WINDOWS is not necessary for gfx on either computer. Several people have written gfx programs. There is Bob Hollman's port of TETRIS. Very nice gfx and action. Dave Proctor has written an excellent 'flic' viewer. Several others have written specific programs using the SYSTEMs IV & V gfx capabilities.

Q:... I know there is or will be GFX again for Basic, ...

A: MW has no plans for a GFX package for Basic. There may be plans for such a package from Blackhawk or third-parties but it will be hardware specific. (The CoCo GFX package is hardware specific.)

So, you can see the way things stand now, even if you get a machine that supports gfx, software you write probably won't be portable to other hardware. Of course, if you're doing this for your own amusement, who cares?

Gfx compatibility across hardware platforms is one of the reasons for the various windowing systems being offered. Gfx written under a given windowing system will (or should) run on any hardware supporting that windowing package.

==Ed Gresick - DELMAR CO==

(Continued on page 6)

(Continued from page 5)

Q: Where can I get the CoCo-2 Emmulator for IBM type PC's that I've read about?

==Tom Moon==

A: You can either FREQ it via FIDO or Download it directly from Data Warehouse (509) 325-6787.
Its filename is: **COCO2_12.zip.** If you want to FREQ it, the Fido Address is 1:346/9

==Dennis Mott==

Q: I would like to use the wildcard functions of Shell+ on ocassion, however I have several excellent utilities that have wildcard ability built into them. I've read that you cannot have Shell+ wildcard bit set on if you use these type of applications. Has a solution been found to this problem?

==Rodger Alexander==

A: If by chance that you do not have Shell+ wild card bit set to ON. Then All you have to do is insert a colin ":" as the first character in the command line. Hope this helps out some.

==Paul Myles==

Q: Does anyone know what utility or patch will allow OS-9 to use a number as the first character in a file name instead of using a letter. Untill my HardDrive crashed I had it, but now I can't remember what it was, or find it in my files....

==John Phillips;FidoNET OS-9 echo==

A: I think that is the ***OS9P3.ar*** file availble from any OCN Library, also available on my BBS.

==Dennis Mott==
Data Warehouse, Spokane, 509-325-6787 (1:346/9)

Editor's Note: OCN Libraries are FidoNET linked Bulletin Boards located in regional areas around the world. As an example, ***Columbia Hts. BBS,*** *(206)425-5804, in Longview, WA. is the OCN Library for the Pacific Northwest.*

CoCoPRO Software
STILL AVAILABLE

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together:	$15 + $2 S/H
Newspaper 09	*$34.95*
News Fonts	*$ 9.95*
The Zapper	*$14.95*
together:	$15 + $2 S/H
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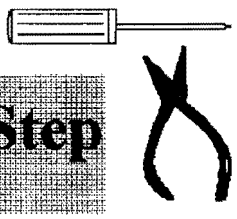
Another IRQ "Hack" Step by Step

RS-232 PAK
ColorComputer



Editor's Note: We have had several articles regarding the IRQ Hack. Even though there are new clock drivers that eliminate IRQ Lockups, it is still recommended that these physical modifications be made to your machine and RS-232 PAK for more efficient operation when used for Telecommunications.

Maybe you've heard of the IRQ hack that you can perform to the Deluxe RS-232 pack, so that IRQ interrupts are not 'lost', but didn't know how to do it. Here's the information you need:

Basically, you are connecting the IRQ pin of the 6551 to the IRQ pin of the 6809..

On the pak:

Locate the little blue jumper wire near the edge connector. One of the solder pads it is connected to has the label '1' near it. Desolder both ends of this jumper, and solder one end of a long wire (1-2 feet - enough to comfortably reach the back of the CoCo) to the solder pad near the '1' label. Burn (with the tip of the soldering iron) or file a small hole in the side of the pak so that the wire can be passed through it without being pinched. Attach a miniature phone plug (male) to the end of the wire.

On the CoCo-3:

Locate the resistor that does the pull-up of the IRQ line (CPU pin 3) to the 5vdc. It is R2, and I believe it is the second from the left in a cluster of resistors to the right-rear of the 6809 chip (as seen from the keyboard). Solder a wire to the end of that resistor that is closest to the keyboard (the side that also ties to CPU pin 3). Carefully route this wire to the back of the machine, and mount a miniature female phone jack there.

Poof. That's all there is to it. No software changes are required - the existing ACIAPAK driver will work (better!) as is. If you run multiple PAKs (or other interrupt devices that could benefit from the IRQ hack), just tie them all together at the male plug that will plug into the CoCo-3.

If you wish to perform this procedure for the CoCo-2, the majority of the work is the same, except that the resistor that you should connect to inside the CoCo is R14. As verification, ensure that one side of this resistor ties directly to pin 3 of the 6809, and tack the wire onto this side.

==Pete Lyall==
Compuserv;76703,4230

OCN NETNEWS

OS-9 COMMUNITY NETWORK

ON-LINE MONTHLY NEWSLETTER

FIDONET OS-9 ECHO

A SUBSIDIARY OF THE *OS-9 NEWSLETTER*

C Programming

ARGC & ARGV
The Command Line Variables

Recently there was a discussion concerning pointers in 'C' and the question was asked:

*Why do some programs use **argv and others use *argv[ ]?*

This article will explain the meanings of these two declarations and shows why they can be considered synonamous.

Wherever you see ****argv**, you can substitute ***argv[]**. They are both the same:

char **argv. In english, argv is a pointer to a pointer to a character.

char *argv[] In english, argv is an array of pointers to characters.

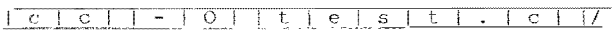
Initially we have what appears to be two different declarations both visually and when written in english. In the first example it is implying that there is only one pointer to a character. In the second example it is implying that there are one or many pointers to characters; or an array of pointers

Let's go through an example and see how the command line is operated on and stored in memory.

For instance let's say an operator typed:

cc -O test.c

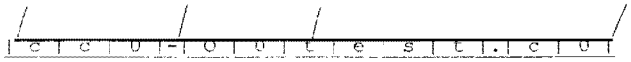
Which would look like this in memory:



When you execute a 'C' compiled program the first thing that executes is the run-time library which is attached to every program. This will examine the command line and search for a space delimiter between options or a newline character to signify the end of the command. The run-time will gather each option into character arrays (strings). For instance our example will produce the following strings:

"cc", "-O", "test.c"

These strings are stored in memory and will appear like so:



The run-time also makes an array of pointers which will point to the start of each string. These pointers will be stored in memory also. Let's call the array argv. In our sample command line we have three string arrays, so we will also have three pointers. The examples are using imaginary memory locations for storage.

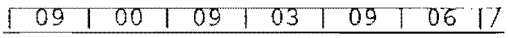
argv[0] = 0x0900 which points to "cc"

argv[1] = 0x0903 which points to "-O"

argv[2] = 0x0906 which points to "test.c"

and will look like this in memory:

argv[0] argv[1] argv[2]



The memory pointer 0x0900 is a pointer to a character. Well, we have to store this pointer somewhere, Let's put it in memory location 0x0950, as illustrated above, and put the next pointer in location 0x0952 and finally the third in 0x0954.

Question: What does memory location 0x0950 have in it?
Answer: It has 0x0900 - a pointer to a character.

So 0x0950 is a pointer to - a pointer to a character:

char **argv;

You can see now how the declaration has meaning, and you can also see that it does not fully describe the true state of things. That is, there may be more pointers than just one. Many people like the array declaration which tends to describe the true structure of most command lines:

char*argv[ ];

The operation of the run-time package finally finishes and is ready to begin your program. It calls your program just like a function call:

main(3,0950)

Which says we have three pointers beginning at location 0950. Then along comes your program:

main(argc, argv) intargc	argc is the number of pointers(3).
charargv**	argv is a pointer (0950) to a pointer (0900) to a character 'c'.
or	
char*argv[]	argv is an array of pointers to characters beginning at (0950).

I hope this will assist you in visualizing the command line process and answer an often asked question.

==S.R. Sampson==
Compuserve 75136.626

Bellingham OS=9 Users Forum

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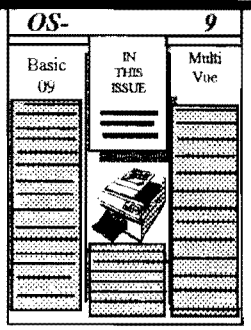

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$7

OS-9 Level Two and the Color Computer-3

The first half of the manual guides you as a "first time user", and advances you in five easy chapters with helpful *homework sessions* to give you hands-on experience.
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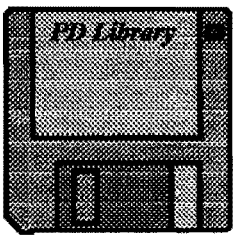

10 3-1/2 inch 720K 80 Track Diskettes

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CLOCK.SSYS	CC3DIS
ULTRAACIA	REPAKFIX
GSHELL.24A	DESK3.SCR
GRFDRV2	MULTID
GRFPATCH	SERMIDI
SSPAK	SIMON.PAT
GFX2PAT	FSTGRF
DEDPLUS	TSEDIT
KRNL	ACIA.PAT
WINDFIX	BOOT80COL

Utilities Disk-1

ARCHIVE	SORTDIR
MODUTIL	PAK
RSDOS	PROC
SDIR	PMAP
AR1.3 & 1.4	COPY
PCDOS	DIR
QTIP	PURGE
CALL	DASM
IPATCH	DISKOPT
WMODE	CUTS
ZAP	DAM
LSH	NEWCRC
SYSINFO	DUPEFILE

The Bellingham OS-9 Users Group maintains over 7 Megabytes of Public Domain Files available on single or double sided 5-1/4 inch format or 3-1/2 inch 720K format. The cost to subscribers is approximately $1/disk or send along your own disk and postage and we'll copy the files over for you absolutely FREE! Files are updated with the most current version. Faulty or damaged files are replaced free of charge. And technical help is always always available by calling us directly.....NO CHARGE!

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BIG-T	ACIAMapOUT
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XCOM9	USER
AUTOBAUD	BITBANG
SUPERCOM	MAXQWIK
WIZPRO	NEWXCOM9
OSTERM208	SCRIBE23

Utilities Disk-7

CRON9	VU
CRONTOOL	SDUMP
SCULP_PAI	TAR
SS_MENU	STREAM
EASYEDIT	CDR
FREE	MD
WIDTH	MERGEMOD
ITEM	SETBIT
MELT	HEXDEC
MORE	COMPRESS

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

February meeting cancelled due to scheduling conflicts. Next meeting, March 29. Call 734-5806 for more information.

Port Orchard Port O'CoCo Club

February 21 was a holiday, so Scott managed to bribe me to drive all the way down from Bellingham and attend the Port O'CoCo meeting. Since *Cloud's Corner BBS* is no longer on line, Donald Zimmerman has no access to the PNW OS-9 echo on FidoNET where he usually post the Port O'CoCo meeting news. I guess what this all boils down to is that I'm left to write the Port O'CoCo February meeting column. Grrrr.

It was **Gene Elliot's** birthday, and he brought his own chocolate cake and punch. I assume that he received the traditional movie pass (Right Donald?). **Mark Kulien** showed me his latest production of the Hard Drive Interface as featured in the *OS-9 Newsletter*. Looked really cool Mark. Hope it works.

Terry Laraway was the featured presenter for the evening. Everyone received in the mail a post card alerting them to the night's event. Terry would get your printer to work no matter what! The post card informed the reader to let Terry know what kind of printer you have and what the problem was. Terry in turn would call the manufacture and get the technical manual and come prepared at the meeting to make you printer work.

Terry is famous for his graphics print outs at computer meetings and swap meets, and most of the printer brought to the meeting were Tandy CGP-220 color ink jet printers. Terry's specialty! Terry worked with small groups of individuals on their printers. Several setups were plugged in and operating around the room.

Most interesting to me was Donald Zimmerman's CGP-220 printer that would not work on his computer. He had installed a 6309 processor and Burke & Burke's *Booster* software upgrade. This apparently made things run a little faster then normal and his printer and computer were not synchronizing. I had read about this problem before and knew that the TUNEPORT utility was required to correct the problem. I had never used the TUNEPORT utility and was curious about the process.

The TUNEPORT syntax is: **tuneport x** where **x** is a value from 0 to 255. Donald's serial port finally synchronized at a value of 118.

Terry also brought a pile of electronic catalogs and technical manuals for the taking. I grabbed a BG Micro catalog and information pamphlets on OS-9 and CoCo publications.

Next meeting of the Port O'CoCo Club will be on Monday, March 21 at the Stock Market Foods in Port Orchard. Call Donald Zimmerman for information about next month's meeting at 871-0319.

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Seattle 68xxxMicro Users Group

The February meeting began with a quick 20 minute demonstration by **Rodger Alexander** on using the *Dyson Alignment Disk* along with *Memory Minder* by J&M Systems, Ltd. To align the head on a disk drive.

The J&M *Memory Minder* disk allows Disk Extended Basic to read the *Dyson Alignment Disk*. The J&M disk presents a menu of several options and test that are necessary for the complete servicing of a disk drive. The biggest need however is for alignment purposes.

Rodger proceeded to loosen the stopper motor mounting screws and move the motor so that the head alignment was corrupted. Then using the J&M *Memory Minder* disk, he slowly moved the stepper motor back towards it's original position until an indication showed on a ruler displayed on the CoCo screen. When everything settled at dead center, the disk head was aligned.

A second option on the menu was an alignment sensitivity. This provided for very fine tuning of the alignment, and sure enough, Rodger's original alignment was still slightly off. A little extra effort and not breathing between adjustments was all that it took. The whole process was very quick and quite easy.

It should be noted that J&M no longer provides software or hardware for the CoCo. The J&M *Memory Minder* disk is copy protected but can be duplicated using *Spit-n-Image* copy utility. A 360K double density disk formatted on a 1.2Meg drive can be used as an alignment disk with satisfactory

(Continued on page 11)

(Continued from page 10)
results. However, only the alignment options will work using this substitution method.

The second portion of the meeting was devoted to uncovering the mysteries of **INTERNET.** This subject was also covered at the Port O'CoCo meeting in January.

Scott Honaker brought a large pile of hand-outs for everyone. Hand-outs included messag s posted on **Usenet Newsgroups** including olor Computer For Sale items and articles Scott downloaded on Amateur Radio including schematic diagrams. Other items included in the hand-outs were samples of Electronic Mail received by Scott from as far away as the Netherlands and as important as from The President and Vice President of the United States.

One of the hand-outs included a listing of all of the "Usenet Newsgroups Available via Internet". This list was nine pages with over 250 groups per page. And this was a listing of only the groups that had asked Scott if he wanted their services (*No Thank you!*). Scott was already subscribing to over 50 Newsgroups.

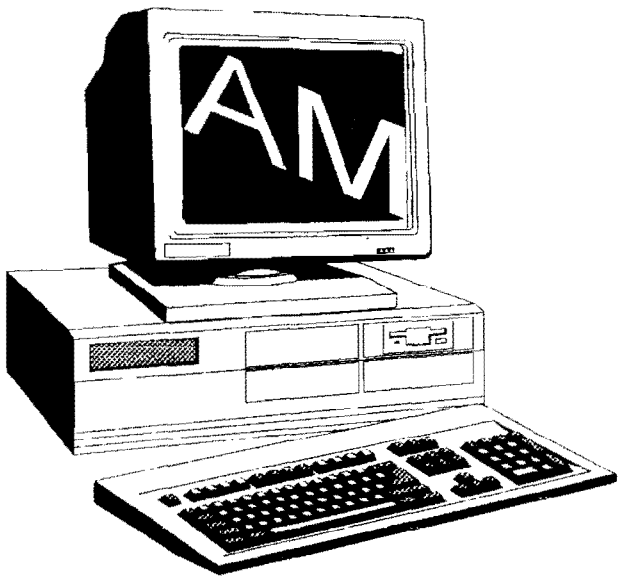
Elsewhere in this issue is a listing of **FTP** sites (File Transfer Sites) for OS-9 files that may be freely downloaded. The Chestnut has over 30 Megs of software for the taking.

Rodger Alexander subscribes to the Princeton **CoCo List** where messages posted about OS-9 are automatically echoed to his mail box. This can include anywhere from 15 to 60 messages a day dealing with OS-9, OSK, OS9000, MM/1, KiX\30 and the Color Computer.

Interenet is available on Eskimo North BBS in Seattle for a annual subscription of $90. Fortunately for Scott, Microsoft is part of the Internet as are all Universities and some School Districts. If you have access to Internet, take advantage of the "Electronic Highway". In ten years, the three largest population groups will be China, South America and Internet!

Tacoma Color Computer Club

No report available from the Tacoma Color Computer Club. Contact John Schliep for meeting information.



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