### BELLINGHAM OS9 (USERS GROUP)

Volume I No. 3

February 28, 1990

#### OS-9 MEETINS:

Meetings are held at 7:30 p.m., the second Thursday of each month in room 109 at Sehome High School.

## 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 information or helpful experiences of your own, please contact Rodger Alexander. The health of our newsletter depends on contributions made by many members of our group.

## IN THIS ISSUE

- COCO-4 K.Darling's response to "KMA" questions
- TELECOM Software Reviews of PubDomain Terminal Software RS-232 25pin to 9pin conversion
- PD UTILITIES Our PD Library is being re-organized and "legalized". Several disk are available now!
- HOMEWORK Practice makes perfect!!!!!
- CODE SHEETS Basic09 Commands and Error Codes OS9 Error Codes

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 subscription rate of \$3 for 6 monthly issues or \$6 for 12 monthly issues is available.

Contact: Rodger Alexander 3404 Illinois Lane Bellingham, WA 98226 (206) 734-5806 Delphi: "SALZARD

## KMA

EDITOR'S NOTE: The following are responses by Kevin Darling to questions being asked about the development of the two current 68030 OS9 Computers that will be on display at the April Rainbowfest. Kevin is under contract by both Kenneth-Leigh Enterprises and Frank Hogg Laboratory, Inc. to write software for both machines. NOTE the advertizements in the March issue of the Rainbow on pages 25 and 39 regarding the new OS9 machines. \$\$\$

> I was really disappointed to hear KLE is sticking with NTSC > rates...

Wait for a higher res card then. As a first step, NTSC/PAL will be great for those wishing to get into multimedia style applications. Also, only a few people own a multisync at this time. Affordability is paramount.

Tell you what tho: you could commission and pay for a run of hires boards (figure about \$2500 for the first ten) and go into biz as a 3td party. Seriously.

> Does the Hogg board just replace the board in the COCO [123]? > Would be nice not to have to sacrifice my 3.

No, it goes in the K-bus. Give your CC-3 to the kids. Or use it as a terminal (someone REALLY needs to do a nice 80x25 terminal CC-3 ROM!). The KLE has a different use for the CC-3; ask me later.

> I thought about it a bit after I posted, and I realized these two > companies must have thought about this a million times...[AT bus]

You bet. Consider: the PT-68K has been available with a PC bus for years now. Did you buy one? Has the bus been used much? Nope and nope. Again tho, perhaps adapters will be made. But why saddle a 68K with an Intel cpu's bus in the meantime? Future machines (much much later) may go with NuBus, tho. Or maybe FutureBus. Hard to tell what will dominate yet.

> When will Frank Hogg have OSk windows available?

I'm doing a generic OSK windowing system for both machines. Will it be ready in time for the fest? Doubtful. But very soon thereafter. Patience. I like quality do-it-once-right stuff.

> What (if any) prospects are there of running OS9 Level II and OSk > simultaneously?

The architects are trying to leave all options open... so that various ideas in this like can be tried out. I'd say yes... with some restraints at first.

> Does the 6309 board support the whole gamut of current VDG > graphics, etc? Will it be able to support more advanced graphics > cards as well? it has a GIME onboard. No, you would add gfx cards to the Yes, K-bus later. > After a few months, I wouldn't ever touch the 6309 side... Basically, KLE is betting people  $\tilde{}$  will move over quickly. FHL is betting you want CC-3 compatability foremost. I think both bets have winners out there. It's not as black and white an issue as it seems, tho. > Will this mean that software developers will have to develop TWO > separate software packages to run on just one brand of computer? Not if they use the standard windowing calls/libraries. As I said, color manipulation may require some thinking ahead, tho. This is to be expected. > Who seems further ahead in development? Neither are, on the new hardware. The other K-bus stuff you could've bought for some time now (altho not all the boards listed have been made yet). > I don't know which way I'll go myself ---> I know lots of folks who'll have to start cheap. Yep. A third machine may show up also just to muddy the waters... one with a 68000/6809 combo with coco slots made just to be placed in a PC case with your current equipment. Sort of a really cheap OSK starter system, with no expansion (except perhaps 020 addon). We live in interesting times.... > Will there be docs that explain what memory address does > > what/how? Sure. How fancy, I do not know. May be in an extra cost tech manual. I'm sure I'll post some info here soon, tho what it do for you, I dunno. Theoretically, you don't need this info at all of course. But then there are lots a people like you and me who love that kind of stuff <grin>. > Will I have to buy OS-9/OSK from a different party? See March 1990 Rainbow FHL ads on K-bus about that. The KLE should come with it. > And will the Manuals be like the OS-9 Level II manual?

₹

I suppose the manuals will be the MW OSK manuals, which are pretty good. Those suckers add to the cost some, btw. I think a set is \$75

retail from MW, for example!

> If it comes with a 3 1/4" drives, is there room for 5 1/4" > drives..

That was a point of debate. Some said "Heck let them run the cable over from their current 5" drive case if they need to". Others said "But that sounds like a CoCo setup - ugh!". So in the end, I think there'll be 5" drive space. A sad reality, as a lot of slick cases had to be dismissed.

> Will the disk read/write be in Coco format or Standard OS-9 > format?

I think current OSK drivers handle just about everything. Coco, ST, "standard", maybe even the new "universal format" (don't ask, it's weird). Hmmm, well maybe not the "standard" ones (single density first track).

> Is there audio/video IN and OUT ports? > What is "genlock"ing?

The KLE has stereo audio In and Out. Only video-Out for now. Hopefully later, we'll also see video-In that can be overlaid by the KMA gfx.

> (ignore this stupid question) Is there a cassette port?

Okay, I'm ignoring the question <but shuddering at the thought>.

---- Kevin

## SOFIWARE REVIEW:

# TELECOMMUNICATIONS

Telecommunications deals with the transfer of data from one computer to another via telephone lines, much like teletype but of course much faster and with many advanced features available through commercial and private bulletin board services.

There are a lot of public domain telecommunication software packages for OS9 level-II, but little for level-I (due to limited memory). RS-DOS offers some excellent terminal programs for the CoCo-3 such as MikeyTerm, Greg-E-Term and Ultimaterm. however I will limit my review to only the OS9 packages.

OS-TERM (v2.0.8) is an excellent terminal package offering ASCII, XMODEM and YMODEM file transfer protacols, CONFERENCE mode, AUTO-DIAL directories, ECHO or LOG option, 10 MACROS with LEARNing options for AUTO LOGIN capability, plus REMOTE or BBS mode with password access even to the basic shell for remote operation of your computer. TELSTAR (v3.2.4) is very impressive during initialization with flashing Title Screen, etc. It also has an AUTO-DIAL directory, XMODE and YMODEM file transfer protacols, CONFERENCE mode, LOG options, 10 MACROS, complete PARAMETER and LINE FEED configuration menus, and PRINTER echoing.

<u>SUPERCOM</u> (v1.01) Reminds me of MikeyTerm on RSDos, although it doesn't appear the same on the screen, the options available are very much alike. It has an AUTO-DIAL, OPTION or "parameter" window where you can set standard terminal configurations although BAUD RATES have their own separate window menu. BUFFER capture which is the same as ECHO or LOG options above. XMODEM is the only error checking download protacol available and although Supercom list TERMINAL TYPES, only OS9, ANSI and ASCII are available.

<u>JIMMYTERM</u> (v3.1) Is very versatile with "exploding" windows. It has both XMODEM and YMODEM error checking file transfer protacols as well as ASCII. Only 6 MACROS and no DIAL DIRECTORY. Buffer capture is available through the ECHO option and the Parameters menu includes Line Feed option plus the standard terminal setup options.

<u>KECOM</u> (v1.0) This program is only a couple of months old with a commercial version set for release from Second City Software in mid 1990. KECOM offers a GRAB screen or Snapshot option plus ECHO to disk or device (/p). PARAMETERS menus provides configuration menus for RS-232, Windows, Terminal and Drive/Directory options. All keys can be programmable "hot keys"/macros and true VT100 terminal emulation is available. Unfortunately no AUTO-DIAL option.

<u>WIZPRO</u> I do have WizPro, but have not been able to get it up and running. However I have seen it in operation and am very impressed with it's ability to AUTO-LOGIN, COCOBIN error checking protacol that provides automatic file transfer operation. A commercial version of the program is available with even greater enhancements.

My overall preference is WIZPRO and OSTERM in that order.

# HOMEWORK

At the February meeting we reviewed our first "homework" assignment and checked to see if everything worked OK. Craig Dubois discovered a problem doing a listing to the screen of MYDIR after the instructions told him to CHD /DO. But Craig used the full path name </DO/MYDIR> and solved the problem on his own! Congratulations Craig!!!!

This month we are going to take it easy and use what we have already learned and play around with the EDIT commands.

If you completed last months lesson you have a Directory on your

disk called MYDIR which contains a file called "Lesson1". This is a text file that contains the first 10 instructions from last months homework assignment. If you completed the extra credit assignment you also have a second text file called "Lesson1B" that contains the instructions 11 through 18 from last months homework assignment.

Now that we have that all cleared up, lets get started with this months set of instructions:

- 1. Enter RENAME /DO/MYDIR /DO/HOMEWORK
- 2. Enter DEL /DO/MYDIR
- 3. Enter DIR /DO/HOMEWORK
- NOTE: Since are <u>Present Working Directory is /D0</u>, we can save some typing strokes by leaving out "/D0/" in the above commands. Examples: RENAME MYDIR HOMEWORK DEL MYDIR DIR HOMEWORK
- 4. Enter CHD /D0/HOMEWORK --or-- Enter CHD HOMEWORK
- 5. Enter BUILD Lesson2 Again notice that the filename is in lowercase to distinguish it from a Directory name.
- 6. At the "?" prompt, type in instructions 1 through 5.
- 7. Enter (ENTER) (Press the Enter Key only)
- 8. Enter EDIT /DO/HOMEWORK --or-- Enter EDIT HOMEWORK We're now going to play around with the Microware Macro Editor that comes with OS9
- 9. At the "E:" prompt Enter L\* This should give you a complete listing of the 5 command lines you type in.
- 10. At the "E:" prompt Enter d This should list the 1st command and delete the line
- 11. At the "E:" prompt Enter RENAME MYDIR HOMEWORK
- 12. At the "E:" prompt Enter L This should list command number 2
- 13. At the "E:" prompt Enter C./DO/MYDIR.MYDIR. The "C" is an editor command meaning "Change" The periods "." are deliminators (space indicators to the editor) to separate parts of the command line. You are telling the editor to "C"hange "/DO/MYDIR" to

"MYDIR" resulting in the deletion of "/DO/"

- 14. At the "E:" prompt Enter L (to verify our deletion)
- 15. At the "E:" prompt Enter <ENTER> (Press the ENTER key) The 3rd command should now list out.
- 16. At the "E:" prompt Enter C./DO/HOMEWORK.HOMEWORK. Enter L (to verify our deletion)
- 17. At the "E:" prompt Enter <ENTER> to advance to line 4.
- 18. Now delete the "/D0/" from command 4. Enter L (for "L"ist) (to verify our deletion)
- 19. At the "E:" prompt Enter Q (to Quit EDITor)

SUMMARY:

In this lesson we renamed our original directory MYDIR to HOMEWORK and created another text file with the BUILD utility called Lesson2. We also made use of the EDIT command to modify our original Lesson2 text file deleting references to "/D0/" since we don't really need the full pathname in the sample command lines.

BONUS!!!!!

Enter DIR at the OS9 prompt. Enter <CTRL> A (Hold the CTRL key down while pressing "A")

For those in attendance at the meeting, a public domain text editor . will be available to make text entries and editing much easier. The PD text editor will operate on both Level-I and Level-II OS9.

#### RS-232

The serial I/O (Input/Output) port on computers comes in three styles. The RS-232 (BitBanger) port on the back of a CoCo has only four pins while the standard RS-232 ports usually have 9 or 25 pins. Craig DuBois has supplied us with a pin-out picture of the two standard ports. This information is important when trying to make cables to connect between the two different types of jacks.

9 PIN RS-232





### BASIC09

### EDITOR and SYSTEM Commands

## EDITOR:

+	= Move to next line			
+*	= Move to end of listing			
<del></del>	= Move back one			
-*	<pre>s = Move back to beginning</pre>			
r	= Renumber line			
<b>r</b> *	= Renumber all lines (default=100,10)			
1	= List line			
1 🗱	= List all lines			
s	= Search for string			
5*	= Search for all occurrences			
d	= Delete line			
d*	= Delete all lines			
С	= Change string			
<b>c</b> *	= Change all occurrences			
q	= Quit			

#### SYSTEM:

\$ = 0S9 port (\$dir /d1/cmds) BYE = Exit Basic09 CHD = Change Directory CHX = Change Execution Directory DIR = Directory listing EDIT= Puts Basic09 into Edit mode KILL= Deletes procedure from memory LIST= List procedure (program) LOAD= Loads program from disk MEM = Displays workspace memory PACK= Compiles basic listing to I-Code RENAME= Rename file in memory RUN = Executes basic program in memory SAVE= Saves program from memory to disk SAVE\*=Saves all programs in memory to disk

### SAMPLE PROGRAM:

Always enter programs in Lower Case E:(SPACE)100 print "BASICO9 IS GREAT";(RETURN) \* E:(SPACE)110 goto 100 \* E:q 23 - Illegal window type 24 - Window already defined 25 - Font Not found Có - Stack Overflow 37 - Illegal Argument 38 - unused 39 - Illegal Coordinates 90 - Internal Integrity check ?1 - Buffer size is too small
?2 - Illegal Command
?3 - Screen or Window Table is Full 74 - Bad/Undefined buffer number 75 - Illegal window definition P6 - Window undefined 7 - unused 98 - unused 79 - unused 00 - Fath Table Full 01 - Illegal Path Number 02 - Interrupt Polling Table Full 03 - Illegal Mode 04 - Device Table Full 5 - Illegal Module Header 5 - Module Directory Full 7 - Memory Full 38 - Illegal Service Request 9 - Module Busy 7 - House Eusy
0 - Boundary Error
1 - End of File
12 - Returning non-allocated memory
13 - Non-existing Segment 14 - No Fermission 15 - Bad Path Name 16 - Fath Name Not Found 17 - Segment List Full 18 - File Already Exists 19 - Illegal Block Address 20 - Fhone Hangup-Data Carrier Detect lost 21 - Module Not Found 23 - Suicide Attempt 24 - Illegal Process Number 26 - No Children 27 - Illegal SWI Code 28 - Process Aborted 9 - Frocess Table Full CO - Illegal Parameter Area C1 - Known module C2 - Incorrect Module CRC D2 - Incorrect Module CKU 23 + Signal Error 24 - Non∼existent Module 25 - Bad Name

36 - Bad Module Header

27 - RAM Full

238 - Unknown Process ID 239 - No task number available 240 - Unit Error 241 - Sector Error 242 - Write Protect 243 - CRC Error 244 - Read Error 245 - Write Error 246 - Not Ready 248 - Not Ready 247 - Seek Error 248 - Media Full 247 - Wrong Type 250 - Device Busy 251 - Disk ID Change 252 - Record is locked-out 253 - Non-sharable file busy 254 - I/O Deadlock Error 1 -- Unconditional Abort 2 -- Kevboard Abort 3 -- Keyboard Interrupt 10 -- Unrecognized Symbol 11 -- Excessive Verbage 12 -- Illegal Statement Construction 13 -- I-code Overflow 14 -- Illegal Channel Reference 15 -- Illegal Mode (read/write/uodate) 16 -- Illegal Number 17 -- Illegal Frefix 18 -- Illegal Ocerand 19 -- Illegal Operator 20 -- Illegal Record Field Name 21 -- Illegal Dimension 22 -- Illegal Literal 23 -- Illegal Relational 24 -- Illegal Type Suffix 25 -- Too-large Dimension 26 -- Too-large Line Number 27 -- Missing Assignment Statement 28 -- Missing Path Number 27 -- Missing Comma 30 -- Missing Dimension 31 -- Missing DO Statement 32 -- Memory Full 33 -- Missing GOTO 34 -- Missing Left Parenthesis 35 -- Missing Line Reference 36 -- Missing Operand 37 -- Missing Right Parenthesis

38 -- Missing THEN statement

41 -- No Ending Duote 42 -- Too Many Subscripts

43 -- Unknown Procedure

39 -- Missing TD 40 -- Missing Variable Reference 45 -- Divide by Zero 46 -- Operand Type Mismatch 47 -- String Stack Overflow 48 -- Unimplemented Routine 49 -- Undefined Variable 50 -- Floating Overflow 51 -- Line with Compiler Error 52 -- Value out of Range for Destination 53 --- Subroutine Stack Overflow 54 -- Subroutine Stack Under flow 55 -- Subscript out of Range 56 --- Parameter Error 57 -- System Stack Overflow 58 -- I/O Type Mismatch 59 -- I/O Numeric Input Format Bad 60 -- I/O Conversion: Number out of Range 61 -- Illegal Input Format 62 --- I/O Format Repeat Error 63 -- I/O Format Syntax Error 64 -- Illegal Fath Number 65 -- Wrong Number of Subscripts 66 -- Non-record-type Operand 67 -- Illegal Argument 68 -- Illegal Control Structure 69 -- Unmatched Control Structure 70 --- Illegal FOR Variable 71 -- Illegal Expression Type 72 -- Illegal Declarative Statement 73 -- Array Size Overflow 74 -- Undefined Line Number

44 -- Multiply-defined Frocedure

- 75 -- Multiply-defined Line Number
- 76 -- Multiply-defined Variable
- 77 -- Illegal Input Variable
- 78 -- Seek Out of Range
- 79 -- Missing Data Statement

Bellingham OS9 Users Group February 27, 1990 Fublic Domain Utilities Disk 1 ! DEARC Usage : Dearchives IBM/PC "ARCed" files from within OS9 MODUTIL : Collection of enhanced standard OS9 utilities Usage (mbackup,mdate,mdump,mformat,mmakdir,mmfree,pmode rep, split, unuse, verm, mxmode) RSDOS : File transfer utility from Radio shack Dos format to DS9 Usage format. Syntax : RSDOS [-cmds {modifier}] dev\_name [RSDOS\_file] [OS9\_path] Command : (One required) -dir for a directory listing of an RSDOS diskette -get to import a file from an RSDos diskette -del to delete a file from an RSDos diskette -put to export a file to an RSDos diskette Modifer : (optional) for type O:Basic binary type program -b -d for type1: Basic data file -m for type2: executable machine language program -t for type3: text editor source file -a for ASCII format (default is BINARY) -f=n sets the file type to n (n = 0 to 255) SDIR : Super Directory to enhance/replace standard DIR utility Usaqe : SDir [-opts] [dirname: |pathname] [-opts] Syntax -d = flags files which are directory files -e = display "entire" description for each file -f = display "full" description for each file (fstat) -s = display files in bytes and sectors -x = displays execution directory -c = performs case sensitive pattern matching AMPUTATE : Forces the term call of the cache device driver returning Usage memory to the system and delete all files on the device. : Amputate [/]dev\_name [[/]dev\_name ..] Syntax DISLEX Usage : List utility that displays words in reverse order PALETTE ; Change scree/window palette (color) on the fly Usage Syntax : Palette [-d (device-window)] [<palette register><value>..] WATTR Usage : Wildcard ATTRibute utility Syntax : Wattr \*.c pe e Wattr pascal? pe e AR : DS9 Archiving utility Usage Syntax : Ar -<cmd> [<modifer>] [file..] Commands : -t show table of contents for archive -u update/add files(s) to the archive -p print file(s) from the archive -x extract file(s) from the archive

Modifer : -a all versions (for extract) -s supress file compression -z read names for <cmd> from std in DLS Usage : Directory utility Syntax : Dis [-opts] [path/path] [-opts] Options : -x use current exec dir -s one entry/line (necessary for "call" utility) -e extended directory (dir e) -d only directory files -f only non-dir files -? help message Pattern : may include wild cards \* multiple character ? single character PCDOS Usage : File transfer utility from PC format to OS9 Syntax : PCDos [-cmds {modifier}] dev\_name [DOS\_path] [OS9\_path] Commands : (one required) -dir for a directory listing of a DOS diskette -get to import a file from a DOS diskette -del to delete a file from a DOS diskette -put to export a file to a DOS diskette Modifier : (optional) -raw transfer file as is (with -get/-put) Without -raw, transfer of a text file assumed -all for hidden and system files revealed(with -dir) WCONFIG Usage : Window configuration utility Syntax : wconfig STX CPX CPY SZX SZY PRN1 PRN2 PRN3 BCOLOR Usage : Change background color: Bcolor <color> FCOLOR : Change foreground color: Fcolor <color> Usage BORDER Usage : Change border color: Border <color> EATLE : Deletes Line Feeds from downloaded files Usage Syntax : Eatlf <file-in >file-out PRINTHELP Usage : Prints SYS/helpmsg to screen/printer WCOPY Usage ; Wildcard copy utility Syntax : WCopy \*.\* /d1/cmds (WCopy <Stdin (filename(\*(?)))> <StdOut Dir> OTIP Usage : Disk zap utility (self prompting) 80 column Syntax : Qtip <file\_path\_name> WDEL Usace : Wildcard Delete utility Syntax : WDel \*.\* WDel <filename+(wildcard \*/?)>

: Text viewer utility with paging & up/down scroll Usage RESET Usage : Keyboard "cold start" WDIR Usage : Wildcard Directory Utility "WDir /d1/cmds/w\*" CALL Usage : Calls commands repeatedly. Syntax : Call (-x) [command list] Options : -x = removes extensions from input first Example : fls !call attr \$ pe ! shell -t (fls or ls or dls = dir utilities with single col. listing to stdout.) dls -s !call -x asm \$.a -o=\$.o !shell t dls -s !call copy \$ /dd/\$ !shell t IPATCH : Creates a new file from an Orig\_file and Fatch\_file Usage (Patch file created by MAKPATCH utility) : IPatch <Original\_file> <Patch\_file> <New\_File> Syntax SORTDIR : Sorts directory entries in ASCII order Usage : Sortdir <dirname> [...] Syntax WMODE Usada : Returns status of current window Syntax : Wmode <cmds> <options> Options : blank - returns current screen attributes -? - Displays commands and options list - Restores original window attributes -r - Saves current window attributes ---5 -f<reg>Change foreground register to <reg> -b<reg>Change background register to <reg> -e<reg>Change border register to <reg> -p<reg><col> Change palette <reg> color to <col> CLEARD Usage : Deletes all files from directory Syntax : Cleard /d1/TEXT LABEL : Renames the Disk Name/Label (self prompting) Usage STRIP Usage : Strip or Add Character (line feed, carriage returns) : Strip [opt] <{oldfile} >{newfile} Syntax -c = Strip carriage returns fromom input Options : -1 = Strip linefeeds from input +1 = Adds linefeeds after each carriage return +b = Process backsapce characters +d = Display stripped characters to error output ZAP : Disk zap utility. Must be in 80 column mode Usage : Zap Syntax Enter "Alt-H" for listing of command options COCOPR : ASCII text formatter to standard printer output Usage Syntax : CoCoPR (file\_path\_name)

BRUWDE

Usage : Unix type Directory Utility Syntax : LS [-options] [pathname] -? = Shows HELP Options : -s = Flag directory files with "\*" -d = Display subdirectories (overrides "S") -e = Display extended directory -1 = (same as -e)-n = Narrow directory -p = Pipe mode on output SYSINFO Usage : Complete status report of current window including current palette colors. CONVERT : Converts decimal to hexidecimal numbers (visa versa) Usage MAKPATCH Usage : Created patch file for use with IPATCH TREE Usaqe : Directory utility that list hierchical listing of all directories, files, subdirectories, files. DIRSORT Usage : Sorts current/default direcoty PAK Usage : File Archive utility Syntax : pak <-opt> <pakfile> [file list ....up to 40] a = Add a file to PAK Options : m = Move a file to PAKu = Update file to PAKer= Remove file(s) from PAK dt= Test integrity of files in PAK b = Build/kee Backup (.BAK) version s = Suppress all compression UTIL3 Usage : Merged utilities file: FROC, DIRM, MMAF, FMAF, SMAF, DMEM, FATHS, DDIR, IDIR COPY Usaqe : Updated PD version of standard Copy utility : Copy [-opts] <{pathname}{filename}> <filename> Syntax -s = single drive Options : -r = auto rewrite -v = verify file integrity -x = uses current execution directory for source -? = help() = optional, if omitted defaults to source filename DIR : Updated PD version of standard Dir utility Usage : Dir [-opt] {directory pathname} [-opts] Syntax Options : -e = Extended directory listing -x = Execution directory listing -s = Sorted listing, alpha numberic order -u = Unformated listing-w = Re-write sorted Directory -? = Help

LDH

Purge Usage Syntax	: Deletes file(s) from a directory : Furge {directory pathname} self prompting
DASM Usage Syntax Options	<pre>: Disassembler for Level-I ASM and Level-II RMA files : DASM <filename> : Prompted options: Examples (d,p,s,q,a,l,c,m,f,q) DASM&gt;</filename></pre>
DISKOPT Usage	: Graphics DCHECK Utility (Self Prompting)

*======================================	===	***************************************
7 4 1		Bellingham OS9 Users Group
		Public Domain Utilities Disk 2
CC3DISK Usage	יל :: ח	Nodified CC3Disk permits drive descriptor Modifications using RSDOS and PCDOS (similar to MDISK)
MORSE Usage		eads data from standard in until EOF and converts lata to Morse Code audio tones.
Syntax Options	: M : E i	Morse [-opt] < input e = echos data to standard out i = interrupts remain enabled
Misc	: -	s = space between characters (default s=1, max=255) The "<" character lowers Morse speed The ">" character raises Morse speed
SDIR Usage Syntax Options		Unix "LS" type 'Super Directory' utility SDir [-opts] <dirname!'pathname> [-opts] = extended listing &lt; = execution directory d = flag directories with (D) F = full or "fstat" type display s = list filenames and file size in single column c = case sensitive switch-on for file matching 7 = help message</dirname!'pathname>
SHELL21 Usage		DS9UsergGroups expanded "shell" module for OS9 Permits OS9 prompt modification, Wildcards, Paths, Variable Prompting, GOTO-IF-AND-THEN-TRUE-FALSE Arg- uments and much more.
SCRIPT Usage	14 12	Script files for use with Shell+
ULDIR Usage	14 #	Converts files and directory names to proper case (Upper/Lower)
CRC Usage Syntax		turns off the CRC check routine in OS9p1 CRC OFF <-OR-> CRC ON
MROFF Usage		Text formater using Word Star (ScreenStar) (DynaStar) DOT "." formatting commands Example: ".ju" turns on justification
HDKIT Usage	8	Peter Lyall's Hard Drive Backup/Restore Utility
REBACK Usage	:	Basic09 enhancements for Peter Lyall's HDKit Utility.
BOOTSFLI Usage		Separates merged modules into individual files (Similar to D.P.Johnson's MODBUSTER

CC2 : Executive routine for microware C.Compiler on CoCo3 Usage D Usage · : Single column (non-alphabetized) directory utility DEMODE Usage : DEviceMODE utility to change disk drive parameters Syntax : DEMODE </device> [opts] Options : STP = stepping rate TYP = typeDNS = density CYL = cylindersSID = sides VFY = verifySCT = sectors TOS =ILV = interleaveSAS = DMODE Usage : DeviceMODE utility to change disk drive parameters
Syntax : DMODE </device > Copts] Options : tracks, sides, step, tpi (tracks/inch) DIRCOPY : Copies files from one directory to another Usage Svntax : DirCopy /d0/sys /d1/sys [opt] Options : C = Confirm copying of all files D = Enable the copying of all sub-directory files I = Interactive mode R = Automatic overwrite of existing filesS = Sorted Directory T = Replace outdated to\_path files U = Update to\_path file owners's number and date PRINT Usage : Formated I/O listing to printer device Syntax : Frint [+/-opts] <filename> Options : +/-H = Header +/-D = Date+/-T = Time+/-P = Page numbering+V = Verbose Х = Stdin = Page Length L ы = Page Width M = Margin Width Ν Heading Name PRINTERR : Level-II version of miciroware's PRINTERR. Prints Usade corresponding error message from /dd/sys/errmsg file NOTES : Recommended that PRINTERR be included in the OS9Boot file and then the loaded again into memory as part of the "startup" file. PRINTERR will then respond automatically when an error is incurred. PRINTHELP : Utility to print help message file to screen/printer Usage SEPARATE : Separates merged modules into individual files Usage (Similar to D.P.Johnson's MODBUSTER