

B E L L I N G H A M O S 9  
(USERS GROUP)

Volume I No. 3

February 28, 1990

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**OS-9 MEETINGS:**

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

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**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.

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**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.

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# 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 Rainbow-fest. 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 3rd 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?

Yes, it has a GIME onboard. No, you would add gfx cards to the K-bus later.

> After a few months, I wouldn't ever touch the 6309 side...

Basically, KLE is betting people 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 lotsa 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

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## SOFTWARE 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 protocols, 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 protocols, CONFERENCE mode, LOG options, 10 MACROS, complete PARAMETER and LINE FEED configuration menus, and PRINTER echoing.

SUPERCOM (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 protocol available and although Supercom list TERMINAL TYPES, only OS9, ANSI and ASCII are available.

JIMMYTERM (v3.1) Is very versatile with "exploding" windows. It has both XMODEM and YMODEM error checking file transfer protocols 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.

KBCOM (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. KBCOM 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.

WIZPRO 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 protocol 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.

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## 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 /D0. But Craig used the full path name </D0/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 /D0/MYDIR /D0/HOMEWORK
2. Enter DEL /D0/MYDIR
3. Enter DIR /D0/HOMEWORK

NOTE: Since are Present Working Directory is /D0, 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 /D0/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./D0/MYDIR.MYDIR.  
The "C" is an editor command meaning "Change"  
The periods "." are delimiters (space indicators to the editor) to separate parts of the command line.  
You are telling the editor to "C"hange "/D0/MYDIR" to

"MYDIR" resulting in the deletion of "/D0/"

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./D0/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")

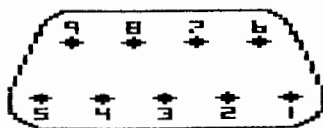
For those in attendance at the meeting, a public domain text editor will be available to make text entries and editing much easier. The PD text editor will operate on both Level-I and Level-II OS9.

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RS-232

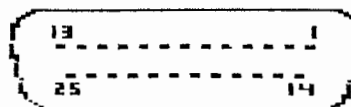
The serial I/O (Input/Output) port on computers comes in three styles. The RS-232 (BitBanger) port on the back of a CoCo has only four pins while the standard RS-232 ports usually have 9 or 25 pins. Craig DuBois has supplied us with a pin-out picture of the two standard ports. This information is important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

9 PIN RS-232



- 1 CARRIER DETECT
- 2 RECIEVE DATA
- 3 SEND DATA
- 4 DATA TERMINAL READY
- 5 GROUND
- 6 DATA SET READY
- 7 REQUEST TO SEND
- 8 CLEAR TO SEND
- 9 RING INDICATOR

RS-232 25 PIN



- 1 FRAME GROUND
- 2 TRANSMIT DATA
- 3 RECEIVE DATA
- 4 REQUEST TO SEND
- 5 CLEAR TO SEND
- 6 DATA SET READY
- 7 SIGNAL GROUND
- 8 CARRIER DETECT
- 20 DATA TERMINAL READY

## BASIC09

### EDITOR and SYSTEM Commands

#### EDITOR:

+ = Move to next line  
+\* = Move to end of listing  
- = Move back one  
-\* = Move back to beginning  
r = Renumber line  
r\* = Renumber all lines (default=100,10)  
l = List line  
l\* = List all lines  
s = Search for string  
s\* = Search for all occurrences  
d = Delete line  
d\* = Delete all lines  
c = Change string  
c\* = Change all occurrences  
q = Quit

#### SYSTEM:

\$ = OS9 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 "BASIC09 IS GREAT";(RETURN)
*
E:(SPACE)110 goto 100
*
E:q
```



83 - Illegal window type	238 - Unknown Process ID	44 -- Multiply-defined Procedure
84 - Window already defined	239 - No task number available	45 -- Divide by Zero
85 - Font Not found	240 - Unit Error	46 -- Operand Type Mismatch
86 - Stack Overflow	241 - Sector Error	47 -- String Stack Overflow
87 - Illegal Argument	242 - Write Protect	48 -- Unimplemented Routine
88 - unused	243 - CRC Error	49 -- Undefined Variable
89 - Illegal Coordinates	244 - Read Error	50 -- Floating Overflow
90 - Internal Integrity check	245 - Write Error	51 -- Line with Compiler Error
91 - Buffer size is too small	246 - Not Ready	52 -- Value out of Range for Destination
92 - Illegal Command	247 - Seek Error	53 -- Subroutine Stack Overflow
93 - Screen or Window Table is Full	248 - Media Full	54 -- Subroutine Stack Under flow
94 - Bad/Undefined buffer number	249 - Wrong Type	55 -- Subscript out of Range
95 - Illegal window definition	250 - Device Busy	56 -- Parameter Error
96 - Window undefined	251 - Disk ID Change	57 -- System Stack Overflow
97 - unused	252 - Record is locked-out	58 -- I/O Type Mismatch
98 - unused	253 - Non-sharable file busv	59 -- I/O Numeric Input Format Bad
99 - unused	254 - I/O Deadlock Error	60 -- I/O Conversion: Number out of Range
00 - Path Table Full	1 -- Unconditional Abort	61 -- Illegal Input Format
01 - Illegal Path Number	2 -- Keyboard Abort	62 -- I/O Format Repeat Error
02 - Interrupt Folling Table Full	3 -- Keyboard Interrupt	63 -- I/O Format Syntax Error
03 - Illegal Mode	10 -- Unrecognized Symbol	64 -- Illegal Path Number
04 - Device Table Full	11 -- Excessive Verbage	65 -- Wrong Number of Subscripts
05 - Illegal Module Header	12 -- Illegal Statement Construction	66 -- Non-record-type Operand
06 - Module Directory Full	13 -- I-code Overflow	67 -- Illegal Argument
07 - Memory Full	14 -- Illegal Channel Reference	68 -- Illegal Control Structure
08 - Illegal Service Request	15 -- Illegal Mode (read/write/update)	69 -- Unmatched Control Structure
09 - Module Busy	16 -- Illegal Number	70 -- Illegal FOR Variable
10 - Boundary Error	17 -- Illegal Prefix	71 -- Illegal Expression Type
11 - End of File	18 -- Illegal Operand	72 -- Illegal Declarative Statement
12 - Returning non-allocated memory	19 -- Illegal Operator	73 -- Array Size Overflow
13 - Non-existing Segment	20 -- Illegal Record Field Name	74 -- Undefined Line Number
14 - No Permission	21 -- Illegal Dimension	75 -- Multiply-defined Line Number
15 - Bad Path Name	22 -- Illegal Literal	76 -- Multiply-defined Variable
16 - Path Name Not Found	23 -- Illegal Relational	77 -- Illegal Input Variable
17 - Segment List Full	24 -- Illegal Type Suffix	78 -- Seek Out of Range
18 - File Already Exists	25 -- Too-large Dimension	79 -- Missing Data Statement
19 - Illegal Block Address	26 -- Too-large Line Number	
20 - Phone Hangup-Data Carrier Detect lost	27 -- Missing Assignment Statement	
21 - Module Not Found	28 -- Missing Path Number	
22 - Suicide Attempt	29 -- Missing Comma	
23 - Illegal Process Number	30 -- Missing Dimension	
24 - No Children	31 -- Missing DO Statement	
25 - Illegal SWI Code	32 -- Memory Full	
26 - Process Aborted	33 -- Missing GOTO	
27 - Process Table Full	34 -- Missing Left Parenthesis	
28 - Illegal Parameter Area	35 -- Missing Line Reference	
29 - Known module	36 -- Missing Operand	
30 - Incorrect Module CRC	37 -- Missing Right Parenthesis	
31 - Signal Error	38 -- Missing THEN statement	
32 - Non-existent Module	39 -- Missing TO	
33 - Bad Name	40 -- Missing Variable Reference	
34 - Bad Module Header	41 -- No Ending Quote	
35 - RAM Full	42 -- Too Many Subscripts	
	43 -- Unknown Procedure	

## DEARC

Usage : Dearchives IBM/PC "ARced" files from within OS9

## MODUTIL

Usage : Collection of enhanced standard OS9 utilities  
(mbackup, mdate, mdump, mformat, mmakdir, mmfree, pmode  
rep, split, unuse, verm, mxmode)

## RSDOS

Usage : File transfer utility from Radio shack Dos format to OS9  
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)

-b for type 0: Basic binary type program  
-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

Usage : Super Directory to enhance/replace standard DIR utility

Syntax : SDir [-opts] [dirname|pathname] [-opts]

-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

Usage : Forces the term call of the cache device driver returning  
memory to the system and delete all files on the device.

Syntax : Amputate [/]dev\_name [[/]dev\_name ..]

## DISLEX

Usage : List utility that displays words in reverse order

## PALETTE

Usage : Change scree/window palette (color) on the fly

Syntax : Palette [-d (device-window)] [<palette register><value>..]

## WATTR

Usage : Wildcard ATTRibute utility

Syntax : Wattr \*.c pe e Wattr pascal? pe e

## AR

Usage : OS9 Archiving utility

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

Modifier : -a all versions (for extract)  
          -s suppress file compression  
          -z read names for <cmd> from std in

#### DLS

Usage : Directory utility  
Syntax : Dls [-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

Usage : Change foreground color: Fcolor <color>

#### BORDER

Usage : Change border color: Border <color>

#### EATLF

Usage : Deletes Line Feeds from downloaded files  
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>

#### QTIP

Usage : Disk zap utility (self prompting) 80 column  
Syntax : Qtip <file\_path\_name>

#### WDEL

Usage : Wildcard Delete utility  
Syntax : WDel \*.\*           WDel <filename+(wildcard \*/?)>

BROWSE

Usage : Text viewer utility with paging & up/down scroll

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

Usage : Creates a new file from an Orig\_file and Patch\_file  
(Patch\_file created by MAKPATCH utility)

Syntax : IPatch <Original\_file> <Patch\_file> <New\_File>

SORTDIR

Usage : Sorts directory entries in ASCII order

Syntax : Sortdir <dirname> [...]

WMODE

Usage : Returns status of current window

Syntax : Wmode <cmds> <options>

Options : blank - returns current screen attributes  
-? - Displays commands and options list  
-r - Restores original window attributes  
-s - Saves current window attributes  
-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

Usage : Renames the Disk Name/Label (self prompting)

STRIP

Usage : Strip or Add Character (line feed, carriage returns)

Syntax : Strip [opt] <oldfile> ><newfile>

Options : -c = Strip carriage returns fromom input  
-l = Strip linefeeds from input  
+l = Adds linefeeds after each carriage return  
+b = Process backsapce characters  
+d = Display stripped characters to error output

ZAP

Usage : Disk zap utility. Must be in B0 column mode

Syntax : Zap </drive>  
Enter "Alt-H" for listing of command options

COCOPR

Usage : ASCII text formatter to standard printer output

Syntax : CoCoPR {file\_path\_name}

LSH

Usage : Unix type Directory Utility  
Syntax : LS [-options] [pathname]  
Options :  
-? = Shows HELP  
-s = Flag directory files with "\*"   
-d = Display subdirectories (overrides "S")  
-e = Display extended directory  
-l = (same as -e)  
-n = Narrow directory  
-p = Pipe mode on output

#### SYSINFO

Usage : Complete status report of current window including current palette colors.

#### CONVERT

Usage : Converts decimal to hexadecimal numbers (visa versa)

#### MAKPATCH

Usage : Created patch file for use with IPATCH

#### TREE

Usage : 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]  
Options :  
a = Add a file to PAK  
m = Move a file to PAK  
u = Update file to PAK  
er= 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: PROC, DIRM, MMAP, PMAP, SMAP, DMEM, PATHS, DDIR, IDIR

#### COPY

Usage : Updated PD version of standard Copy utility  
Syntax : Copy [-opts] <{pathname}{filename}> <filename>  
Options :  
-s = single drive  
-r = auto rewrite  
-v = verify file integrity  
-x = uses current execution directory for source  
-? = help  
{ } = optional, if omitted defaults to source filename

#### DIR

Usage : Updated PD version of standard Dir utility  
Syntax : Dir [-opt] {directory pathname} [-opts]  
Options :  
-e = Extended directory listing  
-x = Execution directory listing  
-s = Sorted listing, alpha numeric order  
-u = Unformatted listing  
-w = Re-write sorted Directory  
-? = Help

Purge  
Usage : Deletes file(s) from a directory  
Syntax : Purge (directory pathname) self prompting

#### DASM

Usage : Disassembler for Level-I ASM and Level-II RMA files  
Syntax : DASM <filename>  
Options : Prompted options: Examples (d,p,s,q,a,l,c,m,f,q) DASM>  
d = disassemble to the console  
p = disassemble to a file in the display format  
s = disassemble to a file in source code format  
g = generate labels for the current lines  
a = search for sequences of three or more ascii charc  
l = goto label maintenance prompt  
c = goto control maintenance prompt  
m = goto comment maintenance prompt  
f = goto load/save prompt  
q = (quit) EXIT DASM

#### DISKOPT

Usage : Graphics DCHECK Utility (Self Prompting)

Bellingham OS9 Users Group

February 27, 1990

Public Domain Utilities

Disk 2

CC3DISK

Usage : Modified CC3Disk permits drive descriptor modifications using RSDOS and PCDOS (similar to SDisk)

MORSE

Usage : Reads data from standard in until EOF and converts data to Morse Code audio tones.

Syntax : Morse [-opt] < input

Options : e = echos data to standard out  
i = interrupts remain enabled  
s = space between characters (default s=1, max=255)

Misc : The "<" character lowers Morse speed  
The ">" character raises Morse speed

SDIR

Usage : Unix "LS" type 'Super Directory' utility

Syntax : SDir [-opts] <dirname[:pathname] [-opts]

Options : e = extended listing  
x = 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  
? = help message

SHELL21

Usage : OS9UserGroups expanded "shell" module for OS9  
Permits OS9 prompt modification, Wildcards, Paths, Variable Prompting, GOTO-IF-AND-THEN-TRUE-FALSE Arguments and much more.

SCRIPT

Usage : Script files for use with Shell+

ULDIR

Usage : Converts files and directory names to proper case (Upper/Lower)

CRC

Usage : turns off the CRC check routine in OS9p1

Syntax : CRC OFF <-OR-> CRC ON

MROFF

Usage : Text formater using Word Star (ScreenStar) (DynaStar)  
DOT "." formatting commands  
Example: ".ju" turns on justification

HDKIT

Usage : Peter Lyall's Hard Drive Backup/Restore Utility

REBACK

Usage : Basic09 enhancements for Peter Lyall's HDKit Utility.

BOOTSPLIT

Usage : Separates merged modules into individual files  
(Similar to D.P.Johnson's MODBUSTER)

## CC2

Usage : Executive routine for microware C.Compiler on CoCo3

## 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 = type

DNS = density

CYL = cylinders

SID = sides

VFY = verify

SCT = sectors

TOS =

ILV = interleave

SAS =

## DMODE

Usage : DeviceMODE utility to change disk drive parameters

Syntax : DMODE </device > [opts]

Options : tracks, sides, step, tpi (tracks/inch)

## DIRCOPY

Usage : Copies files from one directory to another

Syntax : 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 files

S = 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 : Print [+/-opts] <filename>

Options : +/-H = Header

+/-D = Date

+/-T = Time

+/-P = Page numbering

+V = Verbose

X = Stdin

L = Page Length

W = Page Width

M = Margin Width

N = Heading Name

## PRINTERR

Usage : Level-II version of microware's PRINTERR. Prints 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

Usage : Utility to print help message file to screen/printer

## SEPARATE

Usage : Separates merged modules into individual files  
(Similar to D.P.Johnson's MODBUSTER)