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DDDDD      EEEEE      CCCCC
DD DD      EE        CC
DD DD      EEEE       CC
DD DD      EE        CC
DD DD      EE        CC
DDDDD      EEEEEEE   CCCCC
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SSSS  YY YY  SSSS  TTTTTT  EEEEE  MM  MM
SS    YY YY  SS    TT      EE      MMM MMM
SSS   YYYY  SSS   TT      EEEE     MM M MM
SS    YY    SS    TT      EE      MM  MM
SS    YY    SS    TT      EE      MM  MM
SSSS  YY    SSSS  TT      EEEEEE  MM  MM
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88888
88 88
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MONITOR COMMAND EXTENSIONS IN PS/8
VERSION MARK 1.2

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DECSYSTEM-8

SPECIAL CHARACTERS USED IN THIS WRITEUP:

THE SPECIAL CHARACTERS ANGLE BRACKETS (<>), AND SQUARE BRACKETS ([]) ARE USED TO SEPARATE WORDS FROM THOSE AROUND THEM. TERMS SURROUNDED IN ANGLE BRACKETS WILL INDICATE REQUIRED TERMS, AND SQUARE BRACKETS WILL ENCLOSE OPTIONAL TERMS. E.G. IF THERE IS A DEFAULT DEVICE THEN A FILENAME MAY BE SPECIFIED BY:
[DEV:]<NAME.EX>.

NOTE TO USERS

THIS DOCUMENT AND THIS TAPE IS AN ATTEMPT AT CIRCULATING DECSYSTEM-8 AMONG USERS. PLEASE READ THE INFORMATION AT THE END OF THIS WRITE-UP REGARDING YOUR RESPONSIBILITIES OF RECEIVING THIS TAPE. DECSYSTEM-8 IS A USER SUPPORTED SYSTEM WITH ALL SOURCES AVAILABLE TO THE USERS. THERE ARE THREE TAPES INVOLVED WITH THE DISTRIBUTION: TAPE 1 CONTAINS FILES NECESSARY TO IMPLEMENT DECSYSTEM-8 ON YOUR SYSTEM AND DOCUMENTATION FILES. TAPE 2 CONTAINS SOURCES OF ALL COMPONENTS OF THE SYSTEM, EXCLUDING THE KEYBOARD MONITOR AND COMMAND DECODER. TAPE 3 CONTAINS THE LATTER SOURCES. IN ORDER TO MAINTAIN A BENEVOLENT ATMOSPHERE WITH THE "HOME OFFICE", TAPE 1 IS DISTRIBUTED WITHOUT CONFIG OR BUILD INTENTIONALLY. THUS FOR THIS SYSTEM TO BE USEFUL THE USER MUST HAVE ALREADY OBTAINED THE PS/8 OR OS/8 SYSTEM FROM DEC. THE SOURCES OF PS8LGC AND HASPCD, ON TAPE 3, ARE A LITTLE HARDER TO REGULATE, SINCE THE USER MAY NOT HAVE PURCHASED THE PS/8 SOURCES. CONSEQUENTLY THESE SOURCES MAY BE OBTAINED BY PROOF OF PURCHASE OF THE PS/8 OR OS/8 SOURCES.

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ACKNOWLEDGEMENTS

THIS WORK IS THE BRAIN-CHILD OF JOHN COVERT, WITH DEVELOPMENT PARTIALLY PAYED FOR BY THE SCHOOL OF INFORMATION AND COMPUTER SCIENCE AT THE GEORGIA INSTITUTE OF TECHNOLOGY. HIS WORK HAS BEEN SO WELL RECEIVED THAT MANY USERS HAVE MADE SOME MODIFICATION TO HIS ORIGINAL CODING. HENCE THERE ARE MAY PERSONS WHICH SHOULD BE ACKNOWLEDGED AS CONTRIBUTING TO DECSYSTEM-8. I HOPE THAT, FOR ONCE, THE USER COMMUNITY WILL NOT GET EMBROILED IN THE "WHO GETS CREDIT" BATTLE RESULTING FROM MANY PERSONS CONTRIBUTING TO DECSYSTEM-8 IN AN ATTEMPT TO CONTINUALLY UPGRADE THE SYSTEM. ONE MUST REMEMBER, AT THIS POINT, THAT DECSYSTEM-8 IS SOLELY USER SUPPORTED. AS NEW ADDITIONS ARE MADE RECOGNITION WILL BE GIVEN ALONG WITH THE ADDITIONS. THERE IS A LIST OF CONTRIBUTORS AT THE END OF THIS TAPE TO GIVE APPROPRIATE ACKNOWLEDGEMENT.

VERSIONS

THE VERSION "MARK NN.NN" ASSOCIATED WITH A PARTICULAR RELEASE OF DECSYSTEM-8 HAS THE FOLLOWING MEANNING. THE NUMBER TO THE LEFT OF THE "." IS THE VERSION NUMBER, AND IS ASSOCIATED WITH THE MONITOR (THE INVISIBLE PORTION OF THE SYSTEM). THE NUMBER TO THE RIGHT OF THE "." IS THE RELEASE NUMBER, AND CHANGES WITH EACH OFFICIAL RE-RELEASE OF ANY PORTION OF THE SYSTEM. WHEN REQUESTING UPDATES FROM THE AUTHORS, PLEASE SPECIFY THE "MARK" NUMBER OF THE VERSION YOU ARE CURRENTLY USING.

UPDATES:

8/10/73

RELEASE OF MARK 1.2

/10/73

IMPLEMENTATION OF PARAMETER BLOCK DEPENDENCE. ALSO SQUASH AND ZERO COMMANDS. (DEW)

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7/7/73

SOME FURTHER BUGS IN DIRECT WERE CORRECTED. SOME FIXES WERE MADE IN COMPILE, DATE, UMount, AND DIRECT TO ALLOW RUNNING ON CLASSIC-8'S AND LINC-8'S (THE OLD IAC AND ROTATE PROBLEM).

6/28/73

COMPILE WAS FURTHER MODIFIED TO INCLUDE THE HELP AND LIST COMMANDS (DEW).

6/1/73

THE PROGRAM UMount WAS MODIFIED TO IMPLEMENT THE COPY AND COPD COMMANDS. THESE COMMANDS ALLOW COPYING MULTIPLE FILES BETWEEN NON-SYSTEM DEVICES. THE COPD COMMAND IS THE "DANGEROUS" MODE OF COPYING AS IN FI RD AND FI FD (DEW).

5/10/72

THE ROUTINE DATE WAS MODIFIED TO ALLOW CONDITIONAL ASSEMBLY FOR NON-EAE MACHINES. ALSO RE-ORIGINED TO ALLOW USE OF LESS SPACE ON SYS:(JRC).

UMount WAS MODIFIED TO IMPLEMENT THE FILE FD AND FILE RD OPTIONS WHICH DO THE DIRECTORY WORK AT THE BEGINNING OF A TRANSFER. THIS SHOULD BE MUCH FASTER FOR DECTAPE OR LINCTAPE TRANSFERS (JRC).

A COMPLETELY NEW DIRECT COMMAND, BY HM, HAS BEEN ACCEPTED INTO DECSYSTEM-8, FAR SUPERIOR TO OLD COMMANDS. MODIFIED BY JRC TO CONFORM TO DECSYSTEM-8 STANDARDS. ALSO THERE ARE CONDITIONAL ASSEMBLIES TO ALLOW OUTPUT TO THE KV8/I DISPLAY BY JRC.

SMALL CHANGES WERE MADE TO COMPIL SO THAT ↑C WILL TERMINATE ERROR MESSAGE TYPEOUT (DEW).

THE TECO AND MAKE COMMANDS WERE DISCOVERED NOT TO WORK ON 12K MACHINES. A MODIFICATION TO THE STARTUP CODE SHOULD CORRECT THIS PROBLEM. THIS HAS NOT BEEN TESTED FOR THE LACK OF 12K. PLEASE INFORM DEW OR JRC IF THE PROBLEM HAS BEEN CORRECTED. - DEW

4/25/73

SOME MAJOR UPDATES AND IMPROVEMENTS BY DEW. THESE CHANGES MAINLY EFFECT THE PROGRAM COMPIL.SV. MOST OF THE EXTENDED COMMANDS WERE CHANGED TO DEFAULT TO DSK: INSTEAD OF SYS:, EXTENTIONS WERE MADE TO THE EDIT AND TECO COMMANDS, .COMPILE WAS MODIFIED TO ALLOW MULTIPLE INPUT FILES, AND HASP WAS EXTENDED.

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2/1/73

THE ORIGINAL CREATION OF THIS DOCUMENT. RELEASE OF MARK 1.1

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INTRODUCTION:

THE PS/8 OPERATING SYSTEM FOR PDP/8 SERIES COMPUTERS HAS BEEN DEMONSTRATED TO BE A POWERFUL SINGLE USER SYSTEM FOR PROGRAM DEVELOPMENT IN THE SMALL COMPUTER ENVIRONMENT. IT IS PATTERNED AFTER THE PDP/10 OPERATING SYSTEM IN MUCH OF ITS SYNTACTICAL INTERACTION WITH THE USER. ONE MAJOR LIMITATION OF THE ORIGINAL PS/8 AND SUBSEQUENT OS/8 SYSTEM IS THE LIMITED NUMBER OF MONITOR (".") MODE) COMMANDS AVAILABLE TO THE USER, AND THE FACT THAT THESE COMMANDS ARE NOT USER-EXPANDABLE. THIS PACKAGE, DECSYSTEM-8, ADDS MANY OF THE PDP/10 OPERATING SYSTEM FEATURES TO THE PS/8 SYSTEM, INCLUDING THE CAPABILITY OF FURTHER EXPANSION OF THE MONITOR COMMAND SET, THE LOGON AND KJOB (KILL JOB) COMMANDS, AND THE COMPILE COMMAND FOR SHORTHAND CALLS TO THE STANDARD LANGUAGE PROCESSORS ON THE SYSTEM. -THE PHILOSOPHY OF THE ADDITIONS TO THE SYSTEM WAS TO KEEP AS MUCH COMPATIBILITY BETWEEN THE PDP/10 OPERATING SYSTEM AND THE PS/8 SYSTEM AS POSSIBLE. IN SOME CASES, THE COMMAND SYNTAXES USED ARE NOT OPTIMUM, BUT ARE PDP/10 COMPATIBLE. USERS WHO USE BOTH THE PDP/10 AND THE PS/8 SYSTEMS ON A DAY-BY-DAY BASIS WILL BE ABLE TO CONVERSE WITH BOTH SYSTEMS WITH A MINIMUM OF CONSIDERATION OF THE DIFFERENCES IN COMMAND SYNTAXES.

THE INTERNALS OF THE CODING HAVE BEEN ARRANGED SO THAT THERE ARE NO INCOMPATIBILITIES WITH "STANDARD" PS/8 OR OS/8 PROGRAMS. INDEED, THE NEW OS/8 BUILD PROGRAM WORKS EQUALLY WELL WITH THIS SYSTEM AS OS/8. TO OUR KNOWLEDGE THE ONLY DISADVANTAGE OF THIS SYSTEM OVER OS/8 IS THAT THE LIMITATION OF GET, RUN, AND SAVE COMMANDS TO ONE-PAGE HANDLER DEVICES IS STILL PRESENT. IT SHOULD BE NOTED THAT MANY OF THE STANDARD SYSTEMS PROGRAMS HAVE BEEN MODIFIED TO ALLOW IMPLEMENTATION OF THE EXTENDED COMMANDS, HENCE UPDATES OF THE OS/8 SYSTEMS PROGRAMS TECO.SV, PIP.SV, FORT.SV, AND THE LIKE MAY NEED MODIFICATION BEFORE THEY MAY BE COMPATIBLE WITH DECSYSTEM-8. OS/8 EDIT.SV, TECO.SV, AND PIP.SV IS ALREADY A PART OF DECSYSTEM-8. THE MAJOR DISADVANTAGE OF THE SYSTEM IS THAT IT USES SLIGHTLY MORE OF THE SYSTEM DEVICE THAN THE STANDARD RELEASES OF OS/8, AND THAT SOME MONITOR-LEVEL OPERATIONS WILL BE SLOWER FOR DECTAPE-ONLY CONFIGURATIONS.

BATCH MODE OPERATION IN A "NON-ATTENDED" MANNER IS POSSIBLE VIA THE PROGRAM HASP. THIS HAS THE ADVANTAGE OVER OS/8 BATCH IN THAT IT RUNS IN AN 8K SYSTEM. HOWEVER, IT IS NOT A TRUE BATCH PROCESSOR BUT RATHER ALLOWS THE SYSTEM TO RUN A STREAM OF JOBS IN AN UNATTENDED MANNER. HASP PROVIDES THIS FACILITY BY SUBSTITUTING AN ASCII FILE, CONTAINING "." AND "*" MODE COMMANDS, FOR THE KEYBOARD ENTERED COMMANDS.

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DECSYSTEM-8 COMMAND SUMMARY

PS/8-OS/8 COMMANDS:

.GET
.ODT
.R
.RUN
.SAVE

PS/8-OS/8 MODIFIED COMMANDS

COMMAND	HELP FILE	DESCRIPTION
.ASSIGN	ASSIGN.HL	USER DEVICE NAME ASSIGNMENT.
.DATE	DATE.HL	ENTERS AND PRINTS DATE.
.DEASSIGN	DEASSI.HL	DEASSIGNS USER DEVICE NAMES.

DECSYSTEM-8 ADDITIONAL COMMANDS:

COMMAND	HELP FILE	DESCRIPTION
.COMPIL	COMPIL.HL	ASSEMBLE OR COMPILE PROGRAMS.
.COPY	COPY.HL	COPY FILES BETWEEN DEVICES.
.CREATE	EDIT.HL	CREATE A FILE WITH EDIT.
.DELETE	DELETE.HL	DELETE FILES FROM DEVICES.
.DIRECT	DIRECT.HL	LISTS DIRECTORIES OF DEVICES.
.EDIT	EDIT.HL	EDIT A FILE WITH EDIT.
.FILE F	FILE.HL	COPY FILES FROM SYS TO A DEVICE.
.FILE R	FILE.HL	RECALL FILES FROM DEVICES TO SYS.
.FOCAL	FOCAL.HL	RUNS FOCFPS PROGRAMS.
.HELP	HELPC.HL	LISTS HELP FILES
.HD	HD.HL	"HOW'S THE DEVICE": GIVES STATUS.
.KJOB	LOG.HL	LOGS USER OFF SYSTEM.
.LIST	LIST.HL	LISTS FILES ON LPT OR TTY.
.LOGIN	LOG.HL	LOGS USER ON SYSTEM.
.MAKE	TECO.HL	CREATE A FILE WITH TECO.
.OFF	LOG.HL	SAME AS .KJOB.
.RENAME	RENAME.HL	CHANGES NAMES OF FILES.
.SQUASH	SQUASH.HL	SQUASHES DECSYSTEM-8 DEVICES.
.SUBMIT	SUBMIT.HL	SUBMITS JOBS TO HASP.SV
.TECO	TECO.HL	EDIT A FILE WITH TECO.
.ZERO	ZERO.HL	ZERO'S DEVICES WITH PARAMETER BLOCKS.

FOR FURTHER INFORMATION CONSULT THE HELP FILES.

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* .ASSIGN *

COMPILE LEVEL COMMAND

SYNTAX: .AS [PDEV:[UDEV:]]

THE ASSIGN COMMAND TAKES THREE DISTINCT FORMS, ONE OF WHICH IS IDENTICAL TO PS/8-OS/8.

1. WITH TWO ARGUMENTS: .AS TTY:INP:
ASSIGNS THE USER DEVICE NAME INP TO THE DEVICE TTY.
2. WITH ONE ARGUMENT: .AS TLI
VERIFIES THE EXISTENCE OF THE DEVICE TLI. THE DEVICE EXISTS IF NO ERROR MESSAGE RESULTS. THE USER DEVICE NAME REMAINS ASSOCIATED WITH THE DEVICE.

NOTE!!! THIS IS DIFFERENT FROM STANDARD OS/8 IN WHICH CASE THE ABOVE COMMAND WOULD DO THE SAME AS A DE TLI (SEE DEASSIGN).

3. WITH NO ARGUMENTS: .AS
THIS COMMAND WILL LOOK ON SYS: FOR THE FILE AUTOAS.SV. IF IT IS PRESENT THEN IT WILL BE RUN, IF NOT THE COMMAND IS IGNORED WITH A RETURN TO "." MODE. THERE ARE PRESENTLY TWO VERSIONS OF AUTOAS.SV WHICH DO AUTOMATIC USER DEVICE NAME ASSIGNMENT OF DECTAPES OR LINCTAPES FROM INTERNAL LABELS. THE VERSIONS ARE GENERATED FROM THE SOURCE DTA WITH CONDITIONAL ASSEMBLIES. THE PROGRAM PARAM.SV IS USED FOR GENERATING THE INTERNAL LABELS ON TAPES.

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* .COMPILE *

COMPILE LEVEL COMMAND

SYNTAX:

.CO [BIN OV.=][DEV:]<NAME.EX>[PRECOM OPTIONS][/CD OPTIONS]

THIS COMMAND CALLS PAL8, SABR, OR FORT FOR PROCESSING OF SOURCE FILES. THE PROCESSOR TO CALL IS SPECIFIED BY THE EXTENSION IN THE INPUT FILE NAME. IF NO EXTENSION IS SPECIFIED, PA IS ASSUMED.

THE SOURCE FILENAME IS THE ONLY REQUIRED ARGUMENT.

[BIN OVERRIDE]:

THE BINARY OVERRIDE, IF SPECIFIED, MUST BE SEPARATED FROM THE SOURCE FILE BY AN "=" SIGN. IT FORCES THE DEFAULT OPTION FOR THE BINARY OUTPUT TO BE OVERRIDEN. THE DEFAULTS ARE:

1. IF NEITHER THE /L OR /G OPTIONS ARE USED, THE BINARY FILE GOES TO SYS WITH THE SAME NAME AS THE SOURCE AND WITH DEFAULT EXTENSION .BN.
2. IF EITHER THE /L OR /G OPTIONS ARE USED, NO PERMANENT BINARY FILE IS PRODUCED.

<NAME.EX>:

THE SOURCE FILE SPECIFIES THE SOURCE PROGRAM AND ALSO THE PROCESSOR TO USE. IF NO EXTENTION OR IF THE EXTENSION IS PA THEN PAL8 IS CHAINED TO. IF THE EXTENSION IS SB THEN THE SABER ASSEMBLER IS CALLED. FORT IS CALLED FOR THE FT EXTENSION. THE FULL FORM OF THIS ARGUMENT IS: [.EX]<[DEV:]NAME1[.EX][,NAME2,...]>

THE OPTIONAL FIRST [.EX] IS USED WHEN THE FIRST FILENAME EXTENSION IS INCORRECT FOR THE REQUIRED LANGUAGE PROCESSOR. IT HAS THE EFFECT OF ONLY SPECIFYING THE PROCESSOR. THE ARGUMENTS INCLOSED IN < > ARE A STRING OF INPUT FILES TO THE PROCESSOR. THE DEFAULT DEVICE NAME IS DSK, AND THE DEFAULT EXTENSION FOR FILES AFTER THE FIRST IS THE EXTENSION FIRST SPECIFIED. E.G. .SB,FL1.AB,DTA1:FL2,FL3 WILL SPECIFY THE SABR ASSEMBLER WITH INPUT FILES DSK:FL1.AB, DTA1:FL2.SB, AND DTA1:FL3.SB.

IF COMPIL.PA IS ASSEMBLED WITH FORTIV=1, CODE WILL BE GENERATED FOR OS/8 RTPS FORTRAN IV. IN THIS CASE .FT CALLS F4, .RA CALLS RALF, .F2 CALLS STANDARD OS/8 FORTRAN, AND .SB IS NOT IMPLEMENTED. IN ADDITION, THE .EXECUTE COMMAND IS IMPLEMENTED FOR PASSING A .LD FILE TO FRTS.

[PRECOMPILE OPTIONS]:

THE OPTION L SPECIFIES THAT A LISTING IS TO BE PRODUCED ON THE SAME DEVICE AS THE BINARY OUTPUT, UNLESS "=DEV" IS SPECIFIED, IN WHICH CASE THE LISTING WILL GO TO THE SPECIFIED DEVICE. THE NAME WILL BE THE SAME AS THE SPECIFIED INPUT NAME WITH EXTENSION LS. THE OPTION N SPECIFIES THAT NO PERMANENT BINARY OUTPUT IS TO BE PRODUCED.

[/CD OPTIONS]

THE CD OPTION FIELD IS PRECEDED BY A SINGLE SLASH. IT CONSISTS OF A CHARACTER STRING COMPOSED OF ANY NUMBER OF CHARACTERS WHICH ARE LEGAL COMMAND DECODER SWITCHES. THE "=" OPTION IS NOT SUPPORTED.

THE LINE MAY BE TERMINATED BY EITHER A CARRIAGE RETURN OR AN ALTMODE. THIS WILL BE PASSED ALONG WITH THE CD OPTIONS TO THE APPROPRIATE PROCESSOR.

EXAMPLES:

1. ASSEMBLE AND EXECUTE THE PROGRAM EXA.PA. NO BINARY IS PRODUCED.

.CO EXA/G

2. AS IN (1) EXCEPT PRODUCE A LISTING ON THE LINEPRINTER BEFORE EXECUTION.

.CO EXA L=LPT:/G

3. DO A SYNTAX CHECK ON EXA.PA.

.CO EXA N

4. ASSEMBLE THE SABER FILE EXC.SB, PRODUCING A LISTING ON THE SYSTEM DEVICE NAMED EXC.LS. LOAD INTO CORE AND SAVE THE CORE IMAGE ON SYS:

.CO EXC.SB L/L\$
.SA SYS EXC

5. COMPILE SUB1.FT, AND ASSEMBLE SUB2.SB. THEN COMPILE MAIN.FT AND LINK THE SUBROUTINES IN, SAVING THE FINAL RESULTS ON IODI.

.CO SUB1.FT
.CO SUB2.SB

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.CO MAIN.FT/L
*SUB1,SUB2\$
.SAVE IOD1:MYPROG

6. ASSEMBLE OPQUIZ.PA, PRODUCING A BINARY FILE FI.BN.

.CO FI=OPQUIZ

7. ASSEMBLE OPQUIZ.PA, PRODUCING A BINARY PAPER TAPE AND A LISTING ON SYS.

.CO PTP:X=OPQUIZ L=SYS

NOTE THAT A DUMMY NAME IS REQUIRED TO NON-DIRECTORY DEVICES, AND THAT SYS MUST BE SPECIFIED SINCE THE DEVICE FOR BINARY IS PTP NOT SYS.

* .COPY *

COMPILE LEVEL COMMAND

SYNTAX:

.COPY ODEV:<IDEV:NM1,NM2,...

.COPD ODEV:<IDEV:NM1,NM2,...

THIS MONITOR LEVEL COMMAND IS USED FOR TRANSFERRING FILES BETWEEN TWO NON-SYSTEM DEVICES. THE COPY COMMAND IS SUPPORTED BY THE PROGRAM UMOUNT. THIS WILL COPY THE FILES NM1, NM2, ... FROM IDEV TO ODEV WITH THE SAME NAMES.

A "DANGEROUS" MODE IS ALSO SUPPORTED FOR THIS COMMAND, SIGNALLED BY .COPD. IN THIS CASE ALL OF THE DIRECTORY WORK IS DONE ON THE OUTPUT DEVICE PRIOR TO THE TRANSFER. THIS IS MUCH FASTER FOR MULTIPLE TRANSFERS TO OR FROM DECTAPE OR LINTAPE. IT IS "DANGEROUS" SINCE A \uparrow C WILL LEAVE THE DIRECTORY INCORRECT FOR THE FILES NOT TRANSFERRED.

* .CREATE *

COMPILE LEVEL COMMAND

SYNTAX: .CR NAME[.EX]

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THE DESCRIPTION OF THE .CREATE COMMAND IS INCLUDED IN THE DESCRIPTION OF THE .EDIT COMMAND.

* .DATE *

COMPILE LEVEL COMMAND

SYNTAX: .DATE [MM/DD/YY]

THE DATE COMMAND HAS BEEN MODIFIED, AND NOW TAKES TWO FORMS:

1. WITH ONE ARGUMENT: .DATE MM/DD/YY
THIS COMMAND DOES THE STANDARD UPDATE OF THE PS/8 DATE WORD. IN ADDITION, IF ON SYS, DATE.SV IS CALLED AND THE DATE IS PRINTED IN READABLE FORM, E.G.

.DA 12/7/72
THURSDAY, DECEMBER 7, 1972

2. WITH NO ARGUMENTS: .DA
THIS COMMAND WILL MERELY PRINT OUT THE DATE IN LONG FORM. IN ADDITION IF THERE IS A BAD DATE ON THE SYSTEM THE MESSAGE:

BAD DATE ON SYSTEM
PLEASE ENTER DATE:
.DATE MM/DD/YY

WILL BE PRINTED.

* .DEASSIGN *

COMPILE LEVEL COMMAND

SYNTAX: .DE [DEV:]

THIS COMMAND NOW HAS TWO FORMS:

1. WITH NO ARGUMENTS: .DE
PURGES ALL USER DEVICE NAME ASSIGNMENTS (AS IN PS/8 OR OS/8).

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2. WITH ONE ARGUMENT: .DE TTY
REMOVES THE USER NAME ASSOCIATED WITH THE PARTICULAR
DEVICE ONLY.

* .DELETE *

COMPILE LEVEL COMMAND

SYNTAX: .DEL [DEV:]NM1,[DEV2:]NM2,.....

THIS COMMAND MAY BE USED TO DELETE AS MANY FILES AS REQUIRED ON SPECIFIED DEVICES. IF NO DEVICE IS SPECIFIED, FILES ON DSK: DEVICE ARE DELETED. IN THIS CASE A PROGRAM WHICH IS IN CORE, DUE TO THE GET COMMAND OR AN ALTMODE RETURN FROM A LOADER, IS LEFT INTACT (IF DEVICE HANDLER IS IN CORE, AND SYS=DSK). FOR OTHER DEVICES, A DEVICE HANDLER IS LOADED INTO CORE AT LOC. 7000. THE FULL SYNTAX IS:

.DEL [DEV:]<NAME1.EX,NAME2.EX,...>[DEV:]<NAMES,...>

THE DEFAULT DEVICE IS DSK.

* .DIRECT *

COMPILE LEVEL COMMAND

SYNTAX: .DI [DEV:](N?M*.E?)[/E/F/T/L/A/W]

THIS COMMAND RUNS THE PROGRAM DIRECT.SV IF IT EXISTS ON THE SYSTEM DEVICE. THIS COMMAND LISTS DIRECTORIES OF DEVICES. OUTPUT, IF NOT OVERRIDDEN, GOES TO THE DEVICE DIR IF IT EXISTS, IF NOT THEN TO THE DEVICE LPT, AND IF THAT DOES NOT EXIST TO TTY. (A CONDITIONAL ASSEMBLY PARAMETER WILL TAKE LPT OUT OF THE DEFAULT LIST). THE SYNTAX IS:

.DIR [DEV:](NAME.EX)[/OPTIONS]

WHERE THE DEFAULT DEVICE IS DSK AND THE OPTIONS ARE:

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/F LIST IN SHORT FORM (AS IN PIP)
/E LIST EMPTIES (AS IN PIP)
/A ALPHABETIZE THE LISTING
/T OUTPUT TO TTY
/L OUTPUT TO LPT
/W OUTPUT IN MULTIPLE COLUMNS.
/W: N OUTPUT IN N COLUMNS.

THE DEFAULT LISTING IS IN PIP'S /L TYPE FORMAT. THE DEFAULT NUMBER OF COLUMNS AND ROWS IS SPECIFIED AT ASSEMBLY TIME, OVERRIDDEN BY THE /W OPTION. AND MULTIPLE OPTIONS MAY BE SPECIFIED.

THE OPTIONAL NAME.EX IS IMPLEMENTED WITH FULL WILD CARD CONSTRUCTION AND WILL LIST ONLY THOSE DIRECTORY ENTRIES WHICH FIT INTO THE NAME FIELD. E.G.

.DIR *.LS LIST ALL .LS FILES ON DSK
.DIR NAM.* LIST NAM FILES WITH ANY EXTENSION
.DIR ??CDE.* LIST ALL FILES WITH CDE AS THE 3RD
THRU 5TH CHARACTERS, ANY EXTENSION.

.DIR A*.* LIST ALL FILES STARTING WITH "A".

THERE ARE CURRENTLY TWO VERSIONS OF DIRECT AVAILABLE, THE ALTERNATE ONE BEING WITH OUTPUT TO THE KV8/I SCOPE. THE VERSION IS SPECIFIED BY CONDITIONAL ASSEMBLIES IN THE SOURCE.

* .CREATE *
* .EDIT *

COMPILE LEVEL COMMAND

SYNTAX:

.ED [DEV:]<NAME[.EX]>[=ODEV]
.CR [DEV:]<NAME[.EX]>

THESE TWO COMMANDS TAKE ONE FILENAME AS AN ARGUMENT AND CALL EDIT.SV FOR EITHER INITIAL CREATION OF A FILE OR UPDATE OF AN EXISTING FILE. THE EXTENTION .PA IS FORCED IF NONE IS SPECIFIED.

IN THE CASE OF THE EDIT COMMAND, A NEW FILE WITH THE SAME NAME AS THE OLD FILE IS OPENED FOR OUTPUT ON ODEV:, IF THE "=" CONSTRUCT IS OMITTED THEN THE OUTPUT DEVICE IS THE SAME AS THE INPUT DEVICE. THE DEFAULT DEVICE IS DSK.

A MODIFIED VERSION OF EDIT IS REQUIRED. THERE IS CURRENTLY TWO VERSIONS OF THE OS/8.V2 EDIT AVAILABLE: ONE FOR STANDARD

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PDP-8'S AND ONE FOR USERS OF PDP/12'S OR KV8/I DISPLAYS. WITH THE KV8/I DISPLAY, A MODIFICATION TO KVEDIT IS POSSIBLE, AND AN ASSEMBLY PARAMETER IN COMPIL.PA ALLOWS KVEDIT TO BECOME THE NORMAL EDITOR, WITH EDIT CALLED WHEN NEEDED BY TYPING X AFTER THE FILENAME.

* .FILE *

COMPILE LEVEL COMMANDS

SYNTAX:

.FI F DEV: NM1.EX, NM2, ...
.FI FD DEV: NM1.EX, NM2, ...
.FI R DEV: NM1.EX, NM2, ...
.FI RD DEV: NM1.EX, NM2, ...

THIS MONITOR LEVEL COMMAND RUNS THE PROGRAM UMount.SV, WHICH CURRENTLY CONTAINS THE FOLLOWING TWO FORMS.

1. .FILE F <DEV: FILE1.EX, FILE2.EX, ...>
TRANSFERS FILES FROM THE SYSTEM DEVICE TO THE SPECIFIED DEVICE IN IMAGE MODE, RETAINING THE ORIGINAL DATE ENTRY.
2. .FILE R <DEV: FILE1.EX, FILE2.EX, ...>
RECALLS FILES FROM THE SPECIFIED DEVICE TO THE SYSTEM DEVICE, AGAIN NOT CHANGING THE DATE ENTRY.

AS MANY FILES MAY BE TRANSFERRED WITH ONE CALL AS WILL FIT ON ONE LINE.

A SPECIAL MODE IS SUPPORTED WHICH DOES ALL OF THE DIRECTORY WORK PRIOR TO TRANSFER. THIS IS MUCH FASTER FOR MULTIPLE TRANSFERS TO OR FROM DECTAPE OR LINTAPE. THE MODE IS SIGNALLED BY A "D" (FOR DANGEROUS) AFTER THE "F" OR "R" ..FI RD DTA3:NAME,...

* .FOCAL *

COMPILE LEVEL COMMAND

SYNTAX: .FO [DEV: NAME]

THE FOCAL COMMAND IS USED TO RUN PROGRAMS UNDER A VERSION OF

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FOCAL - CALLED FOCFPS.SV. PROGRAMS MAY BE SAVED IN AN ABBREVIATED FORM AND RUN UNDER HASP IF DESIRED. THE COMMAND TAKES SEVERAL FORMS.

1. .FOCAL OR .FO
WILL ACCOMPLISH AN EFFECTIVE:

.R FOCFPS

2. .FO [DEV:]<NAME>
WILL RUN FOCFPS.SV PASSING TO IT THE COMMAND LINE

"PROGRAM RUN,[DEV:]<NAME>;DO ALL;EXIT

NOTE THAT THE NEW EXIT COMMAND RETURNS TO "." HENCE, AFTER THE PROGRAM IS RUN RETURN WILL BE TO THE MONITOR. DEFAULT DEVICE IS DSK AND THE DEFAULT EXTENTION IS .FL.

3. .FO [DEV:]<NAME>;COMMANDS
WILL DO AS IN (2) ABOVE EXCEPT THAT INSTEAD OF A "DO ALL" THE ";COMMANDS" WILL BE PASSED TO FOCFPS AS A COMMAND LINE FOLLOWED BY AN ";EXIT".

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* †HASP† - THE BATCH MODE PROCESSOR *

HASP WAS WRITTEN TO PROVIDE PS/8 USERS THE CAPABILITY OF CREATING A FILE OF MONITOR COMMANDS WHICH MAY THEN BE EXECUTED WITHOUT USER INTERVENTION.
TO RUN HASP TYPE

.R HASP

AND SPECIFY TO THE COMMAND DECODER THE NAME OF A FILE ON THE SYSTEM DEVICE (SEE THE EXAMPLE BELOW FOR OTHER DEVICES). OR THE USER MAY

.SU [DEV:]<NAME[.EX]>

SEE THE "SUBMIT" COMMAND. IF THE FILE IS NOT ON SYS THEN IT WILL BE COPIED INTO THE FILE HASPBT.TM ON SYS, WHICH WILL THEN BE SUBMITTED TO HASP. THE DEFAULT EXTENSION IS BT. HASP WILL THEN PASS CONTROL TO THIS FILE WHICH CONTAINS A SEQUENCE OF COMMANDS (EACH LINE MUST BEGIN WITH EITHER A ".", "/", OR AN "*"). A SEARCH WILL BE MADE FOR THE FIRST LINE WHICH BEGINS WITH A ".", AND THAT COMMAND WILL BE EXECUTED. IF THE PROGRAM CALLED CALLS THE COMMAND DECODER, HASP WILL EXAMINE THE PASSED FILE TO DETERMINE WHETHER THE LINE STARTS WITH AN "*". IF IT DOES, THE LINE WILL BE PASSED BACK TO THE COMMAND DECODER AND THEN THE COMMAND DECODER WILL ANALYZE THE LINE. IF THE COMMAND DECODER DETECTS AN ERROR IN THE LINE OR THE LINE DOES NOT BEGIN WITH AN ASTERISK, †HASP† WILL TERMINATE THE PROGRAM AND BEGIN SEARCHING FOR THE NEXT LINE BEGINING WITH A "." (TO PASS TO THE KEYBOARD MONITOR).

IF THE LINE BEGINS WITH A "/" THEN THE LINE WILL BE TYPED ON THE CONSOL TELETYPE AND IGNORED. ANYWHERE A "/" LINE HAS AN † CHARACTER THEN HASP WILL STOP PASSING LINES UNTIL ANY CHARACTER IS TYPED ON THE CONSOL TTY.

LINES WHICH WOULD NORMALLY BE TERMINATED BY AN ALTMODE CHARACTER ON THE TELETYPE MUST BE TERMINATED BY A DOLLAR SIGN AND A CARRIAGE RETURN.

IT IS ILLEGAL TO TAKE ANY ACTION WHICH WILL REPOSITON THE COMMAND FILE DURING EXECUTION UNTIL THE LAST BLOCK OF THE FILE HAS BEEN READ BY HASP. IF THIS IS DONE, SUCH AS BY A SQUASH OR BY DELETING THE FILE, THE RESULTS WILL BE UN-PREDICTABLE.

HASP RETAINS CONTROL OF THE SYSTEM UNTIL AN END-OF-FILE IS REACHED IN THE INPUT FILE STREAM. ANY ATTEMPT TO TERMINATE A PROGRAM WILL MERELY CAUSE HASP TO GO TO THE NEXT LINE WHICH BEGINS WITH A ".". IN ORDER TO KILL HASP, IT IS NECESSARY TO DEPOSIT 0007 IN LOCATION 17673, THEN START AT 7600. ALTERNATIVELY, YOU

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MAY BOOTSTRAP THE SYSTEM.

EXAMPLE: TO READ IN A CONTROL DECK FROM A CARD READER CONCATINATED BY THE FILE CONTRL.BT FROM DTA1, AND EXECUTE, THE FOLLOWING SHOULD BE IN THE FILE HASP.BT

```
.R PIP
*HASP2.BT<CDR: /C, DTA1:CONTRL.BT
.SU HASP2
```

TO USE THIS, YOU TYPE:

```
.SU HASP
```

THE HASP WILL TRANSFER CONTROL TO THE FILE HASP.BT WHICH WILL RUN PIP TO CREATE A FILE CONTAINING THE CARDS IN THE CARD READER, AND THE CONTRL.BT FILE. THEN A NEW COPY OF HASP WILL BE CALLED TO TRANSFER CONTROL TO THIS FILE. IT SHOULD BE NOTED THAT THE REASON THE NEW FILE MAY BE NAMED HASP.BT IS THAT THE LAST BLOCK OF THE OLD HASP.BT FILE HAS ALREADY BEEN READ BY HASP (A SHORT FILE).

IT SHOULD BE NOTED THAT SOURCE PROGRAMS, AND DATA COULD FOLLOW THE CONTROL CARDS IN THE CDR:. I.E. PIP WILL ONLY READ TO THE FIRST END-OF-FILE.

IT SHOULD BE OBVIOUS THAT HASP IS NOT A TRUE BATCH MODE PROCESSOR, BUT RATHER ALLOWS REPLACEMENT OF THE OPERATOR BY A FILE CONTAINING KEYBOARD AND COMMAND DECODER LEVEL COMMANDS.

A PATCH HAS BEEN DEVELOPED TO OS/8 V2 PIP.SV WHICH WILL CIRCUMVENT THE "ARE YOU SURE?" MESSAGE WHEN DOING A SQUISH (SO THAT AN OPERATOR NEED NOT BE PRESENT). THIS FEATURE IS INVOCED WITH A /S=10001 OPTION. THE PATCH IS:

```
.GE SYS:PIP
.ODT
15200/1377 5322
15322/XXXX 1727
15323/XXXX 7640
15324/XXXX 5202
15325/XXXX 1377
15326/XXXX 5201
15327/XXXX 7642
↑C
.SA SYS:PIP
```

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* .HELP *

COMPILE LEVEL COMMAND

SYNTAX: .HE [DEV:] [NAME]

THIS COMMAND IS USED FOR OBTAINING DOCUMENTATION HELP FROM THE SYSTEM FOR UNSOPHISTICATED USERS. THE SYNTAX IS:
.HELP [DEV: NAME.EX]

IF THE OPTIONAL ARGUMENT IS OMITTED THEN THE FILE HELP.HL, IF AVAILABLE, IS LISTED. OTHERWISE THE SPECIFIED FILE IS LISTED. OUTPUT IS ALWAYS TO THE TTY: DEVICE. THE DEFAULT INPUT DEVICE IS HL: IF IT EXISTS, IF NOT THEN SYS: IS DEFAULT. THE DEFAULT EXTENSION IS .HL.

FOR USERS WITH SMALL SYSTEM DEVICES, IT IS RECOMMENDED THAT THE .HL FILES BE KEPT ON TAPE (LABELED HL:), WITH A ONE BLOCK HELP.HL FILE ON SYS. THIS FILE WOULD THEN CONTAIN INSTRUCTIONS ON HOW TO GET FURTHER HELP FROM THE HL: TAPE.

* .HD *

COMPILE LEVEL COMMAND

SYNTAX: .HD [DEV]

THIS IS THE "HOW'S THE DEVICE" COMMAND. IT IS USED TO LIST THE TOTAL NUMBER OF FREE BLOCKS, THE FRAGMENTATION OF THE "EMPTIES", AND THE SIZE OF THE LARGEST EMPTY. THIS COMMAND IS IMPLEMENTED AS PART OF SQUASH.SV.

* .KJOB *

COMPILE LEVEL COMMAND

SYNTAX: .KJ

THIS COMMAND LOGS THE USER OFF THE SYSTEM. FOR FURTHER INFORMATION SEE LOG.

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* .LIST *

COMPILE LEVEL COMMAND

SYNTAX: .LI [DEV:]NM1[.EX],NM2,...

THE LIST COMMAND IS USED FOR OUTPUTTING MULTIPLE LISTING FILES. THE SYNTAX IS:

.LIST [DEV:]NM1[.EX],NM2,...

OUTPUT IS TO DEVICE LPT: IF AVAILABLE, AND TO TTY IF NOT. THE DEFAULT INPUT DEVICE IS DSK: AND DEFAULT EXTENSION IS .LS. AS MANY FILES MAY BE SPECIFIED AS WILL FIT ON THE COMMAND LINE.

* .LOGIN *
* .KJOB *
* .OFF *

COMPILE LEVEL COMMANDS

SYNTAX:
.LO MM/DD/YY
.KJ
.OFF

THESE COMMANDS ARE USED FOR LOGGING ON AND OFF THE SYSTEM. A FILE CALLED SYSLOG.DA IS CREATED AND UPDATED WHENEVER LOGGING OPERATIONS ARE EXECUTED. IN ADDITION A FILE CALLED DIRECT.TM IS CREATED ON EACH LOGIN FOR THE CONFIRM DIALOGUE AT KJOB TIME. THE OFF COMMAND IS EQUIVALENT TO THE KJOB COMMAND.

CURRENTLY, LOCATION 7777(8) IS USED TO INDICATE WHETHER SOMEONE IS LOGGED ONTO THE SYSTEM. AS THIS LOCATION IS RESERVED FOR FUTURE USE IN THE OS/8 MONITOR, SOME INCONSISTENCIES MAY EVENTUALLY ARISE. THERE IS NO PROBLEM AS OF VERSION 1.

WHEN IN THE KEYBOARD MONITOR, IF NO-ONE IS LOGGED ON THE RESPONSES TO ALL COMMANDS ARE LOGON!, E.G.

.R PIP
LOGON!

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THE USER MERELY NEEDS TO TYPE LOGON TO INITIATE THE LOG
PROCEDURE.

.LO [MM/DD/YY]

THE QUESTIONS ASKED ARE SELF EXPLANATORY. NOTE THAT IF THERE IS
NO FILE LOG.SV ON THE SYSTEM THEN THE LOGIN COMMAND WILL
AUTOMATICALLY LET THE USER ON THE SYSTEM WITHOUT DIALOGUE. THIS
IS ESPECIALLY USEFUL TO KNOW FOR USERS WITH DECTAPE OR LINCTAPE
SYSTEMS SINCE THE LOG PROCEDURE INVOLVES A LOT OF TAPE SPINNING.

THE MESSAGE OF THE DAY FEATURE IS CALLED BY THE DATE.SV
PROGRAM (SEE DATE DOCUMENTATION) IF IT HAS BEEN CHAINED TO BY THE
LOGIN PROCEDURE. DATE, AFTER PRINTING THE DATE, WILL CHECK TO
SEE IF THERE IS A FILE MESSAG.DY ON SYS. IF SO, IT WILL LIST THE
FILE MESSAG.DY ON THE TTY. THIS FILE USUALLY CONTAINS A ONE OR
TWO LINE MESSAGE WITH SOME CURRENT INFORMATION ABOUT THE SYSTEM.
[A SPECIAL VERSION OF PIP.SV IS NO LONGER NEEDED FOR
IMPLEMENTATION OF THIS FEATURE.]

TO LOGOFF THE SYSTEM THE USER TYPES THE COMMAND:

.KJOB
OR .KJ
OR .OFF

AT KJOB, IF ANY NEW FILES HAVE BEEN CREATED, THE ROUTINE WIL
TYPE CONFIRM: TO WHICH ONE MUST RESPOND EITHER K IF YOU WISH TO
KILL ALL FILES FRESHLY CREATED SINCE LOGIN OR I IF ONE WISHES TO
DECIDE THE FATE OF EACH FILE INDIVIDUALLY. BY TYPING A CARRIAGE
RETURN, YOU WILL BE PROMPTED TO ENTER ONE OF THE TWO OPTIONS. IF
THE K OPTION IS CHOSEN, THOSE FILES WHOSE NAMES WERE NOT IN THE
DIRECTORY AT LOGIN TIME WILL BE DELETED. THUS AN UPDATE OF A FILE
WHICH EXISTED AT LOGIN WILL BE RETAINED. IF I IS CHOSEN, EACH NEW
FILENAME WILL BE PRINTED. ONE MUST RESPOND WITH A K TO KILL THE
FILE, OR A P TO PRESERVE IT. AGAIN, AN EXPLANATION WILL BE GIVEN
IF AN ILLEGAL RESPONSE IS GIVEN. IN ADDITION ALL FILES WITH
EXTENSIONS TM, LS, OR BK WILL ALWAYS BE DELETED, REGARDLESS OF
OPTIONS. TO SAVE ONE OF THESE FILES, THE NAME MUST BE CHANGED
BEFORE KJOB.

THE INTENT OF THE ABOVE CONFIRM DIALOGUE IS TO KEEP THE
SYSTEM DEVICE FREE OF USER GARBAGE THAT HE FORGOT ABOUT.

* .MAKE *

COMPILE LEVEL COMMAND

SYNTAX: .MAKE [DEV:]<NAME[.EX]>

THE .MAKE COMMAND CREATES FILES TO BE EDITED WITH TECO.SV. A

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SPECIAL, CHAINABLE VERSION OF TECO IS REQUIRED. SEE THE .TECO
COMMAND FOR FURTHER INFORMATION.

* .OFF *

COMPILE LEVEL COMMAND

SYNTAX: .OFF

THE .OFF COMMAND IS USED TO LOG THE USER OFF THE SYSTEM. THE
COMMAND IS IDENTICAL IN FUNCTION TO THE .KJOB COMMAND. SEE LOG
FOR A COMPLETE DESCRIPTION.

* .RENAME *

COMPILE LEVEL COMMAND

SYNTAX: .RE [DEV:]NEW1.EX=OLD1.EX, NEW2.EX=OLD2.EX,...

THIS COMMAND IS USED TO RENAME FILES ON FILE STRUCTURED
DEVICES. AS MANY FILES AS WILL FIT ON ONE LINE MAY BE RENAMED.
THE COMMENT ABOUT CORE IN THE DESCRIPTION OF THE DELETE COMMAND
APPLIES EQUALLY HERE. THE COMMAND SYNTAX IS:

.RENAME [DEV:]NEWMAM.EX=OLD.EX,.....

THE DEFALT DEVICE IS DSK.

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* .SQUASH *

COMPILE LEVEL COMMAND

SYNTAX:

.SQ [ODEV: [-IDEV:] [USING DEV:] [UNTIL NNN] [SAVE N] [WAIT]]

SQUASH IS A DECSYSTEM-8 COMPILE LEVEL COMMAND WHICH REPLACES THE "/S" OPTION OF PIP. IT IS AN IMPROVEMENT OVER THE OLD PIP SQUISH IN THAT FILE INTEGRITY IS MAINTAINED FOR CERTAIN OPERATIONS, AND THERE ARE MORE REASONABLE OPTIONS AVAILABLE. EACH DECSYSTEM-8 DEVICE MAY CARRY A PARAMETER BLOCK WHICH INDICATES, AMONG OTHER THINGS, WHETHER THE DEVICE MAY BE SQUASHED TO, IS ZEROABLE, AND/OR MAY BE SQUASHED TO ITSELF. A DEVICE WITHOUT A PARAMETER BLOCK MAY ONLY BE SQUASHED TO ITSELF USING THIS COMMAND.

THE "USING" DEVICE

FOR SELF SQUASHES OF DEVICES (ESPECIALLY TAPES), AN INTERMEDIATE DEVICE MAY BE SPECIFIED TO EXPEDITE THE OPERATION, I.E. SPEED IT UP. THIS DEVICE IS SPECIFIED BY THE USING DEV: OPTION IN THE COMMAND SYNTAX. IF THIS DEVICE IS ZEROABLE, (ASCERTAINED IN THE PARAMETER BLOCK), THEN THE ENTIRE DEVICE IS USED FOR INTERMEDIATE STORAGE OF FILES DURING THE SQUASH. A DIRECTORY IS MAINTAINED ON THIS DEVICE TO GIVE A DEGREE OF FILE SECURITY DURING THE SQUASH OPERATION. I.E. IF AN I/O ERROR OCCURS WHILE WRITING THE FILES BACK ON THE DEVICE BEING SQUASHED, THE OPERATION WILL TERMINATE, WITH A GOOD COPY OF THE FILE ON THE USING DEVICE.

IF THE USING DEVICE IS NOT ZEROABLE, IS THE SYSTEM DEVICE, OR IF IT DOES NOT HAVE A PARAMETER BLOCK, THEN THE LARGEST EMPTY SEGMENT ON THE DEVICE IS USED AS INTERMEDIATE STORAGE. IN THIS CASE THE DIRECTORY OF THE USING DEVICE IS NOT CHANGED AND AN I/O ERROR CAN RESULT IN LOSS OF FILES. THIS FEATURE CAN BE EXCLUDED BY A CONDITIONAL ASSEMBLY PARAMETER, SYSOK, IN THE SOURCE.

THE USING DEVICE MAY BE SHORTER THAN THE DEVICE BEING SQUASHED, IN WHICH CASE MULTIPLE PASSES WILL BE MADE ON THE DEVICE. THE ONE RESTRICTION IS THAT THE AVAILABLE STORAGE ON THE USING DEVICE MUST BE AT LEAST AS LARGE AS THE LARGEST FILE TO BE SQUASHED.

THE "UNTIL" OPTION

THE UNTIL OPTION IN THE COMMAND SYNTAX IS USED TO TERMINATE THE SQUASH OPERATION WHEN A SPECIFIED NUMBER OF CONTIGUOUS FREE BLOCKS BECOME AVAILABLE. OF COURSE, THIS OPTION IS ONLY

MEANINGFUL FOR A SELF SQUASH, WITH OR WITHOUT A USING DEVICE.

WAIT

THIS OPTION WILL CAUSE THE PROCESSING OF THE COMMAND TO BE INTERRUPTED AFTER THE SYSTEM DEVICE IS NO LONGER NEEDED FOR PROCESSING. AFTER THE MESSAGE "WAITING...", THE USER MAY REMOUNT TAPES, INCLUDING THE REMOVAL OF SYS. TYPING ANY CHARACTER WILL CONTINUE PROCESSING OF THE COMMAND. BEFORE RETURNING TO THE MONITOR, THE MESSAGE "WAITING..." WILL AGAIN BE TYPED TO ALLOW THE USER TO REMOUNT SYS, OR OTHER TAPES.

THE "SAVE" OPTION

THE SAVE OPTION ALLOWS SAVING EXTRA INFORMATION WORDS IN THE DIRECTORY OF THE DEVICE. IF NO SAVE OPTION IS GIVEN THEN THE NUMBER OF ADDITIONAL INFORMATION WORDS IN THE INDEV: DIRECTORY WILL BE USED, UNLESS IT IS ZERO, IN WHICH CASE ONE ADDITIONAL INFORMATION WORD WILL BE RESERVED.

FOR ALL OF THE ABOVE OPTIONS, ONLY TWO CHARACTERS OF THE OPTION NEED BE SPECIFIED.

FILE INTEGRITY

THERE ARE TWO MODES OF TRANSFER IN THE SQUASH COMMAND: NORMAL AND SECURE. THESE COMMENTS ONLY APPLY TO SELF SQUASHES WITH NO USING DEVICE, SINCE ALL OTHER MODES, (EXCLUDING THAT MEANTIONED UNDER "USING" DEVICES), ARE NORMALLY SECURE. DURING A SECURE SQUASH, IF A FILE WILL OVERWRITE ITSELF DURING THE TRANSFER, IT IS INSTEAD COPIED OUT ELSEWERE ON THE DEVICE WITH THE OLD DIRECTORY ENTRY DELETED ONLY IF THE TRANSFER IS SUSCESSFUL. NORMAL SQUASHING CONTINUES FROM THAT POINT ONCE THE NEW DIRECTORY IS WRITTEN OUT. IF THERE IS NO EMPTY LARGE ENOUGH TO COPY THE FILE INTO, THE OPERATOR IS NOTIFIED AND ASKED IF HE WANTS TO TRANSFER THE FILE IN THE NON-SECURE MODE. IT SHOULD BE NOTED THAT THE ORDER OF FILES MAY CHANGE WHEN DOING A SECURE SQUASH.

SINCE THERE IS A LOT OF TAPE MOTION DURING SECURE SQUASHES, THE SECURE MODE OF TRANSFER WILL ONLY OCCUR WHEN SQUASHING DF32'S, RF08'S, AND RK8'S. CONDITIONAL ASSEMBLY PARAMETERS EXIST FOR ALWAYS DOING SECURE SQUASHES OR NEVER DOING THEM (THE PARAMETERS VERYSAFE AND SQSAFELY). ONLY IF I/O ERRORS OCCUR DURING WRITTING DIRECTORYS SHOULD FILES BE LOST WHEN SQUASHING SECURELY.

CNTRL/C TERMINATION

AT ANY TIME DURING A SQUASH OPERATION A ↑C MAY BE TYPED TO TERMINATE THE SQUASH. WHEN DETECTED, THE CURRENT TRANSFER IS

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COMPLETED, AND THE REST OF THE DIRECTORY SYPONED DOWN CORRECTLY SO THAT NO FILES ARE LOST.

* .SUBMIT *

COMPILE LEVEL COMMAND

SYNTAX: .SU [DEV:]<NAME[.EX]>

THE SUBMIT COMMAND IS USED TO PASS FILES TO HASP FOR BATCH MODE OPERATION. THE DEFAULT DEVICE IS SYS AND THE DEFAULT EXTENSION IS .BT SEE HASP DOCUMENTATION FOR FURTHER DESCRIPTION.

* .MAKE *
* .TECO *

COMPILE LEVEL COMMANDS

SYNTAX:
.TECO [IDEV:]<NAME[.EX]>[=ODEV]
.MAKE [DEV:]<NAME[.EX]>

THESE TWO COMMANDS ARE SIMILAR TO THE CREATE AND EDIT COMMANDS EXCEPT THAT OS/8 TECO.SV IS CHAINED TO INSTEAD OF EDIT.SV. FOR THE CASE OF THE MAKE COMMAND THE TECO MACRO

EWDEV: NAME.EX\$\$\$

IS PASSED TO TECO. THE DEFAULT EXTENTION IS .PA AND THE DEFAULT DEVICE IS DSK:. COMPIL MAKES A CHECK TO INSURE THAT A DUPLICATE NAME DOES NOT EXIST. THE SYNTAX IS:

.MA [DEV:]<NAME>[.EX]

THE .TECO COMMAND IS A LITTLE MORE COMPLICATED WITH THE FOLLOWING SYNTAX:

.TE [DEV:]<NAME>[.EX][=ODEV][/E]

IN ALL CASES THE DEFAULT DEV: IS DSK:. IF THE "=" CONSTRUCTION IS NOT USED THEN AN EDIT BACKUP OCCURRS (EB), OTHERWISE AN

EWODEV: NAME.EX\$ERDEV: NAME.EX\$\$\$

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IS THE EFFECTIVE MACRO. IF THE /E OPTION IS NOT SPECIFIED THEN THE DEFAULT EXTENSION IS .PA AND ALL OF THE ABOVE IS TRUE. IF THE /E OPTION IS SPECIFIED THEN THE DEFAULT EXTENSION IS .TE AND AN EDIT BACKUP NEVER OCCURRS. IN ADDITION THE /E OPTION WILL EXECUTE THE FIRST PAGE OF THE FILE AS A MACRO. THE FOLLOWING ARE THE EFFECTIVE MACROS:

FOR

.TE NAME	EBNAME.PA\$Y\$\$
.TE NAME.EX	EBNAME.EX\$Y\$\$
.TE DEV: NAME.EX	EBDEV: NAME.EX\$Y\$\$
.TE DEV: NAME=ODEV	EWODEV: NAME.PA\$ERDEV: NAME.PA\$Y\$\$
.TE NAME.EX/E	ERNAME.EX\$Y HXA MA\$\$
.TE NAME=ODEV/E	EWODEV: NAME.TE\$ERNAME.TE\$Y HXA MA\$\$

OS/8 TECO.SV REQUIRES A MODIFICATION TO ALLOW THESE COMMANDS TO FUNCTION.

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* .ZERO *

COMPILE LEVEL COMMAND

SYNTAX: .ZERO DEV: [/R]

THE .ZERO COMMAND IS A NEW COMPILE LEVEL COMMAND, IMPLEMENTED IN DECSYSTEM-8 VERSION 1.2. THIS COMMAND REPLACES THE /Z OPTION IN PIP IN A MORE INTELLIGENT MANNER. THE COMMAND REQUIRES THAT A PARAMETER BLOCK BE ESTABLISHED ON THE DEVICE SPECIFIED, FROM WHICH INFORMATION ABOUT DEVICE LENGTH AND START OF FILE STORAGE IS DERIVED. (THE PROGRAM PARAM.SV IS USED TO CREATE PARAMETER BLOCKS). THERE IS A "NO ZERO" PARAMETER IN THE BLOCK WHICH AFFORDS SOME PROTECTION OF VALUABLE FILES.

WHENEVER A DEVICE IS ZERO'ED, THE FIRST FOUR DIRECTORY BLOCKS ARE SAVED IN THE UNUSED DIRECTORY BLOCKS. AS LONG AS NOTHING HAS BEEN WRITTEN ON THE TAPE SINCE IT WAS ZERO'ED, THE OLD DIRECTORY MAY BE RESTORED WITH THE /R OPTION. THE USER MUST REMEMBER THAT ONLY 4 DIRECTORY SEGMENTS ARE RESTORED. THUS FILES BEYOND APPROXIMATELY 100 WILL NOT HAVE DIRECTORY ENTRIES. THUS WE HAVE THE

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LOADING PROCEDURES

THE SYSTEM MUST BE BUILT ONCE BY FOLLOWING THE DESCRIPTION "BUILDING OS/8 FROM PAPER TAPES" OR "CREATING OS/8 WITH BUILD" IN "INTRODUCTION TO PROGRAMMING - 1972" SUPPLIED BY DEC. THE ONLY CHANGE IS TO SUBSTITUTE PS8LGC.BN FOR THE TAPE DEC-S8-S8A-A-PB, AND HASPCD.BN FOR DEC-S8-OCMDA-A-PB. FROM THEN ON BUILD MAY BE USED TO COPY THE SYSTEM TO NEW SYSTEM DEVICES.

THIS TAPE CONTAINS A FILE CALLED DS8SYS.Y WHICH MAY BE USED TO CREATE DECSYSTEM-8 ON AN ALREADY OPERATING SYSTEM. IN THE FOLLOWING IT IS ASSUMED THAT THIS TAPE IS ON DTA1: AND THAT BUILD.SV IS SET UP FOR YOUR CONFIGURATION. THE FOLLOWING PROCEDURE MAKES SURE THAT THE SYSTEM BOOTSTRAP IS CORRECT.

```
.RU DTA1:PIP
*SYS:/Y←DTA1:DS8SYS.Y/Y
*.↑C
.RU SYS:BUILD
$BOOTS
DSK=                /WHATEVER YOU WISH
SYSTEM BUILT
.
```

DECSYSTEM-8

THE DECSYSTEM-8 SYSTEM
MARK 1.2
TAPE #1

THE DECSYSTEM-8 SYSTEM IS SUPPLIED ON THREE TAPES. TAPE #1 CONTAINS ALL THE PROGRAMS NECESSARY TO RUN THE SYSTEM AND THE DOCUMENTATION FILES. TAPE #2 CONTAINS THE SOURCES OF ALL OF THE PROGRAMS ENCOMPASSED IN DECSYSTEM-8 WITH THE EXCLUSION OF THE KEYBOARD MONITOR AND THE COMMAND DECODER. THESE LATTER TWO FILES ARE CONTAINED ON TAPE #3, AS THE DISTRIBUTION OF THESE MUST BE CONTROLLED. THE USER WILL NOTE THAT NEITHER BUILD OR CONFIG ARE INCLUDED ON ANY TAPE, SO THAT THE PURCHASE OF PS/8 OR OS/8 FROM DIGITAL IS REQUIRED BEFORE DECSYSTEM-8 MAY BE BROUGHT UP.

TAPE #1 IS AVAILABLE FROM DECUS. TAPE #1 AND TAPE #2 ARE AVAILABLE FROM THE AUTHORS. WE ASK THAT YOU SEND US AN EXTRA DECTAPE WITH THE FIRST REQUEST, TO COVER HANDLING AND INTERNAL SUPPORT PROBLEMS. YOU WILL BE PLACED ON A DISTRIBUTION LIST AND NOTIFIED WHEN NEW RELEASES ARE AVAILABLE. AT THAT TIME YOU NEED ONLY SEND US A TAPE AND WE WILL FORWARD THE NEW FILES ON IT. TAPE #3 MAY BE OBTAINED VIA PROOF OF PURCHASE OF THE PS/8 SOURCES OF THE KEYBOARD MONITOR AND COMMAND DECODER, (UNTIL SUCH TIME AS DIGITAL ALLOWS US TO RELEASE THEM TO ANYONE).

THIS TAPE CONTAINS THE FOLLOWING FILES.

TAPE #1

WRITE.UP THIS FILE CONTAINS INFORMATION ABOUT HOW TO START FINDING OUT ABOUT EVERYTHING.

PS8LGC.BN THIS IS THE MODIFIED VERSION OF THE PS/8 SYSTEM PROGRAM WHICH REPLACES PS8.BN, OR OS/8 (DEC-S8-00S8A-A-P). NOTE THE ONE PAGE HANDLER FOR RUN, GET, AND SAVE RESTRICTION. (TD8/E WILL NOT WORK). BY JRC.

CDHASP.BN THIS REPLACES THE COMMAND DECODER TAPE CD.BN (OR DEC-S8-OCMDA-A-P). BY JRC.

NOTE: THE ABOVE ARE NOT MODIFIED VERSIONS OF OS/8 BUT RATHER OF PS8.002.II.

ABSLDR.SV THE SYSTEM ABSOLUTE LOADER (PS/8 ABSLDR). NOTE THAT OS/8 ABSLDR WILL NOT WORK WITH DECSYSTEM-8.

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COMPIL.PA THIS CONTAINS THE MONITOR EXTENTIONS (CCL) FOR DECSYSTEM-8. FOR DECTAPE SYSTEMS THIS FILE SHOULD BE LOCATED AS CLOSE TO THE DIRECTORY BLOCKS AS POSSIBLE. CONTAINS CONDITIONAL ASSEMBLIES FOR THE F4 COMPILER AND KVEDIT. BY JRC. MODIFIED BY DEW AND JRC.

COMPIL.SV IMAGE VERSION OF ABOVE.

-DATE.SV IMPLEMENTS LONG VERSION TYPEOUT OF DATE AND MESSAGE OF THE DAY WHEN CHAINED TO. BY JRC. MODS BY DEW.

DIRECT.SV THIS CODING IMPLEMENTS THE DIRECTORY COMMAND BY HM. - ACCEPTED INTO DECSYSTEM-8 5/8/73 WITH MODIFICATIONS BY JRC -KV8/I ROUTINES BY JRC

KV8DIR.SV AS ABOVE BUT WITH KV8/I ROUTINES.

DS8SYS.Y THIS IS THE SYSTEMS PORTION OF DECSYSTEM-8 RETRIEVED WITH /Y FROM A DF32 SYSTEM. THE SYSTEM BOOTSTRAP WILL BE WRONG FOR OTHER SYSTEMS. SEE DS8LOD.HL FOR LOADING PROCEDURES.

DTA.SV THIS IS THE PROGRAM TO DO AUTOMATIC DECTAPE ASSIGNMENTS FROM INTERNAL LABELS. THIS PROGRAM MUST BE NAMED AUTOAS.SV TO IMPLEMENT THE .AS COMMAND. BY JRC AND DEW.

LTA.SV COPY OF ABOVE, FOR PDP-12 LINCTAPES. RENAME TO AUTOAS.SV FOR PDP-12 USERS.

EDIT12.SV CHAINABLE EDITOR FOR THE PDP-12. USES THE SCOPE. DERIVED FROM DECUS 12-50. MODS BY JRC.

EDIT8.SV CHAINABLE EDITOR FOR NON PDP-12 OWNERS. DECUS 12-50. MODS BY JRC.

FUTIL.SV SYSTEM FILE UTILITY PROGRAM. SUMMERY IS IN FUTIL.HL. A COMPLETE WRITEUP MAY BE OBTAINED BY CONTACTING J. CRAPUCHETTES OR THE AUTORS. BY JC.

FOCFPS.SV PS/8 FOCLF V.12/1/72 WITH CHAIN FOR .FOCAL COMMAND. FOCAL-10 COMPATIBLE. SEE DECUS FOR WRITUP. BY DEW.

FORT.SV CHAINABLE OS/3 FORTRAN COMPILER. THIS MAY OR MAY NOT BE THE LATEST VERSION OF FORT.SV.

HASP.SV BATCH CONTROLLER PROGRAM. BY JRC. MODS BY RJ, DEW, AND JRC.

KVEDIT.SV EDIT FOR KV8/I USERS. MODS BY JRC

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LOGKJ.SV IMPLEMENTS LOGON, AND KJOB. RENAME TO LOG.SV TO IMPLEMENT LOGIN AND KJOB. BY JRC.

LOGOUT.SV A SAMPLE PROGRAM FOR OUTPUTTING NICE COPY OF LOG. IS A FORTRAN PROGRAM.

PARAM.SV THIS PROGRAM IS SELF DOCUMENTING AND IS USED TO ESTABLISH PARAMETER BLOCKS ON DECSYSTEM-8 DEVICES. THE MONITOR COMMANDS .ZERO, HD, AND SQUASH USE THE PARAMETER BLOCK. BY DEW.

PIP.SV OS/8 \varnothing PIP WITH /S=10001 PATCH.

SABRC.SV CHAINABLE SABR. NOTE THAT SABRC IS ONLY REQUIRED WHEN USING THE .SB OPTION IN THE .COMPILE COMMAND. SABR.SV IS REQUIRED WHEN USING FORT IN ANY CASE. THE MODIFICATION IS:

```
.GET SYS SABR
.ODT
201/XXXX 5200
207/XXXX 7000;7000;7000;7000
↑C
.SA SYS: SABRC
```

SQUASH.SV IMPLEMENTS THE SQUASH AND HD COMMANDS. BY DEW

TECO.SV OS/8 TECO WITH PATCH FOR TECO AND MAKE COMMANDS. MODS BY DEW.

UMOUNT.SV THIS IS CODING FOR IMPLEMENTATION OF THE FILE AND COPY COMMANDS. BY JRC. MODS BY DEW.

WRITUP.BT THIS IS A HASP FILE FOR OBTAINING A COMPLETE COPY OF THE DOCUMENTATION. OUTPUT IS TO DEVICE LPT, SO ASSIGN LPT TO YOUR LISTING DEVICE BEFORE RUNNING VIA ".SU WRITUP.BT".

XXXX.HL THESE ARE VARIOUS HELP FILES DOCUMENTING THIS SYSTEM.

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IMPLEMENTATION NOTES

MODIFICATIONS TO THE MAIN PS/8 MONITOR:

1. ADDITION OF THE LOGIN AND KJOB COMMANDS. ACCESS TO THE SYSTEM IS PREVENTED UNTIL A LOGIN COMMAND IS ENTERED TO MAKE AN ENTRY INTO THE SYSTEM LOG FILE. THE LOGGED-ON STATUS IS RETAINED IN LOCATION 07777. ZERO MEANS THAT NO ONE IS LOGGED-IN, AND ONLY THE LOGIN COMMAND IS LEGAL IF THIS CONDITION IS TRUE.
2. MODIFICATION TO THE CHAIN PROCESSOR. THE CHAIN PROCESSOR HAS BEEN MODIFIED TO PREFORM THE SAME TEST MADE BY THE R, RUN, AND GET COMMANDS AS TO THE VALIDITY OF AN IMAGE FILE. THIS TEST IS NOT PERFECT, BUT IT DOES PREVENT A CHAIN TO A FILE WHICH IS KNOWN TO BE BAD. AN ATTEMPT TO CHAIN TO A BAD FILE, OR AN ERROR READING THE SYSTEM DEVICE WILL PRODUCE THE MESSAGE CHAIN ERR.
3. MODIFICATION OF THE ENTER ROUTINE IN THE USR. THE ENTER ROUTINE HAS BEEN MODIFIED TO ALLOW THE NEW ENTRY TO CONTAIN A DATE OTHER THAN THE CURRENT SYSTEM DATE. THIS IS USEFUL WHEN A FILE IS TRANSFERRED FROM ONE DIRECTORY DEVICE TO ANOTHER WITH NO EDITING. IF, AFTER LOCKING THE USR INTO CORE, ANY NON-ZERO ENTRY IS PLACED INTO CELL 10070, THIS WILL BE USED AS THE DATE ENTRY FOR THE NEW FILE. THE ENTER ROUTINE RESETS THIS LOCATION TO ZERO AFTER USING IT.
4. PROVISION FOR THE ADDITION OF FURTHER MONITOR COMMANDS. WHENEVER THE USER ENTERS A COMMAND WHICH IS NOT IN THE SET CONSISTING OF THE R, RUN, SAVE, START, DATE, ODT, LOGIN, OR KJOB COMMANDS, THE MONITOR READS BLOCKS 1-2 OF THE FILE COMPIL.SV INTO CORE INTO LOCATIONS 00600-01577. THE CORE CONTROL BLOCK OF THIS FILE IS TOTALLY IGNORED. CONTROL IS THEN TRANSFERRED TO LOCATION 01002. IF THE FILE COMPIL.SV IS NOT PRESENT ON THE SYSTEM DEVICE, THE COMMAND WILL BE ECHOED FOLLOWED BY A QUESTION MARK. COMPILE CONTAINS THE FACILITY FOR MONITOR COMMAND EXTENSIONS.STRUCTURE OF COM

1. OPERATION.

COMPIL RE-EXAMINES THE COMMAND STRING AND TAKES ACTION FOR THOSE COMMANDS WHICH IT KNOWS ABOUT. IF A COMMAND WHICH IS NOT LEGAL IS TYPED IN, THE MESSAGE XXXXXX-ILLEGAL COMMAND IS TYPED, IN ORDER TO DIFFERENTIATE BETWEEN AN ACTUAL ERROR AND THE CONDITION WHEN COMPIL.SV IS NOT ON THE SYSTEM. THE CODE TO PROCESS A COMMAND MAY BE IN ONE OF THREE PLACES:

A. THE FIRST FOUR PAGES OF THE FILE, WHICH

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ARE NOW IN CORE.

B. FURTHER OUT IN THE FILE COMPIL.SV.

C. IN ANOTHER PROGRAM ON THE SYSTEM, WHICH
MAY BE CHAINED TO BY COMPIL

2. STANDARD ROUTINES.

COMPIL.SV IS DEPENDENT UPON SEVERAL ROUTINES AND LOCATIONS IN THE MAIN ASSEMBLY OF PS/8. THESE ARE SPECIFIED BY DEFINES AT THE BEGINNING OF THE ASCII FILE. ALSO THE PROGRAM UMOUNT, WHICH IS USED BY THE FILE COMMAND, USES ROUTINES BOTH IN THE MAIN PS/8 ASSEMBLY AND IN COMPIL. IF COMPIL IS CHANGED BY THE USER, ASSEMBLY ERRORS WILL RESULT IF THE COMPIL ROUTINES REFERENCED BY UMOUNT CHANGE LOCATION. IT IS THEN NECESSARY TO REDEFINE REFERENCES IN UMOUNT AND REASSEMBLE IT.

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NOTES AND SUGGESTIONS

IT WOULD BE HIGHLY DESIREABLE TO HAVE A NEW LOG ROUTINE WHICH DID AN IN-PLACE UPDATE OF SYSLOG.DA WITH COPYING OF THIS FILE INTO ANOTHER ONLY WHEN FULL. THUS THE FILE SYSLOG.DA MAY BE LOCATED NEAR THE SYSTEM PART OF A DECTAPE AND MUCH SPINNING TIME WOULD BE SAVED. IF YOU HAVE THE TIME AND INCLINATION ... GOOD LUCK!!!!

FURTHER WORK NEEDS TO BE DONE WITH REGARD TO FUTHER IMPLEMENTATIONS USING THE PARAMETER BLOCK. MAINLY A REPLACEMENT FOR PIP'S /Y OPTION.

IMPLIED RULES REGARDING DISTRIBUTION

THE EXISTENCE OF THIS TAPE MUST IMPLY CERTAIN OBLIGATIONS ON THE PART OF PERSONS RECEIVING IT. THIS IS AN EXPERIMENTAL METHOD FOR MAKING THE USER COMMUNITY STRONGER AND IMPROVE COMMUNICATIONS. DISTRIBUTION WILL INITIALLY BE ON AN INDIVIDUAL BASIS UNTIL THERE ARE TOO MANY USERS. WHENEVER A TAPE IS SENT TO DOUG WREGE AN UPDATED VERSION BE RETURNED. RELEASES WILL BE ON AN APPROXIMATELY TWO MONTH BASIS. WHEN REQUESTORS EXCEED A REASONABLE NUMBER TAPES WILL BE ISSUED ON A ROUND ROBBIN BASIS (THUS THE FOLLOWING RULES). YOU ARE GETTING SOMETHING FOR NOTHING SO PLEASE ADHERE STRICTLY TO THESE RULES.

1. APPLICABLE FOR ROUND-ROBIN UNDER NO CIRCUMSTANCES SHOULD THIS TAPE BE MODIFIED OR EVEN WRITE-ENABLED. ALTHOUGH YOU THINK THAT SOMETHING IS "GROOVY", IT MAY DO SOMETHING THAT ANOTHER USER IS UNINTERESTED IN, OR HAVE UNKNOWN BUGGS. IF "KLUGES" CREEP INTO THIS SYSTEM, OTHER USERS MAY THINK THAT DECSYSTEM-8 IS MARGINAL IN OPERATION, RESULTING IN THE DEATH OF A GOOD THING.
2. APPLICABLE FOR ROUND-ROBIN THERE IS A LIST OF ADDRESS AT THE END OF THIS WRITEUP. YOU MAY COPY THIS TAPE AND THEN SEND IT ON TO THE PERSON FOLLOWING YOUR NAME (THE LAST PERSON SHOULD RETURN IT TO THE FIRST). YOU SHOULD NOT HOLD ON TO THIS TAPE FOR MORE THAN TWO DAYS.
3. IF YOUR NAME IS NOT ON THE LIST, SEND TWO TAPES(MARKED) TO DOUG WREGE OR JOHN COVERT REQUESTING THAT YOU BE ADDED. THIS WILL ENTITLE YOU TO DECSYSTEM-3 UPDATES FOR AS LONG AS THIS USER SUPPORT GROUP IS OPERATING. ONE WILL BE RETURNED WITH THE LATEST DECSYSTEM-8. PLEASE INDICATE WHETHER YOU WISH TO RECEIVE A DECTAPE OR LINCTAPE.
3. AS SOME OF THE ORIGINAL CODING (BEFORE MODIFICATION) OF DECSYSTEM-8 IS COPYWRITED BY DEC AND BECAUSE THIS IS A DEC USERS GROUP, INFORMATION CONTAINED ON THIS TAPE IS TO BE RESTRICTED TO END USERS OF DEC FAMILY-OF-3 COMPUTERS. I AM SURE YOU UNDERSTAND THE REASON FOR THIS RESTRICTION, AND WHO WE ARE TALKING ABOUT.
4. IF YOU HAVE SUGGESTIONS, ADDITIONS, OR MODIFICATIONS YOU DEEM WORTHY OF INCLUDING ON THIS TAPE, THE FOLLOWING STATEMENTS APPLY:
 - A. SEND SUGGESTIONS OR ADDITIONS, ON A TAPE, TO DOUG WREGE OR JOHN COVERT. IN THIS WAY THEY MAY BE ADDED TO THE MASTER TAPES (THERE ARE MORE THAN ONE). ALL ADDITIONS TO

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DECSYSTEM-8 WILL BE REVIEWED BEFORE ACCEPTANCE.

- B. MODIFICATIONS OF SOURCES SHOULD BE IMPLEMENTED WITH CONDITIONAL ASSEMBLY PARAMETERS SUCH THAT WITH PROPER DEFINITIONS THE NEW MODIFICATION MAY BE INCLUDED. THE OMISSION OF THE DEFINITIONS SHOULD LEAVE THE BINARY INVIOATE. THIS WILL ALLOW SELECTION OF FEATURES BY USERS.
 - C. ALL CHANGES MUST BE WELL DOCUMENTED.
 - D. IF THE CHANGE YOU WISH TO MAKE CANNOT BE DONE WITH CONDITIONAL ASSEMBLIES, NOTE THAT ACCORDINGLY. YOUR WORK WILL BE REVIEWED TO SEE IF IT SHOULD BECOME A STANDARD PART OF DECSYSTEM-8.
 - E. OFFICIALLY ACCEPTED DECSYSTEM-8 ADDITIONS MUST BE SUPPLIED IN SOURCE FORM AND USERS MUST BE ABLE TO MODIFY THEM IF SO INCLINED. THIS IS AN OPEN- SHOP SYSTEM WITH ALL SOURCES AVAILABLE. OTHERWISE SUBMIT TO DECUS.
5. IT MAY SEEM THAT THE ABOVE RULES RESTRICT FREEDOM OF THE USERS, BUT EXPERIENCE SHOWS THAT NOT ALL USERS ARE AS KNOWLEDGABLE AS THEY MAY CONSIDER THEMSELVES.
6. ANYONE FOUND IN VIOLATION OF THE ABOVE RULES WILL BE REMOVED FROM THE DISTRIBUTION LIST.

CONTRIBUTORS

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TO THOSE RECEIVING THIS TAPE FROM DECUS:

THIS DOCUMENTATION FILE IS IDENTICAL TO THE ONE WHICH IS CIRCULATED AMONG DECSYSTEM-8 USERS WITH THE EXCEPTION OF THE DISTRIBUTION LIST WHICH IS MUCH MORE EXTENSIVE. TO GET ON THE LIST SEE DISTRIBUTION RULES. YOU NEED NOT SEND THIS TAPE ANYWHERE.

ABOUT DS8CCL.PA

THE SOURCE OF DS8CCL CONTAINS MANY CONDITIONAL
ASSEMBLY PARAMETERS TO SELECT VARIOUS FEATURES OF DECSYSTEM-8.
TO OBTAIN INFORMATION ABOUT THEM LIST THE FIRST FEW PAGES
OF THE SOURCE. THEN MAKE A DEFINITIONS FILE TO PRECEED
THE SOURCE AT ASSEMBLY TIME WITH THOSE FEATURES THAT YOU DESIRE.

LOADING INFORMATION

CCL .COM DS8CCL.DF,DS8CCL/L
.SA SYS CCL=2003;12001

SQUASH .LOAD SQUASH=3000(89)
.SA SYS SQUASH

AUTOAS .LOAD AUTOAS=12000(89)
.SA SYS AUTOAS

DATE .LOAD DATE=12000(89)
.SA SYS DATE

PARAM .LOAD PARAM=2000(9)
.SA SYS PARAM=1000

HASPV3 .LOAD HASPV3(9)
.SA SYS HASPV3

DECSYSTEM-8 CCL ADDITIONS

THE FOLLOWING COMMANDS HAVE BEEN ADDED TO OS/8 V3:

```
.AS          AUTOASSIGN
.AS UDEV     DOES NOT REMOVE USERNAME ASSIGNMENT.
.DE UDEV     REMOVES ONLY SINGLE USERNAME ASSIGN.

.FILE [FROM] DEV: NMI, NM2    SUBSET OF "COPY".
.FILE R[ECALL] DEV: NMI, NM2  SUBSET OF "COPY".

.HD[IEV] DEV: "HOW'S THE DEVICE"

.MES[SAGE]   TYPES FILE "MESSAG.DY".

.SQUASH      SMART DEVICE PACKING.
.SC [ODEV: [<IDEV: ] [ USING UDEV: ] [UNTIL NMI] [SAVE N] [WAIT]

.ZERO DEV:   ZERO'S DEVICES USING PARAMETER FLOCK.
.ZERO DEV: /R   RESTORE LAST DIRECTORY.
.ZERO DEV: /O   OVERRIDING PARAMETER FLOCK.
```

THE LONG FORM "DATE" COMMAND CODING WAS REMOVED WITH
CHAIN TO "DATE.SV" REPLACING IT.

SYSTEM PROGRAMS REQUIRED FOR ABOVE:

```
CCL.SV          DERIVED FROM DS8CCL.PA
SQUASH.SV
DATE.SV
AUTOAS.SV      AVAILABLE IN LINCTAPE AND
                TC88 DECTAPE VERSIONS.
PARAM.SV       ESTABLISHES PARAMETER BLOCKS ON DEVICES
HASPV3.SV      AN 8K INVISIBLE "PSEUDO-PATCH".
                DS8CCL CONDITIONAL ASSEMBLY
                PARAMETER "HASPCN=1" REQUIRED.
```