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PDP-8 DIGITAL SOFTWARE NEWS

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The **PDP-8 Digital Software News** (a bi-monthly publication) complements Software Reviews for COS-310, OS/8, and OS/78. New and revised Software Product Descriptions, programming notes, software problems and solutions, and documentation corrections are published here. Much of the material is developed from Software Performance Report (SPR) answers significant to the general audience and is printed here to supplement the maintenance notebook (established by the Software Review).

PRODUCTS SUPPORTED in the PDP-8 DIGITAL SOFTWARE NEWS

COS-310 V8	OS/8 Extension Kit V3D	OS/8 MACREL/LINKER V2A
COS-310/2780 RDCP V6.05, V7	OS/8 FORTRAN IV V3D	OS/78 V2, V3
OS/8 V3D		RTS-8 V3.0
OS/8 V3D Device Extensions		

DISTRIBUTION

The Digital Software News is directed to one software contact for each software product. No Mailing will be made to addresses without a software contact name. Address change requests should be sent to the nearest DIGITAL field office. Include the new address and mailing label from the most recently received publication.

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Eleanor F. Hunter, Editor
Ann Owens, Associate Editor

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VT

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SPR USER LETTER

Submitted by Sheila Hatchell, 8/11 SPR Administration

The Dispatch SPR User Letter has been revised to reflect the new SPR form which is now available. These forms can be obtained from your local Digital Office or SPR Center, or by requesting them from SPR Administration.

How to Make the Best Use of the SPR Form

What We Can Do For You:

1. Blank SPR forms are available upon request in the desired quantities Through the SPR Administration (P.O. Box F) and your local office/ SPR Center.
2. Copies of the SPR acknowledgement and answer are sent to the appropriate DIGITAL Office/SPR Center for their information.
3. STATUS FOR SUBMITTED SPRs IS PROVIDED UPON REQUEST.
4. SPRs marked PROBLEM/Error will have a response for supported Category A and B products. These SPRs should refer to suspected deficiencies in the software.
5. SPRs marked SUGGESTION are forwarded to the pertinent software group for information purposes, and are responded to at their discretion.

What You can Do For Us:

1. Fill out the form completely either by typing or printing clearly.
2. Limit only one problem per SPR form. Several problems on an SPR can greatly lengthen the turnaround time.
3. WHENEVER POSSIBLE, SUBMIT AN SPR WITH ATTACHMENTS, SUCH AS MACHINE READABLE DATA DETAILED INSTRUCTIONS ON HOW TO REPRODUCE THE PROBLEM, PROGRAM AND/OR DATA FILES, LISTINGS, AND CONSOLE LOG.
4. It would be most helpful to all concerned if problems with patches are reported as soon as possible.
5. For security SPRs, it is imperative that the DO NOT PUBLISH box be marked.
6. It would be helpful if tapes submitted with SPRs are labeled (track and density), and have a directory attached.
7. Complete the questionnaire that is supplied with each SPR answer. Your feedback is very essential in monitoring the quality of our responses.
8. SPRs should not be used for problems concerning software policy, software distribution, or hardware. The local office should be contacted in these cases.

DIRECTIONS FOR COMPLETING SPR FORM

258203

The SPR form must be filled out completely and **MUST BE TYPEWRITTEN** in order to ensure proper processing. The shaded areas on the form should be left blank, they will be used by DIGITAL in processing the SPR.

The following is a brief summary of the information required:

OPERATING SYSTEM/MONITOR (SOFTWARE PRODUCT)

Monitor (software product) the system program runs under and its version number (e.g. RSX-11M V3, TOPS-10 V6.03). Document Title such as OS/8 Handbook.

SYSTEM PROGRAM & VERSION (OR DOCUMENT PART NUMBER)

The program in which the problem resides, e.g. FORTRAN V5A, BASIC V1B. If a monitor, write MONITOR (module). If a documentation error is being reported, the DEC order number of the manual should be entered here (e.g. DEC-11-ORSUB-A-D).

DATE:

Date of submittal using a three character abbreviation for month (e.g. 4-APR-79)

NAME AND ADDRESS:

Fill out the name of your installation's responsible software contact and complete mailing address. The information in this block will be used to return the acknowledgment copy.

CUST. NO.:

A permanent reference number which is assigned by DIGITAL. Customers will be informed of their number.

SUBMITTED BY AND PHONE:

Enter name and phone number of the author of the SPR.

DEC OFFICE:

Enter local DEC office (or SPR Center if European or Australian).

REPRODUCIBLE AT WILL, SOURCE AND DOCUMENTATION QUESTIONS

Check appropriate boxes.

REPORT TYPE/PRIORITY

Check appropriate box for Report Type and Priority.

Priority Definitions are as follows:

1. Most production work cannot be run, e.g. functions/jobs which are not usable are a major use of system, e.g. system won't boot, necessary peripherals cannot be used as intended.
2. Some production work cannot be run, e.g. certain jobs/functions are not usable, performance degradation, installation has insufficient excess capacity.
3. All production work can be run with some impact on user, e.g. significant manual intervention required, extra procedures, performance degradation but installation has excess capacity.
4. All production work can be run with no significant impact on user, e.g., problem can be easily patched, simple bypass procedure exists.
5. No system modifications needed to return to normal production, e.g., suggestion, consultation, documentation error.

ATTACHMENTS:

If attachments are included with SPR, describe materials sent and insure that the number from the top of this form appears on them. Printed examples must be dark. If magtape, include track and density.

CPU TYPE:

Enter model number of the processor (e.g. 1080, 8/A, 11/70, 2040).

SERIAL #:

Enter serial # of central processor. If there are two processors, enter serial number of first.

SYSTEM DEVICE:

The device on which the monitor resides (e.g. DOS/BATCH on RK05 where RK05 is system device).

DISTRIBUTION MEDIUM:

Indicate the medium on which you receive software (e.g. 9TR Magtape, DEC Tape, RX02, RK05).

PROBLEM DESCRIPTION:

A concise description of the problem in the form of **PROBLEM:**, **DIAGNOSIS:**, **CURE:** (if known), with references to circumstances surrounding its occurrence should be included. **Only one problem should be stated per SPR form.** Attempt to reduce the problem to a simple test case. If you cannot, include all programs and data in machine readable form. If a patch or interim solution exists, include it.

DO NOT PUBLISH:

Check this box if you do not want your SPR published in its original form. This does not guarantee that the solution will not be published if of universal value.

SPR SUBMISSION:

Upon completion of the SPR form **remove last copy** and send remainder to the nearest SPR center. Refer to the reverse side of this instruction sheet for a listing of SPR centers.



SOFTWARE PERFORMANCE REPORT

FIELD NO.:	CORPORATE SPR NO.:
------------	--------------------

258203

✓ TO SET UP FOR PROPER ALIGNMENT, START AT MARK BELOW.

PAGE ____ OF ____

OPERATING SYSTEM	VERSION	SYSTEM PROGRAM OR DOCUMENT TITLE	VERSION OR DOCUMENT PART NO.	DATE
NAME: FIRM:		DEC OFFICE	DO YOU HAVE SOURCES? YES <input type="checkbox"/> NO <input type="checkbox"/>	
ADDRESS:		REPORT TYPE/PRIORITY		
CUST. NO.:		<input type="checkbox"/> PROBLEM/ERROR	1. <input type="checkbox"/> HEAVY SYSTEM IMPACT	
SUBMITTED BY:		<input type="checkbox"/> SUGGESTED ENHANCEMENT	2. <input type="checkbox"/> MODERATE SYSTEM IMPACT	
PHONE:		<input type="checkbox"/> OTHER	3. <input type="checkbox"/> MINOR SYSTEM IMPACT	
ATTACHMENTS		CAN THE PROBLEM BE REPRODUCED AT WILL? YES <input type="checkbox"/> NO <input type="checkbox"/>		
MAG TAPE <input type="checkbox"/>	FLOPPY DISKS <input type="checkbox"/>	LISTING <input type="checkbox"/>	DECTAPE <input type="checkbox"/>	4. <input type="checkbox"/> NO SIGNIFICANT IMPACT
OTHER:		5. <input type="checkbox"/> DOCUMENTATION/SUGGESTION		
CPU TYPE		COULD THIS SPR HAVE BEEN PREVENTED BY BETTER OR MORE DOCUMENTATION? YES <input type="checkbox"/> NO <input type="checkbox"/>		PLEASE EXPLAIN IN PROVIDED SPACE BELOW.
SERIAL NO.	MEMORY SIZE	DISTRIBUTION MEDIUM	SYSTEM DEVICE	DO NOT PUBLISH <input type="checkbox"/>

SAMPLE

ALL SUBMISSIONS BECOME THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION.

SHORT NAME	MNT. CAT.	MNT. GRP.	XFER GRP.	PL	PRB. TYPE
DATE RECEIVED (MAIL)		DATE TO MAINTAINER	XFER DATE	LOGGED ON	
DATE RECEIVED (ASG)		DATE RECEIVED FROM MAINTAINER	DATE ANSWERED	LOGGED OFF	

EN 1044H-07-R479 (35C)

ADMINISTRATIVE SERVICES GROUP, SWS

OS/8 V3D
MONITOR
NOTES & DOCUMENTATION

Seq 21.1.2 N

1 of 1

Supersedes article dated April/May 78

EQUIVALENCE STATEMENT (SOFTWARE REVIEW CORRECTION) (SPR 8-2484 JB)

OS/8 V3D Software Review AA-08771-BA

The patch issued concerning EQUIVALENCE statements (Seq 2 M; 1 of 1; pg. 24), should reference the F4 compiler not FRTS. It should read as follows:

```
.GET SYS:F4
.ODT
2067/1471 1367
2070/1071 5363
2163/xxxx 2071
2164/xxxx 7000
2165/xxxx 1071
2166/xxxx 5271
2167/xxxx 2
1130/6401 6402
^C
.SAVE SYS:F4.SV

.GET SYS:PASS3.SV
.ODT
712/6401 6402
^C
.SAVE SYS:PASS3.SV
```

This patch upgrades F4.SV to V4B.

OS/8 V3D
 MONITOR
 NOTES & DOCUMENTATION

Seq 21.1.4 N
 1 of 2

The following is a list of components, subcomponents, and modules with their appropriate version number for the OS/8 V3D Combined Kit.

COMPONENT SUBCOMPONENT MODULE	VERSION	COMPONENT SUBCOMPONENT MODULE	VERSION
DOCUMENTATION		UTILITIES	
FORMATTERS		ABSLDR.SV	6B
AND COPIERS		BITMAP.SV	4A
DTCOPY.SV	10A	BOOT.SV	5A
DTFRMT.SV	4A	BUILD.SV	7A
RLKFMT.SV	D	CAMP.SV	5A
RXCOPY.SV	4B	CCL.SV	3A
TDCOPY.SV	4A	CCL.MA	
TDFRMT.SV	4A	CCLAT.MA	
RLFRMT.SV	1A	CCLCD.MA	
		CCLCDX.MA	
		CCLCOR.MA	
		CCLDAT.MA	
		CCLDRV.MA	
		CCLMSG.MA	
		CCLREM.MA	
		CCLRUN.MA	
		CCLPS.MA	
		CCLSB2.MA	
		CCLSEM.MA	
		CCLSUB.MA	
		CCLSIZ.MA	
		CCLTAB.MA	
		CCLTBL.MA	
		CREF.SV	5B
		DIRECT.SV	6A
		EDIT.SV	12D
		EPIC.SV	5A
		FOTP.SV	9B
		HELP.SV	NA
		HELP.HL	NA
		MCPIP.SV	6B
		PAL8.SV	13A
		PIP.SV	14A
		PIP10.SV	3B
		RESORC.SV	5A
		SAVECB.PA	NA
		SET.SV	2A
		SRCCOM.SV	4A
		TDINIT.SV	7A
		TDROM.SY	NA
		TD12K.SY	NA
MONITOR			
KBM	3T		
CD	5A		
ODT	6A		
CCL OVERLAY	3A		
HANDLERS			
ASR33.BN	A		
BAT.BN	B		
CR8E.BN	C		
CSA.BN	A		
CSE.BN	A		
CSC.BN	A		
CSD.BN	A		
DF32NS.BN	A		
DF32SY.BN	B		
DUMP.BN	C		
KL8E.BN	E		
KL8E.PA	E		
LINCNS.BN	A		
LINCSY.BN	B		
LPSV.BN	C		
LQP.BN	A		
LSPT.BN	A		
L645.BN	A		
PT8E.BN	A		
RFO8NS.BN**	A		
RFO8SY.BN	E		
RK8ESY.BN	C		

OS/8 V3D
 MONITOR
 NOTES & DOCUMENTATION

Seq 21.1.4 N

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COMPONENT
 SUBCOMPONENT
 MODULE

VERSION

COMPONENT
 SUBCOMPONENT
 MODULE

VERSION

HANDLERS

(CONT.)

RK08SY.BN	D
RK8ENS.BN	A
RK08NS.BN	A
RLSY.BN	A
RLO.BN	A
RL1.BN	A
RL2.BN	A
RL3.BN	A
RLC.BN	A
RCMMSY.BN	A
RXNS.BN	N
RXSY1.BN	M
RXSY2.BN	M
RX78C.BN	N
TC08NS.BN	A
TC08SY.BN	B
TD8EA.BN	D
TD8EB.BN	D
TD8EC.BN	D
TD8ED.BN	D
TD8ESY.BN	A
TM8E.BN	E
VR12.BN	A
VT50.BN	A
VXNS.BN	A
VXSY.BN	A

** INCLUDES NULL HANDLER

FORTRAN IV

FRTS.SV	5A
FPAT.BN	NA
F4.SV	4B
PASS2.SV	4A
PASS20.SV	4A
PASS3.SV	4A
RALF.SV	62A
LIBRA.SV	24A
FORLIB.RL	NA
LOAD.SV	24A

FORTRAN II

FORT.SV	5A
SABR.SV	18A
LOADER.SV	4A
LIBSET.SV	3A
LIB8.RL	NA
ATAN.RL	11
FLOAT.RL	5
INTEGR.RL	5
IOH.RL	10
IOPEN.RL	21
IPOWER.RL	2
POWERS.RL	5
RWTAPE.RL	2
SQRT.RL	4
TRIG.RL	6
UTILTY.RL	10

BASIC

BASIC.SV	5B
BCOMP.SV	5A
BLOAD.SV	5B
BRTS.SV	5C
BASIC.AF	NA
BASIC.FF	NA
BASIC.SF	NA
BASIC.UF	NA
EABRTS.BN	5A

BASIC UTILITIES

BATCH.SV	8A
BPAT.BN	NA
FUTIL.SV	8B
MSBAT.SV	3B
GENIOX.SB	7A
RESEQ.BA	NA
TECO.SV	5.08

OS/8 V3D
MONITOR
NOTES & DOCUMENTATION

Seq 21.1.5 N

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ALPHABETIZED LIST OF OS/8 V3D COMBINED KIT ELEMENTS

The following is an alphabetized list of all of the elements in the OS/8 V3D Combined Kit.

ELEMENT	VERSION NUMBER	
ABSLDR.SV	6B	
ABS.RA		
ACOS.RA		
ADC.RA		
ALOG.RA		
ALOG10.RA		
AMOD.RA		
AMIN.RA		
AMAX.RA		
ASIN.RA		
ASR33.BN	A	
ATAN.RL		
ATAN.RA		
ATAN2.RA		
BATCH.SV	8A	
BASIC.SV	5B	
BASIC.AF	NA	
BASIC.FF	NA	
BASIC.SF	NA	
BASIC.UF	NA	
BAT.BN	B	
BCOMP.SV	5A	
BITMAP.SV	4A	
BLOAD.SV	5B	
BCOT.SV	5A	
BPAT.BN	NA	Patch to BRTS to use 2 page handlers
BRTS.SV	5C	
BUILD.SV	7A	

OS/8 V3D
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ELEMENT VERSION NUMBER

CAMP.SV 5A

CABS.RA

CARITH.RA

CCL.SV 3A

 CCL.MA

 CCLAT.MA

 CCLCD.MA

 CCLCDX.MA

 CCLCOR.MA

 CCLDAT.MA

 CCLDRV.MA

 CCLMSG.MA

 CCLREM.MA

 CCLRUN.MA

 CCLPS.MA

 CCLSB2.MA

 CCLSEM.MA

 CCLSUB.MA

 CCLSIZ.MA

 CCLTAB.MA

 CCLTBL.MA

CCL.BI

BATCH file to assemble the CCL sources

CEXP.RA

CHARS.RA

CHKEOF.RA

CLOG.RA

CLOCK.RA

CLK8A.RA

CMPLX.RA

COSH.RA

COS.RA

COSD.RA

CREF.SV 5B

CR8E.BN C

CSIN.RA

CSQRT.RA

CSA.BN C

CSE.BN C

CSC.BN C

CSD.BN C

ELEMENT	VERSION NUMBER	
DATE.RA		
DAES.RA		
DATAN.RA		
DATAN2.RA		
DELE.RA		
DCOS.RA		
DEXP3.RA		
DEXP.RA		
DF32SY.BN	B	
DF32NS.BN	A	
DIM.RA		
DLOG10.RA		
DLOG.RA		
DMAX1.RA		
DMOD.RA		
DMIN1.RA		
DSIN.RA		
DSQRT.RA		
DSIGN.RA		
DIRECT.SV	6A	
DTCOPY	10A	
DTFRMT.SV	4A	
DUMP.BN	C	
EABRTS.BN	5A	
EDIT.SV	12D	
EP1C.SV	5A	
FLOAT.RL		
FLOAT.RA		
FOTP.SV	9B	
FORT.SV	5A	
FORLIB.RL	NA	
FPAT.BN	NA	Patches to FRTS to use 2 page handlers
FRTS.SV	5A	
FUT1L.SV	8B	
F4.SV	4B	
GENIOX.SB	7A	
GENIOX.RL		
HELP.SV	NA	
HELP.HL	NA	
IDINT.RA		
IFIX.RA		
INTEGR.RL		
IOH.RL		
IOPEN.RL		
IPOWRS.RL		

ELEMENT	VERSION NUMBER	
KL8E.BN	E	
KL8E.PA	E	
KBM	3T	The KBM is "invisible" but includes CD V5A, OS8 V3S, USR, and ODT V6A
LIBSET.SV	3A	
LIB8.RL	NA	
LIBRA.SV	24A	
LINCNS.BN	A	
LINCSY.BN	E	
LOADER.SV	4A	
LOAD.SV	24A	
LPSV.BN	C	
LQP.BN	A	
LSPT.BN	A	
LTR.RA		
L645.BN	A	
MCP1P.SV	6B	
MSBAT.SV	3B	
ONQIB.RA		
OS78.BI		A BATCH file to make an RX02 OS/78 system floppy
PAL8.SV	13A	
PAUSE.RA		
PASS2.SV	4A	
PASS20.SV	4A	
PASS3.SV	4A	
PIP.SV	14A	
PIP10.SV	3B	
PLOT.RA		
POWERS.RL		
PT8E.BN	A	
RALF.SV	62A	
RESORC.SV	5A	
RESEQ.BA	NA	
REALTM.RA		
REAL.RA		
RFDV.RA		
RFCV.RA		
RFO8SY.BN	B	
RFO8NS.BN	A	
RKLFMT.SV	D	
RKO8SY.BN	D	
RKO8NS.BN	A	
RK8ESY.BN	C	
RK8ENS.BN	A	
RLFRMT.SV	1A	

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ELEMENT	VERSION NUMBER
RLC.BN	A
RL1.BN	A
RL2.BN	A
RL3.BN	A
RLSY.BN	A
RLO.BN	A
ROMMSY.BN	A
RSW.RA	
RWTAPE.RL	
RXCOPY.SV	4B
RX78C.BN	N
RXSY1.BN	M
RXSY2.BN	M
RXNS.BN	N
SABR.SV	18A
SAVECE.PA	NA
SET.SV	2A
SINH.RA	
SIND.RA	
SIGN.RA	
SIN.RA	
SNGL.RA	
SQRT.RL	
SQRT.RA	
SRCCOM.SV	4A
TAN.RA	
TAND.RA	
TANH.RA	
TC08SY.BN	B
TC08NS.BN	A
TDCOPY.SV	4A
TDFRMT.SV	4A
TDINIT.SV	7A
TDROM.SY	NA
TD12K.SY	NA
TD8EA.BN	D
TD8EB.BN	D
TD8EC.BN	D
TD8ED.BN	D
TD8ESY.BN	A
TECO.SV	5.08
TM8E.BN	E
TRIG.RA	

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ELEMENT VERSION NUMBER

UTILITY.RL

VR12.BN	A
VT50.BN	A
VXNS.BN	A
VXSY.BN	A

XFIX.RA

Note that NA = No Internal Version Number

RA extensions are FORTRAN IV Library modules

RL extensions are FORTRAN II Library modules except for
FORLIB.RL and LIB8.RL, which are cusps.

OS/8 V3D
 MONITOR
 NOTES & DOCUMENTATION

Seq 21.1.6 N
 1 of 4

HOW TO GET VERSION NUMBERS

The following is a list of OS/8 cusps and how to get their respective version numbers.

CUSP	HOW TO GET VERSION NUMBER
ABSLDR	ODT LOC. 12200 (See Note 2)
BASIC.AF	NA
BASIC.FF	NA
BASIC.SF	NA
BASIC.SV	See Note 4
BASIC.UF	NA
BAT	See Note 3
BATCH	Type /V after the *
BCOMP	See Note 4
BITMAP	From its output listing
BLOAD	See Note 4
BOOT	Type VERS after the /
BRTS	See Note 4
BUILD	Type VE after the \$
CAMP	Type VE after the #
CCL	Type VER after the dot
CD	R FUTIL 51.0 (See Note 5)
CREF	From its output listing
DIRECT	Type /W after the *
DTCOPY	From its output heading
DTRMT	From its output dialogue
EABRTS	ODT 1115 & 1116 (Coded in 6-bit Octal)
EDIT	Type # after the #
EPIC	ODT LOC. 352 & 353 (See Note 2)
FORT	Type /V after the * or ODT 0342 (Coded in 6-bit Octal)
FORLIB	NA
FOTP	Type /W after the *
FRTS	Type /V after the *, also ODT 5533, 5534
F#	From its output listing, also ODT 0113
FUTIL	Type SH VERS after the *
KBM	Type VER after the dot
KL6E	See Note 3

OS/8 V3D
MONITOR
NOTES & DOCUMENTATION

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CUSP

HOW TO GET VERSION NUMBER

LIBRA	ODT LOC. 4404 & 4405 (See Note 2)
LIBSET	ODT 12753 (See Note 2)
LIB8	NA
LINCSY	Load.it & ODT 207 (See Note 6)
LOADER	ODT LOC. 17374 (See Note 2)
LCAD	ODT LOC. 12073 & 12074 (See Note 2)
LPSV (LPT)	See Note 3
LQP	See Note 3
MCPIP	Type /V after *
MSBAT	Type /V after *
ODT	R FUTIL 60.0, See Note 5
PAL8	From its output listing
PASS2	From F4 output listing
PASS20	From F4 output listing
PASS3	From F4 output listing
PIP	Type /V after the *
PIP10	From a directory listing or ODT 4320
RALF	From its output listing
RESEQ	Printed in the source listing (after 1979)
RESORC	Type /V after the RES
RFO8NS	See Note 3
RFO8SY	ODT 207 (See Note 6)
RK08NS	See Note 3
RK08SY	ODT 207 (See Note 6)
RK8ENS	See Note 3
RK8ESY	See Note 3
RKLFMT	ODT 0000
RLFRMT	From its output dialogue
RLSY	See Note 3
RL0	See Note 3
RL1	See Note 3
RL2	See Note 3
RL3	See Note 3
RLC	See Note 3
ROMMSY	See Note 3
RXNS	ODT 573 (See Note 6)
RXSY1	ODT 207 (See Note 6)
RXSY2	ODT 207 (See Note 6)
RX28C	ODT 573 (See Note 6)
RX78C	See Note 3 or ODT 572 (See Note 6)
RXCOPY	Type /V after the *

OS/8 V3D
MONITOR
NOTES & DOCUMENTATION

Seq 21.1.6 N

3 of 4

CUSP	HOW TO GET VERSION NUMBER
SABR	ODT LOC. 17032 & 17033 (See Note 2)
SET	Type VERS after the #
SRCCOM	From its output listing
TC08SY	ODT LOC. 207 (See Note 6)
TD8ESY	See Note 3 or ODT LOC. 207 (See Note 6)
TECO	Type EO= after the \$
TDCOPY	ODT LOC. 74 & 75 (See Note 2), also from output heading
TDFRMT	ODT LOC. 1007 & 1010 (See Note 2)
TDINIT	ODT LOC. 1420 & 1421 (See Note 2) or from its output dialogue
TDROM	NA
TD12K	NA
TD8EA	See Note 3
VXNS	See Note 3
VXSY	See Note 3

NOTES

1. All cusps that state "TYPE" nnnn after n means, run the cusp and type the required input to the prompt. For example:

```
.R BUILD <CR>
$VE <CR>
BUILD 7A
```

2. All ODT LOC. nnnnn statements mean:

```
.GET SYS:cusp name
.ODT
xxxxx/aaaa
```

aaaa is the system response of the version number packed in 6-bit octal code. Each 2 bits is one character. For example to get the version number of the the ABSLDR cusp:

```
.GET SYS:ABSLDR <CR>
.ODT
12200/6602
```

The 66 represents a 6.
The 02 represents a B.
Thus, the version number of the ABSLDR cusp is 6B.

3. The version numbers for handlers may be found by:
- A) Inserting the handler into the BUILD program.
 - B) Saving the built configuration (BOOT).
 - C) Running the RESORC program with its /E option. The version number of all active handlers will be part of the RESORC output.

4. Type the following line to the KBM dot.

```
.EX ROD.BA/V
```

Where ROD.BA is a BASIC program. The version number of the forementioned cusps will be output before the execution of the BASIC program.

5. To use the following procedure, you must have FUTIL.SV. Type,

```
.R FUTIL <CR>  
60.0/xxxx
```

Where xxxx is the version or patch number in 6-bit octal code.

6. The following procedure is an alternate method to obtain some of the version numbers for handlers.

```
.LOAD filename <CR>  
.ODT  
xxxx/zxxx
```

Where filename = handler with a BN extension
xxxx/ = location in octal notation
zxxx = version number coded in 6-bit octal notation

OS/8 V3D
HANDLERS
LQP.BN VA

Seq 21.49.1 M

1 of 1

Supersedes article dated March 78

LQPØ1 HANDLER FAILS TO RECOGNIZE TABS (SPR 8-2441 JM)

The LQP.BN handler as distributed does not recognize the TABS character. Any listing or text that uses TABS will not be printed correctly.

The method to patch this problem is through the BUILD procedure. This will fix this problem and maintain the correct version in the saved copy of BUILD.

This is done as follows:

```
.R BUILD
LOAD DSK:LQP.BN (OR DEVICE THAT DISTRIBUTED LQP.BN IS ON)
$ALTER LQP,324=764Ø
$BOOT
.SAVE SYS BUILD
```

This patch corrects this problem and upgrades the LQP.BN to VB.

OS/8 MACREL/LINKER V2A
OVRDRV.MA

Seq 41.5.1 M

1 of 1

PATCH TO OVRDRV TO CORRECT CDF PROBLEM (DBB)

Problem: The first execution of OVRDRV may cause the overlay to be started with the wrong data field in the data field register.

Diagnosis: Upon entry, OVRDRV sets location EXIT to a CDF with the current data field. Once-only code at ONCE then places a DCA EXIT in location SWAPO. OVRDRV then leaves the once-only code with the accumulator clear and executes the DCA EXIT at SWAPO, thus clearing the previous CDF instruction at EXIT.

Solution: Replace the JMP SWAPO at location PTEMP with a JMP SWAPO+1. Also replace the 6201 at location SWAP with 6202. This patch fixes the problem and upgrades OVRDRV to V2B.

NOTEBOOK MAINTENANCE

The following COS-31Ø articles are being republished here with the corrected Version and Sequence Numbers. Please adjust your notebook accordingly.

COS-310 V7.00
COMP

Seq 70.0 N

1 of 1

MAXIMUM SIZE OF DATA DIVISION (MD)

The COS-300/310 System Reference Manual (DEC-08-OCOSA-G-D) incorrectly indicates that the data division of a DIBOL program can be up to 32K bytes. This should be 24K bytes.

On page 4-11, the meaning of the error message TOO MUCH DATA should be changed to read: Program's Data Division exceeds 24K bytes.

PDP-8 Digital Software News, December/January 1980

OS/78 V3.0
MONITOR
NOTES & DOCUMENTATION

Seq 72.1.1 N

1 of 1

UPDATE TO OS/78 USER'S MANUAL (DK)

An Update (#1) to the OS/78 User's Manual is now available from the Software Distribution Center. The order number is

AD-5748B-T1

COS-310 V8.00
(PATCH 1)

Seq 81.1.1 M

1 of 2

COPYING FILES USING SYSGEN/B (MD)

PROBLEM

When executing SYSGEN/B to build a new system, if the response to IS EVERYTHING CORRECT? is NO, the switch for the question DO YOU WANT TO COPY YOUR FILES is not reset. This can result in copying files when not requested.

SOLUTION:

The following patch to SYSGEN corrects this problem. It also changes the version number of SYSGEN to V8.00A.

1. Create a PATCH command file (PT01) using the following editor commands:

```
.ER
.LN
.0100 SYSGEN
.0110 15
.0120 152
.0130 4540
.0140 153
.0150 4541
.0160 154
.0170 5555
.0180 155
.0190 0255
.0200 254
.0210 5152
.0220 255
.0230 3335
.0240 END
.0250 0531
.0260 20
.0270 314
.0280 2142
.0290 END
.0300 0041
.0310 END
.0320 /X
.0330 <ctrl/z>
.WR PT01
```

COS-310 V8.00
(PATCH 1)

Seq 81.1.1 M

2 of 2

2. Check the PT01 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT01
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT01 command file to insure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT01/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

COS-310 V8.00
(PATCH 2)

Seq 81.1.2 M

1 of 2

HALF-BLOCK TRANSFERS USING RX HANDLER (MD)

PROBLEM: There are occasions when the RX handler is called upon to read or write only half a block. The most common of these occasions (but definitely not the only one) is when adding an entry to a directory. On systems that are SYSGENed for both RX01s and RK05s, the RX handler transfers a full block causing part of the program or data area to be unexpectedly altered. When adding an entry to a directory, this results in corruption of the directory.

SOLUTION: The following patch to SYSGEN corrects this problem. It also changes the version number of SYSGEN to V8.00B.

1. Create a PATCH command file (PT02) using the following editor commands.

```
.ER
.LN
.0100 SYSGEN
.0110 2
.0120 171
.0130 5265
.0140 305
.0150 7576
.0160 END
.0170 0003
.0180 20
.0190 314
.0200 2143
.0210 END
.0220 0001
.0230 END
.0240 /X
.0250 <ctr/z>
.WR PT02
```

2. Check the PT02 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT02
```

PATCH will respond by displaying the PATCH dialogue, and returning to the Monitor. If PATCH does not return to the Monitor, check the PT02 command file to insure that it was entered correctly.

COS-310 V8.00
(PATCH 2)

Seq 81.1.2 M

2 of 2

3. Install the patch by entering the following command:

```
.R PATCH,PT02/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

4. If you are running a system that is SYSGENed for RX01s and RK05s, you must run SYSGEN/C after installing the patch.

COS-31Ø V8.ØØ
(PATCH 3)

Seq 81.1.3 M

1 of 2

USING COMMAND FILES WITH PIP (MD)

PROBLEM

PIP fails to get the response to the prompt MORE? from the command file when copying data files using option D.

SOLUTION

The following patch to PIP corrects this problem. It also changes the version number of PIP to V8.ØØA.

1. Create a PATCH command file (PT03) using the following editor commands:

```
.ER
.LN
.0100 PIP
.0110 02
.0120 371
.0130 2706
.0140 END
.0150 0332
.0160 06
.0170 306
.0180 0000
.0190 307
.0200 4501
.0210 310
.0220 1713
.0230 311
.0240 1314
.0250 312
.0260 5706
.0270 313
.0280 4000
.0290 314
.0300 7447
.0310 END
.0320 4667
.0330 10
.0340 104
.0350 2142
.0360 END
.0370 0041
.0380 END
.0390 /X
.0400 <ctrl/z>
.WR PT03
```

COS-310 V8.00
(PATCH 3)

Seq 81.1.3 M

2 of 2

2. Check the PT03 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT03
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT03 command file to insure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT03/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

COS-310 V8.00
(PATCH 4)

Seq 81.1.4 M

1 of 1

INCORRECT PARSING OF MENU COMMAND FILE (CW)

PROBLEM: When executing MENU with a DISPLAY section smaller than 256 characters, error messages may be displayed.

SOLUTION: The following patch to MENU corrects this problem.

1. Create a PATCH command file (PT04) using the following editor commands:

```
.ER  
.LN  
.0100 MENU  
.0110 1  
.0120 255  
.0130 7301  
.0140 END  
.0150 6261  
.0160 END  
.0170 /X  
.0180 <ctrl/z>  
.WR PT04
```

2. Check the PT04 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT04
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT04 command file to insure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT04/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

COS-31Ø V8.ØØ
(PATCH 5)

Seq 81.1.5 M

1 of 3

MENU BUFFER PROBLEM (CW)

PROBLEM:

When more than three Monitor or Editor commands are specified for the first MENU command, MENU sleeps for several seconds when that command code is issued, then aborts and returns to the Monitor without issuing an error message.

SOLUTION:

The following patch to MENU corrects this problem,

COS-31Ø V8.ØØ
(PATCH 5)

Seq 81.1.5 M

2 of 3

1. Create a PATCH command file (PT05) using the following editor commands:

```
.ER
.LN
.0100 MENU
.0110 2
.0120 61
.0130 1372
.0140 70
.0150 6201
.0160 71
.0170 3411
.0180 72
.0190 2323
.0200 73
.0210 1323
.0220 74
.0230 3411
.0240 75
.0250 5324
.0260 77
.0270 6211
.0280 103
.0290 6201
.0300 104
.0310 3411
.0320 107
.0330 4200
.0340 110
.0350 1600
.0360 124
.0370 6211
.0380 125
.0390 1410
.0400 126
.0410 6201
.0420 127
.0430 3411
.0440 130
.0450 2060
.0460 131
.0470 5324
.0480 132
.0490 5277
.0500 172
.0510 1577
.0520 END
.0530 7460
.0540 END
.0550 /X
.0560 <ctrl/z>
.WR PT05
```

COS-310 V8.00
(PATCH 5)

Seq 81.1.5 M

3 of 3

2. Check the PT05 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT05
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT05 command file to insure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT05/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

COS-31Ø V8.ØØ
(PATCH 6)

Seq 81.1.6 M

1 of 4

ACCESSING RXØ1 DRIVES 2 AND 3 (CW)

PROBLEM:

Some RXØ1 drives may have slightly different operating characteristics from the majority of RXØ1 drives that have been shipped. This variation in the hardware prohibits accessing drives 2 and 3 with a standard RXØ1 handler.

SOLUTION:

The following patch to SYSGEN corrects this problem. It also changes the version number of SYSGEN to v8.00C. SYSGEN/C must be run after the patch has been made to install the modified RX handler in the monitor.

COS-31Ø V8.ØØ
(PATCH 6)

Seq 81.1.6 M

2 of 4

1. Create a PATCH command file (PT06) using the following editor commands:

```
.ER  
.LN  
.0100 SYSGEN  
.0110 2  
.0120 361  
.0130 0346  
.0140 375  
.0150 3743  
.0160 END  
.0170 0001  
.0180 3  
.0190 6  
.0200 6745  
.0210 27  
.0220 6747  
.0230 40  
.0240 1350  
.0250 47  
.0260 5342  
.0270 53  
.0280 7346  
.0290 54  
.0300 3316  
.0310 55  
.0320 1337  
.0330 56  
.0340 7010  
.0350 57  
.0360 6750  
.0370 60  
.0380 6755  
.0390 61  
.0400 7600  
.0410 62  
.0420 6754  
.0430 63  
.0440 0050  
.0450 107  
.0460 5351  
.0470 112
```

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COS-31Ø V8.ØØ
(PATCH 6)

Seq 81.1.6 M

3 of 4

```
.0480 5746  
.0490 END  
.0500 0025  
.0510 20  
.0520 314  
.0530 2144  
.0540 END  
.0550 0001  
.0560 END  
.0570 /X  
.0580 <ctrl/z>  
.WR PT06
```

COS-31Ø V8.ØØ
(PATCH 6)

Seq 81.1.6 M

4 of 4

2. Check the PT06 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT06
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT06 command file to insure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT06/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

COS-310 V8.00
(PATCH 7)

Seq 81.1.7 M

1 of 3

DATE COMMAND - ACCEPTS INVALID DAY (CW)

PROBLEM:

When entering the date into the system, the MONITOR accepts a numeric day of zero or blank as valid.

SOLUTION:

The following patch to the MONITOR corrects this problem. It changes the version number of the MONITOR to V8.00A. Please note that COS-310 assumes each month is 31 days long, and therefore will accept such dates as 31-FEB-79.

COS-310 V8.00
(PATCH 7)

Seq 81.1.7 M

2 of 3

1. Create a PATCH command file (PT07) using the following editor commands:

```
.ER
.LN
.0100 /N
.0110 16
.0120 204
.0130 7440
.0140 205
.0150 1314
.0160 206
.0170 7700
.0180 207
.0190 5315
.0200 210
.0210 4563
.0220 211
.0230 5315
.0240 212
.0250 4565
.0260 213
.0270 0030
.0280 214
.0290 3203
.0300 215
.0310 2313
.0320 216
.0330 2203
.0340 217
.0350 1713
.0360 220
.0370 2313
.0380 221
.0390 7500
.0400 222
.0410 5315
.0420 223
.0430 1103
.0440 224
.0450 7650
.0460 225
.0470 1104
.0480 226
```


COS-310 V8.00
(PATCH 7)

Seq 81.1.7 M

3 of 3

```
.0490 1713
.0500 227
.0510 7640
.0520 230
.0530 5215
.0540 231
.0550 1203
.0560 232
.0570 7002
.0580 233
.0590 7110
.0600 251
.0610 0213
.0620 END
.0630 0434
.0640 26
.0650 265
.0660 2142
.0670 END
.0680 0041
.0690 END
.0700 /X
.0710 <ctrl/z>
.WR PT07
```

2. Check the PT07 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT07
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT07 command file to ensure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT07/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

COS-310 V8.01A
(PATCH 1)

Seq 81.2.1 M

1 of 3

MENU BUFFER PROBLEM (CW)

PROBLEM: When more than three Monitor or Editor commands are specified for the first MENU command, MENU sleeps for several seconds when that command code is issued, then aborts and returns to the Monitor without issuing an error message.

SOLUTION: The following patch to MENU corrects this problem.

COS-31Ø V8.Ø1A
(PATCH 1)

Seq 81.2.1 M

2 of 3

1. Create a PATCH command file (PT01) using the following editor commands:

```
.ER
.LN
.0100 MENU
.0110 2
.0120 61
.0130 1372
.0140 70
.0150 6201
.0160 71
.0170 3411
.0180 72
.0190 2323
.0200 73
.0210 1323
.0220 74
.0230 3411
.0240 75
.0250 5324
.0260 77
.0270 6211
.0280 103
.0290 6201
.0300 104
.0310 3411
.0320 107
.0330 4200
.0340 110
.0350 1600
.0360 124
.0370 6211
.0380 125
.0390 1410
.0400 126
.0410 6201
.0420 127
.0430 3411
.0440 130
.0450 2060
.0460 131
.0470 5324
.0480 132
.0490 5277
.0500 172
.0510 1577
.0520 END
.0530 7460
.0540 END
.0550 /X
.0560 <ctrl/z>
.WR PT01
```

COS-31Ø V8.Ø1A
(PATCH 1)

Seq 81.2.1 M

3 of 3

2. Check the PT01 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT01
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT01 command file to insure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT01/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

COS-310 V8.01A
(PATCH 2)

Seq 81.2.2 M

1 of 3

ACCESSING RX01 DRIVES 2 and 3 (CW)

PROBLEM:

Some RX01 drives may have slightly different operating characteristics from the majority of RX01 drives that have been shipped. This variation in the hardware prohibits accessing drives 2 and 3 with a standard RX01 handler.

SOLUTION:

The following patch to SYSGEN corrects this problem. It also changes the version number of SYSGEN to V8.01B. SYSGEN/C must be run after the patch has been made to install the modified RX handler in the monitor.

COS-31Ø V8.Ø1A
(PATCH 2)

Seq 81.2.2 M

2 of 3

1. Create a PATCH command file (PT02) using the following editor commands:

```
.ER
.LN
.0100 SYSGEN
.0110 2
.0120 361
.0130 0346
.0140 375
.0150 3743
.0160 END
.0170 0001
.0180 3
.0190 6
.0200 6745
.0210 27
.0220 6747
.0230 40
.0240 1350
.0250 47
.0260 5342
.0270 53
.0280 7346
.0290 54
.0300 3316
.0310 55
.0320 1337
.0330 56
.0340 7010
.0350 57
.0350 6750
.0370 60
.0380 6755
.0390 61
.0400 7600
.0410 62
.0420 6754
.0430 63
.0440 0050
.0450 107
.0450 5351
.0470 112
```

COS-310 V8.01A
(PATCH 2)

Seq 81.2.2 M

3 of 3

```
.0480 5746  
.0490 END  
.0500 0025  
.0510 20  
.0520 314  
.0530 2243  
.0540 END  
.0550 0001  
.0560 END  
.0570 /X  
.0580 <ctrl/z>  
.WR PT02
```

2. Check the PT02 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT02
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT02 command file to insure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT02/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

COS-310 V8.01A
(PATCH 3)

Seq 81.2.3 M

1 of 3

DATE COMMAND - ACCEPTS INVALID DAY (CW)

PROBLEM:

When entering the date into the system, the MONITOR accepts a numeric day of zero or blank as valid.

SOLUTION:

The following patch to the MONITOR corrects this problem. It changes the version number of the MONITOR to V8.01B. Please note that COS-310 assumes each month is 31 days long, and therefore will accept such dates as 31-FEB-79.

COS-31Ø V8.Ø1A
(PATCH 3)

Seq 81.2.3 M

2 of 3

1. Create a PATCH command file (PT03) using the following editor commands:

```
.ER  
.LN  
.Ø1ØØ /N  
.Ø11Ø 15  
.Ø12Ø 2Ø4  
.Ø13Ø 744Ø  
.Ø14Ø 2Ø5  
.Ø15Ø 1314  
.Ø16Ø 2Ø6  
.Ø17Ø 77ØØ  
.Ø18Ø 2Ø7  
.Ø19Ø 5315  
.Ø2ØØ 21Ø  
.Ø21Ø 4553  
.Ø22Ø 211  
.Ø23Ø 5315  
.Ø24Ø 212  
.Ø25Ø 4555  
.Ø26Ø 213  
.Ø27Ø ØØ3Ø  
.Ø28Ø 214  
.Ø29Ø 32Ø3  
.Ø3ØØ 215  
.Ø31Ø 2313  
.Ø32Ø 216  
.Ø33Ø 22Ø3  
.Ø34Ø 217  
.Ø35Ø 1713  
.Ø36Ø 22Ø  
.Ø37Ø 2313  
.Ø38Ø 221  
.Ø39Ø 75ØØ  
.Ø4ØØ 222  
.Ø41Ø 5315  
.Ø42Ø 223  
.Ø43Ø 11Ø3  
.Ø44Ø 224  
.Ø45Ø 755Ø  
.Ø46Ø 225  
.Ø47Ø 11Ø4  
.Ø48Ø 226
```

COS-31Ø V8.Ø1A
(PATCH 3)

Seq 81.2.3 M

3 of 3

```
.0490 1713
.0500 227
.0510 7640
.0520 230
.0530 5215
.0540 231
.0550 1203
.0560 232
.0570 7002
.0580 233
.0590 7110
.0600 251
.0610 0213
.0620 END
.0630 0434
.0640 26
.0650 266
.0660 2243
.0670 END
.0680 0001
.0690 END
.0700 /X
.0710 <ctrl/z>
.WR PT03
```

2. Check the PT03 command file by running PATCH without the /C option. PATCH simulates the patching operation but does not change the file on the system device. When run without the /C option, PATCH displays CHECKSUM CORRECT--USE OPTION C TO UPDATE rather than NEW BLOCK PATCHED OK. To check the command file enter the following:

```
.R PATCH,PT03
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor. If PATCH does not return to the Monitor, check the PT03 command file to ensure that it was entered correctly.

3. Install the patch by entering the following command:

```
.R PATCH,PT03/C
```

PATCH will respond by displaying the PATCH dialogue and returning to the Monitor.

PDP-8 DIGITAL SOFTWARE NEWS
 CUMULATIVE INDEX
 DECEMBER/JANUARY 1980

This is a complete listing of all articles for current products supported in the 8 Digital Software News. Missing sequence numbers may pertain to problems unique to other versions of the same product.

IMPORTANT!

Unassigned articles are indicated: UNASSIGNED.

Flags are currently being installed for all articles. The flags and definitions are as follows.

M = Mandatory Patch. These patches correct errors in the software product. All users are required to apply these patches to maintain consistent "user level" unless the accompanying article specifies otherwise.

F = Optional Feature Patch. These patches extend or configure functionality into the product. These functions will be treated as a supported part of the product for the duration of the current release and will be incorporated with any future release, unless otherwise stated.

R = Restriction. These articles discuss areas that will not be patched in the current release because they require major modifications or because of the product. Restrictions, except those described as permanent, are reviewed and modified when possible as part of the normal release cycle.

N = Note. These articles provide explanatory information that supplements the manual set and provide more detailed information about a program or package. They also provide procedural information to make it easier to use a program or package.

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OS/8 V3D

*Articles dated October 1977 appeared in OS/8 V3D Software Review, October 1977.

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Software Product Description

PRODUCT NAME: OS/8, Version 3D, Operating System

SPD 4.1.11

DESCRIPTION:

OS/8 is a comprehensive operating system that runs on PDP-8 computer systems. OS/8 provides an extensive collection of application software development tools and an efficient runtime environment for the production use of these application programs.

Programs stored on disk can be accessed for loading, modification, or execution by simple keyboard commands.

OS/8 allows program chaining, so that a program can be divided into a set of smaller programs. Very large programs can be coded in small segments that can be overlaid during execution to conserve memory storage.

Programs written under OS/8 can be device-independent coded. Program I/O is performed by standard calls to the system device handlers and the I/O supervisor User Service Routines. This feature permits programs to be written without regard for the characteristics of a particular I/O device. When a device independent program is executed, the user enters a runtime I/O specification command selecting the I/O devices to be employed during program execution. As the system configuration grows, device-independent programs can use the new I/O capabilities immediately, with no rewriting or reassembly.

Device independence can be maintained even for non-standard devices. Nonstandard devices are added to the system by coding a 1- or 2-page device handler and appending it to the standard device handlers supplied with the system.

Every OS/8 system is easily extended to include additional peripheral devices. Fully supported I/O device options include high- or low-speed paper tape equipment, card readers, line printers, a selection of hard-copy or CRT console terminals, and a variety of disk and magnetic tape mass storage devices.

OS/8 Monitor System Programs include:

CCL (Concise Command Language) — provides the user with a set of easy-to-use terminal commands. The OS/8 version of CCL is similar to that of TOPS-10, the DECsystem-10 monitor. Typical commands available in CCL include: COPY, DIRECTORY, HELP, RENAME, LIST, and DELETE.

EDIT — incorporates all features of the stand-alone package and provides I/O device independence

PAL8 — is an extended assembler. It includes some of the features of both PAL III and MACRO-8, plus additional features such as conditional assembly, expanded symbol table (allowing over 1500 entries on a 12K-word system), hash symbol table search, extended pseudo-operations, and paginated listings with page headings and numbered pages.

RALF — is an assembler that translates PDP-8 floating point processor (FPP) source code into binary code. RALF is a subset of the OS/8 FORTRAN IV System.

ABSLDR (Absolute Loader) — is the Absolute Loader program which reads a binary program into memory and creates a resident memory image suitable for addition to the system library or for immediate execution.

ODT (Octal Debugging Technique) — allows the user to run prototype programs under carefully controlled conditions, modify programs during execution, or monitor the state of main memory and the major registers. The OS/8 version of ODT does not require any memory other than certain areas of the 256-location resident monitor and at most 3 additional words in each field. It is swapped into memory from the system device whenever required, while overlaid portions of the running program are saved on the device for later restoration.

PIP (Peripheral Interchange Program) — is a file manipulation routine. OS/8 PIP can transfer ASCII, memory image, or binary files from one device to another. PIP can also merge or delete files and list, zero, or compress file directories.

FOTP (File-Oriented Transfer Program) — allows the user to transfer groups of files between two OS/8 file-structured devices with minimum terminal interaction and device overhead. For example, all ASCII files can be transferred between a DECTape and disk with one command.

OS/8 FORTRAN II — is a complete FORTRAN II programming system consisting of:

1. FORT: The FORTRAN compiler
2. SABR: A Symbolic Assembler for Binary Relocatable programs
3. LOADER: The linking loader that accepts an open-ended list of relocatable binary files and generates a memory image suitable for saving or execution.

The FORTRAN II system includes such features as Hollerith constants, implied DO loops, program chaining, and mixed FORTRAN and assembly language statements.

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BUILD — the system generation program for allows convenient generation or reconfiguration of any OS/8 system. BUILD is most frequently employed to insert or delete system I/O device handlers to permit the system I/O structure to be tailored to a particular application.

CREF (*Cross Reference Utility Program*) — aids the development programmer in writing, debugging, and maintaining assembly language programs by providing the ability to locate all references to a particular symbol. Input is supplied to the OS/8 version of CREF in the form of an ASCII listing file produced by either PAL8, RALF, or the SABR assembler.

SRCCOM (*Source Compare*) — compares two source files line by line and creates a third file listing all differences between the two sources.

PIP10 — allows the user to transfer ASCII files between DECsystem-10 DECTapes and OS/8 devices. This utility runs only on a PDP-8, 8/I, 8/L, 8/E, 8/M, or 8/A equipped with either TC08 or TD8E DECTape.

MINIMUM HARDWARE REQUIRED:

- PDP-8, DECstations 78/88, or PDP-12 with at least 8K words of memory
- At least 64K words of mass storage
- Console terminal (LT33, LT35, LA30, LA36, VT05, VT50, VT52)

OPTIONAL HARDWARE:

- Additional memory to a system total of 32K words
 - TM8-E magnetic tape controller and transport
 - TA8-E DECcassette controller and dual drive
 - RK8-E, RK08, DF32, or RF08 disk system
 - RL8A disk system*
 - TC08 or TD8-E DECTape controller and dual transport with MR8-E ROM
 - LS8-E, LE8-E, LA180, LQP78, or LV8 line printer
 - CR8-F or CM8-F card reader
 - TP8-E high-speed paper tape reader/punch
 - RX8 dual-diskette system (single density)
 - RX28 dual-diskette system (double density)*
 - KS33 low-speed paper tape reader/punch
 - KT8A extended memory support module*
- *Requires OS/8 Device Extension for RL01, RX02, and KT8A.

PREREQUISITE SOFTWARE:

None

OPTIONAL SOFTWARE:

RTS/8

OS/8 Extension Kit

OS/8 FORTRAN IV

OS/8 MACREL/LINKER

OS/8 V3D Device Extension

TRAINING CREDITS:

None

SUPPORT CATEGORY:

OS/8 is a DIGITAL Supported Software Product.

SOFTWARE INSTALLATION:

OS/8 is a software product engineered to be installed by the customer and includes other Software Product Support services listed below.

SOFTWARE PRODUCT SUPPORT:

OS/8 includes Standard Services as defined in the Software Support Categories Addendum of this SPD.

ORDERING INFORMATION:

Source and/or listing options are only available after the purchase of at least one supported license and after a source license agreement is in effect.

The following key (B, C, E, N, , R, , Y, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., QF015-AC = binaries on DECTape.

B = Papertape

C = DECTape

E = RK05 Disk Cartridge

N = TU60 Cassette

R = Microfiche

Y = RX01 Floppy Diskette

Z = No hardware dependency

QF015 -A— Single-use license, binaries, documentation, support services (media: B, C, N, Y)

Upgrade Options:

The following option is available as an upgrade kit from OS/78 for use on the same single CPU on which OS/78 is licensed. The license previously granted for OS/78 shall be extended to cover this upgrade.

QF025 -C— OS/8, Version 3D, Single-use license, binaries, documentation, no support services (media: Y)

Update Options:

Users of OS/8 whose specified Support Category warranty has expired may order under license the following software update at the then current charge for such update. The update is distributed in binary form on the appropriate medium and includes no installation or other services unless specifically stated.

QF015 -H— Binaries, documentation (media: B, C, N, Y)

Users of OS/8 whose specified Support Category warranty has not expired may order under license the following software update for the then current media charge. The update is distributed in binary form on the appropriate medium and includes no installation or other services unless specifically stated.

QF015 -W— Binaries, documentation (media: B, C, N, Y)

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Source/Listing Options:

QF015 -E— All sources (media: C, E, Y)

QF015 -F— Listings (media: R)

Source/Listing Update Options:

The following options are available to licensed users as updates to source/listing options. The update is distributed in source form on the appropriate medium and includes no installation or other services unless specifically stated.

QF015 -N— Sources update (media: C, E, Y)

Miscellaneous Options:

QF015 -G— Documentation only (media: Z)

ADDITIONAL SERVICES:

QF015 -S— Consulting Services (media: Z)

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Software Product Description

PRODUCT NAME: RTS/8, Version 3.0, Real Time Operating System

SPD 4.20.8

DESCRIPTION:

RTS/8 is highly flexible, event-driven, multitasking, multiprogramming real-time operating system, which runs on all PDP-8 family computers except PDP-8/S. The RTS/8 system allows up to 127 tasks to run concurrently. Tasks compete for resources on a fixed-priority basis, RTS/8 may be entirely memory resident or it may include non-resident modules. Each system is custom-configured by the user, with the aid of an English language question/answer System Generating Program, running under the OS/8 operating system.

OS/8 can also run in RTS/8 background and may be used for development work in larger configurations. The RTS/8 Executive Module is entirely memory resident. Its size can range from 640 to 2,000 words of memory, depending on the number of tasks included in the system.

MACREL/LINKER, the assembly language programming system is now included in RTS/8 Version 3.0. It contains the functions of the OS/8 PAL8 Assembler and Absolute Loader (ABS.LDR) programs with major enhancements. MACREL is a macro assembler producing relocatable modules. LINKER is a linking loader.

To create an RTS/8 system you must now use MACREL/LINKER Version 2A rather than PAL8 and ABS.LDR. The manual linking and loading of an RTS/8 system to create partitions for non-resident tasks is automatically performed by LINK.

Some other RTS/8 features are:

- Maximum of 126 foreground tasks and one background (the OS/8 module) task
- Fixed task priority
- Tasks can be scheduled by themselves, by another task, or by the operator.
- Tasks can be scheduled for immediate execution, at a fixed interval from the time requested, or a specific time of day.
- Tasks can be swapped into and out of memory as required.
- The RTS/8 executive provides facilities for tasks to communicate with other tasks

The following modules (tasks) are provided by DIGITAL in source form. The SYSGEN procedure is used to create parameter and batch files. The batch files are run to create a specialized RTS/8 system.

RTS/8 Executive (monitor)

- Controls task execution
- Schedules events (If a clock is available on the system)
- Sends messages to system tasks
- Suspends task execution

Memory Management Swap Module

This module swaps tasks into and out of memory as required. SWAP determines whether a task is already in memory or whether a task must be swapped out to make room for a new task.

Monitor Console Routine (MCR) Module

The Monitor Console Routine provides the operator/programmer with functions to control, inspect, debug, suspend, schedule, and print the status of tasks within the system.

Mass Storage Modules

This group of drivers accepts the same request message format to read or write blocks on the following storage devices:

- RX8 Floppy Diskette
- RX28 Floppy Diskette
- RK8-E Cartridge Disk
- TC08 DECTape
- RL8-A Cartridge Disk

OS/8 File Modules

This module provides the user the ability to look up, create, and delete files in OS/8 directories from a foreground task. This module, when used in conjunction with one or more of the previously mentioned mass storage modules, allows the programmer the capability to read or write OS/8 files onto the previously mentioned storage device.

OS/8 Background Module

The combination of the previously mentioned device drivers and the OS/8 background module allows the execution of any of the OS/8 operating system utilities (i.e., PAL8, EDITOR, TECO, BATCH, BASIC, but excluding Industrial BASIC, BUILD, BOOT, RXCOPY) to run under the RTS/8 executive. OS/8 can be run in the top two or more memory fields under control of the KM8-E, (standard on PDP-8/E, F, M with 8K words or more memory) or time shared PDP-8 (KT08) hardware option. Alternately, OS/8 backgrounds up to 32K in size may be run under the KT8-A Memory Expansion Control.

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The OS/8 background terminal may be shared with the foreground or be on a separate terminal.

Clock Module

This accepts requests (in the form of RTS/8 messages) to perform actions after a specified time has elapsed.

Console Terminal Module; Non-console Terminal Module

These drivers handle a single terminal in either line or character mode. Input in line mode is terminated by a carriage return or an ALTMODE character, and may be edited with a RUBOUT or CTRL/U character. In character mode, input is not echoed and is terminated by overflow of a specified character count. One terminal per system may be shared with the OS/8 background. One terminal per system may be designated to support emergency message breakthrough. Systems with a clock may support message timeout on all terminals.

Line Printer Module

The RTS/8 line printer supports an LE-8, LS8-F or LV-8 Line Printer. The structure of the calling sequence is identical to the line mode calling sequence of the terminal module.

Power Fail/Auto-Restart Module

This module provides the mechanism by which the system can recover from a power failure. If a power low condition occurs, the processor state is saved and the processor is halted. When power is restored, the processor state is restored and control is transferred to the power fail module. This module is not supported with MOS Memory.

KL8-A Support Module

This module allows the use of one to three KL8-A serial 4-line handlers under RTS/8 control.

NULL8A Module

This module is a special null job for the PDP-8A which uses the LED lights to count in decimal at a rate of approximately one increment per second. (Null job is an idle mode indicator.)

Exit Module

This module, if present, allows tasks to perform special actions before an RTS/8 exit to OS/8 is completed.

NOTE:

KT8-A Memory Expansion to 128K words is provided in all DIGITAL supported RTS/8 modules.

NOTE:

Driver modules are included, but not supported for LINCtape, RK08, DF32, RF08, CASSETTE.

NOTE:

Simultaneous RL8-A and RK8-E DMA transfers are not allowed by the hardware. The software drivers are interlocked so that one at a time is in action.

MINIMUM HARDWARE REQUIRED:

Minimum RTS/8 configuration for a run-time system is as follows:

Without OS/8 background support:

- Any PDP-8 family processor (except a PDP-8/S) with at least 12K words of memory
- Console Terminal

With OS/8 background support:

- Any PDP-8 family processor (except a PDP-8/S) or VT78 with at least 16K words of memory
- One terminal
- RX8, RX28, TC08, RK8-E, RL8-A

Minimum RTS/8 development configuration is a 16K OS/8 operating system configuration (which requires a PDP-8 with mass storage and an OS/8 supported terminal).

OPTIONAL HARDWARE:

Additional memory (up to 128K words system total)
 DK8-EA, DK8-EC, DK8-EP Clocks
 LA30-PA, VT05 Terminals (up to 2400 baud with KL8-JA) VT50, VT52, VT100 Video Terminal (teletype level support)
 LT33, LT35 Teletypewriters
 TC08 DECTape (not TD8-E)
 RK8-E Disk
 RX8 Dual Diskette System (single density)
 RX28 Dual Diskette System (double density)
 DP8-E Power Fail/Auto-Restart
 LE-8, LS8-F, LV-8 Line Printer
 LA30, LA36 Serial DECwriters
 KL8-A 4-Channel Interface
 RTS/8, Version 3.0 does not support the FPP8/A, FPP8/E, or FPP12 nor does it support use of these devices by the OS/8 monitor running in background.

PREREQUISITE SOFTWARE:

OS/8, Version 3D or later

OPTIONAL SOFTWARE:

OS/8 Device Extension is required for RL8-A, RX28 or KT8-A.

TRAINING CREDITS:

None

SUPPORT CATEGORY:

RTS/8 is a DIGITAL Supported Software Product.

SOFTWARE INSTALLATION:

RTS/8 is a software product engineered to be installed by the customer and includes other Software Product Support services listed below.

SOFTWARE PRODUCT SUPPORT:

RTS/8 includes Standard Services as defined in the Software Support Categories Addendum of this SPD.

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ORDERING INFORMATION:

Source and/or listing options are only available after the purchase of at least one supported license and after a source license agreement is in effect.

The following key (C, E, Q, Y) represents the distribution media for the product and must be specified at the end of the order number, e.g., QF028-XC = sources on DECTape.

C = DECTape
 E = RK05 Disk Cartridge
 Q = RL01 Disk Cartridge
 Y = RX01 Floppy Diskette

Source/Listing Options

QF028 -X— Single-use license, source license, sources for RTS/8; binaries for MACREL/LINKER, support services (media: C, E, Q, Y)

QF028 -Y— Single-use license, source license, sources for RTS/8; binaries for MACREL/LINKER, no support services (media: C, E, Q, Y)

Update Options

Users of RTS/8 whose specified Support Category warranty has expired may order under license the following software update at the then current charge for such update. The update is distributed in source form on the appropriate medium and includes no installation or other services unless specifically stated.

QF028 -N— RTS/8 Update Kit, updates Version 2B to Version 3 (media: C, E, Q, Y)

Users of RTS/8, Version 2B, whose specified Support Category warranty has not expired may order under license the following software update for the then current media charge. The update is distributed in source form on the appropriate medium and includes no installation or other services unless specifically stated.

QF028 -V— RTS/8 Update Kit, updates Version 2B to Version 3 (media: C, E, Q, Y)

ADDITIONAL SERVICES:

None

digital

Software Product Description

PRODUCT NAME: COS-310, Version 8.01, Commercial Operating System-310

SPD 5.98.9

DESCRIPTION:

COS-310 is one of Digital Equipment Corporation's DATASYSTEM 300 Series Commercial Operating Systems. It is an applications development tool for EDP users who wish to implement data management functions for small-to medium-size business applications. COS-310 is a self-contained, single use, disk-resident operating system. It provides an operation control monitor, as easy-to-learn, high-level programming language (DIBOL), program preparation, debugging utilities, and production utilities.

COS-310 Monitor — COS-310 provides software operation control through the system monitor. For memory economy, the monitor resides in two segments: one memory-resident and the other on the system device. The monitor includes a comprehensive set of commands which control the editing and execution of programs, and the maintenance of file directories.

The monitor contains all the necessary I/O device handlers for the system. The direct implementation and changing of programs can be controlled and altered through conversational commands designed into the software. The COS-310 monitor device options include line printers and disk storage devices. The monitor size is 8K bytes (16K bytes if an RL01 disk drive and/or an LQP printer is used).

DIBOL Language — Digital Equipment Corporation's Business Oriented Language (DIBOL) is built around procedural statements that permit the programmer to arrange information for desired execution and output. These procedural statements (commands plus data) permit data manipulation, calculation of arithmetic expressions, subscripting, overlaying of records, clearing of memory or buffers, file initialization, branching, tracing, program chaining, and printing overlapping with processing.

The language syntax is divided into two sections: a data definition section and a procedure section. The data definition section stipulates the type and size of the data variables. The procedure section of the language consists of procedural statements, each with comprehensive arguments. These statements are: PROC, XMIT, READ, WRITE, GO TO, IF, CALL, RETURN, FORMS, STOP, CHAIN, ACCEPT, DISPLAY, TRAP, and INCR.

Editor — The system includes a line oriented text editor that is part of the monitor. It is interactive, with commands indicating line numbers followed by the information to be inserted, deleted, or changed. The COS-310 editor provides a means to reorder the file by resequencing line numbers with the use of simple commands. Input to the editor comes from the operator through the console keyboard. Output from the editor can be a listing of a file on the console display or the line printer.

COMP — This utility compiles a DIBOL program created by the system's editor into interpretive code. This program can be stored on disk, listed on the printer, or run immediately. No linking is required to run a program. Without a program listing, program compilation usually takes 10 to 30 seconds. This results in substantial time savings over other products that have much slower compilers and require program linking.

SYSGEN (SYSstem GENeration) — SYSGEN is a conversational utility program that allows the user to change the current device handlers or to create a new system disk. This is done using simple English statements, prompted to the operator from the program. Changing the handlers provides the operator with the ability to specify the disk and line printer I/O handlers that will operate most effectively in the system. In addition to changing the selected handlers in the current system, SYSGEN can copy the system from an RX01/RX02 to an RX05 or to an RL01 and vice versa for installation start-up. RK05 and RL01 cannot be present on the same system.

DFU (Data File Utility) — DFU allows the user to designate and examine logical unit assignments. The use of logical unit assignments for data files provides data file device independence for the programs using COS-310. Logical unit assignments can be input to DFU from the operator's keyboard, from a command file stored on the system device, or from the edit buffer. The current logical unit assignments can be displayed or printed.

FLOW (FLOW chart generator) — FLOW is a utility program designed to assist in the program documentation process. FLOW will generate a printed flowchart from a set of easily understood commands. The FLOW commands can optionally be included in the DIBOL source program.

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PATCH — PATCH is used to fix either a system program or the monitor on a COS-310 system. All input information for the PATCH operation is distributed as official patches from Digital Equipment Corporation. The PATCH information is a line-by-line dialogue. The PATCH program has the capability to perform automatic patching of the COS-310 system.

Debugging Aids — COS-310 includes several features that facilitate DIBOL program debugging.

- **CREF** — Cross Reference provides an alphabetical listing of all symbols used in the DIBOL program, the line number where each symbol is defined, and all the line numbers where each symbol is used.
- **DAFT** — The Dump and Fix Technique has the ability to search for, examine, list, change records, and make minor adjustments to a data file.
- **TRACE/NO TRACE** — An integral DIBOL language feature. Each trace enables the DIBOL statement executed to print a line containing the source file line number.
- **DDT** — The DIBOL Debugging Technique features breakpoint, variable examination, subroutine call traceback, and iteration.

SORT — COS-310 SORT is a multiphase sort which can reorder a data file containing fixed length records into a specified sequence. The user can specify up to eight fields (with sub-fields) of a fixed length record as a sort key. A file can be sorted in either the ascending or descending sequence of the contents of the fields in each record. The SORT also has merge file capability. This allows each volume of a multivolume file to be sorted independently and then merged with the other volumes within the file. Both sort and merge capabilities are parameterized by a sort control file.

PIP (Peripheral Interchange Program) — PIP is a utility program that transfers files from one device to another. It can replace an existing file with a new file and allow data files to be combined. It can accept input from disk and produce output on terminal, disk, or the line printer. PIP includes the capability to enter PIP commands from a predefined command file in addition to the keyboard. This eliminates the need for an operator response to PIP's prompts and, therefore, reduces the possibility of operator error.

PRINT — PRINT is a utility for the creation of report programs. Using a parameter file which describes the report, PRINT will generate a DIBOL program which will produce that report.

MENU — The MENU program allows the operator to select a function to be performed from a set of functions that is displayed on the screen. The function is a batch stream or a series of monitor commands. These are stored in a command file for operator use. The MENU program reduces operator errors in selecting programs to be run.

FILEX (File Conversion Program) — FILEX is a utility program that converts COS-310 formatted files stored on RK05 disks into OS/8 formatted files and vice versa. On RX02 diskettes, FILEX permits conversion of data files on RX02 diskettes to be moved onto an RX01

diskette loaded into the second RX02 disk drive. Conversion of RX01 disk files to RX02 files is also permitted.

In addition, FILEX can convert a COS-310 file stored on a flexible diskette, an RK05 or an RL01 onto an RX01 flexible diskette in a format directly readable by the IBM 3740 series data entry terminal. IBM files on flexible diskettes can be converted to COS-310 format provided they are single volume and there are no bad tracks on the diskette media.

BATCH — Commands to run DIBOL programs and system utilities may be stored in a BATCH file. These job streams may be run by operator command or by the MENU utility.

START-UP FILE — A start-up file may be optionally specified in SYSGEN which would, if present, automatically start a job after the operator bootstrapped the system and entered a valid date.

Format Programs — DKFMT formats RK05 disks. DLFMT formats RL01 disks. DYFMT converts an RX01 diskette into an RX02 diskette. Except for COS-310 software distributed on an RX02, any diskette used on an RX02 drive must be formatted before being used.

MINIMUM HARDWARE REQUIRED:

One of the following (with a minimum of 16K bytes of memory):

- DATASYSTEM 310
- DATASYSTEM 308
- DECstation 78/50, 78/70, 88/50

One of the following (with a minimum of 64K bytes of memory):

- DECstation 88/80, 88/90, 88/92, or 88/97

OPTIONAL HARDWARE:

D308 or DECstation-78

- Up to 4 RX01 floppy disk drives¹
- Up to 4 RX02 floppy disk drives
- 1 LA8, LQP8², or LA120 printer

D310

- Additional memory up to a system total of 64K bytes
- 1 VT52 or VT100 console terminal
- Up to 4 RX01 floppy disk drives
- Up to 4 RX02 floppy disk drives¹
- Up to 4 RK05 disk drives (RK05 F counts as 2) and controller
- One LA35, LQP8², LA8A, LA120, LA8, or LP05 printer

DECstation-88

- Up to 4 RX02 floppy disk drives
- Up to 4 RL01 disk drives³
- 1 LA35, LQP8, LA8A, LA120, LA8, or LP05 printer

¹RX01 and RX02 drives are not supported by the same system.

²LQP requires a minimum of 32K bytes of memory of which 8K bytes are used by the LQP handler.

³RK05 and RL01 drives are not supported by the same system.

PREREQUISITE SOFTWARE:

None

OPTIONAL SOFTWARE:

COS-310 2780/3780 Communications Software

TRAINING CREDITS:

TWO (2) — Applies only to options that include support services. Consult the latest Educational Services Catalog at your local office for the available courses, course requirements, and guidelines.

SUPPORT CATEGORY:

COS-310 is a DIGITAL Supported Software Product.

SOFTWARE INSTALLATION:

COS-310 is a software product engineered to be installed by the customer and includes other Software Product Support services listed below.

SOFTWARE PRODUCT SUPPORT:

COS-310 includes Standard Services as defined in the Software Support Categories Addendum of this SPD.

ORDERING INFORMATION:

The following key (E,Q,X,Y) represents the distribution media for the product and must be specified at the end of the order number, e.g., QF310-HX = binaries on RX02 Double Density Diskette.

- E = RK05 Disk Cartridge
- Q = RL01 Disk Cartridge
- X = RX02 Double Density Diskette
- Y = RX01 Floppy Diskette
- Z = No hardware dependency

This software is available only for the systems listed in the minimum hardware section of this SPD, and is offered with support services (includes hardware, single-use license, binaries, documentation, and support services). Systems are also available which include a single-use license only (no binaries, no documentation, and no support services).

Update Options:

Users of COS-310 whose specified Support Category warranty has expired may order the following software update at the then current charge for such update, for use under the existing license. Except where the medium is designated as Z, the update is distributed in binary form on the appropriate medium. A software update where the medium is designated as Z grants the user of COS-310 the right to copy the previously ordered QF310-H or QF310-W software update for use on an additional single CPU for which a COS-310 license has been obtained.

QF310 -H— Binaries, documentation (media: E, Q, X, Y)

QF310 -H— Right to copy for single-use (under existing license), no binaries, no documentation, no support services (media: Z)

Users of COS-310 whose specified Support Category warranty has not expired may order under license the following software update for the then current media charge. The update is distributed in binary form on the appropriate medium and includes no installation or other services unless specifically stated.

QF310 -W— Binaries, documentation (media: E, Q, X, Y)

Miscellaneous Options:

QF310 -G— Documentation only kit (media: Z)

ADDITIONAL SERVICES:

None

The Digital Equipment Computer Users Society



DECUS, the Digital Equipment Computer Users Society, was established in March of 1961 to advance the effective use of DIGITAL computers. It is a voluntary, not-for-profit users group, supported in part by Digital Equipment Corporation.

OBJECTIVES

The objectives of the Society are to advance the effective utilization of computers, computer peripheral equipment, and software manufactured and marketed by Digital Equipment Corporation, by promoting the interchange of information concerning their uses; advance the art of computation through mutual education and exchange of ideas and information; establish standards and provide channels to facilitate the exchange of computer programs among DECUS members; provide feedback to the computer industry on equipment and software needs; and to reduce the duplication of development efforts.

ACTIVITIES

1. SYMPOSIA

Symposia are held throughout the year in each of the DECUS Chapters. These meetings provide a forum for users of DIGITAL computers to meet with other users and with DIGITAL management, engineers, and Software Services and Field Service representatives. They are an opportunity for users to participate in DIGITAL Product Workshops and Product Planning feedback sessions. The technical papers and presentations from each symposium are published as DECUS Proceedings after each meeting and provide a permanent record of the meetings activities.

2. SPECIAL USER GROUPS

DECUS encourages subgrouping of users with common interests and/or geographical proximity.

Special Interest Groups (SIGs) promote the interchange of specialized information and have no geographical limitations. Specializations may be for application areas, subject areas (such as languages), or specific operating systems. A group of users must petition the Chapter Executive Board for recognition as a Special Interest Group. The group must have a chairman, and its organization must meet the guidelines of the Chapter Executive Board.

Examples of active SIGs are users of RSX-11, RSTS, RT-11 users, business system users, etc. For additional information, contact your Chapter Executive Secretary.

One of the most successful subgroupings are Local Users Groups (LUGs). There are numerous active LUGs in Australia, Canada, Europe, and the U.S. Local User Groups are basically geographic in nature; however, they may be geographic and specific as well.

The largest Special User Group is composed of users of the DECsystem-10 and DECsystem-20.

3. STANDARDS

DECUS promotes user activity in reviewing DIGITAL standards. Users are given the opportunity to comment on DIGITAL standards prior to their finalization.

4. PROGRAM LIBRARY

One of the major activities of the users group is the DECUS Program Library. The Library contains programs written and submitted by users and is maintained and operated separate from the Digital Software Distribution Center. A wide range of software is available, including languages, editors, numerical functions, utilities, display routines, and various other types of application software.

Library catalogs, updated periodically, contain descriptive abstracts and ordering information.

Information and forms for submitting programs to the Library may be obtained from local DECUS offices.

Programs are available to all members on a request basis. Orders for programs are made on DECUS Library Order Forms and directed to the local DECUS Chapter office. Information on the nominal service charge applied to most programs is published in the Library Catalogs.

As of January 1979, the Library contained approximately 1500 active software packages.

MEMBERSHIP

Membership in DECUS is voluntary and is not subject to a membership fee. Members are invited to take an active interest in the Society by contributing to the Program Library, to DECUSCOPE, and by participating in its Special User Groups and symposia. There are two types of membership: Installation Membership and Associate Membership.

INSTALLATION

An organization, institution, or individual that has purchased, leased, or has on order a computer manufactured by Digital Equipment Corporation is eligible for Installation Membership in DECUS. Membership status is acquired by submitting a written application to the appropriate Chapter Executive Secretary for approval by the Chapter Executive Board.

On acceptance of the application for membership, literature covering numerous DECUS services is sent to the Installation Delegate for reference and aid in maintaining active participation in the Society.

ASSOCIATE

Any person, who is not an appointed Installation Delegate, who has a bona fide interest in DECUS is eligible for Associate Membership.

Like Installation Members, Associate Members receive DECUSCOPE, the Society's quarterly newsletter, automatically. They may receive other DECUS material on request. Written application indicating desire to join must be submitted to the appropriate Chapter Executive Secretary for approval by the Chapter Executive Board.

On acceptance of the application for membership, literature covering the numerous DECUS services is sent to the member for reference and to enable active participation in the Society.

To obtain a membership form for DECUS, please return this form to the appropriate Chapter office listed below.

NAME: _____

COMPANY: _____

ADDRESS: _____

CITY: _____

STATE/COUNTRY: _____ ZIP: _____

Membership form Requested (check one):

Installation Associate

February 1979

I obtained this form from _____

DECUS OFFICES

DECUS Australia
P.O. Box 491
Crows Nest, New South
Wales 2065
Australia

DECUS Canada
P.O. Box 11500
Ottawa, Ontario K2H 8K8
Canada

DECUS Europe
C.P. 510
12, avenue des Morgines
CH-1213 Petit-Lancy 1,
Geneva, Switzerland

DECUS U.S. and
Office of the Executive Director
One Iron Way
Marlboro, Massachusetts 01752
USA

SOFTWARE PROBLEMS OR ENHANCEMENTS

Questions, problems, and enhancements to DIGITAL software should be reported on a Software Performance Report (SPR) form and mailed to the SPR Center at one of the following Digital Offices: *(SPR forms are available from the SPR Center).*

<u>Areas Covered</u>	<u>SPR Center</u>	<u>Areas Covered</u>	<u>SPR Center</u>
United States; remainder of Far East, Middle East, Africa Latin America	Administrative Services Group, SWS P.O. Box F Maynard, Ma 01754	Japan	Digital Equipment Corp. INTL 3rd Floor Kowa Bldg. 8-7 Sanban Cho Chiyoda Ku Tokyo 102 Japan
Canada	Digital Equipment Canada P.O. Box 11500 Ottawa, Ontario Canada K2H 8K8	New Zealand	Digital Equipment N.Z. LTD P.O. Box 17093 Greenlane, Auckland 5, New Zealand
United Kingdom, Bahraïne, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Qatar, Oman, Saudi Arabia, Syria, United Arab Emirates, Yemen, Arab Republic.	Digital Equipment Corp. LTD Fountain House Butts Centre GB - Reading RG17QN England	Belgium, Holland, Luxemburg	Digital Equipment B.V. KAAP Horndreef 38 NL - Utrecht/Overvecht Holland
Australia-Melbourne	Digital Equipment Aust. PTY. LTD 60 Park Street So. Melbourne Victoria Australia 3205	Sweden	Digital Equipment Corp. AB Englundavägen 7 S-171 24 Solna, Sweden
Australia-Sydney	Digital Equipment Aust. PTY. LTD 123 125 Willoughby Rd. P. O. Box 491 Crows Nest NSW Australia 2065	Denmark	Digital Equipment Corp. APS Kristineberg 3 DK-2100 Copenhagen Ø Denmark
Brazil	Digital Equipment Comercio Ind. Rua Batatais 429 Esq AL Campin 01423 Jardim Paulista Sao Paulo 0100 Brazil	Finland	Digital Equipment Corp. OY PL16 SF - 02201 ESPOO 20 Finland
Caribbean	De Latin America P. O. Box 11038 Fernando Juncos Sta. Santurce PR 00910	Norway	Digital Equipment Corp. A/S Pottenmakerveien 8 N - Oslo 5 Norway
France	Digital Equipment France 18, rue Saarinen France Siliç 225 F - 94528 Rungis - Cedex France	Austria, East Germany, West Germany, Poland, Hungary, Rumania, Czechoslovakia, Russia, Bulgaria	Digital Equipment Corp. GMBH Wallsteinplatz 2 D - 8 Munich 40 West Germany
Italy	Digital Equipment S.P.A. Viale Fulvio Testi 117 I-20092 Cinisilio Baisamo Milan, Italy	Israël	DECSYS Computers LTD. 4, Yirmiyahou Str. P.O. Box 6359 IL - Tel-Aviv 63505 Israël

Areas Covered

Greece, Portugal,
Spain, Switzerland,
Yugoslavia & Sina
(Morocco, Algeria,
Tunisia, Cyprus,
Turkey, Malta)

SPR Center

Digital Equipment Corp. SA
9, route des Jeunes
1211 Geneva 26
Switzerland

DIGITAL EQUIPMENT CORPORATION, Corporate Headquarters: Maynard, Massachusetts 01754, Telephone: (617)897-5111—SALES AND SERVICE OFFICES: UNITED STATES—ALABAMA, Huntsville • ARIZONA, Phoenix and Tucson • CALIFORNIA, El Segundo, Los Angeles, Oakland, Ridgecrest, San Diego, San Francisco (Mountain View), Santa Ana, Santa Clara, Stanford, Sunnyvale and Woodland Hills • COLORADO, Englewood • CONNECTICUT, Fairfield and Meriden • DISTRICT OF COLUMBIA, Washington (Lanham, MD) • FLORIDA, Ft. Lauderdale and Orlando • GEORGIA, Atlanta • HAWAII, Honolulu • ILLINOIS, Chicago (Rolling Meadows) • INDIANA, Indianapolis • IOWA, Bettendorf • KENTUCKY, Louisville • LOUISIANA, New Orleans (Metairie) • MARYLAND, Odenton • MASSACHUSETTS, Marlborough, Waltham and Westfield • MICHIGAN, Detroit (Farmington Hills) • MINNESOTA, Minneapolis • MISSOURI, Kansas City (Independence) and St. Louis • NEW HAMPSHIRE, Manchester • NEW JERSEY, Cherry Hill, Fairfield, Metuchen and Princeton • NEW MEXICO, Albuquerque • NEW YORK, Albany, Buffalo (Cheektowaga), Long Island (Huntington Station), Manhattan, Rochester and Syracuse • NORTH CAROLINA, Durham/Chapel Hill • OHIO, Cleveland (Euclid), Columbus and Dayton • OKLAHOMA, Tulsa • OREGON, Eugene and Portland • PENNSYLVANIA, Allentown, Philadelphia (Bluebell) and Pittsburgh • SOUTH CAROLINA, Columbia • TENNESSEE, Knoxville and Nashville • TEXAS, Austin, Dallas and Houston • UTAH, Salt Lake City • VIRGINIA, Richmond • WASHINGTON, Bellevue • WISCONSIN, Milwaukee (Brookfield) • INTERNATIONAL—ARGENTINA, Buenos Aires • AUSTRALIA, Adelaide, Brisbane, Canberra, Melbourne, Perth and Sydney • AUSTRIA, Vienna • BELGIUM, Brussels • BOLIVIA, La Paz • BRAZIL, Rio de Janeiro and Sao Paulo • CANADA, Calgary, Edmonton, Halifax, London, Montreal, Ottawa, Toronto, Vancouver and Winnipeg • CHILE, Santiago • DENMARK, Copenhagen • FINLAND, Helsinki • FRANCE, Lyon, Grenoble and Paris • GERMAN FEDERAL REPUBLIC, Cologne, Frankfurt, Hamburg, Hannover, Munich, Nuremburg, Stuttgart and West Berlin • HONG KONG • INDIA, Bombay • INDONESIA, Djakarta • IRELAND, Dublin • ITALY, Milan, Rome and Turin • IRAN, Tehran • JAPAN, Osaka and Tokyo • MALAYSIA, Kuala Lumpur • MEXICO, Mexico City • NETHERLANDS, Utrecht • NEW ZEALAND, Auckland and Christchurch • NORWAY, Oslo • PUERTO RICO, Santurce • SINGAPORE • SPAIN, Madrid • SWEDEN, Gothenburg and Stockholm • SWITZERLAND, Geneva and Zurich • UNITED KINGDOM, Birmingham, Bristol, Epsom, Edinburgh, Leeds, Leicester, London, Manchester and Reading • VENEZUELA, Caracas •