

**PDP-8**  
**Digital Software News**

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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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# ATTENTION

## Software Performance Report (SPR)

As of October 15, 1979, we request that customers write their Software Services customer number on SPR forms in the address box, before submitting them. You will find your customer number on the upper left hand corner of your Dispatch label.

Failure to supply your customer number could result in a delay of your answer.

<b>ABCD12345</b>	OCT 79	A1	AB1234C	1
MARY SMITH				
DIGITAL EQUIPMENT CORPORATION				
129 MAIN ST.				
MAYNARD, MA 01754				

## 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.



SOFTWARE PERFORMANCE REPORT

FIELD NO.: CORPORATE SPR NO.:

258203

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

PAGE OF

Form with fields: OPERATING SYSTEM, VERSION, SYSTEM PROGRAM OR DOCUMENT TITLE, VERSION OR DOCUMENT PART NO., DATE, NAME, FIRM, ADDRESS, CUST. NO., SUBMITTED BY, PHONE, DEC OFFICE, DO YOU HAVE SOURCES?, REPORT TYPE/PRIORITY, ATTACHMENTS, MAG TAPE, FLOPPY DISKS, LISTING, DECTAPE, CPU TYPE, SERIAL NO., MEMORY SIZE, DISTRIBUTION MEDIUM, SYSTEM DEVICE, DO NOT PUBLISH.

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EN 1044H-07-R479 (39C)

ADMINISTRATIVE SERVICES GROUP, SWS

## 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.

PDP-8 Digital Software News, October/November 1979

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NOTICE

APPLYING PATCHES TO OS/8

Be careful when applying patches to OS/8. The following is a list of individual products:

- 1 - OS/8 V3D
- 2 - OS/8 Extension Kit V3D
- 3 - OS/8 V3D Device Extensions
- 4 - OS/8 FORTRAN IV V3D
- 5 - OS/8 V3D Combined Kit

The above five products are separate software products and should be treated as such.

Note that if you purchased OS/8 V3D Combined Kit, you own items 1-4 in the above list. This product has all of the patches up to and including May 1979 already installed.

When applying patches, check the name of the product you own and compare it to the name of the product to which the patch should be applied. Do not confuse the products. For example:

A patch written for OS/8 Extension Kit V3D should not be applied to OS/8 V3D or to OS/8 V3D Device Extensions.

OS/8 V3D  
SABR V18A

Seq 21.91.1 M

1 of 1

LINE BUFFER PROBLEM IN SABR (DBB)

**Problem:** When a SABR input line generates code across a page boundary, SABR puts out an altered version of the line next to the code at the beginning of the next page in the listing file.

**Diagnosis:** The routine to enable the buffer to be placed in the listing file is in error.

**Solution:** Install the following patch.

```
.GET SYS SABR  
.ODT  
14755/6201 1362;5757;5375;3362;5754<CR>  
15375/0000 6201;5777;6173;<CR>  
16173/0000 3777;6211;5776;4760;1646<CR>  
17033/7001 7002<CR>  
CTRL/C  
.SAVE SYS SABR
```

The underlined text is computer generated. This patch corrects the problem and upgrades SABR to Version 18B.

OS/8 EXTENSION KIT V3D  
BRTS.SV V5B

Seq. 31.11.4 F

1 of 1

PATCH TO CHANGE LINE PRINTER WIDTH (JR)

The following is an optional patch to change the line printer width to 132 columns when using the BASIC PRINT statement.

```
.GET SYS BRTS  
.ODT  
2570/7774 7770  
2573/7660 7574  
3375/7660 7574  
CTRL/C  
.SAVE SYS BRTS
```

The TTY width will also be 132 columns. There will be nine 14-column PRINT zones on LPT and TTY with this patch. Save the current version of BRTS.SV before installing the patch or reverse the patch to return to 80 columns.

OS/8 EXTENSION KIT V3D  
BRTS.SV V5B

Seq. 31.11.5 M

1 of 1

PATCH TO BRTS FOR ADDRESSING LAB 8/E FUNCTIONS (JR)

The correct patch to BRTS.SV for proper addressing of LAB 8/E functions for OS/8 BASIC is as follows:

1. Make the patch to BASIC/UF as described in the August-September 1978 DSN. Note that, location 4044 contains 1273 and not 4514 before being changed to 4556.
2. Patch BRTS.SV. This patch replaces the patch described in the OS/8 Language Reference Manual (AA-H609A-TA), BASIC chapter, page 5-2.

```
.GET SYS BRTS
.ODT
00001/**** 5402      FUNCTION
00002/**** 4456
01560/**** 3400      INI
01561/**** 3454      PLY
01562/**** 3473      DLY
01563/**** 3600      DIS
01564/**** 4000      SAM
01565/**** 4077      CLK
01566/**** 3542      CLW
01567/**** 3522      ADC
01570/**** 4400      GET
01571/**** 4432      PUT
01572/**** 4267      DRI
01573/**** 4311      DRO
CTRL/C
.SA SYS BRTS
```

PRINT USING STATEMENT

An additional feature of the PRINT USING statement, as described in the OS/78 User's Manual (AA-5748B-TA, page 6-32), is

PRINT #n: USING

where n is the channel number assigned in the FILEV #n:"dev:file.ex" statement is also valid.

OS/78 V3.0  
DOCUMENTATION NOTE

Seq 72.60.2 M

1 of 1

RL01 DOCUMENTATION ERROR (DK)

There is a serious documentation error in the OS/78 User's Manual (AA-5748B-TA), page 2-9. If you have an RL01 and attempt the original command stream, you will destroy your RL01 distribution kit. Please note the following changes:

```
.FORMAT RL01
.ZERO RL1A:/Y
.ZERO RL1B:
.ZERO RL1C:
.COPY RL1A:<RLOA:*.*
```

Note the differences between lines 2, 3, and 4 above and the original documentation.

BASIC AND SLU2 DOCUMENTATION (DK)

The procedure for directing BASIC program output to a terminal via the SLU2 serial port is not clearly documented in the OS/78 User's Manual (AA-5748B-TA). It is recommended that BASIC program output to an LA36 can be effected via SLU2 by treating the output as file output. For example, a BASIC program segment that will print "HELLO" 100 times on the LA36 DECwriter via SLU2 is as follows:

```
1000 FILEV#1:"SLU2:"  
1010 FOR I=1 TO 100  
1020 PRINT#1:"HELLO"  
1030 NEXT I  
1040 CLOSE#1
```

Note that through line 1030 no characters are actually printed until the output buffer is full (contains 384 characters); all 384 characters are then printed. The CLOSE statement on line 1040 forces the output of the characters remaining in the output buffer when the total is less than the buffer full count.

OS/78 V3.0  
BRTS.SV V7

Seq 72.64.1 F

1 of 1

PATCH TO CHANGE TTY WIDTH (JR)

The following is optional patch to change the TTY width to 80 columns when using the BASIC PRINT statement.

```
.SET SYS OS8  
.GET SYS BRTS  
.ODT  
17/7574 7660  
CTRL/C  
.SA SYS BRTS  
.SET SYS OS78
```

The line printer width will also be 80 columns. There will be five 14-column PRINT zones on LPT and TTY with this patch. Save the current version of BRTS.SV before installing the patch or reverse the patch to return to 132 columns.



PDP-8 Digital Software News, October/November 1979

COS-310 V8  
COMP

Seq 81.1.1 N

1 of 1

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

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.

COS-31Ø V8  
(V8.ØØ PATCH 1)

Seq 81.1.2 M

1 of 2

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

#### 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.ØØA.

1. Create a PATCH command file (PTØ1) 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 PTØ1
```

2. Check the PTØ1 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,PTØ1
```

COS-310 V8  
(V8.00 PATCH 1)

Seq 81.1.2 M

2 of 2

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  
(V8.00 PATCH 2)

Seq 81.1.3 M

1 of 2

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

#### 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 attached 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.

3. Install the patch by entering the following command:

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

COS-310 V8  
(V8.00 PATCH 2)

Seq 81.1.3 M

2 of 2

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-310 V8  
(V8.00 PATCH 3)

Seq 81.1.4 M

1 of 2

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

#### 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 V8.00A.

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-318 V8  
(V8.88 PATCH 3)

Seq 81.1.4 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.

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COS-310 V8  
(PATCH 4)

Seq 81.1.5 M

1 of 1

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

## 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  
(PATCH 2)

Seq 81.1.6 M

1 of 4

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

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 V8.01B. SYSGEN/C must be run after the patch has been made to install the modified RX handler in the monitor.

COS-31Ø V8  
(PATCH 2)

Seq 81.1.6 M

2 of 4

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
.0360 6750
.0370 60
.0380 6755
.0390 61
.0400 7600
.0410 62
.0420 6754
.0430 63
.0440 0050
.0450 107
.0460 5351
.0470 112
```

COS-31Ø V8  
(PATCH 2)

Seq 81.1.6 M

3 of 4

.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

COS-31Ø V8  
(PATCH 2)

Seq 81.1.6 M  
4 of 4

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  
(PATCH 7)

Seq 81.1.7 M

1 of 3

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

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 attached 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-31Ø V8  
(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-31Ø V8  
(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.

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COS-310 V8.01A  
(PATCH 1)

Seq 81.2.1 M

1 of 3

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

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-310 V8.01A  
(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 3)

Seq 81.2.2 M

1 of 3

(The sequence number has been changed to correspond with the updated PDP-8 Component Listing.)

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 attached 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 81.2.2 M

2 of 3

1. Create a PATCH command file (PT03) 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 7550  
.0460 225  
.0470 1104  
.0480 226
```

COS-31Ø V8.Ø1A  
(PATCH 3)

Seq 81.2.2 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.

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COS-310 V5.05

Seq 5.5 M

1 of 3

MONITOR DATE as of January 1, 1980 (CW)

**PROBLEM:**

COS-310 was designed to accept dates between January 1, 1972 and December 31, 1979. The MONITOR will not accept a date beyond December 31, 1979.

**SOLUTION:**

Install the attached patch to the MONITOR on your first working day in 1980. After installing the patch, the MONITOR will only accept dates between January 1, 1980 and December 31, 1987. (Previously entered directory dates will be 8 years ahead.)

COS-310 V5.05

Seq 5.5 M

2 of 3

Enter the following commands:

```
.R PATCH
FILE NAME: /N
PATCHING MONITOR
BLOCK: 14
LOCATION : 143
OLD VALUE: 5567
NEW VALUE: 5570
LOCATION : 372
OLD VALUE: 6200
NEW VALUE: 6000
LOCATION : END
RELATIVE CHECKSUM: 7601
NEW BLOCK PATCHED OK
BLOCK: 15
LOCATION : 110
OLD VALUE: 5567
NEW VALUE: 5570
LOCATION : END
RELATIVE CHECKSUM: 0001
NEW BLOCK PATCHED OK
BLOCK: 16
LOCATION : 372
OLD VALUE: 7650
NEW VALUE: 7650
LOCATION : END
RELATIVE CHECKSUM: 7770
NEW BLOCK PATCHED OK
BLOCK: 36
LOCATION : 375
OLD VALUE: 0110
NEW VALUE: 0120
LOCATION : END
RELATIVE CHECKSUM: 0010
NEW BLOCK PATCHED OK
BLOCK: END
04 BLOCK(S) PATCHED IN THIS FILE
FILE NAME: COMP
BLOCK: 2
LOCATION : 211
OLD VALUE: 1630
NEW VALUE: 1631
```

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COS-310 V5.05

Seq 5.5 M

3 of 3

LOCATION : END  
RELATIVE CHECKSUM: 0001  
NEW BLOCK PATCHED OK  
BLOCK: 14  
LOCATION : 164  
OLD VALUE: 0132  
NEW VALUE: 0126  
LOCATION : 172  
OLD VALUE: 2301  
NEW VALUE: 2101  
LOCATION : END  
RELATIVE CHECKSUM: 7574  
NEW BLOCK PATCHED OK  
BLOCK: END  
02 BLOCK(S) PATCHED IN THIS FILE  
FILE NAME: CREF  
BLOCK: 4  
LOCATION : 376  
OLD VALUE: 1630  
NEW VALUE: 1631  
LOCATION : END  
RELATIVE CHECKSUM: 0001  
NEW BLOCK PATCHED OK  
BLOCK: 6  
LOCATION : 161  
OLD VALUE: 0132  
NEW VALUE: 0126  
LOCATION : 171  
OLD VALUE: 2301  
NEW VALUE: 2101  
LOCATION : END  
RELATIVE CHECKSUM: 7574  
NEW BLOCK PATCHED OK  
BLOCK: END  
02 BLOCK(S) PATCHED IN THIS FILE  
FILE NAME: /X  
EXIT



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COS-310 V6.05

Seq 6.5 M

1 of 3

MONITOR DATE as of January 1, 1980 (CW)

PROBLEM:

COS-310 was designed to accept dates between January 1, 1972 and December 31, 1979. The MONITOR will not accept a date beyond December 31, 1979.

SOLUTION:

Install the attached patch to the MONITOR on your first working day in 1980. After installing the patch, the MONITOR will only accept dates between January 1, 1980 and December 31, 1987. (Previously entered directory dates will be 8 years ahead.)

Enter the following commands:

```
.R PATCH
FILE NAME: /N
PATCHING MONITOR
BLOCK: 14
LOCATION : 143
OLD VALUE: 5567
NEW VALUE: 5570
LOCATION : 371
OLD VALUE: 6200
NEW VALUE: 6000
LOCATION : END
RELATIVE CHECKSUM: 7601
NEW BLOCK PATCHED OK
BLOCK: 15
LOCATION : 110
OLD VALUE: 5567
NEW VALUE: 5570
LOCATION : END
RELATIVE CHECKSUM: 0001
NEW BLOCK PATCHED OK
BLOCK: 16
LOCATION : 372
OLD VALUE: 7660
NEW VALUE: 7650
LOCATION : END
RELATIVE CHECKSUM: 7770
NEW BLOCK PATCHED OK
BLOCK: 36
LOCATION : 375
OLD VALUE: 0110
NEW VALUE: 0120
LOCATION : END
RELATIVE CHECKSUM: 0010
NEW BLOCK PATCHED OK
BLOCK: END
04 BLOCK(S) PATCHED IN THIS FILE
FILE NAME: COMP
BLOCK: 2
LOCATION : 211
OLD VALUE: 1630
NEW VALUE: 1631
LOCATION : END
RELATIVE CHECKSUM: 0001
NEW BLOCK PATCHED OK
BLOCK: 14
LOCATION : 164
OLD VALUE: 0132
```

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CCS-310 V6.05

Seq 6.5 M

3 of 3

NEW VALUE: 0126  
LOCATION : 172  
OLD VALUE: 2301  
NEW VALUE: 2101  
LOCATION : END  
RELATIVE CHECKSUM: 7574  
NEW BLOCK PATCHED OK  
BLOCK: END  
02 BLOCK(S) PATCHED IN THIS FILE  
FILE NAME: CREF  
BLOCK: 4  
LOCATION : 376  
OLD VALUE: 1630  
NEW VALUE: 1631  
LOCATION : END  
RELATIVE CHECKSUM: 0001  
NEW BLOCK PATCHED OK  
BLOCK: 6  
LOCATION : 161  
OLD VALUE: 0132  
NEW VALUE: 0126  
LOCATION : 171  
OLD VALUE: 2301  
NEW VALUE: 2101  
LOCATION : END  
RELATIVE CHECKSUM: 7574  
NEW BLOCK PATCHED OK  
BLOCK: END  
02 BLOCK(S) PATCHED IN THIS FILE  
FILE NAME: DFDIR  
BLOCK: 2  
LOCATION : 144  
OLD VALUE: 0110  
NEW VALUE: 0120  
LOCATION : END  
RELATIVE CHECKSUM: 0010  
NEW BLOCK PATCHED OK  
BLOCK: END  
01 BLOCK(S) PATCHED IN THIS FILE  
FILE NAME: /X  
EXIT

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COS-310 V7.00

Seq 7.0 M

1 of 3

MONITOR DATE as of January 1, 1980 (CW)

PROBLEM:

COS-310 was designed to accept dates between January 1, 1972 and December 31, 1979. The MONITOR will not accept a date beyond December 31, 1979.

SOLUTION:

Install the attached patch to the MONITOR on your first working day in 1980. After installing the patch, the MONITOR will only accept dates between January 1, 1980 and December 31, 1987. (Previously entered directory dates will be 8 years ahead.)

COS-310 V7.00

Seq 7.0 M

2 of 3

Enter the following commands:

```
.R PATCH
FILE NAME: /N
PATCHING MONITOR
BLOCK: 14
LOCATION : 143
OLD VALUE: 5567
NEW VALUE: 5570
LOCATION : 371
OLD VALUE: 6200
NEW VALUE: 6000
LOCATION : END
RELATIVE CHECKSUM: 7601
NEW BLOCK PATCHED OK
BLOCK: 15
LOCATION : 110
OLD VALUE: 5567
NEW VALUE: 5570
LOCATION : END
RELATIVE CHECKSUM: 0001
NEW BLOCK PATCHED OK
BLOCK: 16
LOCATION : 372
OLD VALUE: 7660
NEW VALUE: 7650
LOCATION : END
RELATIVE CHECKSUM: 7770
NEW BLOCK PATCHED OK
BLOCK: 36
LOCATION : 375
OLD VALUE: 0110
NEW VALUE: 0120
LOCATION : END
RELATIVE CHECKSUM: 0010
NEW BLOCK PATCHED OK
BLOCK: END
04 BLOCK(S) PATCHED IN THIS FILE
FILE NAME: COMP
BLOCK: 2
LOCATION : 211
OLD VALUE: 1630
NEW VALUE: 1631
LOCATION : END
RELATIVE CHECKSUM: 0001
NEW BLOCK PATCHED OK
```

COS-310 V7.00

Seq 7.0 M

3 of 3

BLOCK: 14  
LOCATION : 164  
OLD VALUE: 0132  
NEW VALUE: 0126  
LOCATION : 172  
OLD VALUE: 2301  
NEW VALUE: 2101  
LOCATION : END  
RELATIVE CHECKSUM: 7574  
NEW BLOCK PATCHED OK  
BLOCK: END  
02 BLOCK(S) PATCHED IN THIS FILE  
FILE NAME: CREF  
BLOCK: 4  
LOCATION : 373  
OLD VALUE: 1630  
NEW VALUE: 1631  
LOCATION : END  
RELATIVE CHECKSUM: 0001  
NEW BLOCK PATCHED OK  
BLOCK: 6  
LOCATION : 161  
OLD VALUE: 0132  
NEW VALUE: 0126  
LOCATION : 171  
OLD VALUE: 2301  
NEW VALUE: 2101  
LOCATION : END  
RELATIVE CHECKSUM: 7574  
NEW BLOCK PATCHED OK  
BLOCK: END  
02 BLOCK(S) PATCHED IN THIS FILE  
FILE NAME: DFDIR  
BLOCK: 2  
LOCATION : 144  
OLD VALUE: 0110  
NEW VALUE: 0120  
LOCATION : END  
RELATIVE CHECKSUM: 0010  
NEW BLOCK PATCHED OK  
BLOCK: END  
01 BLOCK(S) PATCHED IN THIS FILE  
FILE NAME: /X  
EXIT

PDP-8 DIGITAL SOFTWARE NEWS  
 CUMULATIVE INDEX  
 OCTOBER/NOVEMBER 1979

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!

Retracted articles are indicated: RETRACTION.

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

A = 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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FORTRAM IV PLOTTER ROUTINE, PSCALE, HANGS IN ENDLESS LOOP	01	Apr 77
PLOTTER OUTPUT PROBLEM	02	Aug 77

OS/8 V3D

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

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FAULTY DESCRIPTION FOR ERROR PERFORMANCE	01 N*	Oct 77
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CTRL/Z AND NULL	01 O*	Oct 77
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RESTRICTION ON EXTENDED RANGE FOR-NEXT LOOPS	01 R	Oct 77
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RUNNING BATCH IN 32K	03 O	Oct 77
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MARK SENSE BATCH FORTRAN II READS THROUGH DOLLAR SIGNS	01 O	Oct 77
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GENIOX QUESTIONS	01 N	Oct 77

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## FORLIB.RL V5A

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01 N

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## F4.SV V4A

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01 R

Oct 77

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02 M

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03 N

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04 O

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05

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## FRTS V5A

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01 R

Oct 77

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02 O

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03 O

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21.1.1 N

Mar 78

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May 78

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21.1.3 N

Aug/Sep 78

## CCL

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21.3.1 O

May 78

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21.10.1 N

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## CREF

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21.15.1 M

May 78

## EDIT

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21.17.1 M

Mar 78

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Jun/Jul 79

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21.17.3 M

Jun/Jul 79

## FOTP

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## MCPIP

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## PAL8

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## PIP

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21.24.1 M

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May 78

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May 78

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DATE COMMAND - ACCEPTS INVALID DAY	81.2.2 M	Oct/Nov 79

# digital

## Software Product Description

PRODUCT NAME: OS/8 Combined Kit, Version 3D

SPD 4.4.1

### DESCRIPTION:

The OS/8 Combined Kit is a comprehensive executive supporting PDP-8 computer systems. The OS/8 Combined Kit also includes a number of programming languages, an assortment of device support options, and the capability to extend your system to 128K words.

The OS/8 Combined Kit allows you to store programs on disk that can be accessed for loading, modification, or execution by simple keyboard commands.

The OS/8 Combined Kit 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 the OS/8 Combined Kit 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, you will be able to enter a run-time 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.

Every OS/8 Combined Kit 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. Device independence can be maintained even for nonstandard 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.

The OS/8 Combined Kit Programs include:

**CCL (Concise Command Language)** — provides you with a set of easy-to-use terminal commands. 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 number pages.

**ABSLDR (Absolute Loader)** — is an 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 you to run prototype programs under carefully controlled conditions, modify programs during execution, or monitor the state of main memory and the major registers. 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.

**FOTP (File-Oriented Transfer Program)** — allows you to transfer groups of files between two 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.

**FORTTRAN 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 statements.

**FORTTRAN IV** — is a language compiler. FORTRAN IV permits generalized array subscription and 1- to i2-dimensional arrays. Large amounts of data can be stored and accessed easily. FORTRAN IV also offers direct access I/O. Direct access I/O provides virtual array capability and decreases processing time. FORTRAN IV supports mixed-mode arithmetic, octal constants, logical IF statements, and general integer

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expressions in IF statements. FORTRAN IV also provides a tree-structured dynamic overlay mechanism that automatically loads overlays on call without the need for explicit call overlay, call link, or call chain statements.

**BUILD** — a system generation program that allows convenient generation or reconfiguration of any OS/8 Combined Kit 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 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** (Peripheral Interchange Program) — allows you to transfer ASCII files between DECsystem-10 DECtapes and the OS/8 Combined Kit devices. This utility runs only on a PDP-8/I, /L, /E, /M, or /A equipped with either TC08 or TD8E DECtape.

**BATCH** — BATCH processing is used to monitor and execute frequently run production jobs, large and long-running programs, and programs that require little or no interaction with you. Output is returned to you in the form of a line-printer and/or console-terminal listing that includes program output as well as a summary of all action taken by your program, the monitor system, and the computer operator. Almost any program that runs interactively under the OS/8 Combined Kit can also be run under BATCH. (Since BATCH is initiated from the keyboard in the same manner as any other system program, interactive users can use BATCH to execute multiple utility routines, even when continuous batch processing is not desired.

**BASIC** — BASIC is a language compiler and run-time system. It can be used to create programs interactively, or compile, load, and execute ASCII input files in response to a single monitor command. Alternatively, a program and data files can be prepared under the interactive monitor for subsequent stand-alone processing under BATCH. BASIC permits interfacing with functions written in assembly language.

**TECO** — TECO is a command language made up of easy mnemonics that provide full editing capabilities to the programmer. The commands are very similar to corresponding Symbolic Editor commands. The I/O device independence of system programs permits TECO to create or modify ASCII files on any medium. TECO commands can be combined in sophisticated command strings that are essentially editing "programs". TECO commands provide capabilities for conditional execution, branching, program control, and multifile processing.

**RESORC** — RESORC is a program that allows access to the list of all I/O handlers in the system, including a special handler called VXAO. The VXAO handler allows you to use the memory extension option as though it were a separate pseudo device.

**KT8A** — KT8A software is provided to support the KT8A extended memory hardware, which allows you to address up to 128K words of contiguous main memory (not supported on DECstation 78).

**MINIMUM HARDWARE REQUIRED:**

- PDP-8/A, /E, or /M with 12K words of memory, or DECstation-88/80, /90, /92, or /97.
- RK8J or RL8A disk
- VT52, LA36, or equivalent console terminal

**OPTIONAL HARDWARE:**

- RX28 dual density diskette system
- LA180, LS8-E, LE8-E, LQP78, LV8 or equivalent parallel line printer
- RX8 single density diskette system
- KE8-E extended arithmetic element
- KT8A extended memory hardware (for greater than 32K words of memory systems)
- FPP8-A Floating-point processor

**PREREQUISITE SOFTWARE:**

None

**OPTIONAL SOFTWARE:**

None

**TRAINING CREDITS:**

None

**SUPPORT CATEGORY:**

OS/8 Combined Kit is a DIGITAL Supported Software Product.

**SOFTWARE INSTALLATION**

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

**ORDERING INFORMATION:**

The following key (E, Q) represents the distribution media for the product and must be specified at the end of the order number, e.g., QF024-AE = on RK05 Disk cartridge.

E = RK05 Disk cartridge

Q = RL01 Disk cartridge

QF024 -A— Single-use license, binaries, documentation, support services (media: E, Q)

*Source/Listing Options*

QF024 -E— All sources (media: E, Q)

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*Update Options*

Users of OS/8, V3C, OS/8 FORTRAN IV, OS/8 Extension Kit, V3C 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.

QF024 -H— Binaries, documentation (media: E, Q)

Users of OS/8, V3C, OS/8 FORTRAN IV, OS/8 Extension Kit, V3C 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.

QF024 -W— Binaries, documentation (media: E, Q)

*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 .

QF024 -N— Sources update (media: E, Q)

*Miscellaneous Options*

QF024 -G— Documentation only kit (media: Z)

**ADDITIONAL SERVICES:**

None

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## Software Product Description

**PRODUCT NAME: COS-310 2780/3780 RDCP, Version 8.01, Remote Data Communications Package**

**SPD 6.11.5**

### DESCRIPTION:

COS-310 2780/3780 Remote Data Communications Package (RDCP) enables a valid DECstation or Datasystem running COS-310 to act as a Remote Job Entry (RJE) terminal. COS-310 2780/3780 users can transmit data and/or job control files to another COS-310 2780/3780 system, to a DiGiTAL system running a 2780 or 3780 emulator, or to a properly configured IBM 360/370 system running appropriate Remote Job Entry Software. COS-310 2780/3780 operates at line speeds of up to 9600 bits per second over switched or private facilities using Bell System series 201, 208, or 209 modems.

COS-310 2780/3780 appears as an IBM 2780 Model 2 (with data routed to a disk file instead of a card punch) or an IBM 3780 data transmission terminal in a point-to-point synchronous data link operating in a standard 2780 or 3780 format. It transmits logical records of 80 or fewer characters and receives logical records of up to 132 characters. COS-310 2780/3780 can also transmit a non-standard 132 character length record. Blocks can be up to 400 characters long for 2780 and 512 characters long for 3780. Data is transmitted from disk. Received data can be stored on disk or printed on the line printer.

### Features:

- 400-character buffer in 2780 mode
- 512-character buffer in 3780 mode
- Multiple record transmission and reception
- Short record (EM) detection
- Vertical and horizontal print format control
- Automatic retransmission and retry feature
- Conversion of COS-310 file format to EBCDIC for transmission
- Full text transparency available for transmission
- Use of the system for business applications when COS-310 2780/3780 is not running
- Maximum line speeds of 9600 bits per second with disk pack based systems, 4800 bits per second with floppy disk based systems
- Unattended batch operation
- Space compression/expansion for 3780 mode
- Automatic restart capability for interrupted dial-up data links

In addition to providing 2780/3780 emulation, COS-310 2780/3780 can transmit and receive program files stored on disk to and from another COS-310 2780/3780.

### MINIMUM HARDWARE REQUIRED:

Any valid D310, DS308, DECstation 78 or 88 configuration with the appropriate line unit and at least 32KB (40KB if LQP-8 printer is used on D310) of memory. DS308 configuration cannot include a parallel printer.

### OPTIONAL HARDWARE:

- A line printer supported by COS-310
- RK8-E DECpack disk cartridge system on D310 system
- RL01 disk cartridge system on DECstation

### PREREQUISITE SOFTWARE:

COS-310 operating system, Version 8.01

### OPTIONAL SOFTWARE:

None

### TRAINING CREDITS:

None

### SUPPORT CATEGORY:

The initial binary package is a DIGITAL Supported Software Product..

### SOFTWARE INSTALLATION

DIGITAL installation is required for Software Product Support. There is no charge for installation if performed at the time of system installation. DIGITAL installed software products, except for operating systems, are subject to an add-on installation fee when purchased subsequent to system installation.

Installation will be deemed complete in the case of connection with IBM when:

- The customer's 360/370 configuration includes a 2701 Data Adapter, a 2703 Transmission Control Unit, a 3704 or 3705 Transmission Controller, or a System/370 Model 135 Integrated Communication Adapter.
- A DIGITAL sample procedure included with the software has been successfully executed.

Installation in DIGITAL-to-DIGITAL operation will be deemed complete when DIGITAL supplied files can be successfully transmitted in both directions.

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**SOFTWARE PRODUCT SUPPORT**

COS-310 RDCP 2780/3780 includes Standard Services as defined in the Software Support Categories Addendum of this SPD.

**CUSTOMER RESPONSIBILITIES:**

BEFORE installation of the SOFTWARE, the customer must:

1. Obtain, install, and demonstrate operational to DIGITAL's satisfaction any modems and other equipment facilities necessary to interface to DIGITAL's communications line interfaces and terminals.
2. Install or have installed all hardware, including terminals, to be used on the system.
3. Generate for terminal support any and all IBM systems that will be communicating with the Emulator, to DIGITAL's satisfaction.
4. Make available to DIGITAL personnel all hardware, including communications facilities and terminals, to be used during installation and acceptance testing for a reasonable period of time each day as mutually agreed upon by DIGITAL and customer, until acceptance criteria are satisfied.
5. Provide access privileges and machine time on any and all IBM systems on which the installation is to be performed.
6. When communicating with IBM, make available to DIGITAL personnel an IBM 360/370 job stream with data, to run via the COS-310 2780/3780 Emulator on-line to a 360/370 in accordance with the configuration specifications outlined above.

Delays caused by any failure to meet these responsibilities will be charged at the then prevailing rate for time and materials.

**WARRANTY LIMITATIONS:**

DIGITAL has designed this software product according to the specifications for IBM 2780/3780 as indicated in IBM 2780 Data Transmission Terminal Manual and IBM 3780 Data Communications Terminal Manual.

This software is primarily meant to function with DIGITAL Datasystem and IBM 360/370 host equipment and software. While this software may function correctly with other equipment and software, DIGITAL cannot offer its standard warranty for this software unless it has been tested with such equipment and software configurations.

The following are examples of some configurations upon which the software has been tested and is warranted.

- AMDAHL 470 V/5 with IBM 3705 communications controller running IBM OS/VS2 HASP software
- IBM 370/158 with IBM 3705 communications controller running IBM OS/VS2 HASP software
- D150 series with CTS-300 V5.0
- D320 series with CTS-300 V5.0
- D350 series with CTS-300 V5.0

Since the introduction of this software, other configurations may have been tested. Please contact your local DIGITAL office for up-to-date information regarding listed configurations.

**ORDERING INFORMATION:**

Options with no support services are only available after the purchase of one supported license.

The following key (E, Q, X, Y, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., DS3CL-AE = binaries on RK05 disk cartridge.

E = RK05 Disk cartridge  
 Q = RL01 Disk cartridge  
 X = RX02 Double density diskette  
 Y = RX01 Floppy diskette  
 Z = No hardware dependency

**For DECstation 88 or D310 Systems:**

DS3CL -A— Single-use license, binaries, documentation, support services, DP8E Line Unit and KG8E CRC unit (media: E, Q, X, Y)

DS3CL -D— Single-use license DP8E Line Unit and KG8E CRC unit included (media: Z)

**For DECstation 78 or DS308 Systems:**

DS3CM -A— Single-use license, binaries, documentation, support services and DP78A Line Unit (media: X, Y)

DS3CM -D— Single-use license and DP78A Line Unit (media: Z)

**Upgrade Options**

Users of COS-310/2780 V 7.0 whose specified Support Category warranty has expired may order under license the following software upgrade for the then current prevailing rate. The upgrade is distributed in binary form on the appropriate media and includes installation and support.

Users of COS-310/2780 purchasing this upgrade must meet the minimum hardware and software requirements stated in this document.

QF312 -A— Binaries, documentation, installation and services (media: E, Q, X, Y)

**Update Options**

Users of COS-310/2780 Version 7.0 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 otherwise. Users of Version 7.0 who wish to upgrade must meet the minimum hardware and software requirements stated in this document.

QF311 -H— Binaries, documentation (media: E, Q, X, Y)

QF311 -H— Right to copy for single use (under existing license) no binaries, no documentation, no support services (media: Z)



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Users of COS-310/2780 Version 7.0 whose specified Support Category warranty has not expired may order under license the following software update for the then current prevailing rate. The update is distributed in binary form on the appropriate medium and includes no installation. Users of Version 7.0 who

wish to update must meet the minimum hardware and software requirements stated in this document.

QF311 -W— Binaries, documentation (media: E, Q, X, Y)

**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.

DECUS (continued)

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, Bahrain, 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 Silic 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 Cinisillo Balsamo 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 •