

PDP-8
Digital Software News

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The PDP-8 Digital Software News complements Reviews for CAPS-8, COS-310, OS/8 V3C, OS/8 Version 3D and OS/78 V1. It publishes new and revised software product descriptions, programming notes, software problems and solutions, and documentation corrections. Much of the material is developed from answers to customer Software Performance Reports (SPRs) significant to the general audience.

The following products are supported in the PDP-8 Digital Software News:

CAPS-8 V1	OS/8 V3C, V3D	OS/8 INDUSTRIAL BASIC V3
COS-310 V2(6.05)	OS/8 EXTENSION KIT V3C, V3D	OS/8 MACREL/LINKER V1A
COS-310/2780 RDCP V6.05	OS/8 FORTRAN IV V3C, V3D	OS/78 V1
DECnet-8 V1	OS/8 FORTRAN IV PLOTTER V3C	RTS-8 V2, V2B

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Eleanor F.Hunter, Editor
Roxanne Alexander, Associate Editor

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OS/8
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RSTS
RSX
TYPESET-8
TYPESET-11

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USER LETTER
Jan Fair, SPR Administration

Customers (and others) have brought to our attention the need for additional information regarding SPR service, particularly as it involves SPR Administration. The following represents our attempt to fulfill this need. Your comments and suggestions are most welcome.

HOW TO MAKE THE BEST USE OF SPR FORM

What WE Can Do for YOU

1. Blank SPR forms are available upon request in the desired quantities through SPR Administration (P.O.Box F) and your local office/SPR Center.
2. Copies of the SPR acknowledgment and answer are sent to the appropriate DIGITAL Office/SPR Center for their information.
3. SPRs marked *SOFTWARE ERROR* or *INQUIRY* will have a response for supported Category A and B products. These SPRs should refer to suspected deficiencies in the software.
4. SPRs marked *FYI* or *SUGGESTION* are forwarded to the pertinent software group for information purposes, and are responded to at their discretion.
5. SPRs marked *DOCUMENTATION ERROR* should report those problems dealing with software manuals or newsletters, and will be forwarded to the pertinent software group.

What YOU Can Do For US

1. Customer Name and Address and Problem Statement should always be typed or printed clearly.
2. SPRs should not be used for problems concerning software policy, software distribution, or hardware. Your local office should be contacted in these cases.
3. It would be most helpful to all concerned, if problems with patches are reported as soon as possible.
4. For security SPRs, it is imperative that the *DO NOT PUBLISH* box be marked.
5. It would be helpful if tapes submitted with SPRs are labeled (track and density), and have a directory attached.
6. Should you ever receive an unacceptable SPR response, please contact us or the appropriate SPR Center so that the response may be readdressed.

COS-31Ø V7
SYSGEN
(PATCH 1)

Seq 1 M
1 of 1

RUNNING SYSGEN/C ON A SYSTEM WITH AN LQP (MD)

If SYSGEN/C is run on a system configured with an LQP, certain locations in the new monitor are destroyed. An attempt to use the printer under the new monitor will result in further damage to the COS-31Ø system.

The following patch to SYSGEN corrects this problem. It also changes the version number of SYSGEN to V7.ØØA.

```
RUN PATCH
COS PATCH SYSTEM VERSION V 7.00
FILE NAME: SYSGEN
BLOCK: 17
LOCATION: 301
OLD VALUE: 2101
NEW VALUE: 2142
LOCATION: END
RELATIVE CHECKSUM: 41
NEW BLOCK PATCHED OK
BLOCK: 22
LOCATION: 46
OLD VALUE: 7771
NEW VALUE: 4067
LOCATION: 47
OLD VALUE: 0143
NEW VALUE: 7771
LOCATION: 62
OLD VALUE: 7776
NEW VALUE: 7777
LOCATION: 66
OLD VALUE: Ø143
NEW VALUE: Ø
LOCATION: 67
OLD VALUE: 7771
NEW VALUE: Ø
LOCATION: 70
OLD VALUE: 7777
NEW VALUE: 1
LOCATION: END
RELATIVE CHECKSUM: 3573
NEW BLOCK PATCHED OK
BLOCK: END
Ø2 BLOCK(S) PATCHED IN THIS FILE
FILE NAME: /X
```

COS-310 V7
CREF
(PATCH 2)

Seq 2 M
1 of 1

ERROR RECOVERY WITH THE RX HANDLER (MD)

If an I/O error occurs on a floppy disk, attempting to retry the operation may halt the system.

The following patch to SYSGEN corrects this problem. It also changes the version number of SYSGEN to V7.00B. SYSGEN/C must be run after the patch has been made to install the modified RX hangler in the monitor.

```
RUN PATCH
COS PATCH SYSTEM VERSION V7.00
FILE NAME: SYSGEN
BLOCK: 3
LOCATION: 113
OLD VALUE: 5340
NEW VALUE: 5336
LOCATION: END
RELATIVE CHECKSUM: 7776
NEW BLOCK PATCHED OK
BLOCK: 17
LOCATION: 301
OLD VALUE: 2142
NEW VALUE: 2143
LOCATION: END
RELATIVE CHECKSUM: 1
NEW BLOCK PATCHED OK
BLOCK: END
02 BLOCK(S) PATCHED IN THIS FILE
FILE NAME: /X
```

COS-310 V7
CREF
(PATCH 3)

Seq 3 M
1 of 1

EXTRA CHARACTERS PRINTED IN CREF HEADING (MD)

Extra characters are printed at the end of the CREF heading line.

The following patch to CREF corrects this problem. It also changes the version number of CREF to V7.00A.

```
RUN PATCH
COS PATCH SYSTEM VERSION V7.00
FILE NAME: CREF
BLOCK: 4
LOCATION: 351
OLD VALUE: 7733
NEW VALUE: 7736
LOCATION: 362
OLD VALUE: 6701
NEW VALUE: 0101
LOCATION: 366
OLD VALUE: 2101
NEW VALUE: 2142
LOCATION: END
RELATIVE CHECKSUM: 1244
NEW BLOCK PATCHED OK
BLOCK: END
01 BLOCK(S) PATCHED IN THIS FILE
FILE NAME: /X
```

COS-310 V7
MONITOR
(PATCH 4)

Seq 4 M
1 of 2

CHAINING DIBOL PROGRAMS (MP)

If a DIBOL program is using the CHAIN command and also printing, the COS-310 monitor may loop endlessly while attempting to load the CHAINED program. This problem occurs most often on system configurations which include the fast floppy handler and an LQP printer. However, it may occur on any configuration.

The following patch to the COS-310 Monitor corrects this problem. It also changes the version number of the Monitor to V7.00A.

```
RUN PATCH
COS PATCHING SYSTEM VERSION V7.00
FILE NAME:/N
PATCHING MONITOR
BLOCK: 27
LOCATION: 156
OLD VALUE: 2101
NEW VALUE: 2142
LOCATION: END
RELATIVE CHECKSUM: 41
NEW BLOCK PATCHED OK
```


COS-310 V7
MONITOR
(PATCH 4)

Seq 4 M
2 of 2

BLOCK: 34
LOCATION: 200
OLD VALUE: 0000
NEW VALUE: 6002
LOCATION: 201
OLD VALUE: 3225
NEW VALUE: 1211
LOCATION: 202
OLD VALUE: 1225
NEW VALUE: 4477
LOCATION: 203
OLD VALUE: 7002
NEW VALUE: 600
LOCATION: 204
OLD VALUE: 4210
NEW VALUE: 0
LOCATION: 205
OLD VALUE: 1225
NEW VALUE: 1
LOCATION: 206
OLD VALUE: 4210
NEW VALUE: 6001
LOCATION: 207
OLD VALUE: 5600
NEW VALUE: 1612
LOCATION: 210
OLD VALUE: 0000
NEW VALUE: 5501
LOCATION: 211
OLD VALUE: 0020
NEW VALUE: 6400
LOCATION: 212
OLD VALUE: 7450
NEW VALUE: 1652
LOCATION: END
RELATIVE CHECKSUM: 7470
NEW BLOCK PATCHED OK

BLOCK: 60
LOCATION: 366
OLD VALUE: 1375
NEW VALUE: 5775
LOCATION: 375
OLD VALUE: 6400
NEW VALUE: 4200
LOCATION: END

RELATIVE CHECKSUM: 2200
NEW BLOCK PATCHED OK

BLOCK: END
Ø3 BLOCK(S) PATCHED IN THIS FILE
FILE NAME:/X

COS-310 V7
MONITOR
(PATCH 5)

ERROR RECOVERY (MD)

If an I/O error occurs, the drive number in the ensuing error message may be incorrect.

The following patch to the COS-310 Monitor corrects this problem. It also changes the version number of the Monitor to V7.00B. The system should be rebooted after installing this patch.

```
RUN PATCH
COS PATCHING SYSTEM VERSION V7.00
FILE NAME: /N
PATCHING MONITOR
BLOCK: 13
LOCATION: 300
OLD VALUE: 1675
NEW VALUE: 6201
LOCATION: 301
OLD VALUE: 2275
NEW VALUE: 1675
LOCATION: 302
OLD VALUE: 0040
NEW VALUE: 2275
LOCATION: 303
OLD VALUE: 1272
NEW VALUE: 0040
LOCATION: 304
OLD VALUE: 3265
NEW VALUE: 1272
LOCATION: 305
OLD VALUE: 6201
NEW VALUE: 3265
LOCATION: END
RELATIVE CHECKSUM: 0
NEW BLOCK PATCHED OK
```

```
BLOCK: 27
LOCATION: 156
OLD VALUE: 2142
NEW VALUE: 2143
LOCATION: END
RELATIVE CHECKSUM: 1
NEW BLOCK PATCHED OK
```

```
BLOCK: END
02 BLOCK(S) PATCHED IN THIS FILE
FILE NAME: /X
```

COS-310 V7
RXU V7

Seq 6 M
1 of 1

RXU VS. PIP OPTION C (8-2575 MD)

RXU was developed as a special program to copy diskettes on a PDP-8/A. RXU was believed to have advantages over the PIP option C. With the development of the VT-78, the unique design of RXU was found to be less advantageous than initially believed.

Experience with RXU and PIP Option C in copying from diskette to diskette revealed the following information.

<u>CPU</u>	<u>Program</u>	<u>Time Required to Copy Diskette</u>
PDP-8/A	RXU	3 min. 20 sec.
VT-78	RXU	23 min. 40 sec.
PDP-8/A	PIP OPT-C	3 min. 20 sec.
VT-78	PIP OPT-C	3 min. 20 sec.

PIP option C will also allow the use of drives 2 and 3 on a VT-78; a feature not possible with RXU.

In light of this comparative information, we now advise the use of PIP option C rather than RXU.

OS/8 EXTENSION KIT V3D
BASIC
BRTS.SV V5B

Seq 31.11.2 0
1 of 1
Supersedes article dated Mar 78

BASIC PNT FUNCTION (JR)

Presently the OS/8 BASIC PNT function forces the parity bit on.
Therefore, it is impossible to output octal codes 000-077.

The following patch removes this limitation.

```
.GET SYS BRTS  
.ODT  
1761/0162 7000  
1762/1172 0174  
^C      (CONTROL C)  
.SAVE SYS BRTS
```

This is an optional patch. Optional patches do not change the version levels.

OS/8 EXTENSION KIT V3D
BRTS

Seq 31.11.3 0
1 of 1

LINE SIZE ON OUTPUT OF BASIC (JR)

There seems to be great interest in extending basic output to 133 characters. The following patch will extend the output line width to 132 chars (9 columns of number data). Basic console input will remain at 72 chars max - that is not easily patched since the buffer ? other code + data. This restriction does not apply to file I/O - only the tty.

```
.GET SYS BRTS  
.ODT  
2570/7774 7767  
2573/7660 7574  
3375/7660 7574  
^C  
.SA SYS BRTS
```

OS/8 EXTENSION KIT V3D
TECO V5.07

Seq 31.20.13 M
1 of 1

UNSPECIFIED ITERATIONS AFTER INSERTS (SR)

Problem: If an iteration has no iteration count specified, and the previous command was an insert, then the iteration is skipped. For example, the command IAS<L> will not work properly.

Diagnosis: The insert code destructively tests the number flag (NFLG) and if it was 0, sets it to a 1. It is never reset to 0. The iteration code sees a 1 and thinks a number is present. Looking for one, it finds 0 and thinks the iteration count is 0 meaning skip this iteration.

Cure: The insert code should reset (zero) the number flag. This was not a problem in TECO V4 because 0<> was the same as <> then. Apply the following patch (which upgrades TECO to version 5.08):

```
>GET SYS:TECO
.ODT
2616/6032 5776;3167
2674/5565 5617
4573/0773 0774
[C
.SAVE SYS:TECO
```

OS/8 V3D
F4.SV V4A

Seq 51.3.1 M
1 of 1

Supersedes article dated Mar 78

FORTTRAN COMPILER FAILS TO RECOGNIZE " AS AN ERROR (SPR 8-2428 JB)

Problem: The F4 compiler fails to recognize the double quotes (") as an incorrect character in a subroutine call argument. Instead, it generates an argueless call.

Solution: The following patch corrects this problem and should be installed:

```
.GET SYS F4  
.ODT  
3343/ 7440 7640  
1130/ 6402 6403  
^C (CONTROL C)  
.SAVE SYS F4
```

This patch corrects this problem and upgrades the F4.SV to V4C.

OS/8 FORTRAN IV V3D
F4 V4A

Seq 51.3.2 M
1 of 1

FORTRAN COMPILER NOT RECOGNIZING SYNTAX ERROR (JB)

F4 compiler does not recognize syntax error in type declaration statement.

The following patch will resolve this situation.

```
.GET SYS F4.SV
.ODT
2520/4557 5326
2521/2200 7000
2522/5600 7000
2541/5320 5326
^C
.SAVE SYS F4.SV
```


**8 DIGITAL SOFTWARE NEWS
CUMULATIVE INDEX
AUGUST 1978**

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!

The following numerical system has been grouped in logical order.

Retracted articles are indicated: RETRACTION.

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

- M = Mandatory patch. These are critical patches which each customer is required to install.
- O = Optional patch. These articles are applicable only if the reported problems have occurred at the customer site or if they are unique to his operation.
- R = Restriction. These problems are not patchable in released software. Restrictions are reviewed and corrected when possible as part of the normal release cycle.
- N = NOTE. This information may be helpful to the user.

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<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
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FPP-8A	04 O	Oct 77

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<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
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<u>UTILITIES</u> CREP BUG WITH FIXTAB	21.15.1 M	May 78
EDIT EDIT PROBLEM WITH NO FORMFEED AT END OF THE INPUT FILE	21.17.1 M	Mar 78
MCPIP DATE-78 PATCH FOR MCPIP	21.21.1 M	Mar 78
SET USING SET WITH 2-PAGE SYSTEM HANDLERS SCOPE RUBOUTS FAIL IN SET	21.26.1 M 21.26.2 M	May 78 May 78
<u>HANDLERS</u> ASR33 HOW TO WRITE TWO-PAGE SYSTEM HANDLERS	21.40.1 N	May 78
LPQ LPQ01 HANDLER FAILS TO RECOGNIZE TABS	21.49.1 M	Mar 78
OS/8 EXTENSION KIT V3C		
<u>BASIC</u> BRTS BASIC FAILS TO OUTPUT 132 CHARACTERS TO LA-36	30.11.1 O	Mar 78

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
OS/8 EXTENSION KIT V3D		
BASIC		
BASIC		
GOOD RANDOM NUMBERS FOR OS/8 BASIC	31.1.1 N	May 78
BRTS		
IOTABLE OVERFLOW	31.11.1 M	Mar 78
BASIC PNT FUNCTION	31.11.2 M	Jul 78
LINE SIZE ON OUTPUT OF BASIC	31.11.3 O	Jul 78
TECO		
CHANGING THE DEFAULT EU VALUE	31.20.1 O	Mar 78
CHANGING THE DEFAULT EH VALUE	31.20.2 O	Mar 78
REMOVING YANK PROTECTION	31.20.3 O	Mar 78
SCOPE SUPPORT FOR VT05 USERS	31.20.4 O	Mar 78
PROBLEM WITH AY COMMAND	31.20.5 M	Mar 78
CONDITIONALS INSIDE ITERATIONS	31.20.6 M	Mar 78
ECHOING OF WARNING BELLS	31.20.7 M	Mar 78
CTRL/U SOMETIMES FAILS AFTER *	31.20.8 M	May 78
MULTIPLYING BY 0 IN TECO	31.20.10 M	May 78
Q-REGISTERS DON'T WORK IN 8K	31.20.11 M	MAY 78
CAN'T SKIP OVER A "W"	31.20.12 M	May 78
UNSPECIFIED ITERATIONS AFTER INSERTS	31.20.13 M	Jul 78
FUTIL		
FUTIL PATCH	31.21.1 M	May 78
OS/8 V3D MACREL/LINKER V1A		
USING FUTIL TO DEBUG OVERLAYS	40.0.1 N	May 78
LINK		
PATCH V1D TO LINK	40.2.1 M	May 78
PATCH V1E TO LINK	40.2.2 M	May 78
LINK CORRECTIONS	40.2.3 M	May 78
MACREL		
PATCH V1D TO MACREL	40.5.1 M	May 78
PATCH V1E TO MACREL	40.5.2 M	May 78
OVRDRV		
PATCH V1B TO OVRDRV.MA	40.6.1 M	May 78
OS/8 FORTRAN IV V3C		
F4		
FORTRAN COMPILER FAILS TO RECOGNIZE " AS AN ERROR	50.3.1 M	Mar 78
OS/8 FORTRAN IV V3D		
F4		
FORTRAN COMPILER FAILS TO RECOGNIZE " AS AN ERROR	51.3.1 M	Jul 78
FORTRAN COMPILER NOT RECOGNIZING SYNTAX ERROR	51.3.2 M	Jul 78
OS/78 V1		
HANDLERS		
LPQ		
LPQ01 HANDLER FAILS TO RECOGNIZE TABS	70.49.1 M	May 78



Software Product Description

PRODUCT NAME: COS-310, Version 3, Commercial Operating System-310

SPD 5.98.5

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 commercial applications. The software provides a minicomputer system configuration with the DIBOL Business Oriented Language, system generation and maintenance programs, SORT/MERGE utility, and system monitor with device handlers.

These programs constitute a self-contained disk resident operating system. System features include: direct data access capability, CRT cursor control, User File Directories, and a large library of error messages.

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

The monitor contains all the standard I/O device handlers. The COS-310 monitor device options include line printers, CRT console terminals, and floppy disk storage devices.

Editor—The system's editor consists of a basic source language editor as part of the monitor. It is an interactive editor with line numbers followed by the information to be inserted, deleted, or changed. The COS-310 editor provides automatic sequencing and resequencing of line numbers by simple commands. Input for the editor can originate from the console keyboard. Output from the editor can be a listing of a file on the console display or the line printer.

In the program development stage, the user can save and quickly recall programs from the system device. In operational mode, the user can batch commands to the monitor into a file to be executed as a job stream.

DIBOL Language—Digital Equipment Corporation's Business Oriented Language (DIBOL) is translated by the system's compiler "COMP" into DS300 interpretive code. Translation is from English-like source coding statements into object program routines.

The language permits data manipulation, arithmetic expressions, subscripting, arrays, record overlay, memory clear, file initialization, branching and tracing, program chaining, and printing overlapped with processing.

The language syntax is divided into two sections: a data definition section and a procedure section. The procedure section of the language consists of procedural verbs, each with comprehensive arguments. Some of the verbs are: PROC, XMIT, READ, WRITE, GOTO, IF, CALL, RETURN, FORMS, STOP, CHAIN, ACCEPT, DISPLAY, TRAP, and INCR.

SORT—COS-310 SORT is a multi-phase 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 has merge file capability. For a multi-volume sort, each volume must be sorted and then merged. Both SORT and MERGE are parameterized by a "Sort Control Program."

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.

SYSGEN (SYSTEM GENERation)—SYSGEN is a conversational utility program that allows the user to configure or modify the current system using simple English statements. It provides the following optional features: specifies disk and line printer I/O handlers in the system, takes new logical unit assignments from the operator's terminal, and prints a table of current unit assignments. The user can specify the number of columns used on the line printer, either 80 or 132 columns. SYSGEN can transfer the system to another device for installation startup.

File Conversion Program—FILEX is a utility program that converts COS-300/310 formatted files stored on DECtape or RK05 disk into OS/8 formatted files and vice versa. In addition, FILEX can convert a COS-310 file stored on a flexible diskette or RK05 onto a flexible diskette in a format directly readable by the IBM 3740 series data entry terminal and the IBM Sys-

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tem/32. 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.

Device Independence—The assignment of logical units for data files to physical mass storage devices provides greater use of the storage area and device independence available at run time.

MINIMUM HARDWARE REQUIRED:

Any DS310 or DS308 configuration.

OPTIONAL HARDWARE:

- Up to a system total of two dual drive floppy disk systems
- One LA35, LA180, LQP, or LE8-V printer (LE8-V on DS310 configurations only)
- Additional memory up to a system total of 64K bytes on DS310 configurations only
- RK8-E with up to four (4) RK05 disk drives on DS310 configuration only

PREREQUISITE SOFTWARE:

None

OPTIONAL SOFTWARE:

COS-310/2780 Communications Software (on DS310 configurations only).

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:

A — Software Support will be provided as stated in the Software Support Categories Addendum to this SPD.

UPDATE POLICY:

Software Updates, if any, released by DIGITAL during the one (1) year period following installation, will be provided to the customer for a media charge (includes no installation). After the first year, updates, if any, will be made available according to then prevailing DIGITAL policies.

ORDERING INFORMATION:

All binary licensed software, including any subsequent updates, is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions of Sale, which provide in part that the software and any part thereof may be used on only the single CPU on which the software is first installed, and may be copied, in whole or in part (with the proper inclusion of the DIGITAL copyright notice and any DIGITAL proprietary notices on the software) only for use on such CPU. All source licensed software is furnished only under the terms and conditions of a separate Software Program Sources Agreement between Purchaser and DIGITAL.

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

When a software license is ordered without support services, the category of support applicable to such software is Category C.

A single-use license only option is a license to copy the software previously obtained under license, and use such software in accordance with DIGITAL's Standard Terms and Conditions of Sale. The category of support applicable to such copied software is Category C.

The following key (Y) represents the distribution media for the product and must be specified at the end of the order number, e.g., QF310-HY = binaries on floppy disk.

Y = Floppy Diskette

Standard Options

This software is available only with a D308A or DS310 system 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 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.

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

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 otherwise.

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

ADDITIONAL SERVICES:

None

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**ADDENDUM
SOFTWARE SUPPORT CATEGORIES**

Each software product (hereinafter 'SOFTWARE') with a designated Support Category A or B in the applicable Software Product Description (SPD) existing at the time of order will be the current release at the time of delivery and will conform to the SPD. DIGITAL's sole obligation shall be to correct defects (nonconformance of the SOFTWARE to the SPD) as described below. Any SOFTWARE with a designated Support Category C will be furnished on an 'as is' basis.

For SOFTWARE with a designated Support Category A or B, DIGITAL will provide the services set forth below without additional charge.

CATEGORY A

1. Upon notification by customer to the nearest DIGITAL office that the computer system, including all required prerequisite hardware and software, is ready for the installation of the SOFTWARE, DIGITAL will install such SOFTWARE in any location within the contiguous forty-eight (48) United States, the District of Columbia, or a country in which DIGITAL or a subsidiary of DIGITAL has a software service facility. The notification must be received by DIGITAL and the system must be ready for installation within thirty (30) days after the delivery of the SOFTWARE to customer or DIGITAL will have no obligation to install. Installation will consist of: (1) verification that all components of the SOFTWARE have been received by customer, (2) loading the SOFTWARE, and (3) executing a DIGITAL sample procedure.
2. During the ninety (90) day period after installation, if the customer encounters a problem with the current unaltered release of the SOFTWARE which DIGITAL determines to be a defect in the SOFTWARE, DIGITAL will provide the following remedial service (on site where necessary): (1) if the SOFTWARE is inoperable, apply a temporary correction (TC) or make a reasonable attempt to develop an emergency by-pass, and (2) assist the customer to prepare a Software Performance Report (SPR) and submit it to DIGITAL.
3. During the one (1) year period following installation, if the customer encounters a problem with the SOFTWARE which his diagnosis indicates is caused by a SOFTWARE defect, the customer may submit an SPR to DIGITAL. DIGITAL will respond to problems reported in SPRs which are caused by defects in the current unaltered release of the SOFTWARE via the Maintenance Periodical for the SOFTWARE, which reports SPRs received, code corrections, temporary corrections, generally useful emergency by-passes and/or notice of the availability of corrected code. Software Updates, if any, released by DIGITAL during the one (1) year period, will be provided to the customer on DIGITAL's standard distribution media as specified in the applicable SPD. The customer will be charged only for the media on which such updates are provided, unless otherwise stated in the applicable SPD, at DIGITAL's then current media prices.

CATEGORY B

During the one (1) year period following delivery, the services provided to the customer will be the same as set forth in 3 above.

CATEGORY C

SOFTWARE is provided on an 'as is' basis. Any software services, if available, will be provided at the then current charges.

DIGITAL shall have the right to make additional charges for any additional effort required to provide services resulting from customer use of other than current unaltered release of the SOFTWARE operated in accordance with the SPD.



DECUS SPECIAL INTEREST GROUPS

A DECUS Special Interest Group (SIG) is an activity whereby members of the DIGITAL Equipment Computer Users Society who share common interests in a particular field, join together to promote the interchange of information. Specialization may be in application areas such as education or industry, specific software systems such as OS/8 and RSX-11, or a specific main-frame such as the DECsystem-10/20.

SIG members derive numerous benefits from communicating with others who share specialized interests and who may wish to share their experiences. SIG s sponsor business meetings, tutorials, and workshops at the various chapter symposia which fulfill the two-fold purpose of fostering communication among users and between users and DIGITAL. Channeled communication provides DIGITAL and the users with insight into the direction of future developments. SIG s provide direct feedback to DIGITAL's in-house activities and have thereby made substantial contributions to OS/8, RSX-11, RSTS and TOPS-10.

User submitted articles, minutes of local meetings, and letters comprise the major portion of the individual SIG newsletters. Suggestions, hints, bug fixes, program plans, or questions of a non-commercial nature are suitable material for SIG newsletters.

SIG members are encouraged to make presentations at the SIG sessions held during DECUS Symposia.

The semi-annual U.S. Symposia sessions are organized by special interest areas. Submissions received from the user community are reviewed by symposia committee members from the special interest groups for appropriate placement on the agenda.

Special Interest Group participation in the review of programs submitted to the DECUS Program Library provides an opportunity to improve the quality and utility of programs available to you and to fellow users.

DIGITAL standards are issued to DECUS members for review and on the theory and philosophy of the standards. DECUS is a voting member of ANSI X3. Users are encouraged to register their areas of expertise with DECUS and assist with reviewing standards. SIG s often play a role in this process.

Below is a list of U.S. based Special Interest Groups within DECUS.

If you would like information regarding membership in any of the Special Interest Groups, contact DECUS U.S. Chapter, 129 Parker Street, PK3-1/E55, Maynard, Massachusetts 01754 or one of the other DECUS Chapter offices in Kanata, Sidney or Geneva.

NETSIG—Networks Special Interest Group
RSTS SIG—RSTS and RSTS/E Special Interest Group
SIGIG—Special Interest Group on Interactive Graphics
ESIG—Engineering Applications Special Interest Group
SIG-18—18-Bit Users Special Interest Group
12-Bit SIG—12-Bit User Special Interest Group
RSX-11/IAS SIG
RT-11 SIG
EDUSIG—Educational Users Special Interest Group
DEBUG—Digital Equipment Business Users Group
MUSIG—Mumps Special Interest Group
PASCAL SIG
DBMS SIG
TECO SIG
LSI-11 SIG
FOCAL SIG
STANDARDS SIG



DIGITAL EQUIPMENT COMPUTER USERS SOCIETY

12-Bit Special Interest Group

The 12-Bit Special Interest Group is an informal group of users interested in 12-Bit software and related subjects. The principle activities of the group are a newsletter and panel-workshop sessions at the DECUS Symposium. The only requirement for membership in the 12-Bit SIG is an interest in its goals and activities.

The goals of the 12-Bit SIG are:

- 1. Provide an informal means for quick dissemination of information and ideas about software developments and related topics.
2. Encourage users to write and make available useful programs.
3. Act as a forum for the development and communication of needs and ideas for future developments.
4. Serve as a communication channel between DEC and the user community.
5. Coordinate Special Interest Group sessions at the DECUS Symposia with the DECUS meetings committee and assist the DECUS librarian with 12-Bit submissions.

User generated software that the 12-Bit SIG has been involved with includes:

- 1. Extended and improved versions of the monitor systems.
2. Extensions to system programs such as the compilers, assemblers and loaders.
3. Many special device handlers.
4. New compilers and other language processors.
5. Routines to support special requirements such as a laboratory environment.
6. Adaption of many existing programs to the 12-Bit environment.

Correspondence or submissions to the newsletter should be sent to:

12-Bit Special Interest Group
c/o DECUS Office
129 Parker Street, PK3/E55
Maynard, MA 01754

If you wish to become a member of the 12-Bit SIG, please fill out the form below.

Are you a DECUS Member? _____ DECUS Membership Number _____

NAME _____

AFFILIATION _____

CITY _____ STATE _____ ZIP CODE _____

TELEPHONE NUMBER _____

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).

AREAS COVERED	SPR CENTER	AREAS COVERED	SPR CENTER
United States, remainder of Far East, Middle East, Africa Latin America	Administrative Services Group, SWS P.O.Box F Maynard MA 01754	Italy	Digital Equipment SPA Viale Fulvio Testi 117 20092 Cinisillo Balsamo Italy
Canada	Digital Equipment Canada P.O.Box 11500 Kanata Canada K2H 8K8 Ontario	Japan	Digital Equipment Corp., INTL 3rd Floor Kowa Building 8-7 Sanban Cho Chiyoda Ku Tokyo 102 Japan
United Kingdom	Digital Equipment Corp., LTD Fountain House Butts Centre RG1 7QN Reading England	New Zealand	Digital Equipment Corp., LTD Challenge House 3 Wolfe Street P.O.Box 2471 Auckland New Zealand 10010
Australia-Melbourne	Digital Equipment Aust. Pty., LTD 60 Park Street South Melbourne Victoria Australia 3205	Belgium, Holland	Digital Equipment BV Kaap Horndreef 38 3563 AV Utrecht Netherlands
Australia-Sydney	Digital Equipment Aust. Pty., LTD 123 125 Willoughby Road P.O.Box 491 Crows Nest NSW Australia 2065	Denmark, Finland, Norway, Sweden	Digital Equipment Corp., AB Englundavaegen 73 TR 171 41 Solna Sweden
Brazil	Digital Equipment Comercio Ind Rua Batatais 429 Esq AL Campin 01423 Jardim Paulista Sao Paulo 0100 Brazil	Switzerland, Spain, Greece, Romania, Portugal, Bulgaria Yugoslavia	Digital Equipment Corp., SA 20 Quai Ernest Ansermet Boite Postale 23 CH 1211 Geneva Switzerland
Caribbean	De Latin America P.O.Box 11038 Fernando Juncos Sta. Santurce PR 00910	Austria, Poland Hungary, Rumania East Germany, West Germany, Russia, Czechoslovakia	Digital Equipment Corp., GMBH Wallsteinplatz 2 8000 Munchen 40 Germany 8000
France	Digital Equipment Corp., LTD. Centre Silic Cidex L225 18 Rue Saarinen 94533 Rungis France	Israel	DECSYS Computers, LTD 7 Habakuk Street Il-Tel Aviv 63505 Israel

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, Nuremberg, 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 •