RT-11

September 1980

AD-C740C-B6

THE
SOFTWARE
DISPATCH

digital

RT-11 SOFTWARE DISPATCH

Published by
Corporate Administrative Systems Group, Software Services
Digital Equipment Corporation
P.O. Box F
Maynard, MA 01754

The RT-11 Software Dispatch complements the RT-11 Software Dispatch Review. 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 Dispatch Review).

PRODUCTS SUPPORTED in the RT-11 SOFTWARE DISPATCH

APL-11 V1	**FORTRAN/RT-11 Extensions V2.1**	**PLOT 11/RT-11 V1.1**
BASIC-11/RT-11 V2	**FORTRAN IV/RT-11 V2, V2.1**	**RT-11 V3B, RT-11 V4**
BASIC/RT Extensions V1	**GAMMA-11 F/B V2C, V3**	**RT-11 (CTS-300) LSI-11**
CTS-300 V5	**Lab Applications-11 LIBRARY V3**	**2780 V2**
DECnet/RT V1, V1.1	**LSP-11 V1**	**RT-11/2780**
FOCAL/RT-11 V1B	**MSB11 V1**	**(CTS-300/2780) V2**
FORTRAN Graphics	**MSB/FORTRAN IV V1**	**SSP-11/RT-11 V1.1**
Package V1.1	**MU BASIC-11/RT-11 V2**	

DISTRIBUTION

The RT-11 Software Dispatch 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.**

Software binary and sources are provided under licenses only. The standard Terms and Conditions, OEM Agreement, and/or Quantity Discount Agreement contain the licenses for all binaries other than DECsystem-10.

Eleanor F. Hunter, Editor
Ann Owens, Associate Editor

TRADEMARKS of DIGITAL EQUIPMENT CORPORATION
Maynard, Massachusetts

DEC	DECwriter	PDT
DECUS	DIBOL	RSTS
DIGITAL LOGO	EDUsystem	RSX
DECnet	IAS	UNIBUS
DECsystem-10	MASSBUS	VAX
DECSYSTEM-20	PDP	VMS
		VT

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont'd.)

SPR USER LETTER

Submitted by Sheila Hatchell, 8/11 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 DIGITAL SUPPORTED 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. **PLEASE INCLUDE YOUR SOFTWARE SERVICE CUSTOMER NUMBER IN THE ADDRESS BOX.**

2. Limit only one problem per SPR form. Several problems on an SPR can 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 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 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.

NOTICE!

The following section contains articles for RT-11 V4.0

TYPING ^U WHILE IN A ^X SEQUENCE UNDER A SYSTEM JOB (LCP)

Under monitors SYSGENed for system job support, without multi-terminal support, typing a CTRL/U while in a CTRL/X sequence will cause the system to halt. In the CTRL/X processor, a register is improperly setup prior to calling the routine to reset the CTRL/X database in response to a CTRL/U.

1. The following is a required patch to the RT-11 monitor source file RMONFB.MAC. You must apply it to the uncommented source supplied with the Version 4 distribution kit. You must apply it to the updated copy previously modified in Seq 1.1.3 M.

    To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called RMONFB.004 on your system volume. Enter the text below into the file. The hyphen must be the first character in the file. The special symbol "<tab>" indicates the TAB character. All other blank spaces in the text should be entered in the file as single SPACE characters.

    ```
    -/ELRMFB<tab>== 5/,.,/;004/
    ELRMFB<tab>== 6
    -2415,2415,/;004/
    <tab>JMP<tab>TTOPT4
    -2470,,/;004/
    <tab>DEC<tab>R3
    /
    ```

2. The following is a required patch to the RT-11 monitor source file BSTRAP.MAC. You must apply it to the uncommented source file supplied with the Version 4 distribution kit. You must apply it to the updated copy previously modified in Seq 1.1.5 M.

    To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called BSTRAP.006 on your system volume. Enter the text below into the file. The hyphen must be the first character in the file. The special symbol "<tab>" indicates the TAB character. All other blank spaces in the text should be entered in the file as single SPACE characters.

    ```
    -/ELBSTR<tab>== 11/,.,/;006/
    ELBSTR<tab>== 12
    -27,27,/;006/
    PATLFX<tab>= 2
    /
    ```

3. Apply the patches to the source files as follows:

    ```
    .R SLP
    *RMONFB.MAC=RMONFB.MAC,RMONFB.004
    *BSTRAP.MAC=BSTRAP.MAC,BSTRAP.006
    ?SLP-W-Audit trail overwrites line
    PATLAL      =2
    *^C                                    (CTRL/C to exit)
    ```

4. Repeat the assembly and link of your generated monitor, using the command
    file MONBLD.COM that was produced during system generation. Alternately,
    you can manually repeat the relevant assembly and link steps. Be sure to
    use the correct version of SYCND.MAC and to relink with the correct OBJ
    files.

    The resulting version of the FB generated monitor will be RT-11FB (S)
    V04.00D. The resulting version of the XM generated monitor will be RT-11XM
    (S) V04.00F.

5. Preserve the patched source files. If there are any corrections to these
    files in the future, you will need to apply them to the patched source file.

RT-11 V4.0
Monitor Patches
RT-11XM (S) V04.00E
RT-11FB (S) V04.00D
RT11FB V04.00B

Seq 1.1.7 M

1 of 3

ABNORMAL TERMINATION OF FG JOB WHICH IS USING CSI (LCP)

If a foreground job is using the CSI and passing the file specification string from an in-memory buffer rather than getting it from the console terminal and the background job is using the CSI with non-terminating .GTLIN (LINK and LIBR with /PROMPT option), the foreground job will terminate after processing the CSI input string.

1. The following is a required patch to the RT-11FB V04.00B (distributed) foreground background monitor. It must be installed in all updated copies of RT11FB.SYS (previously modified in Seq 1.1.5 M).

   NOTE: Since patching the distribution medium is not recommended, the patch must be installed whenever you copy the handler source from the distribution medium.

   This patch is installed using SIPP, the Save Image Patching Program. First, ensure that a copy of the monitor file to be patched is on a mounted volume. Using the editor, create an indirect command file called RT11FB.003 on your system volume. Replace 'DK:' in the patch below with the name of the device that contains the monitor file.

   ```
   R SIPP
   DK:RT11FB.SYS/A/C
   0
   42212
   116703
   173104
   1403
   52737
   10
   44
   5711
   1402
   167
   374
   ^Y                                          (up-arrow/Y)
   133217
   ^C                                          (up-arrow/C)
   ```

2. To apply the patch to RT11FB.SYS type:

   @RT11FB.003

   The resulting version of the monitor will be RT-11FB V04.00C.

RT-11 Software Dispatch, September 1980

RT-11 V4.0   Seq 1.1.7 M
Monitor Patches
RT-11XM (S) V04.00E   2 of 3
RT-11FB (S) V04.00D
RT11FB V04.00B

3. If you are using the foreground background monitor after the appropriate
    patch has been made, copy the bootstrap and re-boot your system as follows:

              .COPY/BOOT RT11FB.SYS SY:
              .BOOT SY:

4. The following is a required patch to the RT-11 monitor source file
    RMONFB.MAC. You must apply it to the uncommented source supplied with the
    Version 4 distribution kit. It must be installed in all updated copies of
    RMONFB.MAC (previously modified in Seq 1.1.6 M).

    To install the patch, first create a patch file for input to the SLP
    utility. Using an editor, create a file called RMONFB.005 on your system
    volume. Enter the text below into the file. The hyphen must be the first
    character in the file. The special symbol "<tab>" indicates the TAB
    character. All other blank spaces in the text should be entered in the file
    as single SPACE characters.

    -/ELRMFB<tab>== 6/,.,/;005/
    ELRMFB<tab>== 7
    -1509,1509,/;005/
    <tab>MOVB<tab>JOBNUM,R3
    -1511,1512,/;005/
    <tab>BIS<tab>#GTLIN$,@#JSW
    3$:<tab>TST<tab>@R1
    -1514,1514,/;005/
    <tab>JMP<tab>EMTUSR
    /

5. The following is a required patch to the RT-11 monitor source file
    BSTRAP.MAC. You must apply it to the uncommented source file supplied with
    the Version 4 distribution kit. It must be installed in all updated copies
    of BSTRAP.MAC (previously modified in Seq 1.1.6 M).

    To install the patch, first create a patch file for input to the SLP
    utility. Using an editor, create a file called BSTRAP.007 on your system
    volume. Enter the text below into the file. The hyphen must be the first
    character in the file. The special symbol "<tab>" indicates the TAB
    character. All other blank spaces in the text should be entered in the file
    as single SPACE characters.

    -/ELBSTR<tab>== 12/,.,/;007/
    ELBSTR<tab>== 13
    -27,27,/;007/
    PATLFX<tab>= 3
    /

6. Apply the patches to the source files as follows:

    .R SLP
    *RMONFB.MAC=RMONFB.MAC,RMONFB.005
    *BSTRAP.MAC=BSTRAP.MAC,BSTRAP.007
    *^C   (CTRL/C to exit)

RT-11 V4.0
Monitor Patches
RT-11XM (S) V04.00E
RT-11FB (S) V04.00D
RT11FB V04.00B

Seq 1.1.7 M

3 of 3

7. Repeat the assembly and link of your generated monitor, using the command file MONBLD.COM that was produced during system generation. Alternately, you can manually repeat the relevant assembly and link steps. Be sure to use the correct version of SYCND.MAC and to relink with the correct OBJ files.

    The resulting version of the FB generated monitor will be RT-11FB (S) V04.00E. The resulting version of the XM generated monitor will be RT-11XM (S) V04.00F.

8. Preserve the patched source files. If there are any corrections to these files in the future, you will need to apply them to the patched source file.

RT-11 V4.0
Device Handler Sources
LP.MAC

Seq 6.12.1 M

1 of 2
Supersedes article dated Aug. 80

LP SET NOHANG MAY CRASH SYSTEM (LCP)

** Replacement Article for patch Seq 6.12.1 M published in August 1980. The following article is correct, and should be installed instead of the article published in August 1980.

If the LP handler is set NOHANG and the line printer is taken off-line while in operation, the system may crash under certain conditions.

1. The following is a required patch to the RT-11 device handler source file LP.MAC. You must apply it to the uncommented sources supplied with the Version 4 distribution kit and then rebuild your handler. You must apply this patch if you use the LP handler, whether or not you have performed a system generation.

    NOTE: Since patching the distribution medium is not recommended, the patch must be installed whenever you copy the handler source from the distribution medium.

2. To install the patch, you must first create a patch file for input to the SLP utility. Using an editor, create a file called LP.001 on your system volume. Enter the text below into the file. The hyphen must be the first character in the file. The special symbol '<tab>' indicates the TAB character. All other blank space in the text should be entered in the file as single SPACE characters.

    ```
    -/
    -22,,/;001/
    ELLP<tab>== 1
    -112,,/;001/
    .SBTTL<tab>DRIVER EDIT LEVEL
    .ASECT
    .=110
    .WORD<tab>ELLP
    -124,,/;001/
    <tab>MOV<tab>LPCQE,R4
    /
    ```

3. Apply the patch to the source file as follows:

    ```
    .R SLP
    *LP.MAC=LP.MAC,LP.001
    *^C                            (CTRL/C to exit)
    ```

4. Now issue the following commands. In these commands, the notation xxx
    represents the SYCND file type, either DIS for distributed, or MAC for
    system generated.

    .MACRO SYCND.xxx+LP.MAC/OBJ
    .LINK/EXECUTE:LP.SYS LP

To create the handler for an XM monitor issue the following commands.   Use
the SYCND file you created with SYSGEN.

    .MACRO XM+SYCND+LP/OBJ
    .LINK/EXECUTE:LPX.SYS LP

    NOTE: You must now either reboot or REMOVE and INSTALL your LP handler.

5. Preserve the patched handler source file.   If there are any future
    corrections to LP.MAC, you will be required to apply them to the patched
    source file.

LS SET NOHANG MAY CRASH SYSTEM (LCP)

**Replacement Article for patch Seq 6.13.1 M published in August 1980. The following article is correct, and should be installed instead of the article published in August 1980.

If the LS handler is set NOHANG and the printer is taken off-line while in operation, the system may crash under certain conditions.

1. The following is a required patch to the RT-11 device handler source file LS.MAC. You must apply it to the uncommented sources supplied with the Version 4 distribution kit and then rebuild your handler. You must apply this patch if you use the LS handler, whether or not you have performed a system generation.

    NOTE: Since patching the distribution medium is not recommended, the patch must be installed whenever you copy the handler source from the distribution medium.

2. To install the patch, you must first create a patch file for input to the SLP utility. Using an editor, create a file called LS.001 on your system volume. Enter the text below into the file. The hyphen must be the first character in the file. The special symbol '<tab>' indicates the TAB character. All other blank space in the text should be entered in the file as single SPACE characters.

    ```
    -/
    -22,,/;001/
    ELLS<tab>== 1
    -116,,/;001/
    .SBTTL<tab>DRIVER EDIT LEVEL
    .ASECT
    .=110
    <tab>.WORD<tab>ELLS
     -154,,/;001/
    <tab>MOV<tab>LSCQE,R4
    /
    ```

3. Apply the patch to the source file as follows:

    ```
    .R SLP
    *LS.MAC=LS.MAC,LS.001
    *^C                              (CTRL/C to exit)
    ```

4. Now issue the following commands. In these commands, the notation xxx represents the SYCND file type, either DIS for distributed, or MAC for system generated.

    ```
    .MACRO SYCND.xxx+LS.MAC/OBJ
    .LINK/EXECUTE:LS.SYS LS
    ```

    To create the handler for an XM monitor issue the following commands. Use the SYCND file you created with SYSGEN.

```
.MACRO XM+SYCND+LS/OBJ
.LINK/EXECUTE:LSX.SYS LS
```

NOTE: You must now either reboot or REMOVE and INSTALL you LS handler.

5. Preserve the patched handler source file. If there are any future
    corrections to LS.MAC, you will be required to apply them to the patched
    source file.

INCORRECT READ ERROR RECOVERY IN MT HANDLER (SD)

If a CRC READ error occurs in the MT mag-tape handler, the recovery algorithm is prematurely aborted due to a corrupted register. The following patch will correct this problem.

1. The following is a required patch to the RT-11 device handler source file TM.MAC. You must apply it to the updated uncommented sources (previously modified in Seq. 6.20.1) and then rebuild your handler. You must apply this patch if you use the TM handler, whether or not you have performed a system generation.

    NOTE: Since patching the distribution medium is not recommended, the patch must be installed whenever you copy the handler source from the distribution medium.

2. To install the patch, you must first create a patch file for input to the SLP utility. Using an editor, create a file called TM.002 on your system volume. Enter the text below into the file. The hyphen must be the first character in the file. The special symbol '<tab>' indicates the TAB character. All other blank spaces in the text should be entered in the file as single SPACE character.

    ```
    -/ELTM<tab>== 1/,.,/;002/
    ELTM<tab>== 2
    .SBTTL<tab>DRIVER EDIT LEVEL
    .ASECT
    .=110
    <tab>.WORD<tab>ELTM
    .PSECT
    -557,557,/;002/
    PTCH:<tab>MOV<tab>@#MTS,R4
    -678,678,/;002/
    <tab>BEQ<tab>FOO
    -689,,/;002/
    FOO:<tab>JMP<tab>PTCH
    /
    ```


3. Apply the patch to the source file as follows:

    ```
    .R SLP
    *TM.MAC=TM.MAC,TM.002
    *^C                                    (CTRL/C to exit)
    ```

4. Now issue the following commands to create the file-structured MT handler. In these commands, the notation xxx represents the SYCND file type, either DIS for distributed, or MAC for system generated.

    ```
    .MACRO SYCND.xxx+TM/OBJ
    .MACRO SYCND.xxx+FSM/OBJ
    .LINK/EXECUTE:MT.SYS TM,FSM
    ```

       To create the file-structured MT handler for an XM monitor issue the
       following commands. Use the SYCND file you created with SYSGEN.

       .MACRO XM+SYCND+TM/OBJ:TMX
       .MACRO XM+SYCND+FSM/OBJ:FSMX
       .LINK/EXECUTE:MTX.SYS TMX,FSMX

       Issue the following commands to create the non file-structured MT handler.
       In these commands, the notation xxx represents the SYCND file type, either
       HD for distributed, or MAC for system generated.

       .MACRO SYCND.xxx+TM/OBJ
       .LINK/EXECUTE:MTHD.SYS TM

       To create the non file-structured MT handler for an XM monitor issue the
       following commands. Use the SYCND file you created with SYSGEN.

       .MACRO XM+SYCND+TM/OBJ:TMX
       .LINK/EXECUTE:MTHDX.SYS TMX

       NOTE: You must now either reboot or REMOVE and INSTALL your MT handler.

5.   Preserve the patched handler source file. If there are any future
       corrections to TM.MAC, you will be required to apply them to the patched
       source file.

ERRORS IN PIP (JM)

The following are errors in PIP V07.00:

. The system may crash if the disk copy of PIP is replaced while PIP is running.

. The PRINT/DELETE command produces erroneous error messages if QUEUE is not running.

1. The following is a required patch to the PIP.SAV utility program. It must be installed in all copies of the utility.

   NOTE: Since patching the distribution medium is not recommended, the patch must be installed every time you copy the program from the distribution medium.

2. This patch is installed using SIPP, the Save Image Patching Program. First, ensure that a copy of the file PIP.SAV is on a mounted volume. Using the editor, create an indirect command file called PIP.001 on your system volume. Replace 'DK:' in the patch below with the name of the device that contains the program file.

```
RUN SIPP
DK:PIP.SAV/A/C
0
3632
101
^Z                                      (up-arrow/Z)
5046
4767
336
12767
3702
174224
167
36
75250
62570
0
73376
^Z                                      (up-arrow/Z)
5410
12700
1302
5767
174466
1401
4736
13700
54
5060
256
12700
```

```
1417
104374
12700
5064
104037
103014
12700
1422
112710
177760
112760
306
1
5060
10
4767
176332
104350
167
177324
^Z                                      (up-arrow/Z)
6674
4767
3304
^Z                                      (up-arrow/Z)
10704
20527
^Z                                      (up-arrow/Z)
11704
10360
^Z                                      (up-arrow/Z)
12076
1405
^Z                                      (up-arrow/Z)
12204
12700
17
12701
5064
4767
177476
12701
7
207
^Z                                      (up-arrow/Z)
17724
103004
^Y                                      (up-arrow/Y)
100001
^C                                      (up-arrow/C)
```

3. To apply the patch to PIP.SAV type:

        @PIP.001

The resulting version of the utility will be PIP V07.00A.

4. Save the new version of the utility on a backup volume.

COPY/PREDELETE COMMAND (JM)

For RT-11 V4.0 the use of the COPY/PREDELETE command requires that the input and output filespecs be different. Input files will be lost when issuing a COPY/PREDELETE command where the input and output filespecs are the same. For example:

        COPY/PREDELETE FILE.MAC FILE.MAC

deletes the file FILE.MAC on DK: and a file not found error message is displayed on the console.

FILEX CREATES ZERO FILLED INTERCHANGE RECORDS (DF)

When FILEX creates records in interchange format, it zero fills each record. For compatibility with IBM equipment, these records should be filled with spaces (Hex 40) from the end of the RT-11 record to the last position of the output record.

1. The following is a required patch to the FILEX.SAV utility program. It must be installed in all copies of the utility.

   NOTE: Since patching the distribution medium is not recommended, the patch must be installed every time you copy the program from the distribution medium.

2. This patch is installed using SIPP, the Save Image Patching Program. First, ensure that a copy of the file FILEX.SAV is on a mounted volume. Using an editor, create an indirect command file called FILEX.002 on your system volume. Replace 'DK:' in the patch below with the name of the device that contains the program file.


```
RUN SIPP
DK:FILEX.SAV/A/C
0
2674
104
^Z                              (up-arrow/Z)
15102
11620
^Z                              (up-arrow/Z)
20160
112700
40
11667
162160
^Y                              (up-arrow/Y)
100532
^C                              (up-arrow/C)
```

3. To apply the patch to FILEX.SAV type:

       @FILEX.002

   The resulting version of the utility will be FILEX V04.00D.

4. Save the new version of the utility on a backup volume.

DOCUMENTATION CORRECTIONS (JP)

The corrections presented in this article pertain to the RT-11 Programmer's Reference Manual.

Change pages incorporating the corrections will be released at a later date.

RT-11 PROGRAMMER'S REFERENCE MANUAL

On page 2-52, in the description of the .GTLIN programmed request, replace the first sentence of the second paragraph with the following:

"When bit 3 of the Job Status word is set, the .GTLIN request collects subsequent lines from the terminal when your program encounters a CTRL/C in the indirect command file. Note that if you then clear bit 3 of the Job Status word, the next line collected by the .GTLIN request is the CTRL/C in the indirect command file; this causes the program to abort. Further input will come from the indirect command file, if there are any more lines in it."

RT-11 Software Dispatch, September 1980

ANNOUNCING PDP-11 FORTRAN IV/RT-11 V2.5 (RA)

PDP-11 FORTRAN IV/RT-11 V2.5 is now available for RT-11 V4 users. Version 2.5
is a maintenance release of this product. It does not include any new language
features. It does, however, include fixes to a number of known problems and
brings the product to the same revision level across all host operating systems.

Post-warranty Software Product Services are available for FORTRAN IV. Those
customers who presently have SPS coverage for this product will automatically
receive Version 2.5.

DKED SELECT/CUT AND KEYPAD ERRORS (LG)

1. When editing, if the <SELECT> key is used after the last
    character on a line and the <CUT> function is then used at
    any point between the beginning and the end of the following
    or the previous line, characters other than those selected
    are cut.

    Patch 2 causes the chosen characters to be cut under the
    above conditions.

2. If the QUIT command is used and DKED terminates with the
    message "?DKED-F-Illegal command sequence. Please start
    over", the keypad is left in keypad mode.

    Patch 2 causes the terminal to exit from keypad mode after
    the QUIT command is used and the above message appears. The
    version number of DKED changes to V06-00B.

Using the editor, create the following files. Name them as
indicated in the comment line that begins each file. Then, to
install the patch, follow the procedure shown following the
files.

Corrections are made to the source modules using the SLP (Source
Language Patch) program. Please note that the last record in
both P004B.PAT and P004C.PAT is "/". You must terminate each
line in both files with a carriage return, including the last
line "/".

```
;P004A.MAC

        .TITLE   CUT2
        .PSECT   CUT2
        .GLOBL   CUT2

        TEMP     =        0
        TAB      = TEMP   +^D32
        TABLE    = TAB    +^D14
P004:
        .=.+102
        JSR      PC,P004A
        .=.+154
        JSR      PC,P004B
        NOP

        .PSECT   $P004

P004A:  BIC      #177400,R3
        MOV      R3,TEMP+6(R1)
        RTS      PC

P004B:  MOVB     #'6,@14(SP)
        MOVB     TABLE+104(R1),R2
        MOV      TEMP+6(R1),R3
        BIC      #177400,R3
        ADD      R2,R3
        MOVB     R3,TABLE+104(R1)
        RTS      PC

        .END


;P004B.PAT

-205,205
\
        DIS1,    A12,'DKED V06-00B'
/


;P004C.PAT

-226,226
\
                DISPLAY (2,DIACT)
/
```

```
.LIBRARY/EXTRACT
Library? EDLIB
File   ? CUT2
Global? CUT2
Global? <CR>

.RENAME (STRTO,DQUIT).DBL *.OLD
 Files renamed:
DK:STRTO.DBL    to DK:STRTO.OLD
DK:DQUIT.DBL    to DK:DQUIT.OLD

.RENAME (CUT2,EDLIB).OBJ *.OLD
 Files renamed:
DK:CUT2.OBJ     to DK:CUT2.OLD
DK:EDLIB.OBJ    to DK:EDLIB.OLD

.MACRO P004A
ERRORS DETECTED:   0

.R PAT
*CUT2.OBJ=CUT2.OLD/C:057526,P004A/C:022476

.R LIBR
*EDLIB.OBJ/A=EDLIB.OLD,CUT2/R
*^C

.R SLP
*STRTO.DBL=STRTO.OLD,P004B.PAT
*DQUIT.DBL=DQUIT.OLD,P004C.PAT
*^C

.R DICOMP
*STRTO=STRTO/O

    NO  ERRORS DETECTED
*DQUIT=DQUIT/O

    NO  ERRORS DETECTED
*^C
```

```
.R LINK
*DKED=DKED,EDLIB,DIBOL/P:500.//
*COMND/O:1
*COMN2/O:1
*CUTA,CUTB/O:1
*CUTC,TOPB/O:1
*CUTD/O:1
*CUTDO,BEOL/O:1
*DELLN/O:1
*DLCH4,D2CHA/O:1
*D3CHA/O:1
*DQUIT,DSCL1/O:1
*DROPN,SWORD/O:1
*FINDS/O:1
*FIND1/O:1
*HCOMN/O:1
*HELPC/O:1
*HELPD,DEXIT/O:1
*HELPE,CUTD2/O:1
*HWILD/O:1
*PAGE2/O:1
*PASTE/O:1
*REPLC/O:1
*RETRN/O:1
*SECTN,APNDA/O:1
*STRTO/O:1
*STRT1/O:1
*STRT2/O:1
*WPAGE/O:1
*XCASE,LINSP,RESEL,UNDEL/O:1
*CUTC1,CRSTR,UDLCH/O:1
*YANK,ZTARG/O:1
*//
*^C
```

```
.R LINK
*DKED.TSD/B:100000=DKED,EDLIB,TDIBOL/P:500.//
*COMND/O:1
*COMN2/O:1
*CUTA,CUTB/O:1
*CUTC,TOPB/O:1
*CUTD/O:1
*CUTDO,BEOL/O:1
*DELLN/O:1
*DLCH4,D2CHA/O:1
*D3CHA/O:1
*DQUIT,DSCL1/O:1
*DROPN,SWORD/O:1
*FINDS/O:1
*FIND1/O:1
*HCOMN/O:1
*HELPC/O:1
*HELPD,DEXIT/O:1
*HELPE,CUTD2/O:1
*HWILD/O:1
*PAGE2/O:1
*PASTE/O:1
*REPLC/O:1
*RETRN/O:1
*SECTN,APNDA/O:1
*STRTO/O:1
*STRT1/O:1
*STRT2/O:1
*WPAGE/O:1
*XCASE,LINSP,RESEL,UNDEL/O:1
*CUTC1,CRSTR,UDLCH/O:1
*YANK,ZTARG/O:1
*//

*^C

.R REDUCE
*DKED/N
*^C
```

.

PROBLEM UNPACKING DATA (LG)

When using the UNPAK external subroutine under Time-Shared DIBOL
to unpack decimal data fields a TRAP to 4 may result.

Patch 5 corrects this problem so that packed fields may be
unpacked.

Using the editor, create the following source file. Name it as
indicated in the comment line that begins the file. Then, to
install the patch, follow the procedure shown following the
source file.

```
;P005.MAC

        .TITLE   PAKING
        .CSECT
        DSP=%4
        SORC=%3
        DEST=%2
        TRAP0=104400

P005:
        .=.+616
        MOV      P005,-(DSP)
        MOV      P005+10,-(DSP)
        JSR      PC,P005A
        NOP

        .PSECT .$P005

P005A:
        MOV      #3,R1
        TRAP0
        MOV      R1,DEST
        MOV      R1,SORC
        SUB      P005+12,SORC
        ADD      P005+14,SORC
        RTS      PC
        .END
```

```
.MACRO P005
ERRORS DETECTED:   0

.RENAME (PACKER,TDIBOL).OBJ *.OLD
 Files renamed:
DK:PACKER.OBJ   to DK:PACKER.OLD
DK:TDIBOL.OBJ   to DK:TDIBOL.OLD

.R PAT
*PACKER.OBJ=PACKER.OLD/C:031131,P005/C:015772

.R LIBR
*TDIBOL.OBJ/A=TDIBOL.OLD,PACKER/R
*^C
```

This is a complete listing of all articles for RT-11 V4.0 and related products. In the case of subordinate software, missing sequence numbers may pertain to problems unique to interaction with previous versions of the same product or other major operating systems.

IMPORTANT!

Unassigned articles are indicated: UNASSIGNED.

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

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

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

R = Restriction. These articles discuss areas that will not be patched in the current release because they require major modification or because they are not consistent with the design 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.

+ = Articles appeared in the RT-11 Software Dispatch Review, March 1980.

Component	Sequence	Mon/Yr
RT-11 V4.0		
MONITOR PATCHES		
ISSUING .SETTOP #-2 AND .EXIT UNDER XM MONITOR MAY CORRUPT SYSTEM DISK	1.1.1 M	Jul 80
IMPLEMENTING INTERNAL HANDLER QUEUEING IN FB AND XM MONITORS	1.1.2 M	Jul 80
ADDING HIGH SPEED RING BUFFER SUPPORT	1.1.3 M	Jul 80
CORRUPTION OF CSI TEXT UNDER XM MONITOR	1.1.4 M	Jul 80
MISSING COLON IN BOOT XX CAUSES SYSTEM HALT	1.1.5 M	Jul 80
TYPING ^U WHILE IN A ^X SEQUENCE UNDER A SYSTEM JOB	1.1.6 M	Sep 80
ABNORMAL TERMINATION OF FG JOB WHICH IS USING CSI	1.1.7 M	Sep 80
DEVICE HANDLER SOURCES		
DD.MAC		
DD PRIMARY BOOTSTRAP PROBLEM	6.4.1 M	Jul 80
DD.MAC		
ERRORS IN DM OFFSET POSITIONING AND ERROR LOGGING	6.6.1 M	Jul 80
LP.MAC		
LP SET NOHANG MAY CRASH SYSTEM	6.12.1 M	Sep 80
LS.MAC		
LS SET NOHANG MAY CRASH SYSTEM	6.13.1 M	Sep 80
TM.MAC		
BUFFER CLEARING ON SHORT READ IN XM MONITOR	6.20.1 M	Jul 80
LINKING AN XM, NON-FILESTRUCTURED TS HANDLER GENERATES AN UNDEFINED GLOBAL	6.20.2 M	Aug 80
INCORRECT READ ERROR RECOVERY IN MT HANDLER	6.20.3 M	Sep 80
SYSTEM UTILITIES		
PIP.SAV		
ERRORS IN PIP	7.1.1 M	Sep 80
COPY/PREDELETE COMMAND	7.1.2 N	Sep 80

Component	Sequence	Mon/Yr
DUP.SAV		
MISSING COLON IN BOOT XX CAUSES SYSTEM HALT	7.2.1 M	Jul 80
SQUEEZE CREATES \<UNUSED\> ENTRIES OF LENGTH ZERO BEFORE .BAD FILES	7.2.2 M	Aug 80
DIR.SAV		
DIR/OUT COMMAND PRODUCES DEVICE NOT ACTIVE MESSAGE	7.3.1 M	Jul 80
RESORC.SAV		
RESORC MAY REPORT INCORRECT JOB NAMES ON A SHOW JOBS COMMAND	7.5.1 M	Aug 80
LINK.SAV		
LINK BYTE RELOCATION AND DIRECTORY SIZE	7.9.1 M	Jul 80
LINK MAP PROCESSING ERROR	7.9.2 M	Aug 80
LIBR.SAV		
A LIBR COMMAND WITH NO FILE-SPEC CAN CAUSE A SYSTEM CRASH	7.10.1 M	Jul 80
FILEX.SAV		
FILEX WILDCARD TRANSFERS CAUSE MONITOR TRAP	7.11.1 M	Aug 80
FILEX CREATES ZERO FILLED INTERCHANGE RECORDS	7.11.2 M	Sep 80
SRCCOM.SAV		
COMPARING TWO FILES MAY CAUSE TRAP TO 4	7.12.1 M	Aug 80
SIPP.SAV		
CORRUPTION OF MULTI-BLOCK LOG FILES	7.16.1 M	Jul 80
PAT.SAV		
USE OF THE PAT UTILITY WITH RT-11 V3B PATCHES	7.17.1 N+	Mar 80
<u>DOCUMENTATION</u>		
<u>RT-11 SYSTEM RELEASE NOTES</u>		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.2.1 N	Jul 80
DOCUMENTATION CORRECTIONS	11.2.2 N	Aug 80
RT-11 INSTALLATION AND SYSTEM GENERATION GUIDE		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.3.1 N	Jul 80
CORRECTION TO AN OPTIONAL PATCH TO LINK	11.3.2 N	Aug 80
INTRODUCTION TO RT-11		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.4.1 N	Jul 80
RT-11 SYSTEM USER'S GUIDE		
RT-11 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.5.1 N	Jul 80
RT-11 SYSTEM MESSAGE MANUAL		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.6.1 N	Jul 80
RT-11 POCKET GUIDE		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.7.1 N	Jul 80
RT-11 PROGRAMMER'S REFERENCE MANUAL		
DOCUMENTATION CORRECTIONS	11.8.1 N	Sep 80
RT-11 SOFTWARE SUPPORT MANUAL		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.9.1 N	Jul 80
<u>KEYPAD EDITOR</u>		
<u>KED</u>		
MAKE TERMINAL SETUP OPTIONAL IF MTATCH FAILS	17.1.1 F	Aug 80
PROVIDE A .CHAIN INTERFACE FOR KED	17.1.2 F	Aug 80
PROVIDE REASONABLE ACTIONS AND ERROR MESSAGES WHEN DEALING WITH DEGENERATE FILES	17.1.3 M	Aug 80
K52		
MAKE TERMINAL SETUP OPTIONAL IF MTATCH FAILS	17.2.1 F	Aug 80
PROVIDE A .CHAIN INTERFACE FOR K52	17.2.2 F	Aug 80
PROVIDE REASONABLE ACTIONS AND ERROR MESSAGES WHEN DEALING WITH DEGENERATE FILES	17.2.3 M	Aug 80

Component	Sequence	Mon/Yr

FMS-11/RT-11 V1.1

ANNOUNCING FMS-11/RT-11 V1.1	33.1 N	Aug 80

BASIC-11/RT-11 V2.0

INTERPRETER

Component	Sequence	Mon/Yr
REPUBLICATION OF PATCHES	35.1.1 N+	Mar 80
PRINT USING - PATCH A	35.1.2 M+	Mar 80
RESEQ - PATCH B	35.1.3 M+	Mar 80
EDITING A DIM #n STATEMENT - PATCH C	35.1.4 M+	Mar 80
DOUBLE PRECISION HANG - PATCH D	35.1.5 M+	Mar 80
SAVE dev: AND REPLACE dev: - PATCH E	35.1.6 M+	Mar 80
SINGLE PRECISION HANG AND NUMERIC CONVERSION PROBLEM - PATCH F	35.1.7 M+	Mar 80
SAVE .XXX & UNSAVE .XXX - PATCH G	35.1.8 M+	Mar 80
NEW - PATCH H	35.1.9 M+	Mar 80
RESEQ - PATCH I	35.1.10 M+	Mar 80
LISTNH / OLD - PATCH J	35.1.11 M+	Mar 80
SYS(1) - PATCH K	35.1.12 M+	Mar 80
CALL - PATCH L	35.1.13 M+	Mar 80
DOUBLE PRECISION INTEGER VARIABLES - PATCH M	35.1.14 M+	Mar 80
FILESIZE 0 - PATCH N	35.1.15 M+	Mar 80
INTEGERS IN DOUBLE PRECISION BASIC-11	35.1.16 N+	Mar 80
REM STATEMENTS ON MULTI-STATEMENT LINES - PATCH O	35.1.17 M+	Mar 80

UTILITIES

Component	Sequence	Mon/Yr
CONVERSION PROGRAM	35.2.1 M+	Mar 80
BASIC-11/RT-11 V2 CONVERSION PROGRAM PATCH 1	35.2.2 M+	Mar 80

DOCUMENTATION

Component	Sequence	Mon/Yr
OVERLAYING WHILE IN A SUBROUTINE	35.3.1 R+	Mar 80
OPERATION OF CTRLC, RCTRLC AND SYS(6) FUNCTIONS AND THE CTRL/C COMMAND	35.3.2 N+	Mar 80
OPERATION OF OLD, RUN, CHAIN, AND OVERLAY WHEN THE SPECIFIED FILE IS NOT FOUND	35.3.3 N+	Mar 80
CREATING AND ACCESSING VIRTUAL ARRAY FILES	35.3.4 N+	Mar 80
STORAGE OF THE NULL CHARACTER IN STRING VARIABLES AND VIRTUAL STRING ARRAYS	35.3.5 N+	Mar 80
USE OF COMPILE COMMAND	35.3.6 N+	Mar 80
STRING MANIPULATION IN ASSEMBLY LANGUAGE ROUTINES	35.3.7 N+	Mar 80
MAXIMUM ARRAY SUBSCRIPT SIZE	35.3.8 N+	Mar 80

MU BASIC-11/RT-11 V2.0

INTERPRETER

Component	Sequence	Mon/Yr
CHAINING WITH COMMON - PATCH A	36.1.1 M+	Mar 80
VIRTUAL FILE I/O - PATCH B	36.1.2 M+	Mar 80
SYS(1,n) FUNCTION - PATCH C	36.1.3 M+	Mar 80
RESEQ - PATCH D	36.1.4 M+	Mar 80
VALUES IN PATCHES A, B, C	36.1.5 N+	Mar 80
LISTNH / OLD - PATCH E	36.1.6 M+	Mar 80
CALL - PATCH F	36.1.7 M+	Mar 80
DOUBLE PRECISION INTEGER VARIABLES - PATCH G	36.1.8 M+	Mar 80
INPUT #/PRINT # - PATCH H	36.1.9 M+	Mar 80
OLD OF A ZERO BLOCK FILE - PATCH I	36.1.10 M+	Mar 80
ADDITION TO PATCH B - PATCH J	36.1.11 M+	Mar 80
DEVICE MNEMONIC PROBLEM - PATCH K	36.1.12 M+	Mar 80
CLOSE - PATCH L	36.1.13 M+	Mar 80
REM STATEMENTS ON MULTI-STATEMENT LINES - PATCH M	36.1.14 M+	Mar 80
DEASSIGNING A TERMINAL - PATCH N	36.1.15 M+	Mar 80
INTEGERS IN DOUBLE PRECISION MU BASIC-11	36.1.16 N+	Mar 80
USE OF SYS(1,n) FUNCTION WHEN ',n' IS OMITTED - PATCH O	36.1.17 M+	Mar 80
DISABLING CR/LF USING TTYSET - PATCH P	36.1.18 M+	Mar 80
HANDLER FETCH ERROR MAY LEAD TO MONITOR FAULT - PATCH Q	36.1.19 M+	Mar 80

UTILITIES

Component	Sequence	Mon/Yr
MU BASIC-11/RT-11 V2 CONFIGURATION PROGRAM PATCH 1	36.2.1 M+	Mar 80
MU BASIC-11/RT-11 V2 CONVERSION PROGRAM	36.2.2 F+	Mar 80

Component	Sequence	Mon/Yr
DOCUMENTATION		
OPERATION OF CTRLC, RCTRLC AND SYS(6) FUNCTIONS AND THE		
CTRL/C COMMAND	36.3.1 N+	Mar 80
MEMORY REQUIREMENTS OF OPTIONAL FUNCTIONS, ETC.	36.3.2 N+	Mar 80
OPERATION OF OLD, RUN, CHAIN AND OVERLAY WHEN THE SPECIFIED FILE		
IS NOT FOUND	36.3.3 N+	Mar 80
CREATING AND ACCESSING VIRTUAL ARRAY FILES	36.3.4 N+	Mar 80
STORAGE OF THE NULL CHARACTER IN STRING VARIABLES AND VIRTUAL		
STRING ARRAYS	36.3.5 N+	Mar 80
USE OF COMPILE COMMAND	36.3.6 N+	Mar 80
STRING MANIPULATIONN IN ASSEMBLY LANGUAGE ROUTINES	36.3.7 N+	Mar 80
ERROR IN TABLE 4-1 OF THE USER'S GUIDE	36.3.8 N+	Mar 80
RESTRICTION ON USR RESIDENCY WHEN RUNNING IN FOREGROUND	36.3.9 N+	Mar 80
MAXIMUM ARRAY SUBSCRIPT SIZE	36.3.10 N+	Mar 80
ASSEMBLING SOURCE FILES (SOURCE LICENSE HOLDERS ONLY)	36.3.11 N+	Mar 80
USE OF PATCH UTILITY	36.3.12 N+	Mar 80

FORTRAN IV/RT-11 V2.1

Component	Sequence	Mon/Yr
COMPILER		
PATCH 1	44.1.1 M+	Mar 80
PATCH 2	44.1.2 M+	Mar 80
PATCH 3	44.1.3 M+	Mar 80
REGISTER ALLOCATION - PATCH 8	44.1.4 M+	Mar 80
FORTRAN FAILS TO COMPILE DO-LOOPS - PATCH 11	44.1.5 M+	Mar 80
COMMON SUBEXPRESSION OPTIMIZATION - PATCH 17	44.1.6 M+	Mar 80
BYTE COMPARISON AND COMMON SUBEXPRESSION OPTIMIZATION - PATCH 20	44.1.7 M+	Mar 80
DIRECT ACCESS READ - PATCH 21	44.1.8 M+	Mar 80
COMPLEX VARIABLE TO CONSTANT COMPARISON - PATCH 22	44.1.9 M+	Mar 80
OTS		
PATCH 4	44.2.1 M+	Mar 80
CARRIAGE CONTROL OPTION - PATCH 5	44.2.2 M+	Mar 80
OPEN FAILURE WITH TYPE='OLD' - PATCH 6	44.2.3 M+	Mar 80
FORTRAN LIBRARY FUNCTION ERRTST - PATCH 7	44.2.4 M+	Mar 80
SMALLER EXECUTION-TIME PROGRAMS	44.2.5 N+	Mar 80
FORTRAN OTS - PATCH 9	44.2.6 M+	Mar 80
I/O FROM A FORTRAN COMPLETION ROUTINE - PATCH 10	44.2.7 M+	Mar 80
CALL CLOSE (FORTRAN LIBRARY SUBROUTINE) - PATCH 12	44.2.8 M+	Mar 80
UNFORMATTED BYTE I/O - PATCH 13	44.2.9 F+	Mar 80
LIST DIRECTED INPUT ERRORS - PATCH 14	44.2.10 M+	Mar 80
DISP='DELETE' OPTION - PATCH 15	44.2.11 M+	Mar 80
FORMATTED RECORD OUTPUT - PATCH 16	44.2.12 M+	Mar 80
CALL ASSIGN CARRIAGE CONTROL - PATCH 18	44.2.13 M+	Mar 80
NON-PLAS VIRTUAL ARRAY INITIALIZATION - PATCH 19	44.2.14 M+	Mar 80
DOCUMENTATION		
FORTRAN IV V2.1 MAINTENANCE RELEASE	44.3.1 N+	Mar 80
INSTALLING FORTRAN IV V2.1 UNDER RT-11 V4	44.3.2 N	Aug 80

FORTRAN IV/RT-11 V2.5

Component	Sequence	Mon/Yr
COMPILER		
ANNOUNCING PDP-11 FORTRAN IV/RT-11 V2.5	45.1.1 N	Sep 80

DECnet-RT V1.1

Component	Sequence	Mon/Yr
NETGEN		
FULL DUPLEX, EXTENDED MEMORY DUP DRIVER WON'T BUILD	50.3.1 M	Aug 80
DDCMP		
DDCMP BRANCH OUT OF RANGE AND Q ELEMENT RETURN PROBLEMS	50.5.1 M	Aug 80
NSP		
NSP CORRUPTS PHYSICAL LINE ERROR CODE	50.6.1 M	Aug 80
NFT		
NFT INCORRECTLY ALLOCATES RT-11 QUEUE ELEMENTS	50.9.1 M	Jun 80

Component	Sequence	Mon/Yr
FAL		
FAL INCORRECTLY ALLOCATES RT-11 QUEUE ELEMENTS	50.10.1 M	Jun 80
FAL MAY HANG ON ASCII TRANSFERS OF UNFILLED BLOCKS	50.10.2 M	Aug 80
FAL WILL NOT ALLOW ACCESS COMPLETE AFTER CONTROL CONNECT	50.10.3 M	Aug 80
NFARS		
DAP ROUTINES DO NOT REPORT PHYSICAL LINE ERRORS	50.11.1 M	Aug 80
DAP ATTEMPTS TO MULTIPLY RETURN BUFFERS ON ERROR	50.11.2 M	Aug 80
DAP SEND ONE CHARACTER ON ZERO LENGTH TRANSMITS	50.11.3 M	Aug 80
DAPAST CLEARS THE USER CHANNEL NUMBER TOO SOON	50.11.4 M	Aug 80
FORTRAN USER INTERFACES		
NOTES ON THE USE OF THE DECnet-RT FORTRAN INTERFACES	50.16.1 M	Jun 80
MACRO USER INTERFACES		
NOTES ON DECnet-RT MACRO PROGRAMMING	50.16.2 N	Jun 80

CTS-300 V06

Component	Sequence	Mon/Yr
DKED		
TWO PROBLEMS WITH DKED	51.7 M	Aug 80
DKED SELECT/CUT AND KEYPAD ERRORS	51.7.2 M	Sep 80
TDIBOL		
PROBLEM WITH XCALL PAK	51.17 M	Aug 80
PROBLEM UNPACKING DATA	51.17.2 M	Sep 80
XMTSD		
CONFLICT BETWEEN XMTSD AND RT-11 OVER CHANNEL 16	51.20 M	Aug 80
DOCUMENTATION		
CTS-300 VERSION 6 IS RELEASED	51.21 N	Aug 80

CTS-3ØØ VØ5   Seq 16 M
DIBOL
TSD VBØ5-ØØI   1 of 2
(PATCH 22)

CLOSING AN ISAM FILE UNDER TSD (LG)

When a Time-Shared DIBOL program closes an ISAM file, it is
possible that the runtime system will hang. However, given the
bizarre set of circumstances which causes the system to hang, it
is unlikely that most applications would ever experience this
problem.

Patch 22 corrects this problem and changes the version number of
TSD to VB05-00J.

Using the editor, create the following source files. Name them
as indicated in the comment line that begins each file. Then, to
install the patch, follow the procedure shown following the
source files.

CTS-3ØØ VØ5
DIBOL
TSD VBØ5-ØØI
(PATCH 22)

Seq 16 M

2 of 2

```
;P022.MAC

        .TITLE  $DIO
        .CSECT  $DIO
        .GLOBL  CLISAM
P022:
        .=.+2472
        JSR     PC,P022A
        .PSECT  $P022
P022A:  JSR     PC,CLISAM
        MOV     (R4),R1
        RTS     PC
        .END


;P022V1.MAC

        .TITLE  DTO
        .CSECT  DTO

        .=      .+4543
        .ASCII  /I/

        .END




.MACRO  P022,P022V1
ERRORS DETECTED:  0
ERRORS DETECTED:  0

.RENAME (DIO,DTO).OBJ *.OLD
 Files renamed:
DK:DIO.OBJ      to DK:DIO.OLD
DK:DTO.OBJ      to DK:DTO.OLD

.R PAT
*DIO.OBJ=DIO.OLD/C:157615,P022/C:014271

.R PAT
*DTO.OBJ=DTO.OLD/C:113024,P022V1/C:003170

.R TSDGEN           ;FOR NORMAL TSD
```

RT-11 V3B   Seq 3 M
FEP-11, FORTRAN ENHANCEMENT PACKAGE
(also pertains to: RT-11/FORTRAN UPGRADE PACKAGE FOR MINC)   1 of 3

PROBLEM CALLING SUBROUTINES HAVING NO ARGUMENTS (JG)

PROBLEM:

FDT does not function correctly when a subroutine having no arguments
is called. Specifically, variables in the subroutine cannot be located
using the documented procedure.

SOLUTION:

The solution consists of applying a patch, via the RT-11 utility program
PAT.SAV, to the distributed file FDT.OBJ.

Remember to use a COPY of the distributed version of the software when
making these corrections. NEVER modify your distributed software.

The following gives a step-by-step procedure that corrects the problem.
In the description, 'dv#' represents the device specification (for
example, DK0) indicating where a copy of the current version of the
file, FDT.OBJ, can be found. The new corrected file and intermediate
files that result from this procedure will be directed to that
device also.

Underlined characters in the text represent prompt characters from the
operating system or utility routines. The operator should enter all
characters in the text that are not underlined.

The symbol '<ESC>' represents the escape (ESC) character, and the symbols
'^C' represent the simultaneous entry of the control key (CTRL) and the
C key. Each line of operator input that is not terminated by a '^C' or
'<ESC><ESC>' should be terminated by entering the RETURN key.

The first step of the procedure is to create a source file containing the
corrected code.   The RT-11 utility program EDIT.SAV is used here for this
purpose as follows:

```
.R EDIT
*EWdv#:FDTP1.MAC<ESC><ESC>
*I         .TITLE   FDT
           .CSECT   $FDT
.=.+436
ARTN:      .WORD    0              ;ADDRESS OF ACTIVE ROUTINE
.=.+42
           MOV      (R3)+,R2       ;NUMBER OF FORMAL PARAMETERS
           MOV      @R3,R3         ;POINT TO START OF PARMETER BLOCK
           MOV      R3,ARTN        ;SAVE ADDRESS OF DATA AREA
           MOV      (R5)+,R1       ;NUMBER OF ARGS ACTUALLY PASSED
1$:        DEC      R1             ;CHECK # ARGS PASSED THAT ARE LEFT
           BMI      2$             ;IF NONE, EXIT
           DEC      R2             ;CHECK # ARGS EXPECTED THAT ARE LEFT
           BMI      2$             ;IF NONE, EXIT
           MOV      (R5)+,(R3)+    ;COPY ARG ADDRESSES
           BR       1$             ;LOOP BACK TO CHECK FOR MORE ARGS
           NOP                     ;FILLER
2$:        MOV      (PC)+,R1       ;POINT TO ENTRY PAUSE TABLE
           .END
<ESC><ESC>
*EX<ESC><ESC>

.
```

Next, assemble the source file just created using the RT-11 MACRO assembler
as follows:

```
.R MACRO
*dv#:FDTP1=dv#:FDTP1
ERRORS DETECTED:   0
*^C

.
```

Finally, use the RT-11 system utility PAT.SAV to correct the file FDT.OBJ
with the file FDTP1.OBJ.

Note: The checksum value used in this step will differ based on the version
      of the RT-11 operating system that you are using.   Thus two different
      procedures will be given here.

46

If you are using the PAT.SAV utility distributed with RT-11 V4.0, type the following:

```
.R PAT
*dv#:FDT=dv#:FDT/C:5035,FDTP1


*
```

If you are using the PAT.SAV utility distributed with RT-11 V3B, type the following:

```
.R PAT
*dv#:FDT=dv#:FDT/C:177565,FDTP1


*
```

At this point the corrected version of FDT.OBJ resides on device dv#: and should function as described in the documentation.

PROBLEM CALLING SUBROUTINES HAVING NO ARGUMENTS (JG)

PROBLEM:

FDT does not function correctly when a subroutine having no arguments
is called. Specifically, variables in the subroutine cannot be located
using the documented procedure.

SOLUTION:

The solution consists of applying a patch, via the RT-11 utility program
PAT.SAV, to the distributed file FDT.OBJ.

Remember to use a COPY of the distributed version of the software when
making these corrections. NEVER modify your distributed software.

The following gives a step-by-step procedure that corrects the problem.
In the description, 'dv#' represents the device specification (for
example, DK0) indicating where a copy of the current version of the
file, FDT.OBJ, can be found. The new corrected file and intermediate
files that result from this procedure will be directed to that
device also.

Underlined characters in the text represent prompt characters from the
operating system or utility routines. The operator should enter all
characters in the text that are not underlined.

The symbol "<ESC>" represents the escape (ESC) character, and the symbols
"^C" represent the simultaneous entry of the control key (CTRL) and the
C key. Each line of operator input that is not terminated by a "^C" or
"<ESC><ESC>" should be terminated by entering the RETURN key.

The first step of the procedure is to create a source file containing the
corrected code. The RT-11 utility program EDIT.SAV is used here for this
purpose as follows:

```
.R EDIT
*EWdv#:FDTP1.MAC<ESC><ESC>
*I       .TITLE  FDT
         .CSECT  $FDT
.=.+436
ARTN:    .WORD   0               ;ADDRESS OF ACTIVE ROUTINE
.=.+42
         MOV     (R3)+,R2        ;NUMBER OF FORMAL PARAMETERS
         MOV     @R3,R3          ;POINT TO START OF PARMETER BLOCK
         MOV     R3,ARTN         ;SAVE ADDRESS OF DATA AREA
         MOV     (R5)+,R1        ;NUMBER OF ARGS ACTUALLY PASSED
1$:      DEC     R1              ;CHECK # ARGS PASSED THAT ARE LEFT
         BMI     2$              ;IF NONE, EXIT
         DEC     R2              ;CHECK # ARGS EXPECTED THAT ARE LEFT
         BMI     2$              ;IF NONE, EXIT
         MOV     (R5)+,(R3)+     ;COPY ARG ADDRESSES
         BR      1$              ;LOOP BACK TO CHECK FOR MORE ARGS
         NOP                     ;FILLER
2$:      MOV     (PC)+,R1        ;POINT TO ENTRY PAUSE TABLE
         .END
<ESC><ESC>
*EX<ESC><ESC>

.
```

Next, assemble the source file just created using the RT-11 MACRO assembler
as follows:

```
.R MACRO
*dv#:FDTP1=dv#:FDTP1
ERRORS DETECTED:   0
*^C

.
```

Finally, use the RT-11 system utility PAT.SAV to correct the file FDT.OBJ
with the file FDTP1.OBJ.

Note: The checksum value used in this step will differ based on the version
      of the RT-11 operating system that you are using. Thus two different
      procedures will be given here.

                                   50

If you are using the PAT.SAV utility distributed with RT-11 V4.0, type the
following:

        .R PAT
        *dv#:FDT=dv#:FDT/C:5035,FDTP1

        *

If you are using the PAT.SAV utility distributed with RT-11 V3B, type the
following:

        .R PAT
        *dv#:FDT=dv#:FDT/C:177565,FDTP1

        *

At this point the corrected version of FDT.OBJ resides on device dv#: and
should function as described in the documentation.

READ RECOVERY FIX IN MT HANDLER (SPR 11-30776 SD)

The MT handler incorrectly recovers from CRC errors on read operations. In
addition these patches correct an undefined global in the XM MT and MM
handlers caused by a previous article.

```
.R EDIT <RET>
*EBTJ.MAC<ESC>RV<ESC><ESC>
; TJ EDIT LEVEL 6.
*G6<ESC>=C7<ESC>V<ESC><ESC>
; TJ EDIT LEVEL 7.
*FQ$PAR<ESC>V<ESC><ESC>
        ADD     #Q$PAR,@SP
*=C12<ESC>V<ESC><ESC>
        ADD     #12,@SP
*EX<ESC><ESC>


.R EDIT <RET>
*EBTM.MAC<ESC>RV<ESC><ESC>
; TM EDIT LEVEL 5.
*G5<ESC>=C6<ESC>V<ESC><ESC>
; TM EDIT LEVEL 6.
*FCONT:<ESC>2AV<ESC><ESC>
        MOV     @#MTS,R4
*IPTCH:<ESC>V<ESC><ESC>
PTCH:   MOV     @#MTS,R4
*FREEDF:<ESC>V<ESC><ESC>
REEDF:  TST     ERRSUM
*AV<ESC><ESC>
        BEQ     NEXT1
*GNEXT1<ESC>=CFOO<ESC>V<ESC><ESC>
        BEQ     FOO
*FBACH2<ESC>V<ESC><ESC>
        BR      BACH2
*A<ESC>IFOO:    JMP     PTCH
<ESC>-2L<ESC><ESC>
        BR      BACH2
FOO:    JMP     PTCH
*FQ$PAR<ESC>V<ESC><ESC>
        ADD     #Q$PAR,@SP
*=C12<ESC>V<ESC><ESC>
        ADD     #12,@SP
*EX<ESC><ESC>
```

.

                              Note

The magtape handlers can only be generated as described in "Distributed
Magtape Handler Corrections (BD)", Seq 03M which was published in the RT-11
September 1978 Software Dispatch.

COPY/PREDELETE COMMAND (JM)

For RT-11 V03B.00 the use of the COPY/PREDELETE command requires that the input
and output filespecs be different.   Input files will be lost when issuing a
COPY/PREDELETE command where the input and output filespecs are the same.   For
example:

        COPY/PREDELETE FILE.MAC FILE.MAC

deletes the file FILE.MAC on DK: and a file not found error message is
displayed on the console.

This is a complete listing of all articles for RT-11 V4.0 and related products. In the case of subordinate software, missing sequence numbers may pertain to problems unique to interaction with previous versions of the same product or other major operating systems.

IMPORTANT!

Unassigned articles are indicated: UNASSIGNED.

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

M = <u>Mandatory Patch</u>. 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 = <u>Optional Feature Patch</u>. 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 = <u>Restriction</u>. These articles discuss areas that will not be patched in the current release because they require major modification or because they are not consistent with the design of the product. Restrictions, except those described as permanent, are reviewed and modified when possible as part of the normal release cycle.

N = <u>NOTE</u>. 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.

Component	**Sequence**	**Mon/Yr**
BASIC-11/RT-11 V2		
RESEQUENCE PRODUCES AN INCORRECT PROGRAM UNDER CERTAIN CONDITIONS	01 M	Aug 78
PRINT USING	02 M	Jun 78
MAX SIZE OF LINE ENTERED TO BASIC-11	03 M	Jun 78
REM STATEMENT CONTAINING LEFT PARENTHESIS CAUSES SUBSEQUENT SPACES AND PERIODS TO BE REMOVED	04 R	Jun 78
RUN (NH) COMMAND MAY GIVE AN ERROR MESSAGE	05 M	Jul 78
TERMINAL MAY HANG	06 M	Jul 78
DATA FILES	07 M	Jul 78
SAVE DEV: AND REPLACE DEV:	08 M	Jul 78
SINGLE PRECISION HANG AND NUMERIC CONVERSION PROBLEM (PATCH F)	09 M	Aug 78
CONVERSION PROGRAM	10 M	Sep 78
OVERLAYING WHILE IN A SUBROUTINE	11 R	Nov 78
OPERATION OF CTRLC, AND RCTRLC AND SYS (6) FUNCTIONS AND THE CTRL/C COMMAND	12 N	Nov 78
BASIC-11/RT-11 V2 CONVERSION PROGRAM PATCH 1	13 M	Feb 79
OPERATION OF OLD, RUN, CHAIN AND OVERLAY WHEN THE SPECIFIED FILE IS NOT FOUND	14 N	Feb 79
CREATING AND ACCESSING VIRTUAL ARRAY FILES	15 N	Feb 79
REPUBLICATION OF PATCHES	16 N	Feb 79
PRINT USING - PATCH A	17 M	Feb 79
RESEQ - PATCH B	18 M	Feb 79
EDITING A DIM #n STATEMENT - PATCH C	19 M	Feb 79
DOUBLE PRECISION HANG - PATCH D	20 M	Feb 79
SAVE dev: AND REPLACE dev: - PATCH E	21 M	Feb 79
SINGLE PRECISION HANG AND NUMERIC CONVERSION PROBLEM - PATCH F	22 M	Feb 79
SAVE .XXX & UNSAVE .XXX - PATCH G	23 M	Feb 79
NEW - PATCH H	24 M	Feb 79
STORAGE OF THE NULL CHARACTER IN STRING VARIABLES AND VIRTUAL STRING ARRAYS	25 N	Feb 79
USE OF COMPILE COMMAND	26 N	Feb 79
RESEQ - PATCH I	27 M	Mar 79
LISTNH /OLD - PATCH J	28 M	Mar 79
SYS(1) - PATCH K	29 M	Mar 79
CALL - PATCH L	30 M	Mar 79

Component	Sequence	Mon/Yr
DOUBLE PRECISION INTEGER VARIABLES - PATCH M	31 M	May 79
FILESIZE O - PATCH N	32 M	May 79
INTEGERS IN DOUBLE PRECISION BASIC-11	33 M	Jul 79
REM STATEMENTS ON MULTI-STATEMENT LINES - PATCH O	34 M	Jul 79
STRING MANIPULATION IN ASSEMBLY LANGUAGE ROUTINES	35 N	Aug 79
MAXIMUM ARRAY SUBSCRIPT SIZE	36 N	Aug 79

CTS-300 V5

DECFORM

TWO PROBLEMS WITH FOCOMP	01 M	May 79

DIBOL

TWO PROBLEMS: FILE CORRUPTION POSSIBILITY AND REPETITIVE I/O ERRORS	01 M	Mar 79
OPENING NON-STANDARD HANDLERS	02 M	Apr 79
ANOTHER FILE CORRUPTION POSSIBILITY	03 M	Apr 79
TWO PROBLEMS: OPENING O LENGTH FILE IN SUD AND OPENING LP IN I MODE	04 M	Jun 79
LINE PRINTER PROBLEM AND PROBLEM WITH LARGE ISAM FILE	05 M	Jun 79
I/O ERRORS AND PROBLEM WITH FMAC SUBROUTINE	06 M	Jun 79
ISAM FILE CORRUPTION	07 M	Jun 79
SHUFFLE CAUSES TRAP TO 4	08 M	Jul 79
MISLEADING ERROR MESSAGES	09 M	Aug 79
ERRONEOUS I/O ERROR	10 M	Aug 79
TWO PROBLEMS WITH MULTI-VOLUME FILES	11 M	Oct 79
INCORRECT ERROR ON WRITING DUPLICATE FILE TO MAGTAPE	12 M	Dec 79
ACCEPT CAUSES ERRORS	13 M	Mar 80
I-O ERROR ON ISAM STORE/DELETE	14 M	Mar 80
LP: MAY PRINT UNWANTED CHARACTERS	15 M	Jun 80
CLOSING AN ISAM FILE UNDER TSD	16 M	Sep 80

DICOMP

DICOMP DISLIKES SOME COMMENTS	01 M	Sep 79

ISMUTL

REORG PROBLEMS DUE TO INSUFFICIENT SPACE ON DEVICE	01 M	Feb 80

REDUCE

HOW TO REDUCE PAINLESSLY	01 N	Aug 79
A REDUCING PROBLEM	02 M	Dec 79

SORTM

MERGE DOES NOT ACCEPT EMPTY FILES	01 M	Apr 79
MERGING ISAM FILES	02 M	May 80

CTS-300 RDCP (2780/3780) V1.0

SENDING OF TRANSPARENT DATA AND TRANSLATION OF DATA AFTER SENDING A TRANSPARENT FILE	01 M	Jul 79
SEND A TRANSPARENT FILE AFTER RECEIVING AN ASCII DATA FILE	02 M	Oct 79
AN ACK IS RECEIVED WHEN ENQ HAS ALREADY BEEN SENT	03 M	Oct 79
MISCELLANEOUS ERRORS	04 M	Aug 79
RDCP11 LOOP MAY OCCUR	05 M	Oct 79
ASCII TRANSMISSION OF A FILE	06 M	Oct 79

DECnet-RT V1

DAP

DAP ROUTINES DO NOT ARBITRATE DAP SEGMENT SIZE PROPERLY	07 M	Jan 79
NOTES ON CHANGES TO DAP INTERFACE	09 N	Feb 79
CORRECT BUFFER POINTER ERROR	16.11 M	May 79
DAP ATTEMPTS TO SEND A MESSAGE TOO LONG	17.7 M	Sep 79

DDCMP

DDCMP LINE COUNTERS OVERFLOW TO ZERO	01 O	Jul 78

DMC

DMC LINE COUNTERS OVERFLOW TO ZERO	01 O	Jul 78

Component	Sequence	Mon/Yr
DOCUMENTATION		
USER'S GUIDE DOCUMENTATION ERRORS	2.1 N	Aug 79
FAL		
CORRECT FAL PROCESSING OF END OF STREAM MESSAGE	01 M	Jan 79
FAL INCORRECTLY ALLOCATES DISC SPACE FOR FILES	02 M	Feb 79
FAL INCORRECTLY HANDLES REMOTE FILE REQUESTS	04 M	Feb 79
TIMING DEPENDENCY IN RT TO RSTS FILE TRANSFERS	17.5 M	Jul 79
MRS FIELD NOT DEFAULTED PROPERLY	17.6 M	Jul 79
FORTRAN INTERFACE		
DIFFERENCES IN RT AND RSX FORTRAN INTERFACE IMPLEMENTATIONS	01 N	Jul 78
USE OF THREADED AND INLINE FORTRAN COMPILER OPTIONS	04 R	Jan 79
FORTRAN REMOTE OPEN FOR WRITE MODIFIES FILE ATTRIBUTES	05 N	Jan 79
MODEM CONTROL		
SUPPORT OF ASYNCHRONOUS HALF DUPLEX MODEMS	01 R	Jul 78
NFARS		
DAP ROUTINES CHANGE MODE DURING FILE TRANSFER	02 M	Feb 79
CHECK FOR BLOCK MODE TRANSFER	03 M	Feb 79
DAP DEFAULTS DO NOT ALLOW RECORDS TO SPAN BLOCKS	06 O	Jan 79
ASCII FILE ACCESS TO VAX/RSX SYSTEMS	08 M	Feb 79
INVALID FILE TYPE SENT TO VAX IN ASCII TRANSFER	10 M	Mar 79
NSP		
PROTOCOL VIOLATION IN NODE INITIALIZATION	01 M	Jan 79
NFT		
NFT ASCII FILE TRANSFER TO VAX/RSX SYSTEMS	03 M	Feb 79
LOGICAL BLOCK NUMBERS NOW START AT ONE	17.5 M	May 79

DECnet-RT V1.1

Component	Sequence	Mon/Yr
NFT		
NFT INCORRECTLY ALLOCATES RT-11 QUEUE ELEMENTS	50.9.1 M	Jun 80
FAL		
FAL INCORRECTLY ALLOCATES RT-11 QUEUE ELEMENTS	50.10.1 M	Jun 80
FORTRAN USER INTERFACES		
NOTES ON THE USE OF THE DECnet-RT FORTRAN INTERFACES	50.16.1 N	Jun 80
MACRO USER INTERFACES		
NOTES ON DECnet-RT MACRO PROGRAMMING	50.16.2 N	Jun 80

FEP-11, FORTRAN ENHANCEMENT PACKAGE
(ALSO PERTAINS TO: RT-11/FORTRAN UPGRADE PACKAGE FOR MINC)

Component	Sequence	Mon/Yr
FEP-11 INITIAL PROBLEMS, SOLUTIONS AND HINTS	01 M	May 79
PROBLEMS WITH IEEE-BUS SUBROUTINES	02 M	Feb 80
PROBLEM CALLING SUBROUTINES HAVING NO ARGUMENTS	03 M	Sep 80

FMS-11 V1

Component	Sequence	Mon/Yr
CONSOLE TERMINAL SPECIAL MODE BIT CLEARED	01 M	Jun 79
INCORRECT MCDEMO FILE TYPES	02 O	Jun 79
TSKINI INPUT BUFFER TOO SMALL	03 M	Jun 79
ARTS ERROR MESSAGES LACK '?'	04 M	Jun 79
HANDLER FETCH CORRUPTS FORM FILE ID	05 M	Jul 79
ZERO-FILLED FIELD VALIDATION PROBLEM	06 M	Jul 79
FILED VIDEO ATTRIBUTES PROBLEM	07 M	Jul 79
FRED ERROR MESSAGES LACK'?'	08 M	Jul 79
ERROR IN SCROLL FORWARD/BACKWARD CODE	09 M	Jul 79
ERROR IN EXIT SCROLLED AREA FORWARD CODE	10 M	Jul 79
ANNOUNCING FMS-11 FORMS MANAGEMENT SYSTEM	11 F	Nov 79

FOCAL/RT-11 V1B

	Sequence	Mon/Yr
FOR COMMAND WITHOUT AN ARGUMENT	01 M	Oct 75
OPERATE COMMAND CAUSES ERROR	04 M	Aug 76
FCLK ROUTINE GIVES INCORRECT TIME	05 O	Aug 76
"LIBRARY ASK" COMMAND	06 O	Feb 77
"/Z" SWITCH	07 M	Aug 77
@START NOT WORKING WHEN DOWN-LINE LOADING	08 M	Mar 78
LIBRARIES FROM FOCAL SOURCE DISK MUST BE REFORMATTED	09 N	Aug 78
CLOCK PROBLEM FOR PAPER TAPE (STAND-ALONE) FOCAL USERS	10 M	Nov 78

FORTRAN GRAPHICS PACKAGE, V1.1

DECGRAPHIC

	Sequence	Mon/Yr
NMBR SUBROUTINE IN DECgraphic	01 R	JAN 79

FORTRAN/RT-11 EXTENSIONS V2.1

	Sequence	Mon/Yr
FORTRAN CRASHES AFTER RUNNING PROGRAM WITH "SETR"	01 M	Mar 79
TWO PROBLEMS WITH THE RT-11/FORTRAN GRAPHICS EXTENSIONS	02 M	Mar 79
NEGATIVE INTENSITY	03 N	Mar 79
PROBLEM CALLING SUBROUTINES HAVING NO ARGUMENTS	04 M	Sep 80

FORTRAN IV/RT-11 V2.1

	Sequence	Mon/Yr
FORTRAN IV V2.1 MAINTENANCE RELEASE	01 N	Dec 78
PATCH 1	02 M	Feb 79
PATCH 2	03 M	Feb 79
PATCH 3	04 M	Feb 79
PATCH 4	05 M	Sep 79
CARRIAGE CONTROL OPTION - PATCH 5	06 M	May 79
OPEN FAILURE WITH TYPE='OLD' - PATCH 6	07 M	Sep 79
FORTRAN LIBRARY FUNCTION ERRTST - PATCH 7	08 M	Aug 79
REGISTER ALLOCATION - PATCH 8	09 M	Sep 79
SMALLER EXECUTION-TIME PROGRAMS	10 N	Jun 79
FORTRAN OTS - PATCH 9	11 M	Sep 79
I/O FROM A FORTRAN COMPLETION ROUTINE - PATCH 10	12 M	Aug 79
FORTRAN FAILS TO COMPILE DO-LOOPS - PATCH 11	13 M	Aug 79
CALL CLOSE (FORTRAN LIBRARY SUBROUTINE) - PATCH 12	14 M	Aug 79
UNFORMATTED BYTE I/O - PATCH 13	15 F	Aug 79
LIST DIRECTED INPUT ERRORS - PATCH 14	16 M	Aug 79
DISP='DELETE' OPTION - PATCH 15	17 M	Aug 79
FORMATTED RECORD OUTPUT - PATCH 16	18 M	Aug 79
COMMON SUBEXPRESSION OPTIMIZATION - PATCH 17	19 M	Aug 79
CALL ASSIGN CARRIAGE CONTROL - PATCH 18	20 M	Aug 79
NON-PLAS VIRTUAL ARRAY INITIALIZATION - PATCH 19	21 M	Aug 79
BYTE COMPARISON AND COMMON SUBEXPRESSION OPTIMIZATION - PATCH 20	22 M	Aug 79
DIRECT ACCESS READ - PATCH 21	23 M	Aug 79
COMPLEX VARIABLE TO CONSTANT COMPARISON - PATCH 22	24 M	Aug 79

GAMMA-11 F/B V2.4

	Sequence	Mon/Yr
CONTINUE ANALYSIS (CA) OCCASIONALLY FAILS	01 M	Oct 79
GAMMA-11 SYSTEMS WITH RK07 DISKS AS A DEVICE	02 M	Jan 80
PROBLEM WITH ABORTING GAMMA-11	03 M	Oct 79
PROBLEMS WITH FOUR BIT MAP ANALYSIS COMMANDS	04 M	Oct 79
PROBLEMS WITH FORTRAN SUBROUTINES 'GPFR' AND GPFW'	05 F	Jan 80
PROBLEMS WITH DATA ANALYSIS	06 M	Jan 80
PROBLEMS WITH DYNAMIC ACQUISTION ON RK05 GAMMA-11	07 M	Nov 79
PROBLEMS WITH DATA ACQUISTION	08 M	Nov 79
TRANSFER STUDIES WITH MAGTAPE PROBLEM	09 M	Nov 79

Component	Sequence	Mon/Yr
LABORATORY APPLICATIONS-11 V3		
A NEW MODULE TO ENHANCE DATA FLOW WITHIN LA-11	01 N	Oct 76
HISTO.MAC		
ACQUIRING AND PROCESSING HISTOGRAM DATA	01 M	Sep 76
LABMAC.SML		
ERRONEOUS MACRO	01 M	Sep 77
INCLUDING LABMAC.SML IN SYSMAC.SML	02 M	Mar 79
PEAK.MAC		
WIDE PEAKS	01 M	Mar 76
PEAK PROBLEMS AND CORRECTIONS	02 M	Jul 76
ARITHMETIC CORRECTION FOR PEAK AREA	03 M	Dec 76
MISSING PATCH IN RELEASE NOTES	04 M	Oct 77
SPARTA		
LPS AND AR-11 VECTOR AND STATUS REGISTER	01 N	Dec 75
USING SPARTA AND FLOATING POINT BUFFERS	02 N	Feb 76
AR-11 TIMING PROBLEMS WITH ADSAM AND SPARTA	03 O	Feb 76
FFT SCALING CORRECTION	04 M	Feb 76
SCALE FACTOR CORRECTION FOR SPARTA COMMANDS FAC AND FCC	05 M	Mar 76
DATA DISPLAYS USING LA-11	06 N	Mar 76
DATA PREPARATION FOR SPARTA COMMANDS FAC AND FCC	07 N	Apr 76
SPARTA CORRECTIONS FOR POINT-PLOT DISPLAY	08 M	Apr 76
ADDING COMMANDS TO SPARTA	09 M	May 76
CORRECTION FOR THE DPV COMMAND WITH POINT PLOT DISPLAY	10 M	Jun 76
GENERAL SUBROUTINE MODULE FOR EAE	11 O	Jun 76
INCORRECT PHASE ANGLE CALCULATION	12 M	Oct 76
"MOU" AND "MIN" COMMANDS CAN BE READ OUT AND IN CORRECTLY	13 N	Jan 77
MULTIPLE SYNCH PULSES	14 M	Jan 77
AUTO AND CROSS CORRELATION	15 M	Jan 77
ALLOCATING MORE THAN 16K BUFFERS IN SPARTA	16 M	Feb 77
A/D SAMPLING: FAST MODE	17 M	Jul 77
A/D SAMPLING: FAST MODE EXIT	19 M	Mar 78
SCALE FACTOR PRINT FOR THE FFT	20 M	Jan 79
SWEEP.MAC		
SWEEP SAMPLING: FAST MODE	01 M	Aug 77
THRU		
HOW TO START DATA ACQUISITION WHEN CSTART EQUALS ZERO	01 N	Jun 76
MULTICHANNEL SINGLE RATE SCHMIT TRIGGER SWITCH BOUNCE	02 M	Dec 76
CONTINUOUS SAMPLING: CONDITIONAL ASSEMBLY ERRORS	03 M	Jul 77
CONTINUOUS SAMPLING: DMA WITH DUAL SAMPLE + HOLD	04 M	Jul 77
DOCUMENTATION CORRECTIONS	05 M	Nov 77
LSP-11 V1		
PATCH NO. 1 - GENERAL CORRECTIONS NO. 1	01 M	Jun 79
PATCH NO. 2 - PEAK CORRECTION NO. 1	02 M	Jun 79
PATCH NO. 3 - PEAK CORRECTION NO. 2	03 M	Jun 79
MSB-11 V1.0		
MSB-11 SOFTWARE ON THE PDP-11/03	01 M	Jul 79
MU BASIC-11/RT-11 V2		
MU BASIC-11/RT-11 V2 CONVERSION PROGRAM	01 R	Nov 78
OPERATION OF CTRL/C, RCTRLC AND SYS (6) FUNCTIONS AND THE CTRL/C COMMAND	02 N	Nov 78
MEMORY REQUIREMENTS OF OPTIONAL FUNCTIONS ETC.	03 O	Nov 78
MU BASIC-11/RT-11 V2 RELEASE NOTES AND INSTALLATION GUIDE CHANGES	04 N	Dec 78
ORDER OF COMMON STATEMENTS AT START OF MUCNFG.B00, MUCNF1.B00, MUCNF2.B00	05 M	Dec 78

Component	Sequence	Mon/Yr
OPERATION OF OLD, RUN, CHAIN AND OVERLAY WHEN THE SPECIFIED FILE IS NOT FOUND	06 N	Feb 79
CREATING AND ACCESSING VIRTUAL ARRAY FILES	07 N	Feb 79
STORAGE OF THE NULL CHARACTER IN STRING VARIABLES AND VIRTUAL STRING ARRAYS	08 N	Feb 79
USE OF COMPILE COMMAND	09 N	Feb 79
MU BASIC-11/RT-11 V2 CONFIGURATION PROGRAM PATCH 1	10 O	Feb 79
CHAINING WITH COMMON -PATCH A	11 M	Feb 79
VIRTUAL FILE I/O - PATCH B	12 M	Feb 79
SYS (1,n) FUNCTION - PATCH C	13 M	Feb 79
RESEQ - PATCH D	14 M	Feb 79
VALUES IN PATCHES A, B, C	15 N	Feb 79
LISTNH /OLD - PATCH E	16 M	Mar 79
CALL - PATCH F	17 M	Mar 79
MU BASIC-11 DEVICE INDEPENDENCE FOR INIT.BOO - SPECIAL PATCH YY1	18 M	May 79
DOUBLE PRECISION INTEGER VARIABLES - PATCH G	19 M	May 79
INPUT #/PRINT # - PATCH H	20 M	May 79
OLD OF A ZERO BLOCK FILE - PATCH I	21 M	May 79
ADDITION TO PATCH B - PATCH J	22 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 1	23 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 2	24 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 3	25 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 4a	26 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 4b	27 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 4c	28 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 5	29 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 6	30 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 7	31 M	May 79
MU BASIC-11/RT-11 V2 PERFORMANCE IMPROVEMENT PATCH NO. 8	32 M	May 79
DEVICE MNEMONIC PROBLEM - PATCH K	33 M	Jul 79
CLOSE - PATCH L	34 M	Jul 79
REM STATEMENTS ON MULTI-STATEMENT LINES	35 M	Jul 79
DEASSIGNING A TERMINAL - PATCH N	36 M	Jul 79
OVERLAYING THE ERROR MESSAGE MODULE - SPECIAL PATCH WW1	37 M	Jul 79
UNEQUAL USER PARTITION SIZE ALLOCATION - SPECIAL PATCH XX1	38 M	Jul 79
HOW TO CHANGE INIT.BOO's DEVICE AFTER INSTALLING SPECIAL PATCH YY1	39 M	Jul 79
INTEGERS IN DOUBLE PRECISION MU BASIC-11	40 M	Jul 79
STRING MANIPULATION IN ASSEMBLY LANGUAGE ROUTINES	41 N	Aug 79
SIZING MU BASIC-11	42 N	Aug 79
ERROR IN TABLE 4-1 OF THE USER'S GUIDE	43 N	Aug 79
RESTRICTION OF USR RESIDENCY WHEN RUNNING IN FOREGROUND	44 N	Aug 79
NOTES ON PERFORMANCE PATCHES NO. 4a, NO. 4b, NO. 4c	45 N	Aug 79
MAXIMUM ARRAY SUBSCRIPT SIZE	46 N	Aug 79
ASSEMBLING SOURCE FILES (SOURCE LICENSE HOLDERS ONLY)	47 M	Sep 79
USE OF SYS (1,n) FUNCTION WHEN ',n' IS OMITTED	48 M	Sep 79
DISABLING CR/LF USING TTYSET - PATCH P	49 M	Dec 79
HANDLER FETCH ERROR MAY LEAD TO MONITOR FAULT - PATCH Q	50 M	Jan 80

RT-11 V03B

DOCUMENTATION

Component	Sequence	Mon/Yr
ERROR IN FOREGROUND/BACKGROUND DEMONSTRATION	01 M	Aug 78
THE /LIST OPTION FOR THE DIBOL, FORTRAN, AND MACRO KEYBOARD MONITOR COMMANDS	02 M	Nov 78
UPDATE PAGES	03 N	Dec 78
RT-11 SOFTWARE SUPPORT DOCUMENTATION	04 M	Feb 79
SUMMARY OF UPDATES FOR RT-11 V03B DOCUMENTATION	05 M	Feb 79
NEW DEVICE RELEASE DOCUMENTATION, RT-11 V03B	06 N	Jun 79
.FORK AND .SYNCH BLOCK DOCUMENTATION	07 N	Jul 79
THE DEVICE TIME-OUT FEATURE	08 N	Sep 79
CORRECTION OF ERROR RETURNS IN .SYNCH CALL	09 M	Aug 79
EXAMPLE CODE IN .FORK DOCUMENTATION IS INCORRECT	10 N	Aug 79
EXTENDED MEMORY RESTRICTIONS	11 N	Dec 79
NOTES ON .MFPS/ .MTPS PROGRAMMED REQUEST	12 N	Apr 80

MACRO.SAV

Component	Sequence	Mon/Yr
INCORRECT HANDLING OF LOWER CASE IN MACRO/REPEAT BLOCKS	01 M	Jul 80

Component	Sequence	Mon/Yr
MISCELLANEOUS		
ERRORS IN THE SYSGEN CONDITIONAL FILE	01 M	Jul 78
ERRORS IN MTATCH ROUTINE	02 M	Nov 78
ODD RING BUFFER SIZES CAUSE ASSEMBLY ERRORS	03 R	Jun 79
INCORRECT NULL HANDLER DEVICE IDENTIFIER	04 M	Jun 79
GENERATING A SINGLE JOB MONITOR MAY CAUSE AN UNDEFINED GLOBAL	05 M	Aug 79
INCORRECT DEVICE IDENTIFIER FOR PC11	06 M	Sep 79
ERROR IN MTIN AND MTOUT ROUTINES	07 M	Sep 79
HIGH SPEED RING BUFFER PROBLEM ON SYSTEMS WITH ONE DL11	08 M	Jan 80
SYSGEN FOR TU58 SUPPORT	09 F	May 80
DEVICE TIME-OUT SUPPORT IN SYSGEN	10 F	May 80
MONITOR		
SOURCE PATCHING PROCEDURES FOR V3B	01 M	Aug 78
MULTITERMINAL CORRECTIONS	02 M	Aug 78
SINGLE JOB TIMER SUPPORT CORRECTIONS	03 M	Aug 78
FIXES FOR TWO FB/XM PROBLEMS IN VP3B	04 M	Aug 78
TERMINATING CONSOLE OUTPUT	05 M	Aug 78
EDITORS AND VO3B MONITORS	06 O	Aug 78
SEEK IN RK DRIVER	07 M	Aug 78
RL01 CONTROLLER VECTOR AT 160	08 M	Aug 78
FPU EXCEPTION HANDLING IN XM MONITOR	09 M	Sep 78
TWO EXTENDED MEMORY MONITOR PROBLEMS	10 M	Oct 78
TYPING CTRL/O TO THE CONSOLE TERMINAL SOMETIMES CRASHES RT-11	11 M	Oct 78
DX SJ MONITOR BOOTSTRAP CORRECTIONS	12 O	Oct 78
THE EDIT AND HELP MONITOR COMMANDS FAIL AFTER A VIRTUAL JOB HAS RUN	13 M	Nov 78
DIRECTORY CORRUPTION AND .UNPROTECT CORRECTIONS	14 M	Jan 79
FB AND XM MONITOR CLOCK SUPPORT	15 M	Apr 79
CHANGING CLOCK RATE ON GENERATED MONITORS	16 M	Apr 79
MULTI-TERMINAL CORRECTIONS TO DECREASE INTERRUPT LATENCY	17 M	Apr 79
FIXES FOR FB/XM PROBLEM IN V03B.00	18 M	Apr 79
FLOPPY SYSGEN WITH KW11-P CLOCK	19 M	May 79
DISTRIBUTED FB MONITOR CLOCK SUPPORT	20 M	May 79
OPTIONAL PATCH TO IMPROVE PERFORMANCE ON PDP-11/03 SYSTEMS	21 O	May 79
DISTRIBUTED PD AND DD FB MONITORS CLOCK SUPPORT	22 M	May 79
OPTIONAL PATCH TO IMPROVE PERFORMANCE ON PDP-11/03 AND PDT SYSTEMS FOR DD AND PD FB MONITORS	23 O	May 79
INPUT FILE LOST WHEN USING CSIGEN	24 M	Jun 79
NON-STANDARD VECTOR ADDRESSES FOR RX01 AND RX02 SECOND CONTROLLER	25 M	Nov 79
ABORT DURING COMPLETION CAUSES SYSTEM FAILURES	26 M	Nov 79
.ELRG CAN CAUSE THE SYSTEM TO CRASH	27 M	Sep 79
CORRECTION TO BOOTSTRAP TO RECOGNIZE LSI-11/23 PROCESSOR	28 M	Oct 79
FPU SAVE AREA IN XM MONITOR	29 M	Dec 79
BACKGROUND JOB MAY TRAP WHEN FOREGROUND ISSUES .SYNCH FROM INTERRUPT ROUTINE	30 M	Dec 79
PROBLEM WHEN FOREGROUND AND BACKGROUND JOB USE CSI AT SAME TIME	31 M	Mar 80
SYSTEM GENERATED SJ MONITOR WITH ESCAPE SEQUENCE SUPPORT	32 M	Apr 80
BREAKPOINT TRAP PROCESSOR STATUS WORD CORRUPTION	33 M	Apr 80
CORRECTIONS TO MULTI-TERMINAL SUPPORT	34 M	May 80
SOURCES		
UNRESOLVED DIFFERENCES IN DEMOX1.MAC	01 M	Jul 78
ISSUING SEEKS TO DX HANDLER IN XM CAUSES RANDOM SYSTEM FAILURES	02 M	Sep 78
DISTRIBUTED MAGTAPE HANDLER CORRECTIONS	03 M	Sep 78
DY HANDLER DOUBLE DENSITY ONLY SUPPORT	04 M	Apr 79
DL QUEUE ELEMENT AND XM ZERO FILL CORRECTIONS	05 M	Apr 79
MAGTAPE XM AND FSM CORRECTIONS	06 M	May 79
DL HANDLER SEEK AND UNIT CORRECTIONS	07 M	Aug 79
MAGTAPE ABORT ENTRY CORRECTION	08 M	Sep 79
MAGTAPE ABORT ENTRY CORRECTION IN XM	09 M	Dec 79
DL HANDLER SEEK CORRECTION	10 M	Jan 80
FILE SEQUENCE NUMBER SEARCH CORRECTION	11 M	Feb 80
HARD ERROR RECOVERY IN DM HANDLER	12 M	Mar 80
FSM DOES NOT PROCESS ERRORS CORRECTLY IN XM	13 M	Apr 80
RL01/RL02 HANDLER CORRECTIONS	14 M	Apr 80
MULTI-CONTROLLER DY HANDLER PROBLEM	15 M	May 80
SHORT MAGTAPE READS IN XM	16 M	Jun 80
MM HANDLER WRITELOCK ERRORS	17 M	Jun 80
CT HANDLER GETS JOB NUMBER FROM WRONG BYTE OF Q-ELEMENT	18 M	Jul 80
READ RECOVERY FIX IN MT HANDLER	19 M	Sep 80

Component	Sequence	Mon/Yr
SYSTEM HANDLERS		
RL01 HANDLER CORRECTIONS	01 M	Sep 78
ISSUING A SEEK TO THE DY HANDLER CAUSES THE SYSTEM TO CRASH	02 M	Oct 78
DM HANDLER CORRECTIONS	03 M	Oct 78
DM SYSTEM HANDLERS CORRECTIONS	04 M	Dec 78
DY HANDLER SPFUN CORRECTION	05 M	Dec 78
DM HANDLER ERROR HANDLING CORRECTIONS	06 M	Jan 79
RL01 PATCH CLARIFICATION	07 N	Jan 79
DM CTO AND SPFUN 376 CORRECTIONS	08 M	May 79
BATCH INCORRECTLY LOGS TERMINAL OUTPUT	09 M	Apr 80
IMPROPERLY CHECKED INPUT CAUSES UNPREDICTABLE RESULTS	10 M	Apr 80
DY ERROR RECOVERY	11 M	Jul 80
SYSTEM UTILITIES		
ERRORS IN FILEX INTERCHANGE FORMAT	01 M	Jul 78
LINK PRODUCES INCORRECT .LDA FILES	02 M	Sep 78
LIBR CLEARING OF LOCATION ZERO	03 M	Oct 78
LINK ERROR IN PSECTS MOVED TO ROOT	04 M	Oct 78
DUP DOES NOT DETECT END OF SEGMENT	05 M	Oct 78
COPY/DEVICE FAILS ON DISK TO MAGTAPE	06 M	Oct 78
LINK CAUSES MONITOR ODD ADDRESS TRAP	07 M	Nov 78
LIBR BLOCK BOUNDARY PROBLEM	08 M	Jan 79
EDIT ESCAPE CODE CORRECTION	09 O	Dec 78
ERROR IN ODT	10 M	Feb 79
ERROR IN EDIT	11 M	Feb 79
LINK CAN CAUSE TRAP TO 4	12 M	Feb 79
CORRECTIONS AND ADDITIONS TO FILEX	13 M	May 79
RESORC DISPLAYS STATUS OF FIRST 14 TERMINALS	15 M	Jun 79
LIBR /U SWITCH PROBLEM	16 M	Aug 79
IMPORTANT RESTRICTIONS FOR SQUEEZE OPERATIONS	17 M	Aug 79
DIR PROBLEMS	18 M	Oct 79
BAD BLOCK REPLACEMENT ON RK06s	19 N	Oct 79
WILD CARD MAGTAPE COPY ERROR PROCESSING CORRECTION	20 M	Oct 79
PROBLEM WITH PSECTS MOVED TO ROOT DURING LIBRARY PASS	21 M	Jan 80
PIP PROBLEMS	22 M	Feb 80
DIR PROBLEM	23 M	Feb 80
DUMPING DISK FILES WITH MAGTAPE HANDLER LOADED	24 M	Mar 80
BAD BLOCK REPLACEMENT ON RL01s	25 M	Apr 80
MDUP AND RL01s	26 M	Apr 80
CORRECTION TO PDT-11/150 SUPPORT IN FILEX	27 M	Apr 80
PROBLEM WITH DUP ERRORS WHEN /W OPTION USED	28 M	Apr 80
INSUFFICIENT DIRECTORY SPACE ON NON-SYSTEM FLOPPY	29 M	Apr 80
EDITING FILES ON WRITE-LOCKED DEVICES	30 M	May 80
BAD BLOCK SCAN FOR LARGE DEVICES	31 M	May 80
SAVE/RESTORE OF TERMINAL I/O LOGGING ACTION IN BATCH	32 M	Jun 80
CORRECTION TO PREVIOUS DIR PATCH	33 M	Jun 80
COPY/PREDELETE COMMAND	34 N	Sep 80

RT-11/2780 V2

Component	Sequence	Mon/Yr
CORRECTIONS TO 2780 PACKAGE	01	Sep 77
RUNNING 2780 ON RT-11 V3	02	Nov 77
PATCHING THE 2780 IN RT-11 V3	03 M	Jan 79
CHECK FOR ZERO LENGTH RECORD	04 M	Jan 79
RESTRICTION OF THE CONSOLE AS AN INPUT/OUTPUT DEVICE	05 R	Jan 79

DECUS

WHY YOU SHOULD JOIN DECUS

- SYMPOSIA
- PROGRAM LIBRARY
- TECHNICAL PUBLICATIONS
- SPECIAL USER GROUPS

DECUS (the Digital Equipment Computer Users Society), a worldwide association of customers and employees, provides a forum for the exchange of useful information, new program packages, and other innovations among those who use and supply the products of Digital Equipment Corporation.

Founded in 1961, DECUS is one of the largest and most active associations of its type in the world. Its objectives 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 of 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.

DECUS membership is free--upon application--to owners of DIGITAL computers and to their computer-interested employees. Membership carries important benefits and opportunities; among them are access to the program library; membership in local, regional, and national organizations; invitations to symposia dedicated to optimal use of DIGITAL equipment; opportunity to present papers and workshops on your own new ideas; and, finally, access to special interest groups dedicated to particular uses, languages, operating systems, and hardware configurations.

The program library maintained by DECUS contains over 1700 active software packages written and submitted by members and DIGITAL employees, and available to members for the media fee and reproduction cost only. Programs in the library range from enhanced editors and cross compilers to statistics packages and games. Of particular interest to college and university customers, for example, might be a package of programs for registration, class scheduling, dormitory management, and annual giving records. A laboratory user could take advantage of various statistical packages, or programs that perform Fourier transforms or least squares fitting. There are programs for circuit analysis, resonance simulation, blood-count evaluation, and stress testing, and scores of others which medical, scientific, or engineering customers could employ. Business people can find accounting packages, data analysis and payroll programs among the library's offerings. In addition, of course, there is a wide range of text editing, display graphics, and enhanced utility programs available.

Local, regional, and national DECUS organizations give members the opportunity to meet other DIGITAL customers and employees in an informal setting. From the monthly local meeting to the semiannual national symposium, the members can discuss their ideas, can learn what others are doing, and can give DIGITAL feedback necessary in improvement and future development of important products. Often, the national meetings in the various countries also provide the stage for major new product announcements by the company, and a showplace for interesting developments in both hardware and software technology. At any meeting a member might describe ideas and programs he has implemented, or fine tuning that has been achieved for a particular application. Members give papers, participate in panel discussions, lead workshops, or conduct demonstrations for the benefit of other members.

DECUS also publishes newsletters focusing on special interest, technical books that contain the compilation of symposia presentations; and a society newsletter.

Many members derive a particular benefit from joining DECUS Special Interest Groups. Special Interest Groups often meet as subsets of regional and national meetings, or they may meet on their own, to discuss their special interest. Here, all RSTS/E users, or everyone interested in COBOL, for example, can have a chance to get together and discuss topics of mutual importance. At present there are more than 20 Special Interest Groups (SIGs) in the U.S. alone. Many of the SIGs print newsletters and disseminate valuable technical information to members. The SIGs really are the front-line of mutual help and problem solving.

DIGITAL provides DECUS with administrative personnel and office space around the world, but the organization is run by its members, who act as speakers for conferences, planners for meetings, editorial and production talent for newsletters and minutes, and the inventors of the ideas and new programs necessary to keep the library up to date. Belonging to DECUS is a valuable adjunct to owning DIGITAL equipment on both the program exchange and the information exchange fronts.

To obtain a DECUS membership form, complete the form below and return it to the appropriate chapter office.

CHAPTER

ADDRESS

AUSTRALIA (Australia, Brunei, Indonesia, Malaysia,
New Zealand, Singapore)

DECUS Australia
P.O. Box 384
Chatswood
NSW 2067
Australia

CANADIAN (Canada)

DECUS Canada
P.O. Box 13000
Kanata, Ontario K2K 2A6
Canada

EUROPEAN (Europe, Middle East, North Africa, Russia)

DECUS Europe
P.O. Box 510
12, avenue des Morgines
CH-1213 Petit-Lancy 1/GE
Switzerland

U.S. (U.S. and all other countries)

DECUS U.S. Chapter
One Iron Way
Marlboro, Massachusetts 01752
U.S.A.

Please send me a DECUS membership form.

NAME: _____
(First)   (Last/Family Name)

COMPANY: (INSTALLATION) _____

ADDRESS: _____

_____

_____

_____
(City, Town, State/Province, and Zip/Postal Code)

COUNTRY: _____

TELEPHONE: _____ TELEX _____

I obtained this form from _____

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	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, Bahraine, 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	SPR Center
Greece, Portugal, Spain, Switzerland, Yugoslavia & Sina (Morocco, Algeria, Tunisia, Cyprus, Turkey, Malta)	Digital Equipment Corp. SA 9, route des Jeunes 1211 Geneva 26 Switzerland