RT-11

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THE SOFTWARE DISPATCH

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RT-11 SOFTWARE DISPATCH

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

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.**

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Eleanor F. Hunter, Editor
Ann Owens, Associate Editor

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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.

RT-11 V4.Ø
Monitor Patches
RT-11XM (S) VØ4.ØØ

Seq 1.1.1 M

ISSUING .SETTOP #-2 AND .EXIT UNDER XM MONITOR MAY CORRUPT SYSTEM DISK (SD)

If a background program, running under the XM monitor, executes a .SETTOP #-2 request, approximately 1ØØ blocks following SWAP.SYS on the system device can be destroyed.

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.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called RMONFB.ØØ1 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>== 2/,.,/;ØØ1/
ELRMFB<tab>== 3
-1741,,/;ØØ1/
.IF NE<tab>MMG$T
<tab>CMP<tab>USRLOC,@#USERTOP
<tab>BHIS<tab>114$
<tab>MOV<tab>USRLOC,@#USERTOP
114$:
.ENDC
/
```

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.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called BSTRAP.ØØ1 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>== 4/,.,/;ØØ1/
ELBSTR<tab>== 5
-26,26,/;ØØ1/
PATLXM<tab>= 1
/
```

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

```
.R SLP
*RMONFB.MAC=RMONFB.MAC,RMONFB.ØØ1
*BSTRAP.MAC=BSTRAP.MAC,BSTRAP.ØØ1
*^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 XM generated monitor will be RT-11XM (S) VØ4.ØØA.

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.Ø
Monitor Patches
RT-11FB VØ4.ØØ
RT-11FB (S) VØ4.ØØ
RT-11XM (S) VØ4.ØØA

IMPLEMENTING INTERNAL HANDLER QUEUEING IN FB AND XM MONITORS (SD)

The mechanism for internal queueing within a handler is incorrectly implemented in the FB monitor. For information on handlers that queue internally please reference chapter 7.4 in the Software Support Manual and the article "Abort Procedures For Handlers That Queue Internally."

1. The following is a required patch to RT-11FB VØ4.ØØ (distributed) monitor.

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

   Create the file RT11FB.ØØ1 as follows. Replace 'DK:' in the patch below with the name of the device that contains the monitor file.

```
RUN SIPP
DK:RT11FB.SYS/A/C
Ø
476Ø
4Ø46Ø
^Z                  (uparrow Z)
53612
167Ø4
1615Ø4
4741
113Ø4
1426
24444
^Y                  (uparrow Y)
1Ø6577
^C                  (uparrow C)
```

2. To apply the patch to the FB monitor type:

   @RT11FB.ØØ1

   The resulting version of the monitor will be RT-11FB VØ4.ØØA.

3. The following is a required patch to the RT-11 monitor source file RMONFB.MAC. You must apply it to the updated uncommented copy previously modified in Seq. 1.1.1 M.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called RMONFB.ØØ2 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>== 3/,.,/;ØØ2/
ELRMFB<tab>== 4
-44Ø8,44Ø8,/;ØØ2/
-4411,4411,/;ØØ2/
<tab>MOV<tab>@R3,R4
-4412,,/;ØØ2/
<tab>CMP<tab>-(R4),-(R4)
/
```

4. The following is a required patch to the RT-11 monitor source file BSTRAP.MAC. You must apply it to the updated uncommented copy previously modified in Seq. 1.1.1 M.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called BSTRAP.ØØ2 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>== 5/,.,/;ØØ2/
ELBSTR<tab>== 6
-27,27,/;ØØ2/
PATLFX<tab>= 1
/
```

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

```
.R SLP
*RMONFB.MAC=RMONFB.MAC,RMONFB.ØØ2
*BSTRAP.MAC=BSTRAP.MAC,BSTRAP.ØØ2
*^C                                (CTRL/C to exit)
```

6. 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) VØ4.ØØA. The resulting version of the XM generated monitor will be RT-11XM (S) VØ4.ØØB.

7. 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.Ø
Monitor Patches
RT-11SJ (S) VØ4.ØØ
RT-11FB (S) VØ4.ØØA
RT-11XM (S) VØ4.ØØB

ADDING HIGH SPEED RING BUFFER SUPPORT (JM)

Adding high speed ring buffer support (HSR$B = 1) to a generated multi- terminal monitor causes PDLTBØ to be undefined when linking the monitor components. In addition TIFBLK, HSRB, and HSRBUF are multiply defined when generating a multi-terminal SJ monitor with high speed ring buffer support.

1. The following is a required patch to the RT-11 monitor source file BSTRAP.MAC. You must apply it to the updated copy previously modified in Seq. 1.1.2 M.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called BSTRAP.ØØ3 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>== 6/,.,/;ØØ3/
   ELBSTR<tab>== 7
   -28,28,/;ØØ3/
   PATLAL<tab>= 1
   -132Ø,132Ø,/;ØØ3/
   .IIF EQ HSR$B,<tab>.WORD<tab>PDLTBØ
   -1575,1575,/;ØØ3/
   .ASSUME<tab>BOOTSZ<tab>LE<tab>7
   /
   ```

2. The following is a required patch to the RT-11 monitor source file KMON.MAC. You must apply it to the uncommented source supplied with the Version 4 distribution kit.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called KMON.ØØ1 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.

   ```
   -/ELKMON<tab>== 1/,.,/;ØØ1/
   ELKMON<tab>== 2
   -92,,/;ØØ1/
   IN$RUN<tab>= 1ØØ
   ```

```
IN$IND<tab>= 2ØØ
-449,,/;ØØ1/
<tab>BISB<tab>@#USERRB,EXTIND-$RMON(R2)
-465,,/;ØØ1/
<tab>MOV<tab>@#SYSPTR,R2
<tab>ADD<tab>#EXTIND+1-$RMON,R2
<tab>TSTB<tab>@R2
<tab>BPL<tab>6$
<tab>BICB<tab>#IN$IND,@R2
<tab>BISB<tab>#IN$RUN,@R2
<tab>ADDR<tab>INDCNT,R2
-472,,/;ØØ1/
.ENDC
-477,477,/;ØØ1/
-3473,,/;ØØ1/
INDCNT::.WORD<tab>4$-3$
3$:<tab>.WORD<tab>2Ø122,54523,44472,42116
<tab>.BYTE<tab>Ø
4$:<tab>.BYTE
/
```

3. The following is a required patch to the RT-11 monitor source file RMONSJ.MAC. You must apply it to the uncommented source supplied with the Version 4 distribution kit.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called RMONSJ.ØØ1 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.

```
-/ELRMSJ<tab>== 6/,.,/;ØØ1/
ELRMSJ<tab>== 7
-116,,/;ØØ1/
EXTIND::.WORD<tab>Ø
-1Ø63,1Ø63,/;ØØ1/
1Ø$:<tab>CLRB<tab>EXTIND+1
-1569,1569,/;ØØ1/
-1577,1581,/;ØØ1/
HSRBUF::.BLKB<tab>HSRBSZ
TIFBLK::BSS<tab>F.BSIZ/2
-1583,1583,/;ØØ1/
/
```

4. The following is a required patch to the RT-11 monitor source file RMONFB.MAC. You must apply it to the updated copy previously modified in Seq. 1.1.2 M.

To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called RMONFB.ØØ3 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>== 4/,.,/;ØØ3/
ELRMFB<tab>== 5
-112,,/;ØØ3/
EXTIND::.WORD<tab>Ø
-2197,,/;ØØ3/
<tab>CLRB<tab>EXTIND+1
/
```

5. The following is a required patch to the RT-11 monitor source file MTTINT.MAC. You must apply it to the uncommented source supplied with the Version 4 distribution kit.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called MTTINT.ØØ1 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.

```
-/ELMTIN<tab>== 2/,.,/;ØØ1/
ELMTIN<tab>== 3
-626,,/;ØØ1/
<tab>CLRB<tab>EXTIND+1
/
```

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

```
.R SLP
*BSTRAP.MAC=BSTRAP.MAC,BSTRAP.ØØ3
*KMON.MAC=KMON.MAC,KMON.ØØ1
*RMONSJ.MAC=RMONSJ.MAC,RMONSJ.ØØ1
*RMONFB.MAC=RMONFB.MAC,RMONFB.ØØ3
*MTTINT.MAC=MTTINT.MAC,MTTINT.ØØ1
*^C                                    (CTRL/C to exit)
```

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 SJ monitor will be RT-11SJ (S) VØ4.ØØA. The resulting version of the FB monitor will be RT-11FB (S) VØ4.ØØB. The resulting version of the XM monitor will be RT-11XM (S) VØ4.ØØC.

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.

CORRUPTION OF CSI TEXT UNDER XM MONITOR (SD)

Under the XM monitor, context switching between a foreground job running completion routines and a background job using the CSI processor can cause stack corruption of the switches CSI should return.

1. The following is a required patch to the RT-11 monitor source file USR.MAC. You must apply it to the uncommented source supplied with the Version 4 distribution kit.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called USR.ØØ1 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.

   ```
   -/ELUSR<tab>== 1/,.,/;ØØ1/
   ELUSR<tab>== 2
   -2163,,/;ØØ1/
   <tab>PUT<tab>JOBSTK,SP
   /
   ```

2. The following is a required patch to the RT-11 monitor source file BSTRAP.MAC. 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 BSTRAP.ØØ4 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>== 7/,.,/;ØØ4/
   ELBSTR<tab>== 1Ø
   -26,26,/;ØØ4/
   PATLXM<tab>= 2
   /
   ```

3. Apply the patches to the source as follows:

   ```
   .R SLP
   *USR.MAC=USR.MAC,USR.ØØ1
   *BSTRAP.MAC=BSTRAP.MAC,BSTRAP.ØØ4
   ?SLP-W-Audit trail overwrites line
   PATLFX      = 1                                    ;ØØ2
   *^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 resultant version of the XM generated monitor will be RT-11XM (S) VØ4.ØØD.

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.Ø
Monitor Patches
RT-11BL VØ4.ØØ
RT-11SJ VØ4.ØØ
RT-11FB VØ4.ØØA
RT-11SJ (S) VØ4.ØØA
RT-11FB (S) VØ4.ØØB
RT-11XM (S) VØ4.ØØD

MISSING COLON IN BOOT XX CAUSES SYSTEM HALT (DF)

When BOOT xx is typed, where xx is a device name, the command expands to BOOT DK:xx. If the handler file DK:xx exists, DUP assumes that the handler contains a bootstrap, and it branches into the file at the bootstrap offset. In most cases, the system will immediately HALT on entering the handler.

The following monitor and bootstrap patches, together with the DUP patch, (Seq 7.2.1 M in this issue of the Software Dispatch), must be applied. Please note that once the patch to DUP is applied, any monitor which does not contain the following patch will not be recognized by DUP as a bootable file and will produce the error message:

```
?DUP-F-Non-bootable driver DEV:Filename
```

1. The following is a required patch to the RT-11BL VØ4.ØØ (distributed) base line monitor. It must be installed in all copies of RT11BL.SYS.

   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. Create the file, RT11BL.ØØ1, as follows. Replace 'DK:' in the patch below with the name of the device that contains the monitor file.

```
RUN SIPP
DK:RT11BL.SYS/C
4722
Ø
7354
^Z                                  (up-arrow/Z)
^Z                                  (up-arrow/Z)
474Ø
2Ø
4Ø46Ø
^Y                                  (up-arrow/Y)
17475Ø
^C                                  (up-arrow/C)
```

2. To apply the patch to RT11BL.SYS type:

   ```
   @RT11BL.ØØ1
   ```

   The resulting version of the monitor will be RT-11BL VØ4.ØØA.

3. The following is a required patch to the RT-11SJ VØ4.ØØ (distributed) single job monitor. It must be installed in all copies of RT11SJ.SYS.

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

RT-11 V4.Ø
Monitor Patches
RT-11BL VØ4.ØØ
RT-11SJ VØ4.ØØ
RT-11FB VØ4.ØØA
RT-11SJ (S) VØ4.ØØA
RT-11FB (S) VØ4.ØØB
RT-11XM (S) VØ4.ØØD

Seq 1.1.5 M

2 of 3

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.

Create the file, RT11SJ.ØØ1 as follows. Replace 'DK:' in the patch below with the name of the device that contains the monitor file.

```
RUN SIPP
DK:RT11SJ.SYS/C
4722
Ø
7354
^Z                                  (up-arrow/Z)
^Z                                  (up-arrow/Z)
474Ø
2Ø
4Ø46Ø
^Y                                  (up-arrow/Y)
17475Ø
^C                                  (up-arrow/C)
```

4. To apply the patch to RT11SJ.SYS type:

```
@RT11SJ.ØØ1
```

The resulting version of the monitor will be RT-11SJ VØ4.ØØA.

5. The following is a required patch to the RT-11FB VØ4.ØØA (distributed) foreground background monitor. It must be installed in all updated copies of RT11FB.SYS (previously modified in Seq 1.1.2 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. Create the file, RT11FB.ØØ2 as follows. Replace 'DK:' in the patch below with the name of the device that contains the monitor file.

```
RUN SIPP
DK:RT11FB.SYS/C
4722
Ø
7354
^Z                                  (up-arrow/Z)
^Z                                  (up-arrow/Z)
474Ø
2Ø
41Ø6Ø
^Y                                  (up-arrow/Y)
17425Ø
^C                                  (up-arrow/C)
```

RT-11 V4.Ø Seq 1.1.5 M
Monitor Patches
RT-11BL VØ4.ØØ 3 of 3
RT-11SJ VØ4.ØØ
RT-11FB VØ4.ØØA
RT-11SJ (S) VØ4.ØØA
RT-11FB (S) VØ4.ØØB
RT-11XM (S) VØ4.ØØD

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

```
@RT11FB.ØØ2
```

The resulting version of the monitor will be RT-11FB VØ4.ØØB.

7. After the appropriate patch has been made, copy the bootstrap and re-boot your system as follows:

```
.COPY/BOOT RT11yy.SYS SY:          (yy = BL, SJ, or FB)
.BOOT SY:
```

8. The following is a required patch to the RT-11 monitor source file BSTRAP.MAC. You must apply it to the updated copy previously modified in Seq. 1.1.4 M.

To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called BSTRAP.ØØ5 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>== 1Ø/,.,/;ØØ5/
ELBSTR<tab>== 11
-28,28,/;ØØ5/
PATLAL<tab>= 2
-117Ø,117Ø,/;ØØ5/
B$DEVU::.WORD<tab><^RBOT>
/
```

9. Apply the patches to the source as follows:

```
.R SLP
*BSTRAP.MAC=BSTRAP.MAC,BSTRAP.ØØ5
*^C                                (CTRL/C to exit)
```

1Ø. 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 SJ generated monitor will be RT-11SJ (S) VØ4.ØØB. The resulting version of the FB generated monitor will be RT-11FB (S) VØ4.ØØC. The resulting version of the XM generated monitor will be RT-11XM (S) VØ4.ØØE.

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

DD PRIMARY BOOTSTRAP PROBLEM (DG)

The DD handler does not bootstrap from a hardware bootstrap or from the BOOT/FOREIGN command.

A typographical error in the primary bootstrap of the DD handler causes an improper memory reference for the bootstrap device unit number. Depending on random memory contents, an improper unit number may be used, causing a bootstrap failure.

1. The following is a required patch to the RT-11 device handler source file DD.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 DD 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.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called DD.ØØ1 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.

   ```
   -/ELDD<tab>== 1/,.,/;ØØ1/
   ELDD<tab>== 2
   -685,685,/;ØØ1/
   <tab>MOV<tab>RØ,@#B$DEVU
   /
   ```

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

   ```
   .R SLP
   *DD.MAC=DD.MAC,DD.ØØ1
   *^C                                    (CTRL/C to exit)
   ```

3. 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+DD/OBJ
   .LINK/EXECUTE:DD.SYS DD
   ```

   NOTE: In addition if your monitor is XM the above MACRO commands must include XM.MAC (for example, MACRO XM+SYCND+...). You must now either reboot or REMOVE and INSTALL your DD handler.

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

ERRORS IN DM OFFSET POSITIONING AND ERROR LOGGING (SD)

The DM handler does offset position error recovery incorrectly. The error logger report for the contents of RKASOF register is misleading and this patch will correct that, too.

1. The following is a required patch to the RT-11 device handler source file DM.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 DM 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.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called DM.ØØ1 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.

```
-/ELDM<tab>== 1/,.,/;ØØ1/
ELDM<tab>== 2
-47,47,/;ØØ1/
DMNRG1<tab>= 7.
-82,,/;ØØ1/
OFST<tab>=<tab>4
-373,373,/;ØØ1/
<tab>BGT<tab>DMSETJ
-518,,/;ØØ1/
<tab>MOV<tab>(R3)+,-(SP)
<tab>BIT<tab>#OFST,-6(R3)
<tab>BEQ<tab>1$
<tab>MOV<tab>@OFFPTR,@SP
<tab>CLRB<tab>@SP
<tab>SWAB<tab>@SP
1$:<tab>MOV<tab>(SP)+,(R1)+
<tab>MOV<tab>(R3)+,(R1)+
-57Ø,,/;ØØ1/
<tab>.WORD<tab>-1
/
```

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

```
.R SLP
*DM.MAC=DM.MAC,DM.ØØ1
*^C                                    (CTRL/C to exit)
```

3. 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+DM/OBJ .LINK/EXECUTE:DM.SYS DM

NOTE: In addition if your monitor is XM the above MACRO commands must include XM.MAC (for example, MACRO XM+SYCND+...) You must now either reboot or REMOVE and INSTALL your DM handler.

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

BUFFER CLEARING ON SHORT READ IN XM MONITOR (SD)

This patch fixes an error in the file structured MM, MT, MS mag-tape handlers for clearing a user buffer on a short read in XM. In addition it fixes the write-lock error reporting in the MM handler.

1. The following is a required patch to the RT-11 device handler source file TM.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 MT 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.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called TM.ØØ1 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.

```
-22,,/;ØØ1/
ELTM<tab>== 1
-741,741,/;ØØ1/
XBUMP:<tab>MOV<tab>MTCQE,-(SP)
<tab>ADD<tab>#Q$PAR,@SP
<tab>ADD<tab>#1Ø,@(SP)+
<tab>ADD<tab>#512.,OLDBA
/
```

2. The following is a required patch to the RT-11 device handler source file TJ.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 MM 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.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called TJ.ØØ1 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.

```
-22,,/;ØØ1/
ELTJ<tab>== 1
-5Ø3,,/;ØØ1/
<tab>BIT<tab>#WRL,@#MMDS
<tab>BEQ<tab>AB1
```

```
<tab>MOV<tab>WRITELOK,R4
-513,516,/;ØØ1/
<tab>BR<tab>NQ1
-885,885,/;ØØ1/
XBUMP:<tab>MOV<tab>MMCQE,-(SP)
<tab>ADD<tab>#Q$PAR,@SP
<tab>ADD<tab>#1Ø,@(SP)+
<tab>ADD<tab>#512.,OLDBA
/
```

3. The following is a required patch to the RT-11 device handler source file TS.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 MS 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.

   To install the patch, first create a patch file for input to the SLP utility. Using an editor, create a file called TS.ØØ1 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.

```
-/ELTS<tab>== 2/,.,/;ØØ1/
ELTS<tab>== 3
-855,855,/;ØØ1/
XBUMP::<tab>MOV<tab>MSCQE,-(SP)
<tab>ADD<tab>#Q$PAR,@SP
<tab>ADD<tab>#1Ø,@(SP)+
<tab>ADD<tab>#512.,OLDBA
/
```

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

```
.R SLP
*TM.MAC=TM.MAC,TM.ØØ1
*TJ.MAC=TJ.MAC,TJ.ØØ1
*TS.MAC=TS.MAC,TS.ØØ1
*^C                          (CTRL/C to exit)
```

5. 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. Also, yy represents a handler filename TM, TJ or TS, and zz represents a magtape handler mnemonic MT, MM or MS.

```
.MACRO SYCND.xxx+yy/OBJ
.MACRO SYCND.xxx+FSM/OBJ
.LINK/EXECUTE:zz.SYS yy,FSM
```

   For the hardware handler use the following command sequence:

```
.MACRO SYCND.HD+yy/OBJ
```

```
.LINK/EXECUTE:zzHD.SYS yy
```

NOTE: In addition if your monitor is XM the above MACRO commands must include XM.MAC (for example, MACRO XM+SYCND...). You must now either reboot or REMOVE and INSTALL your magtape handler.

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

RT-11 V4.Ø
System Utilities
DUP.SAV VØ4.ØØA

Seq 7.2.1 M

1 of 2

MISSING COLON IN BOOT XX CAUSES SYSTEM HALT (DF)

When BOOT xx is typed, where xx is a device name, the command expands to BOOT DK:xx. If the handler file DK:xx exists, DUP assumes that the handler contains a bootstrap, and it branches into the file at the bootstrap offset. In most cases, the system will immediately HALT on entering the handler.

The following patch to DUP.SAV, together with the monitor patch, (Seq 1.1.5 M in this issue of the Software Dispatch), must be applied. Please note that once this patch to DUP is applied, any monitor which is not patched with patch sequence number 1.1.5 M will not be recognized as a bootable file and will produce the error message:

?DUP-F-Non-bootable driver DEV:Filename

1. The following is a required patch to the DUP.SAV utility program. It must be installed in DUP VØ4.ØØA.

   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 DUP.SAV is on a mounted volume. Create the file, DUP.ØØ1 as follows. Replace 'DK:' in the patch below with the name of the device that contains the program file.

```
RUN SIPP
DK:DUP.SAV/A/C
Ø
3546
1Ø2
^Z                              (up-arrow/Z)
3Ø71Ø
4767
216Ø
1131
^Z                              (up-arrow/Z)
33Ø74
16ØØ11
1627ØØ
36
26527
3722
7354
2Ø7
^Y                              (up-arrow/Y)
1Ø7Ø12
^C                              (up-arrow/C)
```

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

   @DUP.ØØ1

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

   The resulting version of the utility will be DUP VØ4.ØØB.

RT-11 V4.Ø
System Utilities
DIR.SAV VØ4.ØØ

Seq 7.3.1 M

1 of 2

DIR/OUT COMMAND PRODUCES DEVICE NOT ACTIVE MESSAGE (DF)

When a directory listing is written to a file using DIR/OUT:filename, and the device to contain the directory listing is full, DIR prints DEVICE NOT ACTIVE. The error message should read OUTPUT FILE FULL.

1. The following a required patch to the DIR.SAV utility program. It must be installed in DIR VØ4.ØØ.

   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 DIR.SAV is on a mounted volume. Create the file DIR.ØØ1 as follows. Replace 'DK:' in the patch below with the name of the device that contains the program file.

```
RUN SIPP
DK:DIR.SAV/A/C
Ø
5Ø
2Ø6Ø2
^Z                              (up-arrow/Z)
1Ø54
1Ø1
^Z                              (up-arrow/Z)
5634
2Ø6Ø4
^Z                              (up-arrow/Z)
1Ø15Ø
4767
1Ø4Ø2
24Ø
^Z                              (up-arrow/Z)
2Ø556
123727
52
1
1ØØ3
4567
175776
14Ø6
4567
17577Ø
14Ø1
2Ø7
^Y                              (up-arrow/Y)
2Ø1Ø
^C                              (up-arrow/C)
```

RT-11 V4.Ø
System Utilities
DIR.SAV VØ4.ØØ

Seq 7.3.1 M

2 of 2

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

```
@DIR.ØØ1
```

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

   The resulting version of the DIR.SAV will be DIR VØ4.ØØA.

RT-11 V4.Ø
System Utilities
LINK.SAV VØ6.Ø1

Seq 7.9.1 M

1 of 2

LINK BYTE RELOCATION AND DIRECTORY SIZE (SD)

LINK calculates the byte relocation value for a negative displacement incorrectly. In addition the value it prints in the error message:

```
?LINK-F-BYTE RELOCATION ERROR IN xxxxxx
```

is incorrect. LINK calculates the directory size of a multiple entry point library incorrectly.

1. This is a required patch to the LINK.SAV utility program (VØ6.Ø1). 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.

   This patch is installed using SIPP, the Save Image Patching Program. First, ensure that a copy of the file LINK.SAV is on a mounted volume.

   Create the file, LINK.ØØ1 as follows. Replace 'DK:' in the patch below with the name of the device that contains the program file.

```
RUN SIPP
DK:LINK.SAV/A/C
Ø
5Ø22
4Ø461
^Z                              (uparrow Z)
663Ø
2172
^Z                              (uparrow Z)
723Ø
1572
^Z                              (uparrow Z)
23Ø32
45Ø1
^Z                              (uparrow Z)
415ØØ
222Ø
^Z                              (uparrow Z)
4153Ø
2266
16ØØØ1
667Ø1
173274
24Ø
1Ø1ØØ
^Z                              (uparrow Z)
43722
```

```
4767
17212Ø
1Ø5766
4
1ØØØØ3
1Ø57ØØ
1ØØØØ1
11ØØØØ
2Ø7
^Y                                  (uparrow Y)
45647
^C                                  (uparrow C)
```

2. To apply the patch to LINK.SAV type:

```
@LINK.ØØ1
```

   The resulting version of the utility will be LINK VØ6.Ø1A.

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

A LIBR COMMAND WITH NO FILE-SPEC CAN CAUSE A SYSTEM CRASH (SD)

LIBR does not handle a command with no input file specs properly.

1. This is a required patch to the LIBR.SAV utility program. It must be installed in LIBR VØ4.ØØ.

   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 LIBR.SAV is on a mounted volume. Create the file, LIBR.ØØ1 as follows. Replace 'DK:' in the patch below with the name of the device that contains the program file.

```
RUN SIPP
DK:LIBR.SAV/A/C
Ø
3132
1Ø1
^Z                                  (uparrow Z)
3354
4767
215Ø
^Z                                  (uparrow Z)
553Ø
137ØØ
54
127Ø2
1416
127Ø4
6
5712
1ØØ7
627Ø2
1Ø
53Ø4
1372
5726
167
175554
2Ø7
^Z                                  (uparrow Z)
14576
45Ø1
^Y                                  (uparrow Y)
13327
^C                                  (uparrow C)
```

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

```
@LIBR.ØØ1
```

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

   The resulting version will be LIBR VØ4.ØØA.

RT-11 V4.Ø
System Utilities
SIPP.SAV VØ4.ØØC

Seq 7.16.1 M

1 of 1

CORRUPTION OF MULTI-BLOCK LOG FILES (JM)

When creating a multi-block log file SIPP may cause file corruption. A TRAP to 4 may also occur depending on the size of file being created. The problem is caused by an internal buffer pointer not being reset properly.

1. The following is a required patch to the SIPP.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 SIPP.SAV is on a mounted volume. Create the file, SIPP.ØØ1 as follows. Replace 'DK:' in the patch below with the name of the device that contains the program file.

```
RUN SIPP
DK:SIPP.SAV/A/C
Ø
13716
4767
73Ø4
^Z                                  (up-arrow/Z)
2Ø46Ø
42Ø6Ø
^Z                                  (up-arrow/Z)
23226
5267
156Ø44
127Ø2
14Ø6
2Ø7
^Y                                  (up-arrow/Y)
17Ø133
^C                                  (up-arrow/C)
```

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

   @SIPP.ØØ1

   The resulting version of the utility will be SIPP VØ4.ØØD.

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

RT-11 V4.Ø DOCUMENTATION CORRECTIONS AND ADDITIONS

This article describes corrections and additions to the RT-11 System Release Notes.

In some cases, the changes noted in this article correct errors in this manual. In others, the notes clarify points discussed in the manual, or provide additional information which you may find useful.

Change pages incorporating information discussed in this article will be released at a later date.

RT-11 SYSTEM RELEASE NOTES

1. Error logging is a new feature that is briefly described in Section 1.3.2.1 on page 1-4. The error logger will keep a statisitical record of all I/O operations on the following devices:

   DD
   DL
   DM
   DP
   DS
   DT
   DX
   DY
   PD
   RF
   RK

2. Near the bottom of page 2-1, the manual states: "In all monitors, except for monitors that include multi-terminal support, the default input ring buffer size has been raised to 134 characters." This is incorrect; The default input ring buffer size is now 134 characters for all monitors, including those with multi-terminal support.

3. The last sentence in Section 2.2.2, page 2-3, is erroneous. The sentence should read: "The FORMAT command has been added to allow you to format disks and diskettes, and to verify any disk, diskette, DECtape, or DECtape II." The FORMAT command does not allow you to format DECtape or DECtape II.

4. The following additions and changes to DUP were omitted from Section 2.5 on page 2-8.

   DUP can now verify an image mode copy operation. Use the keyboard monitor command COPY/DEVICE/VERIFY or DUP /I/H options for this purpose.

   There are several changes to the operation of bad block scans. Bad block scans on some devices and under some monitors are significantly faster than

under RT-11 Version 3B. Also, DUP no longer prints its bad block listing as bad blocks are detected. Instead, the bad block listing output is buffered. If you abort a bad block scan by typing a double <CTRL/C>, DUP will list the bad blocks detected and verified to that point.

Using RT-11 Version 3B DUP with SET USR NOSWAP, it was possible to perform multiple image mode copies of disks (using the /I option) without having to replace the system volume after each copy operation. With RT-11 Version 4 DUP, the system volume must be replaced after each copy. The preferred way to perform these copies is to use the keyboard monitor command COPY/DEVICE/WAIT.

5. Aside from the changes to HELP noted in Section 2.7 on page 2-8, there have also been significant changes made to the procedure for modifying the HELP file. See the RT-11 Installation and System Generation Guide, Section 2.8.16 on page 2-36, for more details.

6. Delete the following sentence from the first paragraph of Section 2.9 on page 2-9: "The /O and /V options require the line to be reentered and will no longer include the file as part of the previous line."

7. Section 2.1Ø, page 2-9, states: "MACRO-11 now indicates errors more severe than the warning state." To be more specific, upon detecting assembly errors, MACRO-11 now sets the user program error code byte to "error" rather than "warning".

8. In addition to the changes to PIP discussed in Section 2.14 on page 2-1Ø, note that for operations involving PIP, the system volume can be removed only if the keyboard monitor /WAIT option or PIP /E is used.

9. On page 3-3, restriction 3 in Section 3.1.6 indicates that COPY/DEVICE should not be used between volumes with different numbers of physical blocks. This is not completely true. You should not use the COPY/DEVICE command to copy a larger volume to a smaller one, but you can use it to copy a smaller volume to a larger one. However, it is advisable to squeeze the output volume afterwards so that the directory will show the correct number of free blocks.

1Ø. Section 3.1.7 on page 3-3 describes a restriction for linking privileged jobs with extended memory overlays. For more information on this topic, see chapter 4 of the RT-11 Software Support Manual and chapter 11 of the RT-11 System User's Guide.

11. Add the following two restrictions for RESORC, Section 3.1.11, page 3-5:

If you issue the SHOW CONFIGURATION command on a PDP-11/6Ø, the presence of the line "FP11 Hardware Floating Point Unit" in the display that follows does not necessarily indicate the presence of the 11/6Ø FP11-E Floating Point Processor, since all PDP11/6Øs are capable of executing the FP11

instruction set.

In the SHOW DEVICES display, RESORC will indicate that an unloaded handler is loaded or resident if its physical name has been assigned as a logical name to another handler that is loaded or resident. The SHOW command (no option) will indicate the correct status of the handler.

12. Add the following note to the list of changes to the RT-11 System Message Manual, Section 3.3.2, page 3-11:

    If the LINK or EXECUTE command is issued in response to the keyboard monitor command prompt, and a file specified on the first line of the command is not found, the message "LINK-W-File not found DEV:FILNAM.TYP" appears. LINK then exits and the keyboard monitor prompt returns, even though the message indicates an error severity level of "warning" rather than "fatal". If a file specified on a continuation line of the LINK or EXECUTE command is not found, the same error message appears. In this case, however, LINK reprompts for another file specification.

13. Section 3.3.5 outlines changes to the RT-11 Installation and System Generation Guide. Add the following to the list of changes:

    The patch "Running RT-11 in Less Memory Than Is Available" in Section 2.8.19 will not work for setting memory size to exactly 28K words. In this case, use the patch on page 2-42, "Setting Upper Limit on Memory Size" instead.

RT-11 V4.Ø DOCUMENTATION CORRECTIONS AND ADDITIONS

This article describes corrections and additions to the RT-11 Installation and System Generation Guide. It is intended to supplement the material contained in Section 3.3 of the RT-11 System Release Notes.

In some cases, the changes noted in this article correct errors in this manual. In others, the notes clarify points discussed in the manual, or provide additional information which you may find useful.

Change pages incorporating information discussed in this article will be released at a later date.

RT-11 INSTALLATION AND SYSTEM GENERATION GUIDE

1. Section 2.3.4 on page 2-1Ø states that you must have the file TT.SYS on your system volume if you plan to use the SJ monitor. This is only true if you plan the use a non-multi-terminal SJ monitor. The FB, XM, and multi-terminal SJ monitors contain an integral, resident TT handler, so you need not have TT.SYS on your system volume if you plan to use any of these monitors.

2. In section 2.3.8 on page 2-12, before renaming LS.SYS to LP.SYS, remember to save the original LP handler by renaming it. After renaming LS.SYS to LP.SYS, you must reboot the system so that the proper handler will be installed. The commands for replacing the parallel line printer handler with the serial line printer handler are as follows:

```
.RENAME/SYSTEM LS.SYS LP.SYS <RET>
.BOOT SY: <RET>
```

3. The NOTE at the top of page 2-16 is incomplete; the PIP utility program must also always reside on the system volume.

   Halfway down on the same page, delete DIR from the list of overlaid components, and add KED, K52, FORMAT, MAC8K, HELP, and TECO.

4. In the customization patch at the bottom of section 2.8.6, page 2-26, reverse the positions of nnnnnn<RET> and ffffff<RET>.

5. Section 2.8.13.2 on page 2-33 discusses the procedure for installing hardware magtape support. After saving the file-structured handler by renaming it, you must remove the file-structured handler from the device table before installing the hardware handler. Use the following commands to rename the file-structured handler and remove it from the device table:

```
.RENAME/SYSTEM MT.SYS MT.FIL <RET>
.REMOVE MT: <RET>
```

You can then rename the hardware handler and install it, as shown on the top of page 2-34.

You can switch between the file-structured handler and the hardware handler by renaming the handlers, then either using the INSTALL and REMOVE commands or rebooting. The INSTALL and REMOVE commands are not necessary if you reboot the system. Whichever handler you have named MT.SYS, that is the one that will be installed in the device table when the system is booted.

6. Information was inadvertently left out of the second patch on page 2-39, and the response to the prompt "Offset?" is incorrect. The patch should read as follows:

```
.RUN SIPP<RET>
*monitr.SYS<RET>
Base?    1000<RET>
Offset?  30<RET>

  Base       Offset        Old     New?
   001000     000030     000407    240<RET>
   001000     000032     013704    12704<RET>
   001000     000034     177570    nnnnnn<RET>
   001000     000036     042704    <CTRL/Y><RET>
*<CTRL/C>

.
```

7. The SYSGEN dialogue is reproduced in section 8.3. When answering dialogue questions 6, 7, 12, and 17, note that SJ timer support is automatically included if you select any of the following SYSGEN options: device time-out support, multi-terminal support, end of month and year date rollover. Device time-out support is automatically included only if you select multi-terminal support. This implies that if you select a SYSGEN option that automatically enables other options, the increase in size of RMONSJ will include the size of the automatically enabled option(s) as well as the size of the selected option. Be sure to plan for this extra increase in size.

RT-11 V4.Ø DOCUMENTATION CORRECTIONS AND ADDITIONS

This article describes corrections and additions to the Introduction to RT-11. It is intended to supplement the material contained in Section 3.3 of the RT-11 System Release Notes.

In some cases, the changes noted in this article correct errors in this manual. In others, the notes clarify points discussed in the manual, or provide additional information which you may find useful.

Change pages incorporating information discussed in this article will be released at a later date.

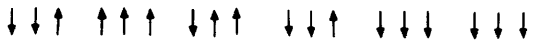
INTRODUCTION TO RT-11

1. The first editing example on page 5-1Ø contains a typographical error. The example should read as follows:

```
*GAND<ESC>I<SP>THE<SP>PURSUIT<SP>OF<ESC><ESC>
*GPLE<ESC>-2D<ESC>IPI<ESC>V<ESC><ESC>
THESE ARE LIFE, LIBERTY AND THE PURSUIT OF HAPPINESS.
*
```

2. In Appendix A at the bottom of page A-4, the arrow illustrations of the switch registers are incorrect. Substitute the following:

   a) For the number 173100:

   b) For the number Ø12700:

RT-11 DOCUMENTATION CORRECTIONS AND ADDITIONS

This article describes corrections and additions to the RT-11 System User's Guide. It is intended to supplement the material contained in Section 3.3 of the RT-11 System Release Notes.

In some cases, the changes noted in this article correct errors in this manual. In others, the notes clarify points discussed in the manual, or provide additional information which you may find useful.

Change pages incorporating information discussed in this article will be released at a later date.

RT-11 SYSTEM USER'S GUIDE

1. The description of the INITIALIZE command on page 4-1Ø7 is inaccurate. Delete the sentence, "The INITIALIZE command destroys any data that may already exist on a device." For details on how to restore a volume you have initialized, read the section on the /RESTORE option.

2. On page 4-1Ø8, the following information should appear at the end of the description of the /INTERCHANGE option:

   NOTE

   The directory of an initialized interchange diskette has a single file entry, DATA, that reserves the entire diskette. You must delete this file before you can write any new files on the diskette. This is necessary for IBM compatibility. Do this by using the following command:

   DELETE/INTERCHANGE DX1:DATA

3. The syntax illustration for the SET command on page 4-149 is incomplete. After the word "condition", add [,...condition] to show that you may specify more than one condition.

4. Also on page 4-149 is a description of the SET command. Note that the SET command will modify only the device handler that corresponds to the currently booted monitor. For example, if you issue the SET command and you are running under the XM monitor, any device handlers modified will be of the form %%X.SYS.

   The note following the description of the SET command states that "...you must unload the handler and install a fresh copy from the system device for the modification to have an effect on

execution." The note should state that "...you must unload the handler and load a fresh copy from the system device for the modification to have an effect on execution."

5. On page 4-153, under the description for the command SET LP:SKIP=n, replace the sentence "To disable this condition, set SKIP=Ø." with the following:

   "If you have set SKIP to a value other than Ø, set SKIP=Ø to disable this condition."

   Append to this end of the description the following sentence:

   "The default is SKIP=Ø."

   These two modifications also apply to the description of the command SET LS:SKIP=n on page 4-155.

6. On page 8-5, add "[/H]" to the end of the command syntax line, and add the following before the last paragraph on the same page:

   /H verifies the copy operation to ensure that the output is equal to the input

7. At the bottom of Table 14-1 on page 14-1, add "PDT11/15Ø diskette" to the list of supported FILEX interchange diskettes, after "RXØ2 single density". Also, on page 14-9, add "PDn:" to the list of interchange diskettes, after "DYn:".

RT-11 V4.Ø
Documentation
RT-11 System Message Manual

Seq 11.6.1 N

1 of 1

RT-11 V4.Ø DOCUMENTATION CORRECTIONS AND ADDITIONS

This article describes corrections and additions to the RT-11 System Message Manual. It is intended to supplement the material contained in Section 3.3 of the RT-11 System Release Notes.

In some cases, the changes noted in this article correct errors in this manual. In others, the notes clarify points discussed in the manual, or provide additional information which you may find useful.

Change pages incorporating information discussed in this article will be released at a later date.

RT-11 SYSTEM MESSAGE MANUAL

1. Add the following information to the message ?DUP-F-Non-bootable driver DEV:FILNAM.TYP :

   You will also receive this message if you omit the colon (:) from the mnemonic of the device you are trying to boot. For example, if you are trying to boot the DX drive and you issue the command BOOT DX instead of BOOT DX:, this message will appear. This happens because when the colon (:) is left off, the Command String Interpreter expands DX into DK:DX, and tries to boot the device handler rather than the device drive. If you receive this error message, be sure to check that you have typed a colon after the device mnemonic.

RT-11 V4.Ø DOCUMENTATION CORRECTIONS AND ADDITIONS

This article describes corrections and additions to the RT-11 Pocket Guide. It is intended to supplement the material contained in Section 3.3 of the RT-11 System Release Notes.

In some cases, the changes noted in this article correct errors in this manual. In others, the notes clarify points discussed in the manual, or provide additional information which you may find useful.

RT-11 POCKET GUIDE

1. On page 27, the information about the SIPP /L option is incorrect. When you use /L, SIPP does not modify the input file after the patching session. It does not create a command file, but the option is useful if you want to create a command file and preserve the input file.

2. Please correct the following syntax illustration:

   Page 93-- add square brackets around "library"

   Page 1Ø1-- add the following to the end of the SET command, after the word "condition":

   ```
   [,...condition]
   ```

RT-11 V4.Ø DOCUMENTATION CORRECTIONS AND ADDITIONS

This article describes corrections and additions to the RT-11 Software Support Manual. It is intended to supplement the material contained in Section 3.3 of the RT-11 System Release Notes.

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RT-11 SOFTWARE SUPPORT MANUAL

1. In Section 3.5.7, Message Handling, on page 3-39, note the following changes:

   The last sentence of the first full paragraph on page 3-39 states: "In each case, the first word of the data buffer contains a count of the number of words transferred." This sentence should read as follows: "The first word of the received data buffer contains a count of the number of words transferred."

   Replace the first two sentences in the last paragraph in Section 3.5.7 with the following: "The XM monitor normally uses a special internal macro that uses the MTPI instruction to transfer message data. This process is slow, but safe; that is, this procedure doesn't use a PAR to map any buffers. You can use a faster, but riskier, transfer procedure by setting the conditional assembly symbol MQH$P2 equal to 1. When the MQ handler is assembled, the assembler will generate code which uses kernel PAR2 to map the user buffers. In this case, all the kernal PAR1 restrictions also apply to PAR2."

2. There is a typographical error in Table 3-8 on page 3-48. Under the "Offset" column, the third offset down should be 244 rather than 224.

3. Section 7.4.3, page 7-22, describes abort procedures for handlers that queue internally. Replace the last four sentences in this section with the following:

   "The handler should purge its internal queue of these elements, and it must follow a shutdown procedure to reduce the monitor's count of outstanding I/O requests by following one of the procedures below:

   If ddCQE has a non-zero value:

   1. Remove internal elements, if any, for the aborting job.

2. Link the elements together via the element's link word; the last element's link word must be Ø. Set ddLQE to point to the last element in the aborting job.

3. If ddCQE points to an element belonging to the aborting job, halt I/O and issue a .DRFIN. If you cannot halt I/O, then issue an RTS PC instruction, wait for an interrupt, and the issue a .DRFIN. If ddCQE does not point to an element belonging to the aborting job, simply issue the RTS PC instruction.

If ddCQE has the value Ø:

1. Remove the internal queue elements, if any, that belong to the aborting job. If there are none, simply issue the RTS PC instruction.
2. Link the elements together, as described in 2) above, setting ddCQE to point to the first element, and ddLQE to point to the last element. Note that the last element's link word must be Ø.
3. Issue the .DRFIN macro."

RT-11 V03B-00 Seq 1 M
MACRO.SAV 1 of 1

INCORRECT HANDLING OF LOWER CASE IN MACRO/REPEAT BLOCKS (SPR 11-26990 JR)

The MACRO assembler should not convert lower case characters in the body of a MACRO or REPEAT block if .ENABL LC is set. The following patch corrects the problem.

```
.R PATCH <RET>
FILENAME--
*MACRO.SAV <RET>
*3554/  52      42 <RET>
*3574/  32      26 <RET>
*E
```

.

RT-11 VØ3B-ØØ Seq 18 M
SOURCE
CT.MAC 1 of 1

CT HANDLER GETS JOB NUMBER FROM WRONG BYTE OF Q-ELEMENT (SPR 11-248ØØ DF)

Problem

The CT handler initiation code gets the job number from the first byte of the Q element instead of the second.

To correct this problem, install the following patch to CT.MAC:

```
.R EDIT <RET>
*EBCT.MAC<ESC>RV<ESC><ESC>
.TITLE  TA11 HANDLER VØ2.Ø1
*I;EDIT LEVEL Ø <RET>
<ESC>-AV<ESC><ESC>
;EDIT LEVEL Ø
*FBLOCK:<ESC>V<ESC><ESC>
BLOCK:  .WORD   Ø
*AV<ESC><ESC>
        MOVB    @RØ,R1
*G@<ESC>-C1(<ESC>GØ<ESC>I)<ESC>V<ESC><ESC>
        MOVB    1(RØ),R1
*EX<ESC><ESC>
```

.

CT.MAC should then be assembled and linked. The resulting version of CT.SYS will be edit level Ø.

RT-11 VØ3B-ØØ Seq 11 M
SYSTEM HANDLER
DY.SYS 1 of 2

DY ERROR RECOVERY (SPR 11-29546 LCP)

A logic error in the RXØ2 handler's retry code will cause significant loss of time on the system clock under the SJ monitor on LSI-11s when retrying an operation, especially if the retries are the result of a hard error and all eight retries are performed. This is due to the handler waiting for TR DONE after starting an RXØ2 INIT command, which on LSI-11s under SJ is being done at interrupt level since .FORK is essentially a NOP in SJ and LSI-11s have only two interrupt priorities, on or off!

The following is a mandatory source patch to DY.MAC which will correct the problem:

```
.R EDIT<RET>
*EBDY.MAC<ESC>RV<ESC><ESC>
;DY EDIT LEVEL 4
*G4<ESC>=C5<ESC>V<ESC><ESC>
;DY EDIT LEVEL 5
*F7Ø$:<ESC>ØAV<ESC><ESC>
7Ø$:    BIT     #CSDONE,@R4
*I;<ESC>G4<ESC>I<TAB>;5<ESC><ESC>
*1AI;<ESC>G$<ESC>I<TAB><TAB>;5<ESC><ESC>
*-2A5L<ESC><ESC>
        MOV     #CSINIT,@R4
;7Ø$:   BIT     #CSDONE,@R4     ;5
;       BEQ     7Ø$             ;5
        MOV     R1,RXFUN2
        JMP     RXINIT
*EX<ESC><ESC>
.
```

The following is a mandatory binary patch to DY.SYS:

```
.R PATCH <RET>

FILE NAME--
*DY.SYS/A/C <RET>
*2Ø3Ø/  32714   24Ø <LF>
2Ø32/   4Ø      24Ø <LF>
2Ø34/   1775    24Ø <RET>
*E

Checksum?       4Ø52 <RET>
.
```

RT-11 VØ3B-ØØ
SYSTEM HANDLER
DY.SYS

Seq 11 M

2 of 2

The following is a mandatory binary patch to the distributed SJ monitor, DYMNSJ.SYS:

```
.R PATCH <RET>

FILE NAME--
*DYMNSJ.SYS/A/C <RET>
*4374Ø/ 32714   24Ø <LF>
43742/  4Ø      24Ø <LF>
43744/  1775    24Ø <RET>
*E

Checksum?       11452 <RET>
.
```

The following is a mandatory binary patch to the distributed FB monitor, DYMNFB.SYS, even though the loss of time phenomenon will not be experienced under FB since retries are performed at FORK level (priority Ø) and the clock will interrupt.

```
.R PATCH <RET>

FILE NAME--
*DYMNFB.SYS/A/C <RET>
*5441Ø/ 32714   24Ø <LF>
54412/  4Ø      24Ø <LF>
54414/  1775    24Ø <RET>
*E

Checksum?       67Ø52 <RET>
.
```

Note that the version # of the SJ and FB monitors are not updated since this patch affects only DY monitors.

RT-11 V4.0
CUMULATIVE INDEX
JULY 1980

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!

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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
PAT.SAV		
USE OF THE PAT UTILITY WITH RT-11 V3B PATCHES	7.17.1 N+	Mar 80
DOCUMENTATION		
RT-11 SYSTEM RELEASE NOTES		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.2.1 N	Jul 80
RT-11 INSTALLATION AND SYSTEM GENERATION GUIDE		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.3.1 N	Jul 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 DOCUMENTAITON 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
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RT-11 SOFTWARE SUPPORT MANUAL		
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS	11.9.1 N	Jul 80
BASIC-11/RT-11 V2.0		
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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
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BASIC-11/RT-11 V2 CONVERSION PROGRAM PATCH 1	35.2.2 M+	Mar 80
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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
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Component	Sequence	Mon/Yr
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DOUBLE PRECISION INTEGER VARIABLES - PATCH G	36.1.8 M+	Mar 80
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DEVICE MNEMONIC PROBLEM - PATCH K	36.1.12 M+	Mar 80
CLOSE - PATCH L	36.1.13 M+	Mar 80
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INTEGERS IN DOUBLE PRECISION MU BASIC-11	36.1.16 N+	Mar 80
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DISABLING CR/LF USING TTYSET - PATCH P	36.1.18 M+	Mar 80
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MU BASIC-11/RT-11 V2 CONVERSION PROGRAM	36.2.2 F+	Mar 80
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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
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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
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RT-11 V3B
CUMULATIVE INDEX
JULY 1980

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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 0 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
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LP: MAY PRINT UNWANTED CHARACTERS	15 M	Jun 80

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ISMUTL

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

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

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DECnet-RT V1

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DDCMP LINE COUNTERS OVERFLOW TO ZERO	01 0	Jul 78

DMC

DMC LINE COUNTERS OVERFLOW TO ZERO	01 0	Jul 78

DOCUMENTATION

USER'S GUIDE DOCUMENTATION ERRORS	2.1 N	Aug 79

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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
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SUPPORT OF ASYNCHRONOUS HALF DUPLEX MODEMS	01 R	Jul 78
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CHECK FOR BLOCK MODE TRANSFER	03 M	Feb 79
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TSKINI INPUT BUFFER TOO SMALL	03 M	Jun 79
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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		
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

Component	Sequence	Mon/Yr
"/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		
NMBR SUBROUTINE IN DECgraphic	01 R	JAN 79
FORTRAN/RT-11 EXTENSIONS V2.1		
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
FORTRAN IV/RT-11 V2.1		
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		
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
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

Component	Sequence	Mon/Yr
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
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

Component	Sequence	Mon/Yr
MU BASIC-11 DEVICE INDEPENDENCE FOR INIT.BOO - SPECIIAL 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		
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		
INCORRECT HANDLING OF LOWER CASE IN MACRO/REPEAT BLOCKS	01 M	Jul 80
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

Component	Sequence	Mon/Yr
TERMINATING CONSOLE OUTPUT	05 M	Aug 78
EDITORS AND V03B 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
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
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

Component	Sequence	Mon/Yr
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

RT-11/2780 V2

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

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY

INTRODUCTION

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

OBJECTIVES

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

ORGANIZATION

The Digital Equipment Computer Users Society is a federation of chapters, whose membership is determined by geographic location. The membership is organized to meet the specific needs of members in its area such as Symposia and Special User Group activities. The DECUS chapters are:

- *AUSTRALIAN CHAPTER (Australia, Indonesia, Malaysia, New Zealand, PNG, Singapore,)*
- *EUROPEAN CHAPTER (Europe, Middle East, North Africa, Russia)*
- *CANADIAN CHAPTER (Canada)*
- *U.S. CHAPTER (U.S. and All Others)*

ACTIVITIES

1. SYMPOSIA

Symposia are sponsored throughout the year by each of the DECUS Chapters and Regional/National User Groups. These meetings provide an opportunity for users of DIGITAL computers to meet with other users and with DIGITAL management, engineers, and customer service representatives. They provide a forum for users to exchange information on technique and approaches to issues of common interest and to provide feedback to DIGITAL on existing and future products and services. Sessions at the symposia include user-driven workshops, tutorials, product panels, as well as application/system-specific presentations.

The technical papers and presentations from each symposium are published as DECUS Proceedings.

2. SPECIAL USER GROUPS

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

Special Interest Groups (SIGs) promote the interchange of specialized information for application areas, subject areas (such as languages), or specific operating systems. A group of users must petition the Chapter Executive Board for recognition as a Special Interest Group. The group must have a chairman, a DIGITAL representative, and its organization must meet the guidelines of the Chapter Executive Board.

Geographic subgroupings are formed to service the DECUS members within a specific area although they may also be based on interests as in SIGs. There are four types of geographic subgroupings:

1. *LUGs — Local User Groups*
2. *NUGs — National User Groups*
3. *RUGS — Regional User Groups*
4. *SLUGs — Student Local User Groups*

3. STANDARDS

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

4. PROGRAM LIBRARY

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

MEMBERSHIP

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

INSTALLATION MEMBERSHIP

An organization, institution, or individual that has purchased, leased or has on order a computer manufactured by Digital Equipment Corporation is eligible for Installation Membership in DECUS.

An Installation should appoint a person immediately concerned with the use of the computer to act as delegate to the Society. A delegate receives all official communications and has a vote on DECUS policies and elections. An organization or company is eligible for as many voting delegates as it has DIGITAL computers. Each delegate must file an application for Installation Membership.

ASSOCIATE MEMBERSHIP

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

Membership status is acquired by submitting the enclosed application to the appropriate Chapter Executive Secretary for approval by the Chapter Executive Board.

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

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

COMPANY: (INSTALLATION): _____

ADDRESS 1: _____

2: _____

3: _____

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

COUNTRY: _____

TELEPHONE: _____ TELEX _____

I obtained this form from _____

DECUS OFFICES

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

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

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

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

SOFTWARE PROBLEMS OR ENHANCEMENTS

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

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
Canada	Digital Equipment Canada P.O. Box 11500 Ottawa, Ontario Canada K2H 8K8
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
Australia-Melbourne	Digital Equipment Aust. PTY. LTD 60 Park Street So. Melbourne Victoria Australia 3205
Australia-Sydney	Digital Equipment Aust. PTY. LTD 123 125 Willoughby Rd. P. O. Box 491 Crows Nest NSW Australia 2065
Brazil	Digital Equipment Comercio Ind. Rua Batatais 429 Esq AL Campin 01423 Jardim Paulista Sao Paulo 0100 Brazil
Caribbean	De Latin America P. O. Box 11038 Fernando Juncos Sta. Santurce PR 00910
France	Digital Equipment France 18, rue Saarinen France Silic 225 F - 94528 Rungis - Cedex France
Italy	Digital Equipment S.P.A. Viale Fulvio Testi 117 I-20092 Cinisillo Balsamo Milan, Italy

Areas Covered	SPR Center
Japan	Digital Equipment Corp. INTL 3rd Floor Kowa Bldg. 8-7 Sanban Cho Chiyoda Ku Tokyo 102 Japan
New Zealand	Digital Equipment N.Z. LTD P.O. Box 17093 Greenlane, Auckland 5, New Zealand
Belgium, Holland, Luxemburg	Digital Equipment B.V. KAAP Horndreef 38 NL - Utrecht/Overvecht Holland
Sweden	Digital Equipment Corp. AB Englundavägen 7 S-171 24 Solna, Sweden
Denmark	Digital Equipment Corp. APS Kristineberg 3 DK-2100 Copenhagen Ø Denmark
Finland	Digital Equipment Corp. OY PL16 SF - 02201 ESPOO 20 Finland
Norway	Digital Equipment Corp. A/S Pottenmakerveien 8 N - Oslo 5 Norway
Austria, East Germany, West Germany, Poland, Hungary, Rumania, Czechoslovakia, Russia, Bulgaria	Digital Equipment Corp. GMBH Wallsteinplatz 2 D - 8 Munich 40 West Germany
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

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