

RT-11

November 1982

AD-C740C-33

software **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).

PRODUCTS SUPPORTED in the RT-11 SOFTWARE DISPATCH

BASIC-11/RT-11 V2
CTS-300 V6/V7
DECnet-RT V1.1
FMS-11/RT-11 V1.1

FORTRAN IV/RT-11 V2.5
GAMMA-11 F/B V3.1
LSP-11 V1.1
MSB11 V1.2

MSB/FORTRAN IV V1
RT-11 V4
RT-11 2780 3780
Protocol Emulator V4
SSP-11 V1.3

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.

Ann Owens, Associate Editor

Copyright © 1982 Digital Equipment Corporation

The material in this document is for information purposes only and is subject to change without notice. Digital Equipment Corporation assumes no responsibility for any errors which may appear in this document. Comments on the contents of this publication should be directed to your local DIGITAL Field Office.

TRADEMARKS of DIGITAL EQUIPMENT CORPORATION
Maynard, Massachusetts

DEC
DECUS
DIGITAL LOGO
DECnet
DECsystem-10
DECSYSTEM-20

DECwriter
DIBOL
EDUsystem
IAS
MASSBUS
PDP

PDT
RSTS
RSX
UNIBUS
VAX
VMS
VT

TABLE OF CONTENTS

	Sequence No.	Page
PRODUCT AVAILABILITY DATES		i
SPR USER LETTER		1
MicroPower/Pascal V1.0		
COMPILER		
INCORRECT PASCAL DEFINITION OF THE PCB RECORD	37.5.1.7 N	3
CHANGE IN DATA TYPE STRUCTURE_DESC IN PASCAL INCLUDE FILE	37.5.1.8 N	7
MicroPower/Pascal V1.1		
KERNAL		
UNMAPPED, MIXED ROM/RAM POWER-UP IS INCORRECT	37.4.1.8 N	9
COMPILER		
INCORRECT CODE GENERATED FOR STRUCTURED FUNCTION RESULTS	37.5.1.6 N	11
OTS		
UROUND AND UTRUNC FUNCTIONS DO NOT WORK CORRECTLY	37.6.1.3 N	13
PACK AND UNPACK FUNCTIONS ARE MISSING FROM THE OTS LIBRARY	37.6.1.4 N	15
FORTRAN IV V2.5		
OTS		
INVALID DATA IS ACCEPTED DURING LIST DIRECTED I/O	45.2.22 M	17
CTS-300 V07		
DOCUMENTATION		
NO ROOM FOR SOME BACKGROUND JOBS UNDER CTS-300	52.1.6 N	19
CTS-300 AUTOPATCH KIT A PATCH LEVEL	52.1.7 N	21
DIBOL RUN-TIME SYSTEMS		
PATCH 18: RUN-TIME SYSTEM PROBLEMS WITH USR LOCKED, COMILATION ERRORS	52.3.5 M	23
DICOMP V07-00		
PATCH 16: CONDITIONAL COMPILATION ERROR, AND NO ERROR FOR LARGE RECORD	52.5.1 M	27
MACRO SORT		
PATCH 17: PROBLEMS WITH HANDLING ERRORS IN SORT COMMAND FILE	52.15.4 M	31
QUILL V1.0		
QUILL.SAV/TSD		
PATCH 1: PRIMARY FILE BLOCK COUNT PROBLEM	60.1.1 F	35
QBUILD.SAV/TSD		
PATCH 2: QBUILD WORK FILE SIZE ALLOCATION	60.2.1 F	37
RT-11 CUMULATIVE INDEX		39
DIGITAL SOFTWARE LICENSING		51
DIGITAL EQUIPMENT COMPUTER USERS SOCIETY (DECUS)		53

PRODUCT AVAILABILITY DATES - RT-11

NOVEMBER 1982

The following are dates products have become available. Customers who are in warranty or have a Software Product Service contract during the month the product became available are eligible to receive the update. Customers who are eligible and have not received the update should contact their local Digital office.

Autopatch is distributed to Software Product Service Basic contract customers and to Self-Maintenance contract customers who have selected this option. Autopatch will be installed for DECsupport contract customers as part of their Preventive Maintenance.

<u>PRODUCT</u>	<u>VERSION</u>	<u>AVAILABLE</u>
CTS-300	7.0	MAR 82
DECNET-RT	2.0	MAR 82
DECTYPE-300	1.2	APR 82
GAMMA-11	3.2	AUG 82
LSP-11	1.2	NOV 81
MACDBG	1.0	MAR 82
MACSYS-RT	1.0	JUL 82
MU-BASIC	2.1	SEP 81
PROM/RT-11	2.0	AUG 82
SPETS-11	1.0	JUL 82
SSP-11	1.3	NOV 81
RT-11 AUTOPATCH	G	AUG 82
RGL FEP/RT-11	1.0	MAY 82
QUILL	1.0	MAR 82

SPR USER LETTER

Submitted by Sheila Hatchell, 8/11 Administration

How to Make the Best Use of the SPR Form

What We Can Do for You:

1. Blank SPR forms are returned with each SPR acknowledgement and 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.

MicroPower/Pascal V1.0
COMPILER

Seq 37.5.1.7 N

1 of 3

INCORRECT PASCAL DEFINITION OF THE PCB RECORD

PROBLEM STATEMENT:

The definition of the Process Control Block (PCB) record in the Pascal include file, EXC.PAS, for version 1.0 of MicroPower/Pascal is incorrect. There are five missing fields which contain information about stack limit checking. The names of these fields are: GOS, GUS, EPC, EPS, and BPC.

The definition of the PCB record in EXC.PAS also does not correctly show the four possible versions of a PCB.

Please note that these errors are NOT in the MACRO file DATDEF.MAC.

RESPONSE:

The following are the correct definitions of both the mapped and unmapped versions of the PCB record. Version 1.1 of MicroPower/Pascal will contain two separate files (PCBU.PAS and PCBM.PAS) each containing one of these definitions. The file PCBU.PAS will contain the unmapped version and the file PCBM.PAS will contain the mapped version. A V1.0 workaround is to remove the definition of the PCB record from the file EXC.PAS and insert it into two new files, PCBU.PAS and PCBM.PAS. Edit the definition in PCBU.PAS to match the definition of the unmapped PCB below and similarly edit PCBM.PAS to match the definition of the mapped PCB. Also remove the data type PCB_POINTER and procedure definition for RELEASE EXCEPTION from EXC.PAS and insert into PCBU.PAS and PCBM.PAS. Then add "%INCLUDE 'PCBx.PAS'" to your Pascal source code following the "%INCLUDE 'EXC.PAS'", where the "x" is a U or an M.

MicroPower/Pascal V1.0
 COMPILER

Seq 37.5.1.7 N

2 of 3

The definition of an unmapped PCB.

```

PCB = PACKED RECORD
  FLK : PCB POINTER;
  BLK : PCB POINTER;
  PRI : [BYTE] BYTE RANGE;
  STA : [BYTE] PROCESS STATE;
  TYP : [BYTE] PROCESS TYPE;
  STS : [BYTE] STATUS TYPE;
  PNT : PCB POINTER;
  EXC : UNIVERSAL;
  MSK : UNSIGNED;
  SPT : ^STRUCTURE DESC;
  ALK : PCB POINTER;
  SPC : INTEGER;
  RLK : PCB POINTER;
  CXW : [BYTE] BYTE RANGE;
  GRP : [BYTE] EXC GROUP;
  TER : UNIVERSAL;
  MCX : UNIVERSAL;
  GOS : UNSIGNED;
  GUS : UNSIGNED;
  EPC : UNSIGNED;
  EPS : UNSIGNED;
  BPC : UNSIGNED;
  ESF : UNSIGNED;
  KSP : UNSIGNED;
  KSV : PACKED RECORD
    R4, R3, R0 : UNSIGNED;
END;

USV : PACKED RECORD
  SP, R0, R1, R2, MCX : UNSIGNED;
END;

FSV : PACKED RECORD
  CASE CONTEXT SWITCH OPTIONS OF
    FPP : ( STAT : UNSIGNED;
           F0, F1, F2, F3, F4, F5 : QUAD_WORD );
END;

END;
```

MicroPower/Pascal V1.0
 COMPILER

Seq 37.5.1.7 N

3 of 3

The definition of a mapped PCB.

```

PCB = PACKED RECORD
  FLK : PCB_POINTER;
  BLK : PCB_POINTER;
  PRI : [BYTE] BYTE RANGE;
  STA : [BYTE] PROCESS STATE;
  TYP : [BYTE] PROCESS TYPE;
  STS : [BYTE] STATUS TYPE;
  PNT : PCB_POINTER;
  EXC : UNIVERSAL;
  MSK : UNSIGNED;
  SPT : ^STRUCTURE_DESC;
  ALK : PCB_POINTER;
  SPC : INTEGER;
  RLK : PCB_POINTER;
  CXW : [BYTE] BYTE RANGE;
  GRP : [BYTE] EXC_GROUP;
  TER : UNIVERSAL;
  MCX : UNIVERSAL;
  GOS : UNSIGNED;
  GUS : UNSIGNED;
  EPC : UNSIGNED;
  EPS : UNSIGNED;
  BPC : UNSIGNED;
  ESF : UNSIGNED;
  KSP : UNSIGNED;
  KSV : PACKED RECORD
    R4, R3, R0, PAR2, PAR3 : UNSIGNED;
  END;

USV : PACKED RECORD
  R0, R1, R2, R3, R4, R5, PC, PS, SP, MCX : UNSIGNED;
  END;

MAP : PACKED RECORD
  PAR_0, PAR_1, PAR_2, PAR_3,
  PAR_4, PAR_5, PAR_6, PAR_7,
  PDR_0, PDR_1, PDR_2, PDR_3,
  PDR_4, PDR_5, PDR_6, PDR_7 : UNSIGNED;
  END;

STK : PACKED ARRAY [1..38] OF UNSIGNED;
FSV : PACKED RECORD
  CASE CONTEXT_SWITCH_OPTIONS OF
    FPP : ( STAT : UNSIGNED;
           F0, F1, F2, F3, F4, F5 : QUAD_WORD );
  END;

END;

```


CHANGE IN DATA TYPE STRUCTURE_DESC IN PASCAL INCLUDE FILE

PROBLEM STATEMENT:

The data type STRUCTURE_DESC in the include file PREDFL.PAS for version 1.0 of MicroPower/Pascal is defined as:

```
STRUCTURE_DESC = RECORD
    INDEX          : UNSIGNED;
    SERIAL_NUMBER  : LONGINT;
    NAME           : NAME_STR;
END;
```

This definition has been changed in version 1.1 to the following:

```
STRUCTURE_DESC = RECORD
    ID             : STRUCTURE_ID;
    NAME           : NAME_STR;
END;
```

where

```
STRUCTURE_ID = RECORD
    INDEX          : UNSIGNED;
    SERIAL_NUMBER  : LONGINT;
END;
```

RESPONSE:

This change was made for reasons of efficiency when passing a structure identifier to a device handler.

MicroPower/Pascal V1.1
KERNEL

Seq 37.4.1.8 N

1 of 1

UNMAPPED, MIXED ROM/RAM POWER-UP IS INCORRECT (SHD)

PROBLEM STATEMENT:

The kernel RAM initialization routine is incorrect for the case of an unmapped, mixed ROM/RAM system with more than 16K of RAM specified in the configuration file. The problem will cause a trap to 4 or other unpredictable halt depending on the target hardware configuration at power up time.

RESPONSE:

This problem is caused by an incorrect divide in the kernel memory initialization routine. It can be avoided by changing the memory specification in the Configuration file. Any memory macro that specifies 16K words or more of RAM can be broken up into several, contiguous smaller sections. For example:

A specification of 16K words of RAM starting at the 12K word boundary:

```
MEMORY base=600, size=1000, type=RAM
```

can be broken up into:

```
MEMORY base=600, size=400, type=RAM  
MEMORY base=1200, size=400, type=RAM
```

The problem will be avoided as long as each individual RAM section specified is smaller than 16K words.

This problem will be fixed in a future update kit.

INCORRECT CODE GENERATED FOR STRUCTURED FUNCTION RESULTS

PROBLEM STATEMENT:

Invoking a function, whose result type is structured (e.g., array, record), may result in incorrect code being generated. Note, structured function result types are an extension to standard Pascal.

Example:

```
[system(micropower)] program test;

type
  ray = packed array [1..10] of char;
  rec = record a,b,c,d,e,f:char; end;

var
  x:ray;
  y:rec;

function f1:ray; begin ... end;
function f2:rec; begin ... end;

begin
  x := f1;
  y := f2;
end.
```

RESPONSE:

This problem will be fixed in a future release of MicroPower/Pascal.

RT-11 Software Dispatch, November 1982

MicroPower/Pascal V1.1
OTS

Seq 37.6.1.3 N

1 of 1

UROUND AND UTRUNC FUNCTIONS DO NOT WORK CORRECTLY

PROBLEM STATEMENT:

The UROUND and UTRUNC transfer functions always return a result of 0.

RESPONSE:

This will be fixed in a future release of MicroPower/Pascal.

MicroPower/Pascal V1.1
OTS

Seq 37.6.1.4 N

1 of 2

PACK AND UNPACK FUNCTIONS ARE MISSING FROM THE OTS LIBRARY

PROBLEM STATEMENT:

The PACK and UNPACK transfer functions are not in any of the four OTS libraries: LIBFPP.OBJ, LIBFIS.OBJ, LIBEIS.OBJ, and LIBNHD.OBJ. If an application uses these functions, there will be undefined globals when the application is MERGED with the OTS library. These global are \$B81 and \$B83, respectively.

RESPONSE:

A workaround is to perform the PACKing/UNPACKing with a FOR loop. The following example shows this:

```
[SYSTEM(MICROPOWER)] PROGRAM TEST;
CONST
  T = TRUE;
  F = FALSE;

TYPE
  Packed_b = PACKED ARRAY [1..10] OF BOOLEAN;
  Unpacked_b = ARRAY [1..10] OF BOOLEAN;

VAR
  Pb1, Pb2, Pb3 : Packed_b;
  Ub1, Ub2, Ub3 : Unpacked_b;
  I : INTEGER;

BEGIN
  (* Initialize the arrays *)
  Pb1 := Packed_b (T,F,T,F,T,F,T,F,T,F);
  Ub1 := Unpacked_b (F,T,F,T,F,T,F,T,F,T);

  (* Pack *)
  FOR I := 1 TO 10 DO
    Pb2 [I] := Ub1 [I];
  PACK (Ub1, 1, Pb3);
  (* Note the arrays Pb2 and Pb3 are now equal. *)

  (* Unpack *)
  FOR I := 1 TO 10 DO
    Ub2 [I] := Pb1;
  UNPACK (Pb1, Ub3, 1);
  (* Note the arrays Ub2 and Ub3 are now equal. *)

END.
```

This will be fixed in a future release of MicroPower/Pascal.

FORTRAN IV V2.5
for RT-11 V4.0
OTS

Seq. 45.2.22 M
1 of 2

INVALID DATA IS ACCEPTED DURING LIST DIRECTED I/O (PAT 35)

PROBLEM:

This runtime problem occurs when a FORTRAN IV program which uses list directed I/O is compiled using the threaded code option. A right parenthesis on input is interpreted as an end of record character instead of bad data.

SOLUTION:

1. Type in the following MACRO file: PAT35.MAC

PAT35.MAC:

```
                .TITLE  $LISTI
                .IDENT  /007/
                .PSECT  OTS$I
S=.
.=S+1322
                .ASCII  /,/
                .END
```

2. Assemble the patches using MACRO-11

```
.R MACRO
*PAT35=PAT35
*^C
```

3. Install the patches, using PAT, to the most recently patched OTSCOM.OBJ file:

NOTE: Make a copy of OTSCOM.OBJ before you patch it just in case something goes wrong.

```
.R PAT
*OTSCOM=OTSCOM/C:072167,PAT35/C:007227
```

FORTRAN IV V2.5
for RT-11 V4.0
OTS

Seq. 45.2.22 M
2 of 2

4. Rebuild the OTS using the procedure described in the FORTRAN IV Installation Guide.
5. Test the patches by creating and compiling the following FORTRAN IV program. Be sure to use the threaded code option during compilation.

```
      READ (5,*,ERR=100,END=200) A,B,C
      WRITE (5,*) A,B,C
      GOTO 200
100   WRITE (5,*) 'ERROR ENCOUNTERED'
200   STOP
      END
```

Prior to the installation of this patch, compiling and executing this program will produce the following output when the following data is used as input: 4) 5 6

```
      4.000000      0.000000      0.000000
      STOP --
```

After the patch has been installed, and using the same input line, the output should be...

```
      ERROR ENCOUNTERED
      STOP --
```


CTS-300 V07
for RT-11 V4.0
DOCUMENTATION

Seq 52.1.6 N
1 of 2

NO ROOM FOR SOME BACKGROUND JOBS UNDER CTS-300 V7 (LG)

A problem exists in CTS-300 V7 XMTSD where some programs that ran under V6 will not run under V7. The growth of XMTSD in V7 has resulted in less low memory being available to the user, and is a problem for some users who run XMTSD as a foreground job and attempt to run a .SAV image program as a background job.

There is a way to make an additional 2KB available in low memory but it will reduce available space in high memory.

This can be accomplished by editing CTSGEN.COM, the indirect command file that is generated by CTSGEN.SAV, and modifying the link commands so that the module KERROR, which is currently being linked into the root section, is linked into an extended memory overlay instead.

Using the editor of your choice, locate the module 'KERROR' in the second line of the linking instructions in CTSGEN.COM. Move that module so that it appears after the module 'KTTY' further down in the instruction list. The link portion of CTSGEN.COM after the edit should look like this:

```
R LINK
XMTSD,XMTSD=/C
KJOB,QLCDL,KDIRT/C
KMATH/O:1/C
STRUP,KTOINI/O:1/C
KDIO/V:2,KDIO/C
KCORE/V:2,KERROR2/C
KDMESS/V:3,KISAM/C
KFRUN,KTTY,KERROR/C
KDDTX,KDATX,TSDTBL
^C
```

Just type "@CTSGEN" to execute CTSGEN.COM and create the new XMTSD.SAV. This change will have to be made each time CTSGEN.SAV is run. However, the method shown below can be used to alter CTSGEN.SAV so that XMTSD will be automatically linked this special way every time CTSGEN is run. Create the file "5216.PAT" as shown, apply it with SLP, and rebuild CTSGEN.SAV. Please note that an unaltered copy of GEN3.DBL from the CTS-300 V7 distribution should be used.

CTS-300 V07
for RT-11 V4.0
DOCUMENTATION

Seq 52.1.6 N

2 of 2

```
;5216.PAT
-231,231
KT11, WRITES (2,'KJOB,QLCDL,KDIRT/C')
-239,239
      IF(FRUN) WRITES (2,'KFRUN,KTTY,KERROR/C')
      IF(FRUN.EQ.0) WRITES (2,'KFRUNX,KTTY,KERROR/C')
/
```

```
.RENAME GEN3.DBL *.OLD
```

```
.R SLP
*GEN3.DBL=GEN3.OLD,5216.PAT
*^C
```

```
.R DICOMP
*GEN3=GEN3/O/W
*^C
```

```
.R LINK
*CTSGEN=CTSGEN,DIBOL/P:500./C
*GEN1/O:1/C
*GEN2/O:1/C
*GEN3/O:1
*^C
```

When using either of the above modifications, caution should be exercised to ensure that the generated run-time system doesn't exceed the 16K word limit. This can be verified by checking the highest memory used at the bottom of the link map to see that it doesn't exceed 100000. If it does, something will have to be removed from the CTSGEN procedure to reduce the required memory.

RT-11 Software Dispatch, November 1982

**CTS-300 V07
for RT-11 V4.0
DOCUMENTATION**

Seq 52.1.7 N

1 of 1

CTS-300 AUTOPATCH KIT A PATCH LEVEL (LG)

The CTS-300 Autopatch Release Notes (AA-M222A-TC) for Kit A state that all patches published through the September 1982 issue of the RT-11 Software Dispatch are included in CTS-300 Autopatch Kit A. Due to a publications error, certain patches (numbers 11 through 13) that were intended to be published in the September Dispatch were not published until October. The CTS-300 Autopatch Kit A, however, does install modules patched through number 13, as listed in the CTS-300 Autopatch Release Notes.

CTS-300 V07

for RT-11 V4.0

DIBOL RUN-TIME SYSTEMS

TSD VB07-00D

XMTSD VC07-00D

Seq 52.3.5 M

1 of 3

PATCH 18: RUN-TIME SYSTEM PROBLEMS WITH USR LOCKED, COMPILATION ERRORS (LG)

1. If the option to lock the USR in memory is chosen during a CTSGEN for non-extended memory TSD, a TRAP to 10 occurs when TSD is run.

Patch 18 corrects this problem so that running TSD with the USR locked in memory does not result in an error.

2. If a DIBOL program contains the statement "GOTO label", where "label" does not exist in the program, an error is generated when the program is compiled. If the program is then run under non-extended memory TSD, a TRAP to 4 may occur.

Patch 18 causes the error "DIBOL-E3--Compilation error" to be generated when the program is run as described above.

3. If a program with compilation errors is run directly from the terminal, the error "DIBOL-E3---Compilation error" is generated. However, if the same program is started via an XCALL RUNJB, the error "DIBOL-E58--Job startup error" is generated. This happens under both TSD and XMTSD.

Patch 18 corrects this so that an Error 3 is reported if a program with compilation errors is started via XCALL RUNJB.

The version number of TSD changes to VB07-00E, and XMTSD changes to VC07-00E.

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 files.

CTS-300 V07
 for RT-11 V4.0
 DIBOL RUN-TIME SYSTEMS
 TSD VB07-00D
 XMTSD VC07-00D

Seq 52.3.5 M

2 of 3

#P018A.MAC

```

        .TITLE  DTOINI
        .CSECT  DTOINI
P018:
        .=      .+344
        JSR     PC,P018A

        .PSECT  $P018
P018A:  MOV     @#54,R0
        MOV     266(R0),R4
        RTS     PC
        .END
    
```

#P018B.MAC

```

        .TITLE  DDIRT
        .CSECT  $DIRT
        .GLOBL  DIRTY
P018:
        .=      .+1706
        BEQ     P018+1724
        ADD R5,(R5)
        ADD DIRTY,(R5)
        .END
    
```

#P018C.MAC

```

        .TITLE  DTO
        .CSECT  DTO
P018:
        .=      .+3130
        BR     P018+3164
        .=      P018+6067
        .BYTE  'E
        .END
    
```

#P018D.MAC

```

        .TITLE  $KDTO
        .PSECT  $KDTO
P018:
        .=      .+3204
        BR     P018+3234
        .END
    
```

CTS-300 V07
for RT-11 V4.0
DIBOL RUN-TIME SYSTEMS
TSD VB07-00D
XMTSD VC07-00D

Seq 52.3.5 M

3 of 3

#P018V1.MAC

.TITLE \$KEROR
.PSECT \$ERROR

. = .+2476
.BYTE 'E
.END

.RENAME (DINOI,DDIRT,DTO,KDTO,KERROR).OBJ *.OLD

Files renamed:

DK:DINOI.OBJ to DK:DINOI.OLD
DK:DDIRT.OBJ to DK:DDIRT.OLD
DK:DTO.OBJ to DK:DTO.OLD
DK:KDTO.OBJ to DK:KDTO.OLD
DK:KERROR.OBJ to DK:KERROR.OLD

.MACRO P018A,P018B,P018C,P018D,P018V1

ERRORS DETECTED: 0
ERRORS DETECTED: 0
ERRORS DETECTED: 0
ERRORS DETECTED: 0
ERRORS DETECTED: 0

.R PAT

*DINOI.OBJ=DINOI.OLD/C:120574,P018A/C:012446

.R PAT

*DDIRT.OBJ=DDIRT.OLD/C:123444,P018B/C:011354

.R PAT

*DTO.OBJ=DTO.OLD/C:037231,P018C/C:003346

.R PAT

*KDTO.OBJ=KDTO.OLD/C:150653,P018D/C:005551

.R PAT

*KERROR.OBJ=KERROR.OLD/C:100754,P018V1/C:006225

.R CTSGEN #FOR NORMAL TSD

.R CTSGEN #FOR EXTENDED MEMORY TSD

CTS-300 V07
for RT-11 V4.0
DICOMP V07-00

Seq 52.5.1 M

1 of 3

PATCH 16: CONDITIONAL COMPILATION ERROR, AND NO ERROR FOR LARGE RECORD (LG)

The following problems have been found in DICOMP:

1. An error in DICOMP is allowing the execution of compiler directives (such as `.INCLUDE` and `.TITLE`) contained within blocks of conditional code whether or not the specified argument is defined. For example,

```
.IFDEF VAR  
.INCLUDE 'XPRG'  
.ENDC
```

results in "XPRG" being included in the compilation whether or not "VAR" is defined in the program.

Patch 16 corrects this so that compiler directives are not incorrectly executed when they appear in conditionally compiled code.

2. When a DIBOL program containing a record with multiple fields totalling 16,384 characters is compiled, no error is reported. The maximum record size is 16,383 bytes.

Patch 16 corrects this so that the error "?DICOMP-E7--Record too large" is generated in this situation. It also changes the version number of DICOMP to V07-00A.

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

CTS-300 V07
for RT-11 V4.0
DICOMP V07-00

Seq 52.5.1 M

2 of 3

#P016A.MAC

```
.TITLE INIT
.CSECT INIT

.= .+3317
.BYTE 'A'
.END
```

#P016B.MAC

```
.TITLE ROOT
.CSECT ROOT
.GLOBL NOCOMP

P016: .= .+3124
      TSTB NOCOMP
      BEQ 5$
      JMP P016+2520
      NOP

5$:   .= P016+3272
      TSTB NOCOMP
      BEQ 10$
      JMP P016+2520
      NOP

10$:  .= P016+3342
      TSTB NOCOMP
      BEQ 15$
      JMP P016+2520
      NOP

15$:  .= P016+3376
      TSTB NOCOMP
      BEQ 20$
      JMP P016+2520
      NOP

20$:  .= P016+3476
      TSTB NOCOMP
      BEQ 25$
      JMP P016+2520
      NOP

25$:  .= P016+3732
      TSTB NOCOMP
      BEQ 30$
      JMP P016+2520
      NOP

30$:  .END
```


CTS-300 V07
for RT-11 V4.0
DICOMP V07-00

Seq 52.5.1 M
3 of 3

#P016C.MAC

.TITLE DATA STATEMENT PROCESSOR
.CSECT DATA

P016:

.= .+2046
.WORD 40000-1
.END

.RENAME (INIT,ROOT,DATA).OBJ,DICOMP.SAV *.OLD

Files renamed:

DK:INIT.OBJ to DK:INIT.OLD
DK:ROOT.OBJ to DK:ROOT.OLD
DK:DATA.OBJ to DK:DATA.OLD
DK:DICOMP.SAV to DK:DICOMP.OLD

.MACRO P016A,P016B,P016C

ERRORS DETECTED: 0
ERRORS DETECTED: 0
ERRORS DETECTED: 0

.R PAT

*INIT.OBJ=INIT.OLD/C:040774,P016A/C:005132

.R PAT

*ROOT.OBJ=ROOT.OLD/C:004151,P016B/C:036661

.R PAT

*DATA.OBJ=DATA.OLD/C:153250,P016C/C:003631

.R LINK

*DICOMP=ROOT,DICFTL,MSGLIB/C
*INIT/O:1/C
*DATA/O:1/C
*PROC/O:1/C
*ENCOO/O:1/C
*DILINK/O:2/C
*DICERR/O:2
*^C

CTS-300 V07
for RT-11 V4.0
MACRO SORT
SORT.SAV V07-0C
SORT.TSD V07-0B

Seq. 52.15.4 M

1 of 3

PATCH 17: PROBLEMS WITH HANDLING ERRORS IN SORT COMMAND FILE (CJ)

1. If the MACRO SORT was started detached under XMTSD and an error was detected in the command file, when SORT was attached, the error "?DIBOL--E11---NT-Channel not open" was returned. In running detached the terminal channel was closed and not available to return the proper error.
2. Under both the single-user and XMTSD versions of SORT, attempting to use a SORTG control file with a record description of more than 24 fields, caused the message "?SORT--E23---W-Work device list too long" to occur. Under XMTSD this was followed by the error "?DIBOL--E83---- T-Error message does not exist". The single user system halted at this point.

Patch 17 corrects these problems. In the first instance, the terminal channel is now made available so that the correct error is displayed when SORT is attached. In the second instance, the proper error messages "?SORT--E27---I-DIBOL record description line count exceeded" and "?SORT--E16---F-Command file or message contains errors" are displayed and control returns to the monitor.

In the second instance, there is in fact a limit on the number of fields that can be described in a SORTG control file although it was not noted in the documentation. This limit is 25.

The version number of SORT.SAV changes to V07-0D, and SORT.TSD changes to V07-0C.

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

CTS-300 V07
for RT-11 V4.0
MACRO SORT
SORT.SAV V07-0C
SORT.TSD V07-0B

Seq 52.15.4 M

2 of 3

#P017V1.MAC

```
.TITLE SORTR
.PSECT SORTR

.=      .+21
.BYTE 'D
.END
```

#P017A.MAC

```
.TITLE SORTC
.PSECT SORTC
P017:
.=      .+10054
.WORD 3406
.=      P017+10060
.WORD 33
JMP P017+10130
.END
```

#P017B.MAC

```
.TITLE SORTR
.PSECT SORTR
P017:
.=      .+23
.BYTE 'C
.=      P017+2056
NOP
.END
```

#P017C.MAC

```
.TITLE SORTC
.PSECT SORTC
P017:
.=      P017+10044
.WORD 3406
.=      P017+10050
.WORD 33
JMP P017+10120
.END
```

CTS-300 V07
for RT-11 V4.0
MACRO SORT
SORT.SAV V07-0C
SORT.TSD V07-0B

Seq 52.15.4 M

3 of 3

.RENAME (SRT11R,SRT11C,SORTR,SORTC).OBJ *.OLD
Files renamed:

DK:SRT11R.OBJ to DK:SRT11R.OLD
DK:SRT11C.OBJ to DK:SRT11C.OLD
DK:SORTR.OBJ to DK:SORTR.OLD
DK:SORTC.OBJ to DK:SORTC.OLD

.MACRO P017V1,P017A,P017B,P017C
ERRORS DETECTED: 0
ERRORS DETECTED: 0
ERRORS DETECTED: 0
ERRORS DETECTED: 0

.R PAT
*SRT11R.OBJ=SRT11R.OLD/C:166705,P017V1/C:005023

.R PAT
*SRT11C.OBJ=SRT11C.OLD/C:116476,P017A/C:005264

.R PAT
*SORTR.OBJ=SORTR.OLD/C:026743,P017B/C:005537

.R PAT
*SORTC.OBJ=SORTC.OLD/C:103446,P017C/C:005214

.R LINK
*SORT,SRT11/M:1400/B:1400=RTIO,SRT110,SRT11R/P:500./C
*MSGLIB/C
*SRT11C/O:1/C
*SRT11A/O:1/C
*SRT11D/O:1/C
*SRT11M/O:1
*SORT.TSD,SORT=SORTR,SRTIO/B:100000/P:500./C
*SORTC/O:1/C
*SORTA/O:1/C
*SORTD/O:1/C
*SORTM/O:1
*^C

.R REDUCE
*SORT/N
*^C

QUILL V1.0
for RT-11 V4.0
QUILL.SAV
QUILL.TSD

Seq 60.1.1 F

1 of 2

PATCH 1: PRIMARY FILE BLOCK COUNT PROBLEM (CJ)

PROBLEM:

Attempting to do a FIND on a primary file of 10,000 or more blocks did not work properly. QUILL did not recognize a block count greater than 9,999. If a file was larger than that and QUILL was searching for certain records, it would go back to the first block after reading the 9,999th block. Various conditions might occur for QUILL to eventually think it had completed the collection. However, the collection would not be valid. It would be very large and most likely contain many meaningless records.

SOLUTION:

The following patch (Patch 1) corrects this problem by permitting files to be larger than 9,999 blocks.

1. To install Patch 1 on a single user system (QUILL.SAV) create and execute the following command file. Insure that QUILL.SAV is located on DK:.

```
COPY DK:QUILL.SAV DK:QUILL.OLS
RUN SIPP
DK:QUILL.SAV/A/C
0
35212
2214
^Z
35324
40214
^Z
35470
2214
^Z
36030
2214
^Z
36434
2214
^Y
74057
^C
```

QUILL V1.0
for RT-11 V4.0
QUILL.SAV
QUILL.TSD

Seq 60.1.1 F

2 of 2

2. To install Patch 1 on a time shared system (QUILL.TSD) create and execute the following command file. Insure that QUILL.TSD is located on DK:.

```
COPY DK:QUILL.TSD DK:QUILL.OLT
RUN SIPP
DK:QUILL.TSD/A/C
0
26212
2214
^Z
26324
40214
^Z
26470
2214
^Z
27030
2214
^Z
27434
2214
^Y
174700
^C
```

QUILL V1.0
for RT-11 V4.0
QBUILD.SAV
QBUILD.TSD

Seq 60.2.1 F
1 of 1

PATCH 2: QBUILD WORK FILE SIZE ALLOCATION (CJ)

PROBLEM:

Occasionally QBUILD did not allocate enough space in a work file so that when modifying a dictionary the message "MOUNT NEXT OUTPUT FILE FOR DK:QTMP00.QTP" might occur. A "BAD FILE SPECIFICATION" message might also be displayed.

SOLUTION:

The attached patch (Patch 2) to QBUILD corrects the problem by allocating more space for the work file. Use the following procedure(s) to install the patch. Before doing so insure that QBUILD.SAV and QBUILD.TSD are on DK:.

1. To patch a single user system (QBUILD.SAV) create and execute the following command file:

```
COPY DK:QBUILD.SAV DK:QBUILD.OLS
RUN SIPP
DK:QBUILD.SAV/A/C
0
35440
24151
^Y
165714
^C
```

2. To patch a time shared system (QBUILD.TSD) create and execute the following command file:

```
COPY DK:QBUILD.TSD DK:QBUILD.OLT
RUN SIPP
DK:QBUILD.TSD/A/C
0
34440
24151
^Y
25665
^C
```

RT-11 V4.0
CUMULATIVE INDEX
NOVEMBER 1982

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.

*The "Autopatch Kit" column in the list which follows indicates the first RT-11 V4.0 Autopatch Kit in which the associated patch was included. Unless otherwise indicated, the patches also appear in subsequent Autopatch Kits as well. Note that Autopatch Kit "G" is the latest kit available from the SDC.

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
RT-11 V4.0			
MONITOR PATCHES			
ISSUING .SETTOP #-2 AND .EXIT UNDER XM MONITOR MAY CORRUPT SYSTEM DISK	A	1.1.1 M	Jul 80
IMPLEMENTING INTERNAL HANDLER QUEUEING IN FB AND XM MONITORS	A	1.1.2 M	Jul 80
ADDING HIGH SPEED RING BUFFER SUPPORT	A	1.1.3 M	Jul 80
CORRUPTION OF CSI TEXT UNDER XM MONITOR	A	1.1.4 M	Jul 80
MISSING COLON IN BOOT XX CAUSES SYSTEM HALT	A	1.1.5 M	Jul 80
TYPING ^U WHILE IN A ^X SEQUENCE UNDER A SYSTEM JOB	A	1.1.6 M	Sep 80
ABNORMAL TERMINATION OF FG JOB WHICH IS USING CSI	A	1.1.7 M	Nov 80
MISCELLANEOUS MRRT-11 BUGS	A	1.1.8 M	Nov 80
MRRT-11 MINIMAL FILE SUPPORT PROBLEM	A	1.1.9 M	Nov 80
INCORRECT LIMIT CHECKS ON PRIVILEGED BACKGROUND JOBS USING VIRTUAL OVERLAYS	A	1.1.10 M	Nov 80
MULTI-TERMINAL MONITORS DON'T ALWAYS PROCESS CTRL/F PROPERLY	A	1.1.11 M	Nov 80
MONITOR CHANGES AND CORRECTIONS	A	1.1.12 M	Dec 80
MONITOR CORRECTIONS	B	1.1.13 M	Jan 81
MONITOR UPDATES	B	1.1.14 M	Feb 81
ABORT I/O IN PROGRESS HANDLER BIT	B	1.1.15 M	Apr 81
CORRECTIONS FOR DISTRIBUTED AND SYSTEM GENERATED MONITORS	C	1.1.16 M	Jun 81
PRINT COMMAND RESTRICTION		1.1.17 R	Jul 81
UPDATES TO MONITOR FILES	D	1.1.18 M	Oct 81
CORRECTIONS TO THE MONITOR	E	1.1.19 M	Jan 82
MONITOR NOTES			
COMPLETION ROUTINE OPERATION UNDER THE SJ MONITOR		1.2.1 N	Sep 82

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
<u>DEVICE HANDLER SOURCES</u>			
<u>DEVICE HANDLER NOTES</u>			
RLO2s AT REV. LEVEL "F" FAIL DURING RT-11 SYSGEN		6.1.1 N	Oct 80
<u>DD.MAC</u>			
DD PRIMARY BOOTSTRAP PROBLEM	A	6.4.1 M	Jul 80
<u>DL.MAC</u>			
PATCH XM VERSION OF DL HANDLER .SPFUN GET SIZE ROUTINE	A	6.5.1 M	Dec 80
ERRORS ON RLO1 DISK DRIVES AFTER DISK PACKS ARE CHANGED	B	6.5.2 M	Jan 81
<u>DM.MAC</u>			
ERRORS IN DM OFFSET POSITIONING AND ERROR LOGGING	A	6.6.1 M	Jul 80
<u>DY.MAC</u>			
DELETED DATA MARK MAY BE LOST IF BUFFER STARTS ON PAR BOUNDARY	D	6.11.1 M	Aug 81
ERROR LOGGING SUPPORT FOR DY		6.11.2 M	Oct 82
<u>LP.MAC</u>			
LP SET NOHANG MAY CRASH SYSTEM	A	6.12.1 M	Sep 80
<u>LS.MAC</u>			
LS SET NOHANG MAY CRASH SYSTEM	A	6.13.1 M	Sep 80
PROBLEMS WITH LS HANDLER	B	6.13.2 M	Jan 81
USING AN LA120 TERMINAL AS A LINE PRINTER WITH THE LS HANDLER		6.13.3 N	Jul 81
SET LS NOHANG IS CURRENTLY INOPERATIVE	C	6.13.4 M	Jul 81
RACE CONDITION IN LS HANDLER	D	6.13.5 M	Aug 81
LS HANDLER SET "NOHANG" PROBLEM	E	6.13.6 M	Jan 82
PROBLEMS WITH LS HANDLER		6.13.7 M	Oct 82
<u>PD.MAC</u>			
CORRECTION TO PDT ERROR LOGGING SUPPORT	B	6.16.1 M	Apr 81
<u>MAG TAPE HANDLERS</u>			
BUFFER CLEARING ON SHORT READ IN XM MONITOR	A	6.20.1 M	Jul 80
LINKING AN XM, NON-FILESTRUCTURED TS HANDLER GENERATES			
AN UNDEFINED GLOBAL	A	6.20.2 M	Aug 80
INCORRECT READ ERROR RECOVERY IN MT HANDLER	A	6.20.3 M	Sep 80
TS-11 DOES NOT RECOVER FROM SOFT ERROR ON WRITE EOF	C	6.20.4 M	Jul 81
<u>SYSTEM UTILITIES</u>			
<u>PIP.SAV</u>			
ERRORS IN PIP	A	7.1.1 M	Sep 80
COPY/PREDELETE COMMAND		7.1.2 N	Sep 80
MATCHING FILE SPECIFICATIONS ERRORS	B	7.1.3 M	Feb 81
COPY/BINARY/WAIT AND LOG HEADER PROBLEMS	B	7.1.4 M	Apr 81
COPY/PREDELETE AND COPY/NOREPLACE WORK INCORRECTLY WITH /WAIT	C	7.1.5 M	Jun 81
ERROR WITH RENAME/NOREPLACE	C	7.1.6 M	Jul 81
/POSITION:N SWITCH FOR MAGTAPE INPUT WORKS INCORRECTLY	D	7.1.7 M	Oct 81
COPY/BINARY STOPS PROCESSING AFTER ENCOUNTERING AN OBJ LIBRARY FILE	E	7.1.8 M	Nov 81
COPYING FILES TO UNINITIALIZED DISKS		7.1.9 N	Nov 81
ALLOCATE AND DELETE WORK INCORRECTLY WITH COPY OPERATIONS	F	7.1.10 M	Feb 82
<u>DUP.SAV</u>			
MISSING COLON IN BOOT XX CAUSES SYSTEM HALT	A	7.2.1 M	Jul 80
SQUEEZE CREATES <UNUSED> ENTRIES OF LENGTH ZERO BEFORE			
.BAD FILES	A	7.2.2 M	Aug 80
PROBLEMS WITH COPY/DEVICE AND INITIALIZE	A	7.2.3 M	Dec 80
BOOTSTRAPPING AN UNPATCHED MONITOR FROM A PATCHED SYSTEM	B	7.2.4 N	Jan 81
.SPFUN RETURN BUFFER PROCESSED INCORRECTLY FOR RK06/7	B	7.2.5 M	Jan 81
USE OF INITIALIZE/RESTORE ON MEDIA SUPPORTING BAD			
BLOCK REPLACEMENT		7.2.6 N	May 81
PROBLEMS WITH INIT/BAD AND COPY/DEVICE	C	7.2.7 M	May 81
PROBLEMS WITH INITIALIZE COMMAND	C	7.2.8 M	Jun 81
ATTEMPT TO RESTORE UNCLOSED TENTATIVE FILES FAILS	C	7.2.9 M	Jul 81
/V WITH NO DEVICE SPECIFICATION GIVES WRONG ERROR MESSAGE	D	7.2.10 M	Sep 81
OUTPUT ERROR DURING COPY/DEVICE TO MAGTAPE CAUSES SYSTEM ERROR	E	7.2.11 M	Oct 81
USE OF COPY/DEV/FILE WITHOUT FILE SPECIFICATION	E	7.2.12 M	Nov 81
PROBLEMS WITH COPY/DEVICE USING /END	F	7.2.13 M	Apr 82

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
DIR.SAV			
DIR/OUT COMMAND PRODUCES DEVICE NOT ACTIVE MESSAGE	A	7.3.1 M	Jul 80
DIR/VOL GIVES ?MON-F-TRAP TO 4	A	7.3.2 M	Dec 80
LOSS OF LAST PRINT CHARACTER IN DIRECTORY LISTING	D	7.3.3 M	Sep 81
RESORC.SAV			
RESORC MAY REPORT INCORRECT JOB NAMES ON A SHOW JOBS COMMAND	A	7.5.1 M	Aug 80
ADD CIS DETECTION CAPABILITY TO RESORC	B	7.5.2 M	May 81
PROBLEM WITH IDENTIFYING 11/23 PROCESSOR	D	7.5.3 M	Sep 81
LINK.SAV			
LINK BYTE RELOCATION AND DIRECTORY SIZE	A	7.9.1 M	Jul 80
LINK MAP PROCESSING ERROR	A	7.9.2 M	Aug 80
LINK MAP ERROR AND MULTIPLE DEFINITION LIBRARIES	A	7.9.3 M	Oct 80
RT-11 V4 LINKER RESTRICTION	B	7.9.4 R	Jan 81
LINK TRANSFER ADDRESS CALCULATION BUGS	B	7.9.5 M	Mar 81
LINK ADDITIONS AND CORRECTIONS	D	7.9.6 M	Aug 81
LINK UPGRADE	E	7.9.7 M	Nov 81
LINK ERROR IN LIBRARY MODULE TRANSFER ADDRESS PROCESSING	E	7.9.8 M	Jan 82
LINK LIBRARY MODULE PLACEMENT ERROR	E	7.9.9 M	Jan 82
LINK MULTIPLE ERROR FIXES	G	7.9.10 M	May 82
LINK REFERENCES ILLEGAL ADDRESS		7.9.11 M	Oct 82
LIBR.SAV			
A LIBR COMMAND WITH NO FILE-SPEC CAN CAUSE A SYSTEM CRASH	A	7.10.1 M	Jul 80
LIBR ERRORS	C	7.10.2 M	Jul 81
LIBR CORRUPTS FORM LIBRARY DIRECTORY	C	7.10.3 M	Jun 81
LIBR ERROR IN GENERATING ENTRY POINT TABLE	E	7.10.4 M	Jan 82
LIBR RESTRICTION		7.10.5 N	Jan 82
FILEX.SAV			
FILEX WILDCARD TRANSFERS CAUSE MONITOR TRAP	A	7.11.1 M	Aug 80
FILEX CREATES ZERO FILLED INTERCHANGE RECORDS	A	7.11.2 M	Sep 80
SIZE CALCULATION PROBLEM IN FILEX	D	7.11.3 M	Aug 81
RECORDS DROPPED BY FILEX	D	7.11.4 M	Sep 81
SRCCOM.SAV			
COMPARING TWO FILES MAY CAUSE TRAP TO 4	A	7.12.1 M	Aug 80
BLANK LINE COMPARISON FOR SLIDING MATCH	A	7.12.2 M	Dec 80
BINCOM.SAV			
BINCOM GENERATES ERRONEOUS ERROR MESSAGE	B	7.13.1 M	Apr 81
ERRONEOUS DOUBLE PRECISION CALCULATION IN BINCOM	C	7.13.2 M	Jun 81
BINCOM PLACES TAB CHARACTER AFTER OFFSET IN SIPP COMMAND FILE	E	7.13.3 M	Jan 82
DUMP.SAV			
BLOCK NUMBERS OUTPUT FROM DUMP	D	7.14.1 M	Aug 81
SLP.SAV			
TERMINATION OF PATCHING SESSION WITH SLP FATAL ERRORS	A	7.15.1 M	Nov 80
SLP GENERATES FATAL ERROR TRAP	B	7.15.2 M	Jan 81
SLP ERROR	B	7.15.3 M	Mar 81
SIPP.SAV			
CORRUPTION OF MULTI-BLOCK LOG FILES	A	7.16.1 M	Jul 80
PAT.SAV			
USE OF THE PAT UTILITY WITH RT-11 V3B PATCHES		7.17.1 N+	Mar 80
HELP.SAV			
PROBLEMS WITH HELP UTILITY	A	7.19.1 M	Nov 80
EDIT.SAV			
EDIT MISHANDLES OUTPUT FILE FULL ERROR	B	7.20.1 M	Nov 81
<u>SYSTEM SUBROUTINE LIBRARY (SYSLIB)</u>			
SYSLIB.OBJ			
PATCH TO ICSI	A	8.1.1 M	Oct 80
IASIGN REDEFINITIONS	A	8.1.2 M	Oct 80

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
ILUN RESTRICTION		8.1.3 R	Feb 81
VIRTUAL OVERLAY HANDLER CORRECTION	E	8.1.4 M	Feb 82
<u>SYSTEM MACRO LIBRARY</u>			
.SPFUN PROGRAMMED REQUEST	A	9.1.1 M	Dec 80
ABORT I/O PROGRESS SUPPORT FOR SYSMAC	B	9.1.2 M	Apr 81
.CMKT PROGRAMMED REQUEST	C	9.1.3 M	Jun 81
INCORRECT EXPANSION OF .DRSET MACRO	F	9.1.4 M	Apr 82
<u>SYSTEM GENERATION PACKAGE</u>			
SYSGEN CREATES ONE MORE DEVICE SLOT THAN REQUESTED	A	10.3.1 M	Dec 80
ASSEMBLY ERROR AFTER SYSGEN	B	10.3.2 M	Mar 81
TERMINAL OUTPUT CORRUPTION ON DZ11 OR DZV11 LINES	F	10.3.3 M	Apr 82
<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
CHANGES TO DUP /I OPTION		11.2.3 N	Apr 81
INCORRECT DUP CUSTOMIZATION PATCHES		11.2.4 N	Sep 81
<u>RT-11 INSTALLATION AND SYSTEM GENERATION GUIDE</u>			
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
DOCUMENTATION ERROR: REFERENCE TO RLO2 OMITTED FROM SYSGEN DIALOGUE		11.3.3 N	Oct 80
INCORRECT LINK MAPS FOR DISTRIBUTED MONITORS		11.3.4 N	Dec 80
INCORRECT PATCH FOR CHANGING QUEUE WORK FILE SIZE		11.3.5 N	Dec 80
CHANGING DEFAULT NUMBER OF DIRECTORY SEGMENTS		11.3.6 N	Apr 81
<u>INTRODUCTION TO RT-11</u>			
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.4.1 N	Jul 80
<u>RT-11 SYSTEM USER'S GUIDE</u>			
RT-11 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.5.1 N	Jul 80
CORRECTIONS TO SLP CHAPTER: RT-11 SYSTEM USER'S GUIDE		11.5.2 N	Oct 80
DIFFERENCES BETWEEN DEVICE COPYING COMMANDS		11.5.3 N	Dec 80
<u>RT-11 SYSTEM MESSAGE MANUAL</u>			
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.6.1 N	Jul 80
CORRECTIONS TO SLP MESSAGES IN "RT-11 SYSTEM MESSAGE MANUAL"		11.6.2 N	Nov 80
NEW SLP ERROR MESSAGE		11.6.3 N	Feb 81
PIP ERROR MESSAGES MISSING		11.6.4 N	Oct 81
<u>RT-11 POCKET GUIDE</u>			
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.7.1 N	Jul 80
<u>RT-11 PROGRAMMER'S REFERENCE MANUAL</u>			
DOCUMENTATION CORRECTIONS		11.8.1 N	Sep 80
INCORRECT PROGRAMMED REQUEST EXAMPLES		11.8.2 N	Mar 81
UNDOCUMENTED .SERR ERROR CODE		11.8.3 N	Dec 81
<u>RT-11 SOFTWARE SUPPORT MANUAL</u>			
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.9.1 N	Jul 80
SOFTWARE SUPPORT MANUAL CORRECTION		11.9.2 N	Jun 81
ERROR IN DESCRIPTION OF .DRSET MACRO		11.9.3 N	Sep 81
<u>DEBUGGING UTILITIES</u>			
<u>VDT.OBJ</u>			
NOTES ON USING ODT OR VDT IN AN XM ENVIRONMENT		12.2.1 N	Jan 81
ERROR STATUS NOT SAVED/RESTORED BY VDT		12.2.2 M	Oct 82
<u>ERROR CONTROL PACKAGE</u>			
<u>ERROUT.MAC</u>			
ERROR LOGGING SUPPORT OF USER-WRITTEN HANDLERS	G	14.6.1 M	May 82
<u>BATCH PACKAGE</u>			
<u>BATCH.SAV</u>			
PATCH BATCH TO USE MONITOR SUFFIX	A	15.1.1 M	Oct 80
BATCH \$CREATE IGNORES BLANK LINES		15.1.2 M	Aug 82

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
<u>SPOOLING PACKAGE</u>			
QUEUE.REL			
SUPERFLUOUS LINEFEED FROM QUEUE	B	16.1.1 M	Mar 81
NARROW BANNER PAGES FROM QUEUE	C	16.1.2 F	May 81
/R FOLLOWING /S IF NO OUPUT QUEUED MAY CAUSE FATAL ERROR IN QUEUE	D	16.1.3 M	Aug 81
ATTEMPTING TO COMMUNICATE WITH 'QUEUE' FROM A VIRTUAL JOB		16.1.4 N	Apr 82
QUEUE MAY INDICATE INCORRECT NUMBER OF COPIES ON BANNER PAGES		16.1.5 M	Sep 82
<u>QUEMAN.SAV</u>			
PROBLEMS WITH QUEMAN	B	16.2.1 M	Jan 81
<u>KEYPAD EDITOR</u>			
KED			
MAKE TERMINAL SETUP OPTIONAL IF MTATCH FAILS	A	17.1.1 F	Aug 80
PROVIDE A .CHAIN INTERFACE FOR KED	A	17.1.2 F	Aug 80
PROVIDE REASONABLE ACTIONS AND ERROR MESSAGES WHEN DEALING WITH DEGENERATE FILES	A	17.1.3 M	Oct 80
SEARCH FAILS IF TARGET IF FIRST OR LAST STRING IN THE FILE KNOWN ERRORS AND RESTRICTIONS	A	17.1.4 M	Nov 80
		17.1.5 R	Dec 80
"SET SEARCH EXACT JUNK" COMMAND CRASHES KED	C	17.1.6 M	Jul 81
REPEATED USE OF THE "APPEND" FUNCTION CRASHES KED	C	17.1.7 M	Dec 81
DISABLE REVERSE VIDEO DISPLAY BY KED	E	17.1.8 F	Jul 81
FILE SAMPLE.KED OMITTED FROM DISTRIBUTION		17.1.9 N	Aug 81
KED DOCUMENTATION CORRECTION		17.1.10 N	Nov 81
K52			
MAKE TERMINAL SETUP OPTIONAL IF MTATCH FAILS	A	17.2.1 F	Aug 80
PROVIDE A .CHAIN INTERFACE FOR K52	A	17.2.2 F	Aug 80
PROVIDE REASONABLE ACTIONS AND ERROR MESSAGES WHEN DEALING WITH DEGENERATE FILES	A	17.2.3 M	Oct 80
SEARCH FAILS IF TARGET IS FIRST OR LAST STRING IN THE FILE KNOWN ERRORS AND RESTRICTIONS	A	17.2.4 M	Nov 80
		17.2.5 R	Dec 80
"SET SEARCH EXACT JUNK" COMMAND CRASHES K52	C	17.2.6 M	Jul 81
REPEATED USE OF THE "APPEND" FUNCTION CRASHES K52	E	17.2.7 M	Dec 81
NO EQUIVALENT PATCH FOR K52 FOR SEQ 17.1.8		17.2.8 N	Aug 81
FILE SAMPLE.KED OMITTED FROM DISTRIBUTION		17.2.9 N	Aug 81
KED DOCUMENTATION CORRECTION		17.2.10 N	Dec 81
<u>AUTOMATED PATCHING FACILITY PACKAGE</u>			
<u>PACKAGE NOTES</u>			
AUTOPATCH SERVICE FOR RT-11		19.1.1 N	Jun 81
FMS-11/RT-11 V1.1			
ANNOUNCING FMS-11/RT-11 V1.1		33.1 N	Aug 80
FRED V1.1			
ZERO IMPURE AREA SIZE PROBLEM		33.3.1 M	Sep 81
BASIC-11/RT-11 V2.0			
INTERPRETER			
REPLICATION OF PATCHES		35.1.1 N+	Mar 80
PRINT USING - PATCH A	A	35.1.2 M+	Mar 80
RESEQ - PATCH B	A	35.1.3 M+	Mar 80
EDITING A DIM #n STATEMENT - PATCH C	A	35.1.4 M+	Mar 80
DOUBLE PRECISION HANG - PATCH D	A	35.1.5 M+	Mar 80
SAVE dev: AND REPLACE dev: - PATCH E	A	35.1.6 M+	Mar 80
SINGLE PRECISION HANG AND NUMERIC CONVERSION PROBLEM - PATCH F	A	35.1.7 M+	Mar 80
SAVE .XXX & UNSAVE .XXX - PATCH G	A	35.1.8 M+	Mar 80
NEW - PATCH H	A	35.1.9 M+	Mar 80
RESEQ - PATCH I	A	35.1.10 M+	Mar 80
LISTNH / OLD - PATCH J	A	35.1.11 M+	Mar 80
SYS(1) - PATCH K	A	35.1.12 M+	Mar 80
CALL - PATCH L	A	35.1.13 M+	Mar 80
DOUBLE PRECISION INTEGER VARIABLES - PATCH M	A	35.1.14 M+	Mar 80
FILESIZE 0 - PATCH N	A	35.1.15 M+	Mar 80

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
INTEGERS IN DOUBLE PRECISION BASIC-11		35.1.16 N+	Mar 80
REM STATEMENTS ON MULTI-STATEMENT LINES - PATCH O	A	35.1.17 M+	Mar 80
INT FUNCTION - PATCH P FOR SINGLE USER BASIC-11	A	35.1.18 M	Nov 80
RETRACTED		35.1.19 M	May 81
PRINT USING - PATCH R FOR SINGLE USER BASIC-11	B	35.1.20 M	Jan 81
OMITTING TRIG FUNCTIONS FROM BASIC-11	B	35.1.21 N	Jan 81
STRING CONCATENATION - PATCH S FOR SINGLE USER BASIC-11	B	35.1.22 M	Mar 81
PROBLEM WITH BASIC-11 PATCH Q		35.1.23 N	May 81
INTEGER COMPARISON - PATCH T FOR SINGLE USER BASIC-11 (REFERENCE SEQ 35.1.26 M)		35.1.24 M	Sep 82
PASSING STRING ARGUMENTS TO ALRs - PATCH U FOR SINGLE USER BASIC-11		35.1.25 M	Sep 82
REVISION TO PATCH "T" FOR SINGLE USER BASIC-11 (REFERENCE SEQ 35.1.24 M)		35.1.26 M	Oct 82
USING "CHAIN" WITH "COMMON" MAY CAUSE SYSTEM CRASH - PATCH "V" FOR BASIC-11		35.1.27 M	Oct 82
UTILITIES			
CONVERSION PROGRAM		35.2.1 M+	Mar 80
BASIC-11/RT-11 V2 CONVERSION PROGRAM PATCH 1		35.2.2 M+	Mar 80
DOCUMENTATION			
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
NEW MANUAL AVAILABLE FOR BASIC-11/RT-11		35.3.9 N	May 81
MicroPower/Pascal V1.0			
ANNOUNCING MICROPOWER/PASCAL V1.0		37.1.1 N	Apr 82
BUILDING AN APPLICATION THAT USES THE FILE SYSTEM		37.1.2 M	May 82
COMPILER			
INCORRECT PASCAL DEFINITION OF THE PCB RECORD		37.5.1.7 N	Nov 82
CHANGE IN DATA TYPE STRUCTURE_DESC IN PASCAL INCLUDE FILE		37.5.1.8 N	Nov 82
MicroPower/Pascal V1.1			
MISCELLANEOUS NOTES			
ANNOUNCING MicroPower/Pascal V1.1		37.1.1.1 N	Sep 82
MIB			
MIB MAY GIVE A HARDWARE READ ERROR DURING KERNAL INSTALLATION		37.3.3.1 N	Aug 82
PAXM/PAXU/KERNAL			
SERA REQUEST FOR DISCONNECT MAY FAIL IN A MAPPED SYSTEM		37.4.1.1 N	Aug 82
ILLEGAL ADDRESS ARGUMENT CAN CAUSE UNPREDICTABLE RESULTS		37.4.1.2 N	Aug 82
DISPATCH TO UNMAPPED STACK OVERFLOW EXCEPTION IS INCORRECT		37.4.1.3 N	Aug 82
STOPPED PROCESSES ARE PLACED IN THE INACTIVE QUEUE		37.4.1.4 N	Aug 82
PROCESS ON INACTIVE QUEUE DOES NOT HAVE POINTER TO EXCEPTION FRAME		37.4.1.5 N	Aug 82
DISCONNECT FROM INTERRUPT REQUEST MAY CORRUPT KERNEL FREE POOL		37.4.1.6 N	Sep 82
MULTIPLE EXCEPTIONS IN A PROCESS CAN CAUSE UNPREDICTABLE RESULTS		37.4.1.7 N	Sep 82
UNMAPPED, MIXED ROM/RAM POWER-UP IS INCORRECT		37.4.1.8 N	Nov 82
PASCAL COMPILER			
CONFORMANT ARRAYS AND SINGLE CHARACTER LITERALS		37.5.1.1 N	Aug 82
FORMAL PARAMETER LISTS WITH DEFAULT VALUES		37.5.1.2 N	Aug 82
ATTRIBUTE [CONTEXT(MMU)] DOES NOT WORK		37.5.1.3 N	Aug 82
ACCESSING UP-LEVEL LOCAL VARIABLES FROM [TERMINATE] PROCEDURES		37.5.1.4 N	Aug 82
CALLING THE ROUND (OR TRUNC, UROUND, UTRUNC) FUNCTION WITH NON-STATIC VARIABLES		37.5.1.5 N	Aug 82
INCORRECT CODE GENERATED FOR STRUCTURED FUNCTION RESULTS		37.5.1.6 N	Nov 82

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
OTS			
KEF-11 FLOATING POINT STATUS WORD IS INCORRECTLY INITIALIZED		37.6.1.1 N	Aug 82
THE NATURAL LOG FUNCTION RETURNS INCORRECT RESULTS		37.6.1.2 N	Aug 82
UROUND AND UTRUNC FUNCTIONS DO NOT WORK CORRECTLY		37.6.1.3 N	Nov 82
PACK AND UNPACK FUNCTIONS ARE MISSING FROM THE OTS LIBRARY		37.6.1.4 N	Nov 82
XL (SERIAL LINE) DRIVER			
ERROR IN "DISCONNECT TRANSMIT RING BUFFER" FUNCTION		37.8.1.1 N	Aug 82
BLOCK MODE READ REQUEST RETURNS INCORRECT DATA		37.8.1.2 N	Aug 82
DOCUMENTATION			
RENAMING LIBXXX.OBJ TO SYSLIB IS NO LONGER RECOMMENDED		37.10.1.1 N	Sep 82
RENAMING COMM.SML OR COMU.SML TO SYSMAC.SML IS NO LONGER RECOMMENDED		37.10.1.2 N	Sep 82
PROCESSOR JUMPERS FOR POWER-UP MODES SHOWN ON PAGE 1-4 OF THE MicroPower/Pascal INSTALLATION GUIDE ARE INCORRECT		37.10.1.3 N	Sep 82
MicroPower/Pascal V1.0 SYSTEM USER'S GUIDE DOES NOT GIVE FULL INFORMATION ON THE LINDF\$ MACRO FIELDS		37.10.1.4 N	Sep 82
DLV-11 PREFIX MODULE EXAMPLE SHOWS INCORRECT CSR		37.10.1.5 N	Sep 82
MU BASIC-11/RT V2.1			
INTERPRETER			
MU BASIC V2.1 MAINTENANCE RELEASE AVAILABLE			Mar 82
UNWARRANTED ISSUANCE OF "TOO MANY CHANNELS" ERROR - PATCH A FOR MULTI-USER BASIC-11		38.1.1 M	Jul 82
"ERR" VALUE IMPROPERLY UPDATED WHEN USING "ON ERROR GOTO nnnnn" - PATCH B TO MULTI-USER BASIC-11		38.1.2 M	Jul 82
"RESEQ" FOLLOWING "DEL nnnnn" RESULTS IN "Mon-F-Trap to 10 000002" - PATCH C TO MULTI-USER BASIC-11		38.1.3 M	Jul 82
PROGRAMS RETRIEVED USING "OLD filename" OR "RUN filename" ARE SOMETIMES CORRUPTED - PATCH "D" FOR MU BASIC-11		38.1.4 M	Sep 82
IMPROPER FILE EXTENSION CREATED FOR COMPILED FILES WHEN MU BASIC-11 IS CONFIGURED FOR DOUBLE-PRECISION - PATCH "E" FOR MU BASIC-11		38.1.5 M	Sep 82
REVISION TO PATCH "F" FOR MULTI-USER BASIC-11		38.1.6 M	Oct 82
PROBLEMS DEASSIGNING PREVIOUSLY ASSIGNED TERMINAL - PATCH "G" FOR MU BASIC-11		38.1.7 M	Oct 82
FORTRAN IV/RT-11 V2.5			
COMPILER			
ANNOUNCING PDP-11 FORTRAN IV/RT-11 V2.5		45.1.1 N	Sep 80
THE COMPILER INCORRECTLY PARSES SOME EXPRESSIONS IN I/O LISTS	A	45.1.2 M	Nov 80
THE COMPILER INCORRECTLY CONVERTS INTEGER TO BYTE IN LOGICAL EXPRESSIONS	A	45.1.3 M	Nov 80
THE COMPILER GENERATES INCORRECT CODE FOR EQUIVALENCED ARRAYS (PAT 12)	D	45.1.4 M	Sep 81
THE COMPILER INCORRECTLY INTERPRETS COMMENTS WITH TABS (PAT 17)	E	45.1.5 M	Nov 81
MISSING END IN MAIN PROGRAM CAN CAUSE COMPILER CRASH (PAT 18)	E	45.1.6 M	Nov 81
THE COMPILER INCORRECTLY OPTIMIZES ARRAY ELEMENTS PASSED AS ARGUMENTS (PAT 20)	E	45.1.7 M	Dec 81
THE COMPILER INCORRECTLY PARSES PARENTHESES IN QUOTED STRINGS (PAT 21)	E	45.1.8 M	Jan 82
THE COMPILER CRASHES WHILE ACCESSING AN ODD ADDRESS IN PAT 12 (PAT 22)	E	45.1.9 M	Jan 82
CORRECTION FOR CONTINUATION LINES PRECEDED BY COMMENTS (PAT 27)	F	45.1.10 M	Apr 82
BOUNDS CHECKING OF INTERNAL BUFFER IN OPTIMIZER (PAT 29)	G	45.1.11 M	Jun 82
COMPILER HANGS WHEN ERRORS OCCUR IN STATEMENT FUNCTIONS (PAT 31)	G	45.1.12 M	Jun 82
INCORRECT BYTE TO INTEGER CONVERSION		45.1.13 M	Aug 82
COMPILER GENERATES FATAL ERROR IN REGISTER ALLOCATOR		45.1.14 M	Aug 82
OTS			
THE OTS DOES NOT SET DEFAULT CARRIAGE CONTROL FOR SERIAL LINE PRINTER	B	45.2.1 M	Jan 81
THE LUN IS NOT SAVED WHEN AN ERROR OCCURS WHILE OPENING A FILE PATCH TO ALLOW THE PLACEMENT OF THE FORTRAN OTS WORK AREA BETWEEN THE PROGRAM'S HIGH LIMIT AND THE BASE OF THE FIRST VIRTUAL OVERLAY FOR PRIVILEGED FORTRAN JOBS	B	45.2.2 M	Jul 81
	B	45.2.3 F	Feb 81
BOUNDARY CONDITION ON FORMATTED I/O CORRUPTS I/O (PAT 6)	B	45.2.4 M	Mar 81

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
DEFAULT CARRIAGE CONTROL FOR IMPLIED SEQUENTIAL ACCESS			
FILES (PAT 7)	C	45.2.5 M	Jul 81
STANDALONE FORTRAN YIELDS RUN-TIME ERROR 64 (PAT 8)	B	45.2.6 M	Apr 81
DISPOSE = 'KEEP' NOT RECOGNIZED WITH READONLY OPEN PARAMETER (PAT 9)	C	45.2.7 M	Jul 81
THE DATE ROUTINE DOES NOT PERMIT BYTE ALIGNED PARAMETERS (PAT10)	C	45.2.8 M	Jul 81
IMPLICIT READ FAILURE MAY HALT PROCESSOR (PAT 11)	C	45.2.9 M	Jul 81
FPU DOUBLE PRECISION SINE/COSINE MODULE ERRORS (PAT 13)	D	45.2.10 M	Sep 81
EMBEDDED BLANKS OVERRIDE THE ICNT PARAMETER IN THE ASSIGN ROUTINE	D	45.2.11 M	Oct 81
THE DEFAULT CARRIAGE CONTROL FOR THE ASSIGN ROUTINE IS INCORRECT	D	45.2.12 M	Oct 81
CORRECTION FOR UNIT CLOSING (PAT 16)	E	45.2.13 M	Nov 81
LIST DIRECTED INPUT CONVERSION ERROR (PAT 19)	E	45.2.14 M	Dec 81
BOUNDARY CONDITION ON FORMATTED I/O CORRUPTS I/O IN PAT 6 (PAT 23)	F	45.2.15 M	Feb 82
BOUNDARY CONDITION ON FORMATTED I/O BACKSPACE CORRUPTS I/O	F	45.2.16 M	Feb 82
CORRECTION OF ASSIGN FILENAME HANDLING WHEN ICNT EQUALS ZERO	F	45.2.17 M	Feb 82
CONVERSION ERROR WHILE READING COMPLEX NUMBER FROM FILE (PAT 26)	F	45.2.18 M	Apr 82
CORRECTION TO ALLOW CLOSING OF UNIT RECORD DEVICES (PAT 28)	G	45.2.19 M	Jun 82
PREMATURE CLEARING OF ERR= BRANCH WHEN EOF IS ENCOUNTERED (PAT 30)	G	45.2.20 M	Jun 82
UIOBYT PREMATURELY DETERMINES END OF BLOCK (PAT 32)	G	45.2.21 M	Jul 82
INVALID DATA IS ACCEPTED DURING LIST DIRECTED I/O		45.2.22 M	Nov 82

GAMMA V3.1

FGAMMA-FRAMES 3 TO 10 OF GSA STUDY SOMETIMES CORRUPT		49.2.1 M	Jul 81
SYSTEM MAY HANG WHEN DISK SQUEEZED		49.2.2 M	Oct 81
STATIC STUDIES ON LARGE DEVICES		49.2.3 M	Jan 82
STATIC STUDY ACQUISITION ON LARGE DEVICES		49.4.1 M	Jan 82
ISOMETRIC DISPLAY IMAGES USE INCORRECT INTENSITY LEVELS		49.5.1 M	Oct 81
SLICE - LAST POINT IS NOT PLOTTED		49.5.2 M	Nov 81
SLICE - <CR>, <LF> NOT ISSUED AFTER PRINTING SLICE DATA		49.5.3 M	Jan 82
DYNAMIC CURVE RECALCULATION IN REGIONS OF INTEREST		49.5.4 M	Aug 82
TRANSFER STUDY IN SELECTIVE STEP MODE		49.8.1 F	Mar 82
GAMMA-11 DOCUMENTATION CORRECTIONS AND ADDITIONS		49.10.1 N	Mar 82
PATCHING THE RT-11 MONITOR FOR GAMMA-11		49.11.1 M	Nov 81
ERROR IN THE BASIC SUPPORT ROUTINE GPMR		49.12.1 M	Aug 82
ERRORS IN THE BASIC SUPPORT ROUTINES GPLR AND GPF		49.12.2 M	Aug 82
ERROR IN FORTRAN SUPPORT SUBROUTINE GPMR		49.13.1 M	Mar 82
ERRORS IN THE FORTRAN SUPPORT ROUTINES GPLR AND GPF		49.13.2 M	Mar 82

CTS-300 V6.0

DBUILD			
CORRECTION FOR THREE DECFORM PROBLEMS		51.2.1 M	Oct 81
DECFORM			
PROBLEM WITH DECFORM AND THE VT100		51.4.1 M	Nov 80
CORRECTION FOR THREE DECFORM PROBLEMS		51.4.2 M	Oct 81
DECFORM WITH VT100 TERMINAL CAUSES BAD CHARACTER ON TYPE-AHEAD		51.4.3 M	Nov 81
DIBOL			
TWO CORRECTIONS TO XCALL PAK/UNPAK		51.5.1 M	Aug 81
DICOMP			
FOUR DICOMP ERRORS FIXED		51.6.1 M	Oct 81
DKED			
TWO PROBLEMS WITH DKED		51.7 M	Aug 80
DKED SELECT/CUT AND KEYPAD ERRORS		51.7.2 M	Sep 80
DKED INCORRECTLY HANDLES CONTINUED LINES		51.7.3 M	Oct 81
POSSIBLE BOTTOM OF SCREEN CORRUPTION USING DKED		51.7.4 M	May 82

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
ISMUTL			
CORRECTIONS FOR ISAM UTILITY ERRORS		51.8.1 M	Nov 81
ISMUTL GIVES INCORRECT ERROR MESSAGES IF INSUFFICIENT MEMORY AVAILABLE		51.8.2 M	Apr 82
LPTSPL			
TSD SPOOLER GETS CONFUSED		51.9.1 M	Nov 80
SORTM			
SORT SENDS MESSAGES INDISCRIMINATELY		51.14.1 M	Jan 81
SUD			
CORRECTIONS TO DIBOL RUN TIME SYSTEMS		51.16.1 M	Jan 81
PROBLEMS WITH XCALL RENAM AND ERROR 6		51.16.2 M	Feb 81
NO ERROR 22 RETURNED		51.16.3 M	Nov 81
DIBOL STACK OVERFLOW ON OPEN		51.16.4 M	Nov 81
PROBLEMS WITH STACK OVERFLOW AND INCREMENT		51.16.5 M	Dec 81
SUD MESSAGES OVER 100 CHARACTERS IN LENGTH ARE NOT RECEIVED CORRECTLY		51.16.6 M	Feb 82
ISAM FILE RECORD COUNT REVERTS TO 0		51.16.7 M	Apr 82
A SUD PROGRAM DOING AN XCALL MAY RESULT IN A TRAP TO 4 OR 10		51.16.8 M	Jul 82
ERRORS IN DATA FORMATTING WITH MASK		51.16.9 M	Oct 82
TDIBOL			
PROBLEM WITH XCALL PAK		51.17 M	Aug 80
PROBLEM UNPACKING DATA		51.17.2 M	Sep 80
TWO CORRECTIONS TO XCALL PAK/UNPAK		51.17.3 M	Aug 81
TSD			
CORRECTIONS TO DIBOL RUN TIME SYSTEMS		51.18.1 M	Jan 81
PROBLEMS WITH XCALL RENAM AND ERROR 6		51.18.2 M	Feb 81
INCORRECT TERMINAL WIDTHS AND CIS PROBLEM		51.18.3 M	Aug 81
CORRECTION TO TSD/XMTSD		51.18.4 M	Sep 81
CORRECTION FOR ISAM PROBLEM		51.18.5 M	Oct 81
"SEND" STARTS MULTIPLE JOBS		51.18.6 M	Oct 81
NO ERROR 22 RETURNED		51.18.7 M	Nov 81
DIBOL STACK OVERFLOW ON OPEN		51.18.8 M	Nov 81
PROBLEMS WITH STACK OVERFLOW AND INCREMENT		51.18.9 M	Dec 81
CORRECTION FOR SIDE EFFECTS FROM PATCH 27		51.18.10 M	Feb 82
LINE PRINTER IS SOMETIMES INCORRECTLY CONSIDERED IN USE		51.18.11 M	Feb 82
ISAM FILE RECORD COUNT REVERTS TO 0		51.18.12 M	Apr 82
TSD AND XMTSD HANG AFTER ATTEMPT TO ILLEGALLY START UP JOB		51.18.13 M	May 82
ERRORS IN DATA FORMATTING WITH MASK		51.18.14 M	Oct 82
XMTSD			
CONFLICT BETWEEN XMTSD AND RT-11 OVER CHANNEL 16		51.20 M	Aug 80
CORRECTIONS TO DIBOL RUN TIME SYSTEMS		51.20.2 M	Jan 81
PROBLEMS WITH XCALL RENAM AND ERROR 6		51.20.3 M	Feb 81
PATCH FOR XMTSD WITH CIS		51.20.4 M	Apr 81
INCORRECT TERMINAL WIDTHS AND CIS PROBLEM		51.20.5 M	Aug 81
XMTSD HANGS WHEN LP IS OFF-LINE		51.20.6 M	Sep 81
CORRECTION TO TSD/XMTSD		51.20.7 M	Sep 81
CORRECTION FOR ISAM PROBLEM		51.20.8 M	Oct 81
"SEND" STARTS MULTIPLE JOBS		51.20.9 M	Oct 81
NO ERROR 22 RETURNED		51.20.10 M	Nov 81
DIBOL STACK OVERFLOW ON OPEN		51.20.11 M	Nov 81
PROBLEMS WITH STACK OVERFLOW AND INCREMENT		51.20.12 M	Dec 81
CORRECTION FOR SIDE EFFECTS FROM PATCH 27		51.20.13 M	Feb 82
LINE PRINTER IS SOMETIMES INCORRECTLY CONSIDERED IN USE		51.20.14 M	Feb 82
ISAM FILE RECORD COUNT REVERTS TO 0		51.20.15 M	Apr 82
XMTSD GIVES INCORRECT ERROR WHEN NO ROOM FOR I/O BUFFER		51.20.16 M	Apr 82
TSD AND XMTSD HANG AFTER ATTEMPT TO ILLEGALLY START UP JOB		51.20.17 M	May 82
ERRORS IN DATA FORMATTING WITH MASK		51.20.18 M	Oct 82
DOCUMENTATION			
CTS-300 VERSION 6 IS RELEASED		51.21 N	Aug 80
TWO RT-11 PATCHES MODIFIED FOR CTS-300 USE		51.21.2 N	Oct 80
RT-11 PATCH TO LS.MAC MODIFIED FOR CTS-300 USE		51.21.3 N	Feb 81
ADDITIONS TO CTS-300 DOCUMENTATION ON PRINT UTILITY		51.21.4 N	Mar 81
LIST OF SEQUENCE NUMBERS FOR CTS-300 V6		51.21.5 N	Mar 81
SOME NOTES ON RT-11 PATCH SEQ 6.13.3 M TO LS.MAC FOR CTS-300 USERS		51.21.6 M	Jul 81

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
SOME NOTES ON RT-11 PATCH SEQ 6.13.4 M TO LS.MAC FOR CTS-300 USERS		51.21.7 N	Aug 81
SOME NOTES ON RT-11 PATCH SEQ 6.13.5 M TO LS.MAC FOR CTS-300 USERS		51.21.8 N	Aug 81
AVOIDING POSSIBLE PROBLEM WITH ISAM FILES		51.21.9 N	Dec 81
SOME NOTES ON RT-11 PATCH SEQ 6.13.6 M TO LS.MAC FOR CTS-300 USERS		51.21.10 N	Feb 82
RESTRICTION FOR CTS-300		51.21.11 R	Apr 82
LS.MAC			
SPECIAL CTS-300 PATCH FOR LS.MAC		51.23.1 M	Feb 81
CORRECTION TO CTS-300 PATCH 11 (SEQ 51.23.1 M) TO LS.MAC		51.23.2 M	Jun 81
SYSTBL.CND			
RT-11 PATCH TO SYSTBL.CND MODIFIED FOR CTS-300 USE		51.25.1 M	Mar 81
RT-11 PATCH SEQ 10.3.2 M TO SYSTBL.CND MODIFIED FOR CTS-300 USE		51.25.2 M	Apr 81
RT-11 PATCH SEQ 10.3.3 M TO SYSTBL.CND MODIFIED FOR CTS-300 USE		51.25.3 M	May 82
CTS-300 V7.0			
DOCUMENTATION			
CTS-300 VERSION 7 IS RELEASED		52.1.1 N	Apr 82
XMTSD RUN-TIME SYSTEM SIZE		52.1.2 N	Jun 82
CHANGING THE DEFAULT TIME SLICE VALUE FOR XMTSD		52.1.3 N	Jun 82
RELINK DIBOL PROBLEMS FOR CTS-300 V7		52.1.4 N	Jun 82
PATCH LEVEL FOR KED/K52 CLARIFIED		52.1.5 N	Aug 82
NO ROOM FOR SOME BACKGROUND JOBS UNDER CTS-300 V7		52.1.6 N	Nov 82
CTS-300 AUTOPATCH KIT A PATCH LEVEL		52.1.7 N	Nov 82
DIBOL RUN-TIME SYSTEMS			
PATCH 5: VARIOUS TSD AND XMTSD PROBLEMS		52.3.1 M	Jun 82
PATCH 6: ISAM FILE RECORD COUNT REVERTS TO 0		52.3.2 M	Jun 82
PATCH 11: TWO RUN-TIME SYSTEM ERRORS		52.3.3 M	Oct 82
PATCH 13: TWO PROBLEMS: ISAM STORE/WRITE AND LPQUE STATEMENT		52.3.4 M	Oct 82
PATCH 18: RUN-TIME SYSTEM PROBLEMS WITH USR LOCKED, COMPILATION ERRORS		52.3.5 M	Nov 82
DIBOL/TDIBOL			
PATCH 2: POSSIBLE INCORRECT RESULTS FROM THE INSTR ROUTINE		52.4.1 M	Apr 82
DICOMP V07-00			
PATCH 16: CONDITIONAL COMPILATION ERROR, AND NO ERROR FOR LARGE RECORD		52.5.1 M	Nov 82
DKED			
PATCH 8: POSSIBLE BOTTOM OF SCREEN CORRUPTION USING DKED		52.6.1 M	Jul 82
ISMUTL			
PATCH 15: RUNNING ISMUTL IN AUTO-CREATE MODE		52.7.1 M	Oct 82
TSD LINE PRINTER SPOOLER			
PATCH 12: LINE PRINTER SPOOLER PROBLEMS WITH DELETE AND /FLUSH		52.9.1 M	Oct 82
ERMSG.TXT			
PATCH 9: INCORRECT ERROR MESSAGES FOR SORT IN ERMSG.TXT		52.10.1 M	Jul 82
DIBOL SORT			
PATCH 7: ERROR RECEIVED WHEN PERFORMING A LEGAL SORT		52.14.1 M	Jul 82
MACRO SORT			
PATCH 1: TWO SORT PROBLEMS EMERGE UNDER CERTAIN CONFIGURATIONS		52.15.1 M	Jun 82
PATCH 3: SINGLE USER SORT MAY LEAVE TEMPORARY FILES ON DISK		52.15.2 M	Jul 82
PATCH 10: TWO MACRO SORT PROBLEMS		52.15.3 M	Aug 82
PATCH 17: PROBLEMS WITH HANDLING ERRORS IN SORT COMMAND FILE		52.15.4 M	Nov 82
SYSTBL.CTS			
PATCH 4: TERMINAL OUTPUT CORRUPTION ON DZ11 OR DZV11 LINES		52.16.1 M	Jun 82
LS.CTS			
PATCH 14: PROBLEMS WITH LS HANDLER		52.17.1 M	Oct 82

<u>Component</u>	<u>Autopatch Kit</u>	<u>Sequence</u>	<u>Mon/Yr</u>
CTS-300 DICAM (3271) V3.1			
INCORRECT ACK SENT IN CONVERSATIONAL MODE		55.1.1 M	Jul 81
LOOP WHEN CLOSE IS ISSUED WITH OUTSTANDING I/O REQUESTS		55.1.2 M	Jul 81
CTS-300 RDCP (2780/3780) V2.0			
ABNORMAL TERMINATION AND LISTING PROBLEMS		56.1.1 M	Dec 80
SUBSCRIPT ERROR IN RDCP EDITOR		56.1.2 M	Dec 80
MEMORY CORRUPTION PROBLEM		56.1.3 M	Dec 80
DEctype-300 V1.1			
REPEATED USE OF THE PASTE FUNCTION WILL CAUSE AN ERROR 28		57.1.1 M	Jun 82
RGL/FEP			
INVALID LABELS FOR DATA RANGE OF 0.1 TO 1.0		58.1.1 M	Aug 82
ERROR CALLING LOCATE, LFIXED OR LFREE TWICE IN SUCCESSION		58.1.2 M	Aug 82
RT-11/FORTRAN ENHANCEMENT PACKAGE for MINC (FEP)			
INVALID LABELS FOR DATA RANGE OF 0.1 TO 1.0		59.1.1 M	Aug 82
ERROR CALLING LOCATE, LFIXED FOR LFREE TWICE IN SUCCESSION		59.1.2 M	Aug 82
REAL-11/MNC			
UNDEFINED GLOBAL DRSW10 IN MNCLIB		59.4.1 M	Jul 82
DATA SENT BY THE MAIN PROGRAM IS CORRUPTED BY THE SRQ ROUTINE		59.5.1 M	Jul 82
IBSRQ SKIPS INSTRUMENT ADDRESS IF SRQ ROUTINE DEFAULTED		59.5.2 M	Jul 82
SRQ ROUTINE AND TIMEOUT VALUE NOT CLEARED ON EXIT		59.5.3 M	Jul 82
SYSTEM CRASHES IF THE IB DRIVER IS NOT LOADED		59.5.4 M	Jul 82
CAN'T SPECIFY TALKER WHEN LISTENERS DEFAULTED, AND INCORRECT RECEIVE		59.5.5 M	Jul 82
CANNOT USE SECONDARY ADDRESSES IN RANGE 96. to 126.		59.5.6 M	Jul 82
<u>QUILL V1.0</u>			
QUILL.SAV/TSD			
PATCH 1: PRIMARY FILE BLOCK COUNT PROBLEM		60.1.1 F	Nov 82
QBUILD.SAV/TSD			
PATCH 2: QBUILD WORK FILE SIZE ALLOCATION		60.2.1 F	Nov 82

Digital protects its investment in software by treating software as proprietary information. We do not transfer ownership of software to our customers—we license them to use our software under the terms and conditions of our various software license agreements.

Key principles of the terms and conditions of Digital software binary license agreements are:

- Customers must have a binary license to use any of our binary software products.
- A Binary License allows ONE customer to run ONE software product on the CPU on which the software is first installed.
- Digital retains title and ownership.
- Software may only be transferred to another party with written permission from Digital.
- A customer may reproduce the software, if necessary, but only for use on the specific CPU licensed to use that software.
- The use of an update version of the software on the same CPU licensed to use the product requires that the customer purchase a software update option if out of warranty or not covered by a software service contract.

HOW A CUSTOMER OBTAINS A BINARY LICENSE

A customer obtains a Digital binary license upon execution of the transactions described below:

- Accepting Digital's standard terms on the customer's purchase order
- Referencing a Digital quotation number on the face of the purchase order
- Executing the binary license agreement and returning it to Digital (usually only executed for a transfer or if no license is apparent)

OEM and other volume customers can reference a valid Digital purchasing agreement on their purchase orders. These agreements include:

- Quantity Discount Agreement (QDA)
- OEM Contract
- GSA Contract
- Master Agreement containing the applicable software licensing clause.
- Purchase and Sales agreement containing the appropriate licensing clause.

DIGITAL-SUPPORTED BINARY LICENSE OPTION

This is a standard binary license that includes media, manuals, documentation and warranty packaged together. A 90 day warranty, as specified in the SPD Addendum, is the support received (unless different warranty conditions are specified in the SPD).

CUSTOMER-SUPPORTED BINARY LICENSE OPTION

This is a standard binary license which includes media, manuals, documentation but no warranty support. It is only offered when a Digital-supported license option is not offered.

LICENSE-ONLY OPTION

A license only option is a standard binary license, but has no media, manuals, documentation or support. Software products can be ordered at a considerable cost reduction but the customer must have first purchased a previous license with media for that software product.

The license-only option is a one time right to copy. It is a license to run a single software product on one additional specific CPU using a copy of the software the customer made from the original licensed product. Customers can order additional copies of the documentation.

OUT-OF-WARRANTY UPDATE OPTION

A customer with a binary license may order a product update for each licensed CPU. An additional fee is charged for each product update or for each one time right to copy update for each licensed CPU.

CPU BACKUP LICENSE PROVISION

There is a specific provision that permits customers to use the software on another processor should the licensed machine be inoperative. This provision is intended to allow customers whose computer is "down" to use another machine while theirs is being repaired. This provision does not permit the use of the software on a "HOT" backup unless a second license is obtained.

SOURCE LICENSING

Sources in machine readable, listing or microfiche form are only available on selected products when specified on a Software Product Description. A source license agreement is required and must be approved by the Digital Contracts Department.

MODIFICATION TO DIGITAL LICENSED SOFTWARE

Modification made to Digital-licensed software does not exempt the software product from Digital licensing or sublicensing terms and conditions or from payment of licensing fees to Digital. Every line of code from a software product falls under the terms and conditions of the license. Only those modifications that are not part of the original software are the customer's property.

LICENSE TRANSFER

Digital's licensing agreement does not allow the transfer of software from one end user to another or from one CPU to another without prior permission from Digital.

OEM SUBLICENSING

SUBLICENSES DEFINED

Sublicenses are contractual agreements between the Digital OEM and the OEM's customers under which the customers are licensed to use Digital's binary software. In the OEM agreement, Digital gives the OEM the right to sublicense, allowing the OEM to provide Digital's binary software without case-by-case permission for use on a system furnished by the OEM.

The OEM is permitted to create a new license and is not required to disclose the identity of its customer to Digital (unless services, etc., from Digital is required). However, for sublicensed software, Digital must always receive a license fee from the OEM.

A sublicense agreement must include the terms and conditions specified in Digital's standard OEM terms and conditions of sale, in addition to whatever added value the OEM might include in the agreement. Digital supplies a sample sublicense for the OEM to use in conjunction with or integrated into the OEM's sale agreement.

The OEM must always obtain a signed sublicense agreement from its customer before any Digital software is furnished to the customer.

OEM USE OF BINARY LICENSED SOFTWARE

A Digital OEM, in addition to being able to use the Digital licensed software on a backup machine in the case of a CPU malfunction, may also use the software on CPU's intended for resale, provided that:

- the OEM possesses the CPU; or
- the OEM uses software on only one additional CPU at a time.

This provision permits OEMs to integrate their software system before selling or shipping it. The OEM must sublicense the software to the purchaser of the system.

SUBLICENSE VS. LICENSE

A sublicense includes the same rights and responsibilities as a direct license from Digital.

The principal difference between a sublicense and a license is warranty and/or support services. The OEM who purchases a product with services owns and receives the service directly. However, Digital may provide these services to the OEM at the end user's site if requested.



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 _____

July 1980

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

United States;
remainder of Far East,
Middle East, Africa
Latin America

Canada

United Kingdom, Bahrein,
Egypt, Iraq, Jordan, Kuwait,
Lebanon, Libya, Qatar,
Oman, Saudi Arabia, Syria,
United Arab Emirates, Yemen.
Arab Republic

Australia, New Zealand

Brazil

Caribbean

France

Italy

Japan

Belgium, Holland,
Luxemburg

SPR Center

Corporate Administrative Systems Group
P.O. Box F
Maynard, MA 01754

Digital Equipment of Canada, Ltd.
P.O. Box 13000
Kanata, Ontario
Canada, K2K 2A6

Digital Equipment Co. Ltd.
2 Cheapside
GB - Reading, Berkshire RG1 7AA
England

Digital Equipment Aust. Pty. Ltd.
P.O. Box 384
Chatswood, New South Wales 2067
Australia

Digital Equipment Comercio e
Industria Ltda.
Avenida Augusto Severo, 156-A
20021 Rio de Janeiro, RJ
Brazil

Digital Equipment Latin America
P.O. Box 11038
Fernandez Juncos Station
Santurce 00910
Puerto Rico

Digital Equipment France
Cidex L225
18 Rue Saarinen
F-94528, Rungis
France

Digital Equipment S.p.A.
Viale Fulvio Testi, 11
Ang. Via Gorki 105
I-20092 Cinisello Balsamo
Milan
Italy

Digital Equipment Corp. Intl. Japan
Sunshine 60, P.O. Box 1135
1-1 Higashi Ikebukuro 3-Chome,
Toshima-Ku, Tokyo, 170
Japan

Digital Equipment B.V.
Kaap Hoordreef 38
NL-3563 AV Utrecht
Holland

Sweden	Digital Equipment AB P.O. Box 1250 S-17124 Solna 1 Sweden
Denmark	Digital Equipment Corp. AS Kristineberg 3 DK-2100 Copenhagen 0 Denmark
Finland	Digital Equipment Corp. Oy PL 16 SF-02201, Espoo 20 Finland
Norway	Digital Equipment Corp. A/S Pottemakerveien 8 N-Oslo 5 Norway
Austria, East Germany, West Germany, Poland, Hungary, Rumania, Czechoslovakia, Russia, Bulgaria	Digital Equipment Corp. GmbH Rheinstrasse 28 D - 8000 Munich 40 West Germany
Israel	Decsys, Computers Ltd. 4, Yirmiyahu Str. IL-63505 Tel Aviv Israel
Greece, Portugal, Spain, Switzerland, Yugoslavia, (Morocco, Algeria, Tunisia, Cyprus, Turkey, Malta)	Digital Equipment Corp. SA 9, Route des Jeunes Case Postale 191 CH-1211 Geneva 26 Switzerland
Mexico	Digital Equipment de Mexico, S.A. de C.V. Ave. Lopez Mateos 427, 1st. Floor Guadalajara Jalisco Mexico
China	Digital Computer Hong Kong Ltd. 1303-1309 Dominion Ctr. 43-59 Queen's Road East Wanchai Hong Kong

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