RT-11

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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).

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

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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.

PRODUCT	VERSION	AVAILABLE
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.

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.Ø 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.Ø 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.

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, RØ : UNSIGNED;
END;


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


FSV : PACKED RECORD
        CASE CONTEXT_SWITCH_OPTIONS OF
        FPP : ( STAT : UNSIGNED;
             FØ, F1, F2, F3, F4, F5 : QUAD_WORD );
END;

END;
```

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, RØ, PAR2, PAR3 : UNSIGNED;
END;


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


MAP : PACKED RECORD
        PAR_Ø, PAR_1, PAR_2, PAR_3,
        PAR_4, PAR_5, PAR_6, PAR_7,
        PDR_Ø, 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;
              FØ, 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.Ø 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.

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.

MicroPower/Pascal V1.1
COMPILER

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.

MicroPower/Pascal V1.1
OTS

UROUND AND UTRUNC FUNCTIONS DO NOT WORK CORRECTLY

PROBLEM STATEMENT:

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

RESPONSE:

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

MicroPower/Pascal V1.1
OTS

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
```

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

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
STRTUP,KTOINI/O:1/C
KDIO/V:2,KDTO/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.

```
;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.

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 Seq 52.3.5 M
DIBOL RUN-TIME SYSTEMS
TSD VB07-00D 1 of 3
XMTSD VC07-00D

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-3ØØ VØ7 Seq 52.3.5 M
for RT-11 V4.Ø
DIBOL RUN-TIME SYSTEMS 2 of 3
TSD VBØ7-ØØD
XMTSD VCØ7-ØØD

```
;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-3ØØ VØ7                                                    Seq 52.3.5 M
   for RT-11 V4.Ø
DIBOL RUN-TIME SYSTEMS                                         3 of 3
TSD VBØ7-ØØD
XMTSD VCØ7-ØØD



;P018V1.MAC

        .TITLE  $KEROR
        .PSECT  $ERROR

        .=      .+2476
        .BYTE   'E
        .END



.RENAME (DTOINI,DDIRT,DTO,KDTO,KERROR).OBJ *.OLD
 Files renamed:
DK:DTOINI.OBJ  to DK:DTOINI.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
*DTOINI.OBJ=DTOINI.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.

```
;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
```

```
;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
*ENCOD/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-3ØØ VØ7
   for RT-11 V4.Ø
MACRO SORT
SORT.SAV VØ7-ØC
SORT.TSD VØ7-ØB


```
;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-3ØØ VØ7
   for RT-11 V4.Ø
MACRO SORT
SORT.SAV VØ7-ØC
SORT.TSD VØ7-ØB


```
.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,SRT11O,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 — Seq 60.1.1 F
QUILL.SAV — 2 of 2
QUILL.TSD

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.

Component	Autopatch Kit	Sequence	Mon/Yr
DEVICE HANDLER SOURCES			
DEVICE HANDLER NOTES			
RL02s AT REV. LEVEL "F" FAIL DURING RT-11 SYSGEN		6.1.1 N	Oct 80
DD.MAC			
DD PRIMARY BOOTSTRAP PROBLEM	A	6.4.1 M	Jul 80
DL.MAC			
PATCH XM VERSION OF DL HANDLER .SPFUN GET SIZE ROUTINE	A	6.5.1 M	Dec 80
ERRORS ON RL01 DISK DRIVES AFTER DISK PACKS ARE CHANGED	B	6.5.2 M	Jan 81
DM.MAC			
ERRORS IN DM OFFSET POSITIONING AND ERROR LOGGING	A	6.6.1 M	Jul 80
DY.MAC			
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
LP.MAC			
LP SET NOHANG MAY CRASH SYSTEM	A	6.12.1 M	Sep 80
LS.MAC			
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
PD.MAC			
CORRECTION TO PDT ERROR LOGGING SUPPORT	B	6.16.1 M	Apr 81
MAG TAPE HANDLERS			
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
SYSTEM UTILITIES			
PIP.SAV			
ERRORS IN PIP	A	7.1.1 M	Sep 80
COPY/PREDELETE COMMAND		7.1.2 N	Sep 80
MATCHING FILE SPEECIFICATIONS 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
DUP.SAV			
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

Component	Autopatch Kit	Sequence	Mon/Yr
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
SYSTEM SUBROUTINE LIBRARY (SYSLIB)			
SYSLIB.OBJ			
PATCH TO ICSI	A	8.1.1 M	Oct 80
IASIGN REDEFINITIONS	A	8.1.2 M	Oct 80

Component	Autopatch Kit	Sequence	Mon/Yr
ILUN RESTRICTION		8.1.3 R	Feb 81
VIRTUAL OVERLAY HANDLER CORRECTION	E	8.1.4 M	Feb 82
SYSTEM MACRO LIBRARY			
.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
SYSTEM GENERATION PACKAGE			
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
DOCUMENTATION			
RT-11 SYSTEM RELEASE NOTES			
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
RT-11 INSTALLATION AND SYSTEM GENERATION GUIDE			
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.3.1 N	Jul 80
CORRECTION TO AN OPTIONAL PATCH TO LINK		11.3.2 N	Aug 80
DOCUMENTATION ERROR: REFERENCE TO RL02 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
INTRODUCTION TO RT-11			
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.4.1 N	Jul 80
RT-11 SYSTEM USER'S GUIDE			
RT-11 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.5.1 N	Jul 80
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
RT-11 SYSTEM MESSAGE MANUAL			
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
RT-11 POCKET GUIDE			
RT-11 V4.0 DOCUMENTATION CORRECTIONS AND ADDITIONS		11.7.1 N	Jul 80
RT-11 PROGRAMMER'S REFERENCE MANUAL			
DOCUMENTATION CORRECTIONS		11.8.1 N	Sep 80
INCORRECT PROGRAMMED REQUEST EXAMPLES		11.8.2 N	Mar 81
UNDOCUMENTED .SERR ERROR CODE		11.8.3 N	Dec 81
RT-11 SOFTWARE SUPPORT MANUAL			
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
DEBUGGING UTILITIES			
VDT.OBJ			
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
ERROR CONTROL PACKAGE			
ERROUT.MAC			
ERROR LOGGING SUPPORT OF USER-WRITTEN HANDLERS	G	14.6.1 M	May 82
BATCH PACKAGE			
BATCH.SAV			
PATCH BATCH TO USE MONITOR SUFFIX	A	15.1.1 M	Oct 80
BATCH $CREATE IGNORES BLANK LINES		15.1.2 M	Aug 82

Component	Autopatch Kit	Sequence	Mon/Yr
SPOOLING PACKAGE			
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 OUPTUT 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
QUEMAN.SAV			
PROBLEMS WITH QUEMAN	B	16.2.1 M	Jan 81
KEYPAD EDITOR			
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	A	17.1.4 M	Nov 80
KNOWN ERRORS AND RESTRICTIONS		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	A	17.2.4 M	Nov 80
KNOWN ERRORS AND RESTRICTIONS		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
AUTOMATED PATCHING FACILITY PACKAGE			
PACKAGE NOTES			
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			
REPUBLICATION 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

Component	Autopatch Kit	Sequence	Mon/Yr
INTEGERS IN DOUBLE PRECISION BASIC-11		35.1.16 N+	Mar 80
REM STATEMENTS ON MULTI-STATEMENT LINES - PATCH 0	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

Component	Autopatch Kit	Sequence	Mon/Yr
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 PRECEEDED 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	B	45.2.2 M	Jul 81
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	45.2.3 F	Feb 81
BOUNDARY CONDITION ON FORMATTED I/O CORRUPTS I/O (PAT 6)	B	45.2.4 M	Mar 81

Component	Autopatch Kit	Sequence	Mon/Yr
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

Component	Autopatch Kit	Sequence	Mon/Yr
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

Component	Autopatch Kit	Sequence	Mon/Yr
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

Component	Autopatch Kit	Sequence	Mon/Yr
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
QUILL V1.0			
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

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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.

DECUS

WHY YOU SHOULD JOIN DECUS

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

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

Founded in 1961, DECUS is one of the largest and most active associations of its type in the world. Its objectives are to advance the effective utilization of computers, computer peripheral equipment, and software manufactured and marketed by Digital Equipment Corporation, by promoting the interchange of information concerning their uses; advance the art of computation through mutual education and exchange of ideas of information; establish standards and provide channels to facilitate the exchange of computer programs among DECUS members; provide feedback to the computer industry on equipment and software needs; and to reduce the duplication of development efforts.

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

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

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

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

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

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

continued

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.

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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	SPR Center
United States; remainder of Far East, Middle East, Africa Latin America	Corporate Administrative Systems Group P.O. Box F Maynard, MA 01754
Canada	Digital Equipment of Canada, Ltd. P.O. Box 13000 Kanata, Ontario Canada, K2K 2A6
United Kingdom, Bahrein, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Qatar, Oman, Saudi Arabia, Syria, United Arab Emirates, Yemen. Arab Republic	Digital Equipment Co. Ltd. 2 Cheapside GB - Reading, Berkshire RG1 7AA England
Australia, New Zealand	Digital Equipment Aust. Pty. Ltd. P.O. Box 384 Chatswood, New South Wales 2067 Australia
Brazil	Digital Equipment Comercio e Industria Ltda. Avenida Augusto Severo, 156-A 20021 Rio de Janeiro, RJ Brazil
Caribbean	Digital Equipment Latin America P.O. Box 11038 Fernandez Juncos Station Santurce 00910 Puerto Rico
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Italy	Digital Equipment S.p.A. Viale Fulvio Testi, 11 Ang. Via Gorki 105 I-20092 Cinisello Balsamo Milan Italy
Japan	Digital Equipment Corp. Intl. Japan Sunshine 60, P.O. Box 1135 1-1/ Higashi Ikebukuro 3-Chome, Toshima-Ku, Tokyo, 170 Japan
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Norway	Digital Equipment Corp. A/S Pottemakerveien 8 N-Oslo 5 Norway
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