THE mini-tasker

DECUS

RT-11 SIG NEWSLETTER

MARCH 1976 VOL. 2 NO. 1

Contributions to the newsletter should be sent to:

John T. Rasted
CAM Systems, Inc.
17 Brown Street
Waterbury, Conn. 06702

All other correspondence should be send to:

Tom Provost
M.I.T.
Box 95
Middleton, Mass. 01949

FROM THE CHAIRMAN

Last fall a questionaire was sent to everyone on the RT-11 SIG Mailing list.

Users were asked to prioriturize a list of enhancements. 52 users returned survey forms. The results follow:

	1	2	3	4	5	6	7	8	9	10	11	1-3
RT Task Under RSK	3	2	1	1	1	2	3	5	4	10	20	6
High Level Command Language	8	3	3	6	5	4	8	2	4	3	6	14
Power Fail Support	10	1	4	7	10	6	3	1	2	3	5	15
Multi-terminal Support in F/B	7	8	10	6	2	7	4	1	0	0	7	25
RSX Letter Under RT-11	0	0	1	1	1	2	4	7	4	3	29	1
Improved Magnetic Tape Support	6	7	5	3	4	4	3	3	4	0	13	18
Improved PIP (E.G. ? Feature)	1	6	7	6	7	6	3	6	0	1	9	14
Task Builder (Better Linker)	2	4	1	2	4	3	3	6	8	3	16	7
8K Macro	0	1	0	0	2	3	4	3	4	9	26	1
Memory Management Support	7	6	7	9	5	3	2	1	4	0	8	20
File Protection	7	11	11	5	4	4	4	1	0	2	3	29

An entry of I in column J indicates I users placed that enhancement J th in importance. Blank entries were placed 11 th. The last column contains the number of users placing that enhancement first, second, or third.

At the Fall DECUS Symposium the following was given by Bob Bean of Digital as a list of priorities for RT-11 Version 3:

Power fail support
Memory management support
Multi-terminal support
File protection
Memory parity support
Improved VT, PIP
High level command language
Powerful linker (TKB)

An 8K Macro would be considered.
Although RT-11 as a task under RSX would not be pursued as a supported product, a prototype developed internally in DEC might find its way to the user community. Anyone interested in an undocumented unsupported copy of RT-11 as a task running under RSX-11M or RSX-11D should send two DECtapes or 1 RK to me. It should be noted that this list in no way commits DEC to develop these enhancements. Also, some of the features would be implemented only in a minimal way. (E.G. Memory management support might mean the ability of RT-11 handlers to handle 18 bit addresses.) We will receive more concrete information on V 3 in Atlanta at the Spring DECUS Symposium.

Bob Bean invites user suggestions for V003 of RT-11. Please submit them in writing to:

Bob Bean
D.E.C.
ML-5/E76
Maynard, Mass. 01754

In view of the above correlation between user needs and DEC goals, putting suggestions into writing and sending them to Bob would seem quite fruitful. Please send copies of the suggestions to me.

Request has been made to implement the capability of printing commas in the output using Fortran IV under RT-11. This would be quite useful for business applications. If anyone else is interested in this, please write Bob Bean, and send copies to me.

Tom Provost
M.I.T.
Box 95
Middleton, Mass. 01949

LUGS

Anyone interested in forming a Chicago area RT-11 LUG should contact:

Sam C. Bibler
Fermi National Accelerator Lab.
P. O. Box 500
Batavia, Ill. 60510

Bob Ampula of Giant Foods, Washington, D.C., has successfully formed a LUG for the Chesapeake Bay area (Baltimore, Washington, and environs). At the organizational meeting for this LUG a local RT-11 SIG was formed. William H. Talbot, Ph.D. is serving as chairman, pro tem. His address is:

William H. Talbot, Ph.D.
Associate Professor of Physiology
The Johns Hopkins University
School of Medicine
725 N. Wolfe Street
Baltimore, Maryland 21205

The following is a list of complaints/recommendations regarding various deficiencies in RT-11 as was recently submitted to DEC by SCURT (the Southern California RT-11 local users' group). This was accompanied by a letter requesting that these (and possibly other) recommendations be discussed in depth at the December DECUS meeting in Los Angeles.

If anyone has complaints which they haven't touched on, you may relay them to either Mark Bartelt or Fritz Bartlett, and they will see that they're discussed at DECUS. Their address is:

California Institute of Technology
Charles C. Lauritsen Laboratory of High Energy Physics
Pasedena, California 91109

roposed statement from SCURT to DEC

We feel that the overall usefulness of RT-11 is impaired by a number of rather serious deficienceies, restrictions, and limitations.

In particular:

(I) I/O System

(1) Information which should be made available is not. Examples:

(A) Device not ready condition: At present, this is usually treated as a hard error. This is not acceptable, since a program, in the case of a device being offline, might want to proceed on a course of action (e.g. prompting an operator) quite different from what it might do if a real hardware error had occurred.

(B) End-of-tape condition: This is a distinctly different condition from end-of-file. For devices other than magtape, this could be generalized to an end-of-medium condition. [The unfortunate absence of notification of an end-of-file condition is a deficiency of the magtape handler, and will be discussed below.]

(C) Record overflow: This condition would occur, for example, on a record-structured magtape read in which the record was longer than the word count passed to the handler via the programmed request. Since it is a condition which can be programmed around, it should not be classed as a 'hard' error. [At present, it isn't classed as anything, since the MT handler does not guard against buffer overflow.]

Possible implementation:

Unfortunately, there is only one free bit in the CSW. One could, however, multiplex bits 0, 13, and 14:

0	13	14	
0	1	0	EOF
0	1	1	EOT
1	1	0	Record overflow
1	0	1	Device not ready
1	0	0	True 'hard' errors

(D) The value which represents the actual number of words transfered on a read is now available only with the .READW programmed request. It is not available to a completion routine, and very definitely should be.

Possible implementation:

The actual word count should be calculated at completion time [except, of course, for truncation of requested word counts for file-structured devices in situations in which a requested operation would carry past the end of the file].

This, of course, would require that device handlers leave untouched the word count entry in the I/O queue element. At completion time, the value corresponding to the actual number of words transfered could be passed to COMPLT in RMON via the word in the I/O queue element which had held the requested word count. This value could then be passed to the completion routine via one of the now-unused entries in the completion queue element.

(2) The magtape handler is, to put it mildly, a disaster. Suggestions:

(A) Provide three separate handlers: (1) record-structured ('hardware mode'); (2) file-structured ('software mode'); (3) a combination of 1 and 2, which, like the present MT handler, would provide both capabilities, for those applications which might require both modes to be available simultaneously.

(B) A record-structured read should read exactly one physical record from tape, limited by the indicated word count (in order to prevent buffer overflow). [It's appalling that buffer overflow protection is not provided at present; it would be trivial to implement, since this is the function of the TM11 byte-record-count register.]

At completion, the contents of the BCR should be used to determine the actual size of the record read, for passing to the program via R0 (after a .READW), or to the completion routine (following a .READC).

(C) End-of-file condition should be detected on record-structured input.

(D) There should be some way (via .SPFUN, perhaps) to detect a beginning-of-tape condition.

(3) Device-independence: DEC claims that RT-11 provides a device-independent I/O system. In fact, it does not. The peculiar way in which magtape is handled, for example, prevents one from writing programs which assume device-independence, if one of the media which it uses happens to be magtape.

One example of this is the fact, already stated, that when doing a record-structured magtape read, one can not detect end-of-file conditions in a device-independent way. Also, the .SAVESTATUS programmed request is device-dependent, since it cannot be used for magtape or cassette.

(4) Other useful features which RT-11 should provide include:

(A) A .WAITR programmed request, which would bear the same relationship to .WAIT as .TTINR does to .TTYIN. In other words, one would like the capability, following a .READ or .WRITE, to inquire as to whether I/O is in progress on a particular channel, without actually waiting for I/O to finish.

(B) A program should be able to set device handler parameters; i.e. provide some facility by which a program can perform the same functions as the KMON 'SET' command.

(C) Too many special functions are combined in the special mode TT bit in the JSW. For example, one might wish to suppress echoing without disabling the special functions of RUBOUT and CTRL U. Two separate bits should be provided.

(II) Fortran compiler and OTS: We feel that the role of RT-11 Fortran as a useful component of a real-time operating system is hampered by a lack of full reentrancy:

(A) The I/O routines in Forlib should be rewritten to be reentrant, so that subroutines which run at completion level may feel free to use the Fortran I/O system without having to check whether the code which was interrupted was in the middle of a Fortran I/O call.

At the July SCURT meeting Bob Bean stated that the new V2B SYSLIB routines should eliminate much of the need for a reentrant Fortran I/O package. However, this would not provide the capability of performing formatted I/O at completion level. At the very least, completion routines should be able to make use of the ENCODE/DECODE features.

(B) It would be nice to have subroutines written in Fortran be reentrant. At present, the fact that they are not makes it impossible for mainstream code and completion-level code to share a common set of Fortran subroutines.

There should be a compiler switch to turn on reentrancy, by generating code which would, at run time, dynamically allocate space for the subroutine's impure area.

SUGGESTIONS

Below is a listing of a simple batch stream submitted by William Talbot (his address can be found in the LUG section of this newsletter). It may be used to remove all references to Version 1 macros from SYSMAC.SML, Version 2B. For those installations who have never run Version 1 or who have purged their programs of Version 1 system macros, the inclusion of Version 1 macro code in SYSMAC.SML provides nothing but unwanted overhead.

You will notice that the batch stream includes a couple of lines that demonstrate and then compensate for an error in EDIT, V02-10. The enclosed copy of SPR #02307 reports this error to DEC.

```
$JOB/RT11
$!JOB TO REMOVE ALL VERSION 1 MACROS FROM SYSMAC.V2B
        TTYIO
        LET A=33          !A IS ESCAPE
.R EDIT
*EBSYSMAC.V2B'A'EV'A''A'
*F..V1..'A'0A3KV'A''A'
        !WATCH THE EDITOR LOSE A DOT
*V'A''A'
*1A-1L'A''A'
        !NOW WE'LL PUT IT BACK
*-1AI.'A'1A-1L'A''A'
        !DO .CLOSE
*F...V1'A'0A3K1A1KV'A''A'
        !DO .DELETE
*F...V1'A'0A4K2F.ENDC'A'0A1KV'A''A'
        !DO .ENTER
*F...V1'A'0A9K3F.ENDC'A'0A1KV'A''A'
        !DO .LOOKUP
*F...V1'A'0A4K2F.ENDC'A'0A1KV'A''A'
        !THREE FOR THE READS
*F...V1'A'0A7K1A1KV'A''A'
*F...V1'A'0A7K1A1KV'A''A'
*F...V1'A'0A7K1A1KV'A''A'
        !DO RENAME
*F...V1'A'0A4K2A1KV'A''A'
        !DO .REOPEN
*F...V1'A'0A4K2A1KV'A''A'
        !DO .SAVESTAT
*F...V1'A'0A4K2A1KV'A''A'
        !DO .WAIT
*F...V1'A'0A3K1A1KV'A''A'
        !THREE WRITES
*F...V1'A'0A7K1A1KV'A''A'
*F...V1'A'0A7K1A1KV'A''A'
*F...V1'A'0A7K1A1KV'A''A'
*EX'A''A'
$EOJ
```

INSTALLATIONS

Installation Description

Our PDP-11 systems are used for laboratory data acquisition, for control of behavioral and neurophysiological experiments, and for off-line data analysis. The five 11/10's are primarily used for on-line laboratory control applications, the three 11/40's for off-line program development and data analysis.

Hardware

11/10's (5 systems)

16K core memory
RX11 floppy disks
Decwriter II or VT52 terminal
Tektronix 611 or HP 1300A display monitor
AR11 analog I/O interface
DL11E serial interface(s)
DR11C digital I/O interface(s)

11/40's (3 systems)

Line frequency clock
Floating point processor
32K DEC core or 16K DEC core + 16K plessey core
RK05 cartridge disk drive
TU10 (800 bpi) or Digi-data (800 bpi NRZI or 1600 bpi PE) tape drive
RX11 floppy fisks
Decwriter II, VT52, and/or HP 2640A terminal(s)
Tektronix 611 display monitor or Tektronix 4012 display terminal with hardcopy
AR11 analog interface
DL11E serial interfaces
DR11C digital I/O interface
Versatec printer/plotter or DEC LA180 printer
Calcomp 565 or Houston Omnigraph plotter
VOTRAX voice synthesizer

Software

All systems run RT11. Fortran is the primary programming language, but we also use BASIC and FOCAL. We have FORTRAN callable graphics routines to support the Tektronix 611 (using the AR11 scope controller), the Calcomp 565 plotter, and the Tektronix 4012 terminal. We also have routines to provide dial-up, asynchronous file communication with the PDP-10.

Wayne Rasband
National Institutes of Health
Section on Technical Development, NIMH/NINCDS
Bldg 36, Room 2A-03
Bethesda, Md. 20014
(301) 496-4957

The following is a description of the DECLAB 11/40 system in use at the Radiological Research Laboratory, Wright State University, Dayton, Ohio. This system (used in a biomedical application for determining skeletal health of patients) is intended to supersede our LINC-8.

HARDWARE

Our hardware configuration, as purchased, consisted of a PDP-11/40 processor, 16K of core memory, a Lab Peripheral system containing a VT14 display processor, two RK05 disk drives, and a DECwriter.

We have expanded this system by adding a Documation M300 card reader (which we have converted from 300 to 600 cards per minute), a DEC high-speed paper-tape reader/punch, a CDC 9320 line printer (with homemade interface) and a homemade line clock.

Currently, we are working on interfacing a modified, scanning Joyce Loebl microdensitometer to the computer. We are also adding an additional 16K of memory.

SOFTWARE

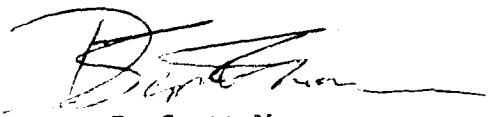
Most of our software operates under RT-11, except for freestanding versions of LISP and BASIC which were written by students at the University.

Currently we are working primarily with FORTRAN and occasionally with the MACRO assembler. Much time is being spent converting and rewriting programs which are currently in use on our LINC-8 computer. We hope soon to be able to have all application programs running on the PDP-11 computer under RT-11; saving the LINC-8 for research and backup purposes.

APPLICATIONS

Our primary use of both systems is to determine bone changes of patients by scanning X-rays taken of the patients' hands. Using a complex algorithm, our computers, using input from the X-ray film scanner, produce reports which relates the patients' bone weight, size and density to the normal controls of the same age and sex. Patients' progress during treatment are ascertained through the use of various statistical methods.

We also have the ability to 'digitize' photographic material for analysis by outside firms.



D. Scott Morse
Data Processing Manager

/vlf

SPRS

35664

SOFTWARE PERFORMANCE REPORT

FIELD #:	SPR #:
FOR DEC USE ONLY	

SYSTEM PROGRAM AND VERSION (OR DOCUMENT)	MONITOR AND VERSION	DATE
BASIC V01B-02 WITH FPMP.EAE	RT-11 SJ V02B-05	8 NOVEMBER 75

NAME: WILLIAM H. TALBOT, PH.D.
FIRM: DEPARTMENT OF PHYSIOLOGY
THE JOHNS HOPKINS UNIVERSITY
ADDRESS: SCHOOL OF MEDICINE
725 NORTH WOLFE STREET
BALTIMORE, MD 21205 ZIP

DEC OFFICE: LANHAM, MARYLAND

SUBMITTED BY: PHONE:
WILLIAM H. TALBOT (301) 955-3881

LIST ATTACHMENTS
1 PAGE BATCH LISTING SHOWING PROBLEM

REPORT TYPE
- [X] LOGIC/CODING ERROR
- [ ] DOCUMENTATION ERROR
- [ ] SUGGESTION
- [ ] INQUIRY
- [ ] FOR YOUR INFORMATION

PRIORITY
- [ ] LOW
- [X] STANDARD
- [ ] HIGH

CAN THE PROBLEM BE REPRODUCED AT WILL?
[X] YES [ ] NO

CPU TYPE	SERIAL NO.	SYSTEM DEVICE	MEMORY SIZE	DISTRIBUTION MEDIUM
11/20	2482	RF-11	16K	DECTAPE

PROBLEMS: INT(-32768) IS NOT EQUAL TO INT(-32768)

1*INT(-32768) ->-16384 INT(-32768)/1 -> -16384

DISCUSSION:

THE MANUAL 'GETTING STARTED WITH BASIC/RT-11 (V01B) (DEC-11-LBCLA-C-D) STATES (PAGE 4-3, PARAGRAPH 15) THAT PROBLEMS WITH THE BASIC FUNCTION INT(X) HAVE BEEN FIXED. THIS MAY BE TRUE FOR NON-EAE VERSIONS OF BASIC BUT IS NOT TRUE WHEN FPMP.EAE IS INCLUDED IN THE LINK. FOR EAE VERSIONS OF BASIC THE VALUE -32768 APPEARS UNIQUELY TO CAUSE TROUBLE. THIS IS NOT SURPRISING, SINCE -32768 IS THE ONLY NEGATIVE NUMBER WITHOUT A POSITIVE COUNTERPART IN 16-BIT TWO'S-COMPLEMENT ARITHMETIC, BUT THE REASONS FOR THE DIFFICULTY ARE NOT OBVIOUS EITHER.

IN ASSEMBLY CODE, THE INSTRUCTION

```
CMP  #100000,#100000
```

SETS THE Z-BIT, SO THAT A 'BEQ' INSTRUCTION WILL BRANCH. WHY DOES THE CONDITION

```
IF INT(-32768) = INT(-32768)
```

APPEAR TO BE UNSATISFIED TO BASIC?

THE FORMS 1*INT(-32768) AND INT(-32768)/1 ARE WAYS OF FORCING BASIC TO CONVERT THE TROUBLESOME VALUE TO FPMP FLOATING-POINT FORMAT. SINCE I DO NOT HAVE LISTING OF THE VERSION OF FPMP.EAE USED WITH BASIC V01B, I HAVE NOT TRIED TO DETERMINE WHY A FLOAT OPERATION SHOULD RESULT IN DIVISION BY 2.

SOFTWARE PERFORMANCE REPORT

FIELD #: | SPR #:
FOR DEC USE ONLY

02307

SYSTEM PROGRAM AND VERSION (OR DOCUMENT)	MONITOR AND VERSION	DATE
EDIT, V02-10	RT-11 V02B	14 NOV 75

NAME: WILLIAM H. TALBOT, PH.D.
FIRM: DEPARTMENT OF PHYSIOLOGY
THE JOHNS HOPKINS UNIVERSITY
ADDRESS: SCHOOL OF MEDICINE
725 NORTH WOLFE STREET
BALTIMORE, MD 21205 ZIP

DEC OFFICE: LANHAM, MARYLAND

SUBMITTED BY: WILLIAM H. TALBOT PHONE: (301) 955-3881

LIST ATTACHMENTS: LISTINGS, PAPER TAPE OF BATCH STREAM

REPORT TYPE
- [X] LOGIC/CODING ERROR
- [ ] DOCUMENTATION ERROR
- [ ] SUGGESTION
- [ ] INQUIRY
- [ ] FOR YOUR INFORMATION

PRIORITY
- [X] LOW
- [ ] STANDARD
- [ ] HIGH

CAN THE PROBLEM BE REPRODUCED AT WILL? [X] YES [ ] NO

CPU TYPE	SERIAL NO.	SYSTEM DEVICE	MEMORY SIZE	DISTRIBUTION MEDIUM
PDP11/10	10680	RK-05	16K	RK-05 CARTRIDGE

PROBLEM: EDIT DROPS CHARACTERS

THE ATTACHED BATCH LOG INCLUDES THE FOLLOWING LINES:

```
$JOB/RT11
$!JOB TO REMOVE ALL VERSION 1 MACROS FROM SYSMAC.V2B
        TTYIO
        LET A=33        !A IS ESCAPE
R EDIT
*EBSYSMAC.V2B$EV$$
V02-10
*
F..V1..$0A3KV$$
.MACRO ..V2..
        !WATCH THE EDITOR LOSE A DOT
V$$
.MACRO ..V2..
*
1A-1L$$
MACRO ..V2..
```

THE DOT IS TRULY GONE, NOT MERELY MISSING FROM THE LOG.

I HAVE TRIED TO REPRODUCE THIS PHENOMENON WITH SIMPLE TEST CASES, BUT I'VE FAILED. I AM WILLING, FOR NOW, TO CONSIDER IT AN ISOLATED PROBLEM. BUT I THINK YOU SHOULD KNOW ABOUT IT.

ATTACHED IS A PRINTED AND A MACHINE-READABLE COPY OF THE BATCH STREAM (PAPER TAPE). ALSO ATTACHED IS THE COMPLETE BATCH LOG OUTPUT.

SOFTWARE COMMUNICATIONS USE ONLY

DO NOT PUBLISH [ ]

DATE RECEIVED	BACK FROM MAINTAINER	LOGGED ON
TO MAINTAINER	DATE CLOSED	LOGGED OFF

SOFTWARE COMMUNICATIONS

SOFTWARE PERFORMANCE REPORT

FIELD #:	SPR #:
FOR DEC USE ONLY	

Page ____ of ____

SYSTEM PROGRAM AND VERSION (OR DOCUMENT)	MONITOR AND VERSION	DATE
FORTRAN V1B-08J	RT-11 V02B (FB) (SJ)	4-DEC-75

DR. GERALD COHEN
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
6501 LAFAYETTE AVENUE, BLDG. #2
RIVERDALE MARYLAND 20840

ZIP

SUBMITTED BY: DR. GERALD COHEN
PHONE: (301) 436-6483

LIST ATTACHMENTS

DEC OFFICE

REPORT TYPE
- [X] LOGIC/CODING ERROR
- [ ] DOCUMENTATION ERROR
- [ ] SUGGESTION
- [ ] INQUIRY
- [ ] FOR YOUR INFORMATION

PRIORITY
- [ ] LOW
- [ ] STANDARD
- [X] HIGH

CAN THE PROBLEM BE REPRODUCED AT WILL?
- [X] YES
- [ ] NO

CPU TYPE	SERIAL NO.	SYSTEM DEVICE	MEMORY SIZE	DISTRIBUTION MEDIUM
PDP 11/20	S/N 1454	RK05	28K	DECPACK

1) PROBLEM: TRAP VECTOR AT LOC 34 IS ALTERED WHEN AN 'ENDFILE u' IS PERFORMED ON A FORMATTED OUTPUT FILE.

2) PROBLEM: READING A FORMATTED RECORD THAT HAS BEEN TERMINATED BY THE 'ENDFILE u' STATEMENT GENERATES '? ERR 22' WHEN THE EOF HAS BEEN ENCOUNTERED

SOLUTION: BOTH PROBLEMS ARE DUE TO INCORRECT CODING OF THE EOF$ MODULE. THE PATCHES NECESSARY ARE GIVEN BELOW.

FOR THOSE WHO HAVE THE SOURCES —

CHANGE LINES AT 3$:+4 & 3$:+5

```
MOVB #15,@R1  -->  MOVB #15,(R1)+
MOV  R1,BLBUF -->  MOV  R1,BLBUF(R3)
```

FOR THOSE USING PATCH

CHANGES:

```
WORD  EOF$+72  = 112721
WORD  EOF$+76  = 10163
WORD  EOF$+100 = 34
```

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DO NOT PUBLISH	DATE RECEIVED	BACK FROM MAINTAINER	LOGGED ON
☐	TO MAINTAINER	DATE CLOSED	LOGGED OFF

SOFTWARE COMMUNICATIONS

SOFTWARE PERFORMANCE REPORT

FIELD #: | SPR #:

FOR DEC USE ONLY

Page ____ of ____

SYSTEM PROGRAM AND VERSION (OR DOCUMENT)	MONITOR AND VERSION	DATE
BATCH V01-02A	RT-11 V02B (FB) (SJ)	5-DEC-75

DEC OFFICE

DR. GERALD COHEN
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
6501 LAFAYETTE AVENUE, BLDG. #2
RIVERDALE MARYLAND 20840

ZIP

SUBMITTED BY: DR. GERALD COHEN

PHONE: (301) 436-6483

LIST ATTACHMENTS

REPORT TYPE
- [X] LOGIC/CODING ERROR
- [ ] DOCUMENTATION ERROR
- [ ] SUGGESTION
- [ ] INQUIRY
- [ ] FOR YOUR INFORMATION

PRIORITY
- [ ] LOW
- [ ] STANDARD
- [X] HIGH

CAN THE PROBLEM BE REPRODUCED AT WILL?
- [X] YES
- [ ] NO

CPU TYPE	SERIAL NO.	SYSTEM DEVICE	MEMORY SIZE	DISTRIBUTION MEDIUM
PDP 11/20	S/N 1454	RK05	28K	DECPACK

THIS IS A SUPPLEMENT TO SPR #11-6051

PROBLEM: BATCH GENERATES 'EOF WITH NO EOJ' MESSAGE & ABORTS WHEN BATCH FILE IS GREATER THAN ONE BLOCK (512 CHARS). FAULTY '.CTL' FILES ARE GENERATED WHEN BATCH FILE HAS AN ODD NUMBER OF BLOCKS (BLKSIZE > 1). JOB ABORTS WHEN BATCH FILE HAS AN EVEN BLOCK SIZE.

SOLUTION: NONE, HOWEVER PROBLEM IS SUSPECTED TO EXIST IN THE CODE THAT PERFORMS THE DOUBLE BUFFERED I/O FOR BATCH.

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DATE RECEIVED	BACK FROM MAINTAINER	LOGGED ON
TO MAINTAINER	DATE CLOSED	LOGGED OFF

SOFTWARE COMMUNICATIONS

SOFTWARE PERFORMANCE REPORT

FIELD #: | SPR #: | FOR DEC USE ONLY

05602

SYSTEM PROGRAM AND VERSION (OR DOCUMENT)	MONITOR AND VERSION	DATE
FORTRAN V01B-08J Software patch #15	RT-11 Vo2B	8-JAN-76

NAME: Nancy J. Neigus
FIRM: Bolt, Beranek & Newman, Inc.
ADDRESS: 50 Moulton St.
Cambridge, Ma. 02138
ZIP

DEC OFFICE: Waltham

REPORT TYPE
- ☐ LOGIC/CODING ERROR
- ☒ DOCUMENTATION ERROR
- ☐ SUGGESTION
- ☐ INQUIRY
- ☐ FOR YOUR INFORMATION

PRIORITY
- ☐ LOW
- ☐ STANDARD
- ☒ HIGH

CAN THE PROBLEM BE REPRODUCED AT WILL? ☒ YES ☐ NO

SUBMITTED BY: N. J. Neigus PHONE: 617-491-1850 x511

LIST ATTACHMENTS

CPU TYPE	SERIAL NO.	SYSTEM DEVICE	MEMORY SIZE	DISTRIBUTION MEDIUM
11/40	01-05061	RK05	28K	RK05

Problem: The Digital Software News patch #15 for Fortran V01B published in the January 1976 Digital Software News caused the compiler to halt. The patch was made without error, as were all previous patches for FORTRAN V01B. The compiler was then tested and it halted with a monitor trap without producing any object modules or listings.

```
.R FORTRA
*TEST,TEST=TEST
M-TRAP TO 4 AT xxxxxx
.
```

This occurred with all programs tested which were tried and true FORTRAN programs that had compiled successfully under all versions of FORTRAN V01B prior to the patch.

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CUSTOMER

SOFTWARE PERFORMANCE REPORT

FIELD #: | SPR #: | FOR DEC USE ONLY

RECEIVED JAN 22 1976

05603

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SYSTEM PROGRAM AND VERSION (OR DOCUMENT)
Digital Software News PDP-11 patches

MONITOR AND VERSION
RT-11 v02B

DATE
20 Jan 1976

DEC OFFICE
DECUS

NAME: Nancy J. Neigus
FIRM: Bolt, Beranek & Newman, Inc.

ADDRESS: 50 Moulton Street
Cambridge, Ma. 02138

ZIP

SUBMITTED BY: N.J.Neigus
PHONE: 617-491-1850 x511

LIST ATTACHMENTS
Xerox copies of Software patch pages

Waltham

REPORT TYPE
- ☐ LOGIC/CODING ERROR
- ☒ DOCUMENTATION ERROR
- ☐ SUGGESTION
- ☐ INQUIRY
- ☐ FOR YOUR INFORMATION

PRIORITY
- ☐ LOW
- ☒ STANDARD
- ☐ HIGH

CAN THE PROBLEM BE REPRODUCED AT WILL?
☐ YES ☐ NO

CPU TYPE	SERIAL NO.	SYSTEM DEVICE	MEMORY SIZE	DISTRIBUTION MEDIUM
11/40	01-05061	RK05	28K	RK05

The attached copies of several of February's Digital Software News patches all contain errors which are noted on the sheets. This time only one of the incorrect patches would result in bad code (LA-11, PEAK.MAC #1, though this one would actually never make it through the assembler), but this has not always been the case. Recently I submitted an SPR on a bad patch to FORTRAN and prior to that I have several times had to obtain corrections directly from my Software Support representative.

This situation has become such a frequent occurrence that I now feel compelled to complain formally about your sloppy work in publishing patches that are harmful, incorrect or simply badly orgarized. If all users of Digital PDP-11 software were as sloppy as you, there wouldn't be any working -11 systems anywhere.

I sincerely hope that you get your "stuff" together in the very near future.

cc: Thomas J. Provost, RT-11 SIG

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DO NOT PUBLISH	DATE RECEIVED TO MAINTAINER	BACK FROM MAINTAINER DATE CLOSED	LOGGED ON LOGGED OFF
☒			

SOFTWARE COMMUNICATIONS

digital

SOFTWARE PERFORMANCE REPORT

00691

Page 1 of #2

SYSTEM PROGRAM AND VERSION (OR DOCUMENT)	MONITOR AND VERSION	DATE
FILEX V02-01 + 1A	RT-11 V2B	FEB 20/76

NAME: LYNN PHILLIPS

FIRM: TRANSPORT CANADA (CPJX)

ADDRESS: PLACE De Ville
TRANSPORT Bldg
OTTAWA ONT ZIP K1A ON8

DEC OFFICE

SUBMITTED BY: LYNN N PHILLIPS PHONE: 998-3173

LIST ATTACHMENTS
TWO SHEETS

REPORT TYPE
- [x] LOGIC/CODING ERROR
- [ ] DOCUMENTATION ERROR
- [ ] SUGGESTION
- [ ] INQUIRY
- [ ] FOR YOUR INFORMATION

PRIORITY
- [ ] LOW
- [ ] STANDARD
- [x] HIGH

CAN THE PROBLEM BE REPRODUCED AT WILL?
- [x] YES
- [ ] NO

CPU TYPE	SERIAL NO.	SYSTEM DEVICE	MEMORY SIZE	DISTRIBUTION MEDIUM
PDP-11/20	5657	RF-11	28K	DECTAPE

FILEX DOES STRANGE THINGS WHEN TRYING TO INTERCHANGE RT-11 AND DOS/BATCH FILES. SOME OF THE PROBLEMS ARE ILLUSTRATED ON THE ATTACHED SHEETS FROM OUR BATCH LOG.

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SOFTWARE COMMUNICATIONS

DEC 7 (360) - 1044C - R874

FILEX AS DELIVERED IN V2B + PATCH 1A

```
$JOB/RT11
#TTYIO

R PIP
DP.BAS/L
20-FEB-76                    RT-11
DP     .BAS      (2) 17-FEB-76
 287 FREE BLOCKS
C1.<DP.BAS

R FILEX                      } NOTE WRONG
*/V                          } BLOCK COUNT
FILEX V02-1A                   (3 should be 8)
*DT1:/S/Z
DT1:/Z  ARE YOU SURE ?Y
?OUT ERR?
*DT1:C1/S<DP.BAS
*DT1:/S/L
X       .          16  20-FEB-76
C1      .          (3) 20-FEB-76
*                      DOS
R FILEX
*DT1:C1/S<DP.BAS
*DT1:/S/L
X       .          16  20-FEB-76
C1      .           3  20-FEB-76  } NOTE ONE NAME &
C1      .           3  20-FEB-76  } TWO FILES
*DT1:*.*/S<C1
?C1     .     ALREADY EXISTS?  <- IT WORKS SOMETIMES
*DT1:C1/S<DP.BAS  <------- DOES NOT CHECK FOR FILE "C1"
*DT1:*.*/S<DP.BAS
*DT1:C1/S<DP.BAS             } CHECKS FOR WRONG NAME
?DP     .BAS ALREADY EXISTS? }
*DT1:/S/L
X       .          16  20-FEB-76
C1      .           3  20-FEB-76
C1      .           3  20-FEB-76
C1      .           3  20-FEB-76
DP      .BAS       (3) 20-FEB-76
*C1<DT1:C1/S           DOS
*
R PIP                      AGAIN WRONG BLOCK COUNT
C1/L
20-FEB-76                        (should be ≈ ¾ ⇨1)
C1                        (3) 20-FEB-76
 287 FREE BLOCKS                  RT-11

$EOJ
```

ALSO IN STAND-ALONE MODE

```
.R FILEX
#LP:<DT1:/S/L        DOES NOT LIST ON LP:
                     FILEX USES PRINT TO LIST
```

DECUS

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY
MAYNARD, MASSACHUSETTS 01754

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