

Contributions to the newsletter should be sent to:

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East Hartford, Conn. 06108  
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Other communications can be sent to:

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or

RT-11 SIG  
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617 481-9511 Ext. 4141

FROM THE EDITOR

Due to continued lack of response, the idea of an RT-11 Brain Trust remains just an idea. We will address the problem of software support at New Orleans.

There seems to be a need to improve the way in which the RT-11 Symposium tape is distributed. We will discuss various methods of distribution at the New Orleans Symposium. Our goal is to allow everyone easy access to the tape's contents.

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UNSP REQUESTS



INDIANA UNIVERSITY

DEPARTMENT OF PSYCHOLOGY  
Psychology Building  
Bloomington, Indiana 47405

February 15, 1979

Mr. Ken Demers  
MS-48  
United Technologies Research Center  
Silver Lane  
East Hartford, CN 06108

Dear Ken:

Thanks for agreeing today to send me your copy of the San Francisco DECUS RT-11 tape for me to copy. I'll copy your tape and return it the same day I receive it. I have found several of the previous DECUS meeting tapes to be very helpful, as I'm sure others have also. As these tapes are very useful we should make every effort to make them available to those who are unable to attend the DECUS meetings. Towards this end I'd like to make several suggestions:

1. In the first issue of the newsletter following each meeting publish a list of the programs available on that meetings tape, some information about the task or function of each program and its author or origin.
2. Establish a DECUS meeting tape library (including all past meeting tapes) at each RT-11 LUG and other regional sites which have no active LUG.
3. Republish the names and addresses of all the LUGs so individuals not currently affiliated with a LUG can join the nearest one, or know whom to contact for a copy of a particular DECUS meeting tape.
4. I would be willing to sponsor a regional DECUS meeting tape library, copying, and distribution center. I have the following devices on RT-11 systems for program copying: CT, DX, MT, and RK.

Thanks again for the loan of your tape, let me know how you like any of these suggestions and if I can be of any assistance in this effort.

Sincerely,

*Jerry C. Forshee*  
Jerry C. Forshee  
Systems Analyst

CANADIAN PENITENTIARY SERVICE

REGIONAL MEDICAL CENTRE



CANADA  
P. O. BOX 3000  
ABBOTSFORD, B.C.

SERVICE PÉNITENTIAIRE CANADIEN

CENTRE MÉDICAL RÉGIONAL

Dear Sir

1. How do I go about getting a copy of the 1978 San Francisco RT-11 magnetic tape?
2. If there is anybody on the West Coast of Canada interested in forming a LUG, please contact me at (604) 853-7464 during working hours.

Sincerely Yours

*R.A. Gilbert*  
R.A. Gilbert

UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF PHYSICS

DAVIS, CALIFORNIA 95616

Dear Mr. Demers:

I have just received a Hewlett Packard 7221A graphics plotter and its software package (HP-Plot/21). The software package is written in Fortran, but several key subroutines will need modification to run under RT-11 V2. Before I begin these modifications I would appreciate hearing from anyone who may have already completed them, as time is a quantity I seem to have so little of.

Sincerely yours,

*Lawrence B. Coleman*  
Lawrence B. Coleman  
Assistant Professor of Physics

3.

USER INPUT



DIVISION OF NUMERICAL ANALYSIS & COMPUTER SCIENCE  
Department of Industry

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex TW11 0LW England

Telex 262344 Telegrams BushyLab Teddington Telex  
Telephone 01-977 3222 ext 4037

Dear Ken

I have been interested to read your correspondence in Mini Tasker regarding transferring files between OS/8 and RT-11 floppies.

One of our student workers, Martyn Armstrong, has developed a program for executing 8 to 11 to 8 (ASCII) file manipulations. It is called PIP8 and runs on a LSI-11 under RT-11.

Essentially you use the standard command string interpreter for defining input and output files and specify OS/8 format files with a "/8" option. The program looks after all OS/8 directory and block addressing problems so that the differences between the file structures are transparent to the user. In addition the program provides the following options:

/D deletes files  
/L directory on TT  
/P directory on LP  
/R renames files  
/F full directory (used with /L or /P)

All these options can be used with or without the "/8" option, depending on the structure of the floppy.

It is hoped to submit the program to the DECUS User library in the near future but in the meantime anyone interested should contact me.

While writing, I have taken the opportunity to enclose some recently despatched SPRs.

Yours sincerely

JOHN YARDLEY

14.

## INTRODUCTION TO PIP8.

PIP8 is a file transfer and file maintenance utility program for both OS/8 and RT/11 (ASCII) files. It runs under the RT/11 operating system and enables you to transfer files in the same format or from one format to another. You can obtain directories of discs, rename or delete files in either format.

## CALLING AND USING PIP8.

To call PIP8 from the system device respond to the dot (.) printed by the monitor by typing:

R PIP8

PIP8 responds by first typing the current version number. The Command String Interpreter then prints an asterisk in the left margin and waits for you to enter a command string. If you respond by entering only a carriage return, PIP8 prints its current version number and prompts you again for a command string.

When PIP8 is waiting for input from the console terminal you can type CTRL/C to abort PIP8 and return control to the monitor. However you must type two CTRL/Cs to abort PIP8 at any other time. This is not recommended when transferring, renaming or deleting OS/8 files as directories are being updated and may be corrupted.

In the current version no wildcards are allowed.

Since PIP8 performs file transfers on all types of ASCII files (.MAC, .FOR, .LST etc), it does not assume file extensions for either input or output files. You must explicitly specify all file extensions, where applicable.

If no devices are specified PIP8 assumes the default device "DK:".

OS/8 files may only be stored on the RX01 floppy disc medium.

## FILE TRANSFERS.

When copying files the command form is as follows:

OUTPUTFILE-SPEC[/8]<INPUTFILE-SPEC[/8]

It is possible to copy files in the following formats

RT/11 TO RT/11.  
OS/8 TO OS/8.  
RT/11 TO OS/8.  
OS/8 TO RT/11.

## PIP8 OPTIONS.

### OS/8 OPTION (/8).

The /8 option is used in conjunction with all the other options to specify that a file is in OS/8 format. All files are assumed to be in RT/11 format unless the /8 option is used on that file.

Example:

To copy an OS/8 file TEST.PA from DX0: to DX1: the correct command would be:

DX1:TEST.PA/8<DX0:TEST.PA/8

The output file would be in OS/8 format since the /8 option was used on the output file as well.

### RENAME OPTION (/R).

The /R option enables files in either format to be renamed, however, the files must both be in the same format and on the same device.

### COMMAND FORM.

NEWFILE-SPEC[/8]<OLDFILE-SPEC[/8]/R

Example:

To Rename the file 1:PROG.MAC To 1:NPL2.MAC you would type the following command:

1:NPL2.MAC<1:PROG.MAC/R

Note both files are in RT/11 format.

### DELETE OPTION (/D).

The /D option enables the user to delete files from a directory.

### COMMAND FORM.

FILE-SPEC[/8]/D

Example:

To Delete the OS/8 file WRONG.MAC from DX1: the correct command would be as follows:

DX1:WRONG.MAC/8/D

#### DIRECTORY LISTINGS:

The directory listings obtained from PIP8 give all the file names on the specified device, the length of each file in decimal and the date associated with each file. It is possible to obtain a directory listing on the console terminal or the line printer.

#### LINE PRINTER OPTION (/P).

The /P option is used to obtain a directory as described above on the line printer.

#### COMMAND FORM.

DEV:[OPTIONS]/P

#### Example:

To obtain a directory on the line printer of the OS/8 floppy disc in DX1: the correct command would be:

DX1:/P/8

#### CONSOLE TERMINAL OPTION (/L).

The /L option is used to obtain a directory as described above on the console terminal.

#### COMMAND FORM.

DEV:[OPTIONS]/L

#### Example:

To obtain a directory of the DL: disk on the terminal you would type the following:

DL:/L

#### FULL DIRECTORY OPTION (/F).

The /F option is used in conjunction with the options /L and /P in order to obtain a full directory of the device which includes

- a) empty blocks on the device,
- b) starting blocks of each file on the device in octal.

Tentative files are treated as empty blocks with a length of zero.

#### COMMAND FORM.

DEV:[OPTIONS]/F

#### Example:

To obtain a full directory of the OS/8 floppy in DX0: on the line printer you would type the following command:

DX0:/P/8/F

January, 1979.

Martyn Armstrong  
Division of Numerical Analysis and Computer Science  
National Physical Laboratory  
Teddington  
Middlesex  
England

Software Hardboot Emulator for RT-11

Richard Krasnow  
Harvard University Biolabs  
16 Divinity Ave., Cambridge, Ma 02138  
617-495-3716

I describe here a patch to the RT-11 Monitor which will cause the bootstrap to load the system several words below the top of memory, rather than at the topmost word as is the normal procedure. In these now "inaccessible" words, one can write the software bootstrap loader. In the event that the system crashes, one can reboot by a simple LOAD ADDRESS/START on the console switches, rather than the tedious toggling-in of the whole bootstrap loader.

After patching, one should toggle-in a bootstrap loader at the selected address (I use 077720 for convenience), and leave the switches set to this address. One may also write a little loading program, for those cases in which an unpatched system, or a diagnostic system, is booted (and thus writing over the loader at 077720).

This procedure is a modification of that described in the RT-11 V02C Software Support Manual, p.4-5, "Fixing the Size of a System". The published procedure allows changing the size by increments of 1K, which is a waste of space if only 21 words are needed. My system presently has 16K core, so the patch makes it effectively 15.98K.

On p.A-20 of the SoftSup Manual there is a listing of a bootstrap. By examination I found that my monitor's boot was essentially the same as in that section, except that what p.A-20 calls FIDDLE is called BHALT on p.4-5. BHALT has the value 606 for a DX monitor, and contains normally a 407 (BR).

```
.R PATCH
FILENAME--MONITR.SYS/M
*606/407      240<LF>
610/ 13702    12702<LF>
612/177570    77720<LF>
614/42702     <LF>
616/3777      0<CR> (Uses full word)
*E
```

This patch holds for both SJ, F/D, as BHALT is same (see table 2-2 of Release Notes for your BHALT).

The following bootstrap ~~loader is shorter~~ and easier to toggle in than the published one. It comes from the XXDP diagnostic card, and boots up on DX0:

```
077720 005000
077722 012701
077724 177170
077726 105711
077730 001776
077732 012711
077734 000003
077736 005711
077740 001776
077742 100405
077744 105711
077746 100004
077750 116120
077752 000002
077754 000770
077756 000000
077760 005000
077762 000110
077764 000000
077766 000000
077770 000000
```

Yale University New Haven, Connecticut 06520

DEPARTMENT OF CHEMISTRY

Sterling Chemistry Laboratory  
225 Prospect Street

Dear Mr. Rasted:

Enclosed is a listing of a FORTRAN free format terminal input routine that may be of interest to Mini-tasker readers.

Sincerely,

*S. Riley*

Stephen J. Riley

RT-11 FORTRAN IV V01B-08

```
0001 SUBROUTINE FRFMT(A,N)
C
C FREE FORMAT TERMINAL INPUT ROUTINE.
C CALL IS CALL FRFMT(A,N). A IS A REAL ARRAY DIMENSIONED
C AS BIG AS THE MAXIMUM NUMBER OF INPUT VARIABLES PER 72
C COLUMN LINE (20 IS RECOMMENDED). UPON RETURN, A CONTAINS
C N VARIABLE VALUES, THE FIRST IN A(1), THE SECOND IN A(2),
C AND SO FORTH. THUS THE NUMBER OF VARIABLES ENTERED IS
C DYNAMIC AND ACCESSIBLE. VALUES ARE ENTERED AS REAL,
C INTEGER, AND/OR EXPONENTIAL, DELINEATED BY A SPACE OR A
C COMMA. MULTIPLE ENTRY OF THE SAME VALUE CAN BE DENOTED
C BY AN ASTERISK.
C
C EXAMPLE OF USE:
C DIMENSION A(20)
C WRITE(7,1)
C 1 FORMAT(' ENTER X,Y,I,J,AND THE ARRAY Z')
C CALL FRFMT(A,N)
C X=A(1)
C Y=A(2)
C I=A(3)
C J=A(4)
C K=N-4
C DO 10 L=1,K
C 10 Z(L)=A(L+4)
C
C THE ENTRY MIGHT LOOK LIKE:
C 1.2E-5,-.6 4.56 1.2*6*0
C
C IF ANYTHING IS WRONG, THE ROUTINE WILL PRINT 'HUH'
C AND RETURN TO THE READ INSTRUCTION.
C
```

```

0002      DIMENSION A(1)
0003      LOGICAL*1 ICH(72)
0004      9 READ(5,900) ICH
0005 900   FORMAT(72A1)
0006      N=0
0007      I=0
0008      IRPT=1
0009 100   ITY=1
0010      X=0.
0011      XNEG=1.
0012      JEX=0
0013      JXNEG=1
0014      IDIG=0
0015 1     I=I+1
0016      IF(I-73) 102,30,101
0017 101   RETURN
0018 102   NCH=ICH(I)
0019      IF(NCH-32)188,30,188
0020 188   IF(NCH-46)40,40,103
0021 103   IF(NCH-69)10,20,10
0022 10    NCH=NCH-48
0023      IF(NCH*(9-NCH))99,11,11
0024 11    GO TO (12,13,14,15), ITY
0025 12    ITY=2
0026 13    X=X*10.+NCH

0027      GO TO 1
0028 14    IDIG=IDIG+1
0029      GO TO 13
0030 15    JEX=10*JEX+NCH
0031      GO TO 1
0032 20    GO TO (99,22,22,99), ITY
0033 22    ITY=4
0034      GO TO 1
0035 30    IF(ITY-1)8,1,8
0036 40    IF(NCH-46)41,50,41
0037 41    IF(NCH-45)42,60,42
0038 42    IF(NCH-44)43,30,43
0039 43    IF(NCH-42)99,70,99
0040 50    GO TO (51,51,99,99) ITY
0041 51    ITY=3
0042      GO TO 1
0043 60    GO TO (61,99,99,62), ITY
0044 61    XNEG=-1.
0045      GO TO 1
0046 62    IF(JXNEG*(JEX+1)-1)99,63,99
0047 63    JXNEG=-1
0048      GO TO 1
0049 70    GO TO (71,72,99,99), ITY
0050 71    N=N-1
0051      IF(N)99,72,72
0052 72    IRPT=X
0053      IF(IRPT)99,99,100
0054 8      X=X*XNEG*10.**((JEX*JXNEG-IDIG)
0055      DO 81 JEX=1,IRPT
0056      N=N+1

```

11.

```

0057 81    A(N)=X
0058      IRPT=1
0059      GO TO 100
0060 99     WRITE(7,990)
0061 990    FORMAT(' HUH',/)
0062      GO TO 9
0063      END

```

#### UPCOMING SYMPOSIUM INFORMATION

John T. Rasted, RT-11 SIG Chairman

The 1979 Spring DECUS Symposium will give the RT-11 SIG member an opportunity to exchange information on state-of-the-art hardware and software techniques.

Presentations by DIGITAL include the RT-11 Product Panel, RT-11 Languages, Application Design Workshop, Internals Tutorial, Device Handler Tutorial and RT-11 Feedback Session. User presentations include seven formal papers and User Application Workshop where users freely discuss the problems and solutions concerning their installation.

There will be two SIG meetings. The first will be concerned with guiding new attendees through the maze of presentations, suites, exhibits and informal gatherings; and will end with a business meeting dealing with the SIG newsletter, DECUS Library, Local User Groups, and other non-symposia SIG activities. The second SIG meeting, coming at the end of the symposium, will deal with user reaction to the sessions and will respond to unanswered questions from other meetings.

In addition to the usual software sessions, there will be a number of hardware oriented sessions dealing with issues of interest to a broad range of users from system managers to hardware designers.

Suites will be maintained for users to meet with representatives from DIGITAL groups such as Central Engineering, Field Service, and Software Services.

The RT-11, HHK and LSI SIGs will share the Ascot Room as campground during the meetings. This room will serve as a SIG operations/gatherings spot. PDT people will also be in this location.

Come to the symposium and meet with other users. Establish continuous communication to avoid re-invention of the wheel. Influence future plans of DIGITAL and the RT-11 SIG.

#### TO ALL STEERING COMMITTEE MEMBERS

There will be a meeting of the RT-11 SIG Steering Committee on Monday, April 16 from 5:00PM - 6:30PM in the Ascot Room.

12.

## TAPE COPY OPERATIONS

DIGITAL'S Computer Special Systems Group is providing DECUS with a machine capable of media-copy operations. Bring a master tape for swap operations. Contact the RT-11 SIG DECUS Tape Copy Coordinator or his representative at, or before, the symposium for additional details. Contributions submitted at the symposium must be on either a master tape or RX01 floppy. Copies of the New Orleans tape will be on tape only.

### RT-11 SIG DECUS Tape Copy Coordinators:

Nick Bourseois /1736 Sandia Laboratories	Art Hermes MIT/LNS Bates Linear Accelerator P.O.Box 95 Middleton, MA 01949 (617) 245-6600
P.O.Box 5800 Albuquerque, NM 07185 (505) 264-8088	or

### MEDIA CONVERSIONS FOR THE 1979 SPRING DECUS SYMPOSIUM

In order to minimize the time required for production of the 1979 New Orleans DECUS RT-11 tape with our all volunteer labor, we ask that all submittals be on 9-track master tape in RT-11 PIP format. For the benefit of those of you who do not have access to a tape drive, the persons listed below have agreed to perform the indicated media conversions prior to the symposium. Please send the means to return your media (Postage) or the media will be considered a gift. Anyone else who is willing to offer media conversion please try to let Nick Bourseois know in time to inform the SIG in the next Minutasker.

John Runyon Philip Morris Int'l 100 Park Ave., 3rd Floor New York, NY 10017 (212) 679-1800 x1077	RK06 RX01 TE16(TU10) PC11
--	------------------------------------

Mark Terrel Bldg 238-1 NASA Ames Research Center Moffet Field, CA 94035 (415) 965-5974	RK05 TE16(TU10)
--	--------------------

Carl Lowenstein Marine Physical Lab San Diego, CA 92152 (714) 452-2308	RK05 RX01 TU10
---	----------------------

Nick Bourseois / 1736 Sandia Laboratories P.O.Box 5800 Albuquerque, NM 87185 (505) 264-8088	RK05 RX01 TU10
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## RT-11 SESSIONS

The following RT-11 sessions and times are scheduled for the Spring DECUS Symposium in New Orleans.

RT-11 Symposium Roadmap And SIG Business Meeting	9:00 - 10:00 AM	Apr 17th
How to Write an RT-11 Device Driver	2:30 - 4:00 PM	Apr 17th
RT-11 Product Panel	4:15 - 6:15 PM	Apr 17th
RT-11 Papers	8:00 - 10:00 PM	Apr 17th
RT-11 Features Workshop	10:45 - 11:45 AM	Apr 18th
RT-11 Languages Panel	2:00 - 4:00 PM	Apr 18th
Intelligent Terminals Overview	4:15 - 6:15 PM	Apr 18th
FMS-11 Video Forms Tutorial	8:30 - 10:45 AM	Apr 19th
RT-11 Internals Tutorial	10:45 - 11:45 AM	Apr 19th
RT-11 Papers	4:15 - 6:15 PM	Apr 19th
RT-11 User Application Workshop	8:00 - 10:00 PM	Apr 19th
RT-11 SIG Wrap-Up	8:30 - 10:15 AM	Apr 20th
RT-11 Feedback Session and Wrap-Up	10:15 - 11:45 AM	Apr 20th
Video Keypad Editor Tutorial	11:15 - 11:45 AM	Apr 20th
RT-11 SIG Operations/ sathering spot with DEC technical people will be in Ascot Room	OPEN	Apr 17th thru Apr 20th

### HOW TO REACH THEM

John T. Rasted JTR Associates 58 Rasted Lane Meriden, CT 06450 (203) 634-1632	RT-11 SIG Chairman
Ken Demers MS-48 United Technologies Research Center Silver Lane East Hartford, Ct 06108 (203) 727-7241	Newsletter Editor

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(617) 458-8763

RT-11 DECUS Library Coordinator  
NELUG Coordinator

J. W. Tippie  
Argonne National Labs  
9700 S. Cass Ave  
Argonne, Ill 60439

RT-11 LUG Coordinator  
CAMAC Contact

LUG INFORMATION

Duke University Medical Center  
DURHAM, NORTH CAROLINA  
27710

DEPARTMENT OF MICROBIOLOGY  
AND IMMUNOLOGY

7 February 1979

TELEPHONE (919) 684-5118

Dear Ken,

1. I have been *de facto* RT-11 guru, welcome wagon, etc... (along with one or two other persons) to the Duke University community for nearly three years. I would appreciate hearing from any RT-11 users in the central N.C. area who would be interested in possibly getting an RT-11 LUG or a "continuing education" series of meetings started.

15. Greg Woodbury  
System Programmer  
Dept. of Microbiology and Immunology

RT-11 MARKETPLACE

PUGH-ROBERTS ASSOCIATES, INC.

NEWS RELEASE

PUGH-ROBERTS ASSOCIATES, INC.  
5 LEE STREET  
CAMBRIDGE, MA 02139  
(617) 864-8880  
CONTACT: DR. WILLIAM SHAFFER

FOR IMMEDIATE RELEASE

22 DECEMBER 1978 - CAMBRIDGE, MA

DYNAMO for Micro-Computers

Pugh-Roberts Associates, Inc. is offering DYNAMO tailored for the Digital Equipment PDP-11V03<sup>TM</sup>, MINC<sup>TM</sup>, and other LSI-11-based micro-computers. Widely used in dynamic modeling and simulation of industrial, social, and engineering systems, DYNAMO is noted for its flexibility, ease-of-use, and excellent error detection. Recorded on eight-inch flexible diskettes, the micro-computer version of DYNAMO is ready to operate on systems using the RT-11 operating system and can be easily converted to similar systems such as the Heathkit H-11 computer.

Because of the relatively inexpensive hardware involved, a DYNAMO simulation capability can now be provided in classrooms, small businesses, engineering groups, and other places where the cost of more expensive hardware can not be supported. Mini-DYNAMO can be licensed from Pugh-Roberts Associates, Inc., 5 Lee Street, Cambridge, MA 02139, U.S.A. (617) 864-8880.

16.



SPR'S

OPERATING SYSTEM <b>RT-11</b>	VERSION <b>V03B</b>	SYSTEM PROGRAM OR DOCUMENT TITLE <b>BASIC User's Guide</b>	VERSION OR DOCUMENT PART NO. <b>DEC-11-LIBUA-A-D, DN1</b>	DATE <b>7-FEB-79</b>
(SEE EXAMPLE IN INSTRUCTIONS)		DEC OFFICE <b>Chapel Hill NC</b>	DO YOU HAVE SOURCES? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
NAME: <b>Gregory G. Woodbury</b>		REPORT TYPE/PRIORITY		
FIRM: <b>Dept. of Microbiology</b>		<input checked="" type="checkbox"/> PROBLEM/ERROR <input type="checkbox"/> SUGGESTED ENHANCEMENT <input type="checkbox"/> OTHER		
ADDRESS: <b>Box 3020</b>		CAN THE PROBLEM BE REPRODUCED AT WILL? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
<b>Duke University Medical Center</b>		COULD THIS SPR HAVE BEEN PREVENTED BY BETTER OR MORE DOCUMENTATION? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
<b>Durham NC 27710</b>		PLEASE EXPLAIN IN PROVIDED SPACE BELOW.		
SUBMITTED BY: <b>Gregory G. Woodbury</b>	PHONE: <b>919)684-5138</b>			
MAG TAPE <input type="checkbox"/>	ATTACHMENTS FLOPPY DISKS <input type="checkbox"/> LISTING <input type="checkbox"/>			
CPU TYPE <b>11/10</b>	SERIAL NO. <b>4816</b>	MEMORY SIZE <b>48Kbyte</b>	DISTRIBUTION MEDIUM <b>Floppys</b>	SYSTEM DEVICE <b>RX11/RX01</b>
DO NOT PUBLISH <input type="checkbox"/>				

- There is an error in the given "GETDSC" routine on page 418.  
If Bit 0 were set (to indicate a pointer) the MOV instruction will fail with an odd-addressing trap.  
Insert a BIC #1,r3 before the MOV.
- There is no description of how to assemble the BSCLI module after inserting the user's ALR tables. (ref. SPR form 183806 ).
- The string access routines descriptions are unclear and confusing.  
As a whole, chapter 4 is way BELOW the usual excellence of DEC documentation.

SUBMITTED BY: <b>Gregory G. Woodbury</b>	PHONE: <b>919)684-5138</b>	CAN THE PROBLEM BE REPRODUCED AT WILL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
ATTACHMENTS FLOPPY DISKS <input type="checkbox"/> LISTING <input type="checkbox"/>		COULD THIS SPR HAVE BEEN PREVENTED BY BETTER OR MORE DOCUMENTATION? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
CPU TYPE <b>11/10</b>	SERIAL NO. <b>4816</b>	MEMORY SIZE <b>48Kbytes</b>	DISTRIBUTION MEDIUM <b>Floppys</b>
MAG TAPE <input type="checkbox"/>		SYSTEM DEVICE <b>RX11/RX01</b>	
DO NOT PUBLISH <input type="checkbox"/>			

The distributed files for BASIC-11/RT-11 V2 are not complete!

The code for the MRE NRC and MSP errors is totally lacking.  
Even after supplying the missing code (by writting it myself) the call interface still doesn't work.. All CALL statements result in a SYNTAX error.

The documentation problems are discussed on SPR form 183805

OPERATING SYSTEM <b>RT11</b>	VERSION <b>V03B</b>	SYSTEM PROGRAM OR DOCUMENT TITLE <b>DIR</b>	VERSION OR DOCUMENT PART NO. <b>V03.01</b>	DATE <b>9-JAN-79</b>
(SEE EXAMPLE IN INSTRUCTIONS)		DEC OFFICE <b>Chapel Hill, N.C.</b>	DO YOU HAVE SOURCES? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
NAME: <b>Gregory G. Woodbury</b>		REPORT TYPE/PRIORITY		
FIRM: <b>Dept. of Microbiology</b>		<input checked="" type="checkbox"/> PROBLEM/ERROR <input type="checkbox"/> SUGGESTED ENHANCEMENT <input type="checkbox"/> OTHER		
ADDRESS: <b>Box 3020</b>		CAN THE PROBLEM BE REPRODUCED AT WILL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
<b>Duke University Medical Center</b>		COULD THIS SPR HAVE BEEN PREVENTED BY BETTER OR MORE DOCUMENTATION? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
<b>Durham NC 27710</b>		PLEASE EXPLAIN IN PROVIDED SPACE BELOW.		
SUBMITTED BY: <b>Gregory G. Woodbury</b>	PHONE: <b>919)684-5138</b>			
MAG TAPE <input type="checkbox"/>	ATTACHMENTS FLOPPY DISKS <input type="checkbox"/> LISTING <input checked="" type="checkbox"/>			
CPU TYPE <b>pdp 11/10</b>	SERIAL NO. <b>4816</b>	MEMORY SIZE <b>48Kbytes</b>	DISTRIBUTION MEDIUM <b>Floppy/DECTape</b>	SYSTEM DEVICE <b>RX11/RX01</b>
DO NOT PUBLISH <input type="checkbox"/>				

The DIR program has an intermittent error when handling commands which specify the /SORT (/S) and the /SUMMARY (/N) switches together. The error appears only when both switches are specified. The usually fail as shown on the accompanying printouts, but occasionally the output is correct!

Apparently the /N switch causes strange things to happen to the internal directory buffer which creates garbage when the /L or /S processes start their work [GIGO!] Sometimes it even fails a "simple" /V when combined with /N.

Solution: I don't know, therefore this SPR.

Suggested enhancement(s): 1) in DIR, make the /V switch produce only the volume id and owner id (as in DUP).

2) in DUP, make the /V printout neatly aligned for

display ( as in DIR ).

ITEM <b>v03B-00C</b>	VERSION <b>Advanced Programmers Guide</b>	SYSTEM PROGRAM OR DOCUMENT TITLE <b>AA-5280B-TC</b>	VERSION OR DOCUMENT PART NO. <b>AA-5280B-TC</b>	DATE <b>24-OCT-78</b>
(SEE EXAMPLE IN INSTRUCTIONS)		DEC OFFICE <b>Chapel Hill NC</b>	DO YOU HAVE SOURCES? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
NAME: <b>Gregory G. Woodbury</b>		REPORT TYPE/PRIORITY		
FIRM: <b>Dept. Microbiology Box 3020</b>		<input checked="" type="checkbox"/> PROBLEM/ERROR <input type="checkbox"/> SUGGESTED ENHANCEMENT <input type="checkbox"/> OTHER		
ADDRESS: <b>Duke University Medical Center</b>		CAN THE PROBLEM BE REPRODUCED AT WILL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
<b>Durham NC 27710</b>		COULD THIS SPR HAVE BEEN PREVENTED BY BETTER OR MORE DOCUMENTATION? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
		PLEASE EXPLAIN IN PROVIDED SPACE BELOW.		
SUBMITTED BY: <b>Gregory G. Woodbury</b>	PHONE: <b>919)684-5138</b>			
MAG TAPE <input type="checkbox"/>	ATTACHMENTS FLOPPY DISKS <input type="checkbox"/> LISTING <input type="checkbox"/>			
CPU TYPE <b>PDP 11/10</b>	SERIAL NO. <b>4816</b>	MEMORY SIZE <b>24kw</b>	DISTRIBUTION MEDIUM <b>Floppy/DECTape</b>	SYSTEM DEVICE <b>RX01</b>
DO NOT PUBLISH <input type="checkbox"/>				

Table 2-1 on pages 2-19 through 2-24 of the Advanced Programmers Guide is full of errors. Specifically, the 2nd column (labeled "ENT Code") has errors concerning which ENT code is used to do what. Mostly in terms of the new XM and MI programmed requests.

The attached copies of the concerned pages are marked with the corrections to all the errors I have found. The parentheses that I have added to some of the entries give the 'subcodes' for the concerned ENT's.

SOLUTION: Re-do the table and issue it in the next update for the manual concerned.

Suggestion: create a table of numerical listings of all ENT's and their codes and subcodes associated with them.

STATEMENT: Many of the ENT codes shown in Table 2-1 of the Advanced Programmer's Guide are incorrect.

RESPONSE: The documentation has been corrected by Update Notice #2 (Order No. AD-5280R-I2) to the RT-11 Advanced Programmer's Guide.

OPERATING SYSTEM <b>RT 11</b>	VERSION <b>V03B(S)-00C</b>	SYSTEM PROGRAM OR DOCUMENT TITLE <b>ODT</b>	VERSION OR DOCUMENT PART NO. <b>V01.06</b>	DATE <b>24-OCT-78</b>
(SEE EXAMPLE IN INSTRUCTIONS)		DEC OFFICE <b>Chapel Hill NC</b>	DO YOU HAVE SOURCES? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
NAME: <b>Gregory C. Woodbury</b> FIRM: <b>Dept. Microbiology Box 3020</b> ADDRESS: <b>Duke University Medical Center</b> <b>Durham NC 27710</b>		REPORT TYPE/PRIORITY <input checked="" type="checkbox"/> PROBLEM/ERROR <input type="checkbox"/> SUGGESTED ENHANCEMENT <input type="checkbox"/> OTHER		
SUBMITTED BY: <b>Gregory C. Woodbury</b> PHONE: <b>919)684-5138</b>		CAN THE PROBLEM BE REPRODUCED AT WILL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
MAG TAPE <input type="checkbox"/> FLOPPY DISKS <input type="checkbox"/> LISTING <input checked="" type="checkbox"/> DECTAPE <input type="checkbox"/> OTHER <input type="checkbox"/>		COULD THIS SPR HAVE BEEN PREVENTED BY BETTER OR MORE DOCUMENTATION? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
CPU TYPE <b>PDP 11/10</b>	SERIAL NO. <b>4816</b>	MEMORY SIZE <b>24kw</b>	DISTRIBUTION MEDIUM <b>Floppy/DECTape</b>	SYSTEM DEVICE <b>RI01 floppy disk</b>
DO NOT PUBLISH <input type="checkbox"/>				

There is an undocumented restriction or an error in ODT concerning the use of the BN "<" [ASCII 137<sub>g</sub>] function (PC indexing).

As demonstrated on the enclosed listing, if the index results in an odd address ODT opens a byte but the "<" function no longer works to return to the "previous sequence".

SOLUTION: 1) Document the restriction. (interim)

2) Correct the code to handle "previous sequence" following odd addresses in "PC indexing".

ODT does not handle the return to previous sequence function (<) properly after it opens an odd address in PC indexing (the underline or backarrow function). When PC indexing (<) is used and the resultant address is odd, ODT opens a byte, but the return to previous sequence (<) does not function correctly. ODT opens the next byte. ODT should return to the sequence which was in process prior to receiving the underline command. The following patch fixes the problem in ODT.ORG. Create the following correction file (ODTPAT.MAC) using a text editor.

```

TITLE ODT V01.06
.=+1274      JMP      PATCH1
.=+1370      JSR      PC,PATCH0
.=+120      NOP
0.0P2A:
.=+3016
0.BW: .BYTE 0
        .EVEN
0.CAD: 0
0.DOT: 0
.=+124
        .ASCII /ODT V01.0AA /
        .EVEN
.=+124
PATCH0: CMP      0.CAD,0.DOT
        BEQ      1$
        MOV      #2,0.BW
1$:      MOV      0.DOT,0.CAD
        RTS      PC
PATCH1: CLR      R2
        JMP      0.0P2A
        .END
  
```

Assemble the new file to produce an object module:

.MACRO OUTPAT <RET>

Update OUT by using PAT:

.R PAT <RET>

\*OUT=OUT/C:56222,OUTPAT/C:021177 <RET>

OPERATING SYSTEM RT-11	VERSION FB	SYSTEM PROGRAM OR DOCUMENT TITLE V03B(S)-OOC	VERSION OR DOCUMENT PART NO. RNONFB/KMON	DATE 10-oct-78
(SEE EXAMPLE IN INSTRUCTIONS)		DLC OFFICE CHAPEL HILL NC		
NAME: Gregory G Woodbury		DO YOU HAVE SOURCE? YES <input type="checkbox"/> NO <input type="checkbox"/>		
FIRM: Dept of Microbiology		REPORT TYPE/PRIORITY		
ADDRESS: Duke University Medical Center		<input type="checkbox"/> PROBLEM/ERROR <input checked="" type="checkbox"/> SUGGESTED ENHANCEMENT <input type="checkbox"/> OTHER		
Durham NC 27710		<input type="checkbox"/> 5. <input type="checkbox"/> 4. <input checked="" type="checkbox"/> 3. <input type="checkbox"/> 2. <input type="checkbox"/> 1.		
SUBMITTED BY: Gregory Woddbury		CAN THE PROBLEM BE REPRODUCED AT WILL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
PHONE: 919)684-5138		COULD THIS SPR HAVE BEEN PREVENTED BY BETTER OR MORE DOCUMENTATION? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
ATTACHMENTS MAG TAPE <input type="checkbox"/> FLOPPY DISKS <input type="checkbox"/> OTHER <input type="checkbox"/> LISTING <input type="checkbox"/>		PLEASE EXPLAIN IN PROVIDED SPACE BELOW.		
CPU TYPE PDP 11-10	SERIAL NO. 4816	MEMORY SIZE 24Kw	DISTRIBUTION MEDIUM Floppy/DECTape	SYSTEM DEVICE Floppy RX01
				DO NOT PUBLISH <input type="checkbox"/>

Under the FB mdnitor with multi-terminal support (or for that matter, without it) there is no way to inform the monitor or utility programs that the console device is a ~~1~~ half-duplex device and that no echo of the input characters should be done in software. The single-character bit in the JSW or M.TSTS word should work in this manner but doesnt (apparently). The suggestion I would make is a special bit to specify full-duplex vs. half-duplex, at least for remote(alternate) consoles.

Also, there is no way for a user program to effect changes in the console SET options under FB as supplied. A seco/nd suggestion/: create a .TTSET call for non multi-terminal systems to effect a SET TT option from the user program level.

OPERATING SYSTEM RT-11 V3B	VERSION V3B	SYSTEM PROGRAM OR DOCUMENT TITLE Fortran IV/RT-11	VERSION OR DOCUMENT PART NO. V2.1 & v2.04	DATE 5-Mar-79
(SEE EXAMPLE IN INSTRUCTIONS)		DLC OFFICE El Segundo, Ca		
NAME: Bradford A. Lubell		DO YOU HAVE SOURCE? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
FIRM: LA Cardiovascular Research Laboratory		REPORT TYPE/PRIORITY		
ADDRESS: UCLA Medical Center, A3-381 CHS		<input checked="" type="checkbox"/> PROBLEM/ERROR <input type="checkbox"/> SUGGESTED ENHANCEMENT <input type="checkbox"/> OTHER		
LA, Ca 90024		<input checked="" type="checkbox"/> 5. <input type="checkbox"/> 4. <input checked="" type="checkbox"/> 3. <input type="checkbox"/> 2. <input type="checkbox"/> 1.		
SUBMITTED BY: Bradford A. Lubell		CAN THE PROBLEM BE REPRODUCED AT WILL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
PHONE: 825-6713		COULD THIS SPR HAVE BEEN PREVENTED BY BETTER OR MORE DOCUMENTATION? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
ATTACHMENTS MAG TAPE <input type="checkbox"/> FLOPPY DISKS <input type="checkbox"/> OTHER <input type="checkbox"/> LISTING <input checked="" type="checkbox"/>		PLEASE EXPLAIN IN PROVIDED SPACE BELOW.		
CPU TYPE 11-04	SERIAL NO. AG11413	MEMORY SIZE 64KB	DISTRIBUTION MEDIUM RK05	SYSTEM DEVICE RK05
				DO NOT PUBLISH <input type="checkbox"/>

There are two major errors in the input conversion routine with unformatted I/O.

- 1) When there is a conversion error with a decimal point (ie two decimal points, or a decimal point and an illegal character) the error is noted and recorded as directed; however, the program then exits with no other errors messages or clues as ~~the~~ to the problem.
- 2) When a slash (/) is inseted in the input, conversion stops at the slash and no errors are reported or noted in the error count.

Included are small test programs which illustrate these errors using each type of error count. This problem occurs in both versions 2.04 & 2.1. All patches have have been installed as of the February issue



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