THE mini-tasker

Contributions to the newsletter should be sent to:

> John T. Rasted
> JTR Associates
> 58 Rasted Lane
> Meriden, CT 06450

All other correspondence should be sent to the SIG chairman:

> Tom Provost
> MIT/LNS Bates Linear Accelerator
> P.O. Box 95
> Middleton, Mass. 01949

FROM THE EDITOR

At the end of this newsletter is a questionaire which is the
result of a concerted effort by RT-11 SIG and DEC people. It is
important that this questionaire be returned as soon as possible.
It will be used as an aid in determining where system deficiencies
may exist (if any). The questionaire will also be used as input
by DEC to determine what future RT-11 enhancements will be most
desirable. Please take a few minutes to complete the questionaire
and return it to Tom Provost at the above address.

FROM THE CHAIRMAN

TECO USERS WILL BE PLEASED TO FIND TECO IN THEIR RT-11 V3 DISTRI-
BUTION.

SOME USERS WERE CONFUSED ABOUT THE REPORTS FROM THE LAS VEGAS
MEETING ON HIGH LEVEL COMMAND LANGUAGE, AND ON EXTENDED MEMORY SUP-
PORT. THE REPORT DESCRIBED STANDARD FEATURES AVAILABLE IN RT-11 V3
AND NOT AVAILABLE ELSEWHERE. IT IS UNFORTUNATE THAT ATTENDEES OF THE
BOSTON SYMPOSIUM DID NOT VOLUNTEER TO WRITE SIMILAR REPORTS OF THOSE
MEETINGS. HOPEFULLY ATTENDEES WILL BE MORE HELPFUL IN SAN DIEGO.

SAN DIEGO SYMPOSIUM

HOMEWORK FOR TECHNOLOGY DRIVE WORKSHOP

THE TECHNOLOGY DRIVE WORKSHOP WILL PROVIDE AN OPPORTUNITY FOR TECHNI-
CALLY COMPETENT USERS TO MEET WITH HIGH LEVEL PERSONNEL FROM DIGITAL
TO DISCUSS THE APPLICATION OF STATE-OF-THE-ART TECHNOLOGY TO PROVIDE
THE FUNCTIONALITY NECESSARY TO MEET THE FUTURE NEEDS OF THE USERS.

FOR THIS WORKSHOP TO BE SUCCESSFUL, USERS MUST COME PREPARED TO DIS-
CUSS WELL THOUGHT OUT IDEAS. THEREFORE, TO INSURE SUCCESS OF THE
MEETING, PRIORITY DURING THE DISCUSSION WILL BE GIVEN TO USERS SUBMIT-
TING WRITTEN SUMMARIES OF THEIR IDEAS TO THE CHAIRMAN BEFORE THE MEET-
ING.

IF THERE ARE ANY QUESTIONS, FEEL FREE TO CONTACT ME:

                                        THOMAS J. PROVOST
                                        M. I. T.
                                        P. O. BOX 95
                                        MIDDLETON, MA 01949
                                        (617) 245-6600

CAMAC
        THE CAMAC PANEL AT SAN DIEGO WILL INCLUDE PEOPLE WHO WILL SPEAK
ABOUT RT-11 CAMAC APPLICATIONS.

HOW TO REACH THEM

THOMAS J. PROVOST   RT-11 SIG COORDINATOR
MIT/LNS BATES LINEAR ACCELERATOR   MITLUG COORDINATOR
P. O. BOX 95
MIDDLETON, MA 01949
(617) 245-6600

JOHN T. RASTED   NEWSLETTER COORDINATOR
JTR ASSOCIATES
58 RASTED LANE
MERIDEN, CT 06450
(203) 634-1632

J. W. TIPPIE   RT-11 LUG COORDINATOR
ARGONNE NATIONAL LABS   CAMAC CONTACT
9700 S. CASS AVE
ARGONNE, ILL 60439

ERIC MORTON   RT-11 DECUS LIBRARY COORDINATOR
PRELCO CORPORATION   NELUG COORDINATOR
170 LINCOLN
LOWELL, MA 01851
(617) 458-8763

CARL LOWENSTEIN   RT-11 HHK COORDINATOR
MARINE PHYSICAL LAB   SIG HARDWARE CONTACT
UNIVERSITY OF CALIF, SAN DIEGO
MPL BLDG 106
NAVAL UNDERSEA CENTER
SAN DIEGO, CA 92132

HENRY DARDY   CHESAPEAKE AREA LUG CONTACT
NAVAL RESEARCH LABORATORY
CODE 8133
WASHINGTON, D.C. 20375
(202) 767-6811

SAM C. BIBLER   CHICAGO AREA LUG CONTACT
FERMI NATIONAL ACCELERATOR
P. O. BOX 500
BATAVIA, ILL 60510

REID BROWN   CHICAGO LUG LIBRARY CONTACT
WALGREEN DRUG CO.
INTERCOM PROJECT
200 WILMOT RD
DEERFIELD, ILL 60015

MARK BARTELT   SCURT CHAIRMAN
CALIFORNIA INST. OF TECH.
PASADENA, CA 91125
(213) 795-6811 EXT 2663

FRED I. MAGEE   SIG LANGUAGES CONTACT
SANDIA LABORATORIES DIV 2643   SIG LDP PRODUCT CONTACT
P. O. BOX 5800
ALBUQUERQUE, NM 87115

LUG NEWS

SCURT
        SCURT, (SOUTHERN CALIFORNIA USERS OF RT-11) HAS RISEN
PHOENIX-LIKE FROM ITS ASHES AND IS ONCE AGAIN FUNCTIONING AS A SUC-
CESSFUL LUG. WE THANK THEM FOR THEIR CONSIDERABLE CONTRIBUTION TO THE
ENCLOSED QUESTIONAIRE.

CHICAGO AREA LOCAL USERS GROUP

THE CHICAGO AREA LOCAL USERS GROUP IS IN THE PROCESS OF FORMING A LIBRARY OF PROGRAMS FOR INFORMAL DISTRIBUTION. AMONG THE ENTRIES IN THE LIBRARY WILL BE RT/RSX, AS DESCRIBED ELSEWHERE IN THIS NEWSLETTER. THE LIBRARY CONTACT IS REID BROWN. RECENT MEETINGS INCLUDED A TOTORIAL ON CAMAC.

CHESAPEAKE RT-11 LOCAL USER GROUP

THIS IS A NEW NAME FOR THE OLD WASHINGTON AREA USER GROUP. INTERESTED USERS MAY CONTACT HENRY DARDY, (202) 767-3336.

NELUG

THE NEW ENGLAND AREA LOCAL USER GROUP HAS THE DISTINCT ADVANTAGE OF HOLDING MOST OF THEIR MEETINGS IN MAYNARD. THIS GIVES THEM ACCESS TO KEY DIGITAL PERSONNEL.

MITLUG

THE MIT LOCAL USER GROUP HAS ADAPTED A FORMAL FORMAT FOR MEETINGS WHICH OTHERS MIGHT FIND USEFUL. A HALF HOUR IS SET ASIDE FOR "QUICKIES", QUESTIONS AND ANSWERS ON HARDWARE, SOFTWARE, AND OPERATIONS. MANY TIMES THE ANSWER IS JUST THE NAME OF THE USER WHO HAS EXPERIENCE WITH THE PROBLEM. THE REMAINING TIME IS SPLIT BETWEEN A PRESENTATION BY DIGITAL AND ONE BY A USER. USER PRESENTATIONS FOLLOW THE STYLE OF THE FORMAL PAPERS AT DECUS SYMPOSIA. HARDWARE AND SUPPLY ALTERNATIVES ARE DISCUSSED. ERRORS ARE FREELY ADMITTED, IN THE HOPE THEY WILL PROVE INSTRUCTIVE OTHER USERS. DIGITAL PRESENTATIONS VARY FROM LOCAL OFFICE SUPPORT PEOPLE, TO MAYNARD GIANTS. THE PRESENTATIONS TEND TO BE VERY TECHNICAL AND OFTEN VERY INFORMATIVE. MITLUG IS VERY GRATEFUL FOR THE COOPERATION RECEIVED FROM DIGITAL.

IN THE PAST WE HAVE HAD PRESENTATIONS BY OUTSIDE VENDORS AND DESTRUCTIVE CRITICISM OF DIGITAL POLICIES. WE HAVE FOUND OUR PRESENT POLICY OF NO OUTSIDE VENDORS AND CONSTRUCTIVE CRITICISM OF DIGITAL POLICY TO BE FAR MORE FRUITFUL.

WE HAVE TWO MAILING LISTS. AN OPEN MAILING LIST IS MAINTAINED FOR MEETING NOTICES AND MINUTES, AND AN INSTALLATION MAILING LIST IS MAINTAINED FOR MORE SENSITIVE DISTRIBUTIONS. WE HAVE AN INTERNAL SURVEY, WHICH HAS BECOME THE MODEL FOR THE SIG SURVEY. RESULTS OF THE SURVEY ARE ONLY AVAILABLE TO INSTALLATIONS SUBMITTING SURVEY FORMS.

MITLUG, LIKE MANY OTHER LUGS, IS A PDP-11 LOCAL USER GROUP, SO IN ADDITION TO RT-11, THERE ARE USERS OF RSX, DOS, UNIX, DELPHI, SPEX, BISON, AND OTHER OPERATING SYSTEMS.

REQUESTS

HENRY DARDY IS LOOKING FOR A VERY GOOD TWO DIMENSIONAL FAST FOURIER TRANSFORM TO RUN UNDER RT-11.

DO YOU KNOW ANY RT-11 USERS OF B.   KERNIGHAN'S (OF BELL LABS) STRUCTURED FORTRAN DIALECT RATFOR?

DOES ANYONE HAVE RT-11 WORD-PROCESSING SOFTWARE? FOR THE DIABLO 1620 DAISY-WHEEL PRINTER OR SIMILAR?

OUR LOCAL DISTRIBUTER HERE IS PRETTY OUT OF TOUCH, AND THEREFORE, SO ARE WE.   THANKS FOR YOUR HELP.

ALLAN M. SHIFFMAN
VALLENTINE, LAURIE DAVIES
P. O. BOX 2173
KUALA LAMPUR, MALAYSIA

HELP

SEVERAL USERS HAVE REQUESTED A TECHNIQUE FOR HAVING SEVERAL VIRTUAL DISKS ON A SINGLE PHYSICAL PACK. AN RT-11 DISK HANDLER RECEIVES A UNIT NUMBER ,U, AND A DISK ADDRESS. THE HANDLER THAN MANIPULATES THIS ADDRESS TO OBTAIN HEAD, CYLINDER, SECTOR VALUES CORRESPONDING TO THAT ADDRESS. THE TECHNIQUE I EMPLOY IS TO ALLOCATE A FIXED NUMBER OF CYLINDERS, N, TO EACH VIRTUAL UNIT. I THEN ADD $N*(U-1)$ TO THE CYLINDER NUMBER CALCULATED BY THE HANDLER. IF THE SYSTEM IS GIVEN THE VIRTUAL UNIT SIZE IN PLACE OF THE PHYSICAL UNIT SIZE, THERE WILL BE NO OVERLAP AND RT-11 WILL NEVER KNOW. SINCE THE TECHNIQUE FOR CALCULATION OF THE CYLINDER NUMBER VARIES WITH THE PHYSICAL DEVICE, AND SINCE THE MODIFICATION DESCRIBED IS ENTIRELY TRIVIAL TO IMPLEMENT, I HESITATE TO GIVE AN EXAMPLE. MY APPLICATION IS TO A DIVA DD-23 DISC HANDLER, SO WOULD NOT HELP SIGNIFICANTLY. CONTACT ME IF YOU STILL HAVE QUESTIONS.

TOM PROVOST

DLV-11 MODIFICATIONS FOR BUFFERED SERIAL PRINTERS

SUMMARY

This memorandum describes a means of modifying the DEC DLV-11 serial line interface so that it will respond to the busy signal generated by newer line printers. This can result in as much as a 90% reduction in CPU overhead associated with driving the line printer.

BACKGROUND

For many LSI-11 and PDP-11/03 users, the DLV-11 serial interface provides the only means of interfacing line printers. The DLV-11 is adequate for 'old style' units, but falls short of providing adequate control over the new breed of buffered serial printers, such as the DEC LA-180 and the Texas Instruments TI-810.

Both of these units, and others, provide an EIA status line, indicating a buffer full condition. Normally, in order to attain the full speed of these units, the printer is driven at a higher data rate than it is able to print at. The buffer full, or 'busy', signal is passed to bit 15 of the receiver status register, and is used by the device handler to enter a software wait mode when the device's buffer is full. When the printer is once again able to receive characters, the status of the busy line changes, is detected by the device handler, and data transmission resumes.

Such an approach is acceptable for strictly asynchronous processes. However, for systems operating in real time, supporting concurrent spooling, or other multi-tasking functions, the CPU overhead associated with having the printer device handler wait for the printer to become 'un-busy' can be intolerable. The higher the data transfer rate, the greater the amount of wasted CPU time.

This is the result of having the DLV-11 cause an interrupt as soon as it is ready to send another character, regardless of whether the printer is ready to receive it, and then causing the device handler to enter a wait loop until the device indicates its readiness by changing the busy line status.

MODIFICATIONS

Enclosed are copies of relevant circuitry for the DLV-11, with notations for a simple series of modifications that allow the buffer full signal to be used by the interface to delay the generation of the transmission ready interrupt.

The principle is to utilize the 'Data Set Ready' line, carrying the printer busy signal, as an input to the transmit ready circuitry. This is accomplished by ORing this line with the UART transmitt ready line. The result is that instead of interrupting whenever the UART is ready to send another character, the interrupt is generated when BOTH the UART and the printer are ready.

The procedure is as follows:

1. Cut pin 11 of chip E35 (Data Set Ready) from the circuit board. This will remove the line from the receiver status register bit 15 circuitry.

2. Solder a bridge between pins 11 and 12 of chip E23, compensating for the removal of the Data Set Ready line. The result is that a high Carrier OR Clear To Send will set bit 15 of the receiver status register. This can be used as an 'On-Line' indicator for the device handler.

3. Cut pin 6 of chip E23 from the circuit board, and wire a connection between the previously cut pin 11 from chip E35 and this pin 6 of chip E23. This will channel the Data Set Ready signal into the transmission ready circuitry.

Now when a high signal is provided to the Data Set Ready line, and the UART is ready to send another character, an interrupt will be generated. If the Data Set Ready line goes low, transmission ready and interrupts will be disabled.
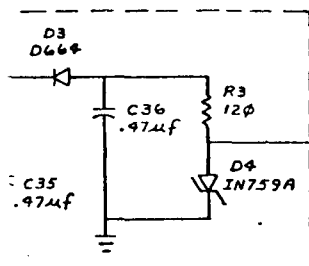
CAUTION

When using such a modified board with a terminal or printer not providing a busy line, it is essential to wire the Data Set Ready line high, or else transmit ready will never become true. Either the Request to Send or Data Terminal Ready line can be used for this purpose.

The Life Support Systems Group, Ltd
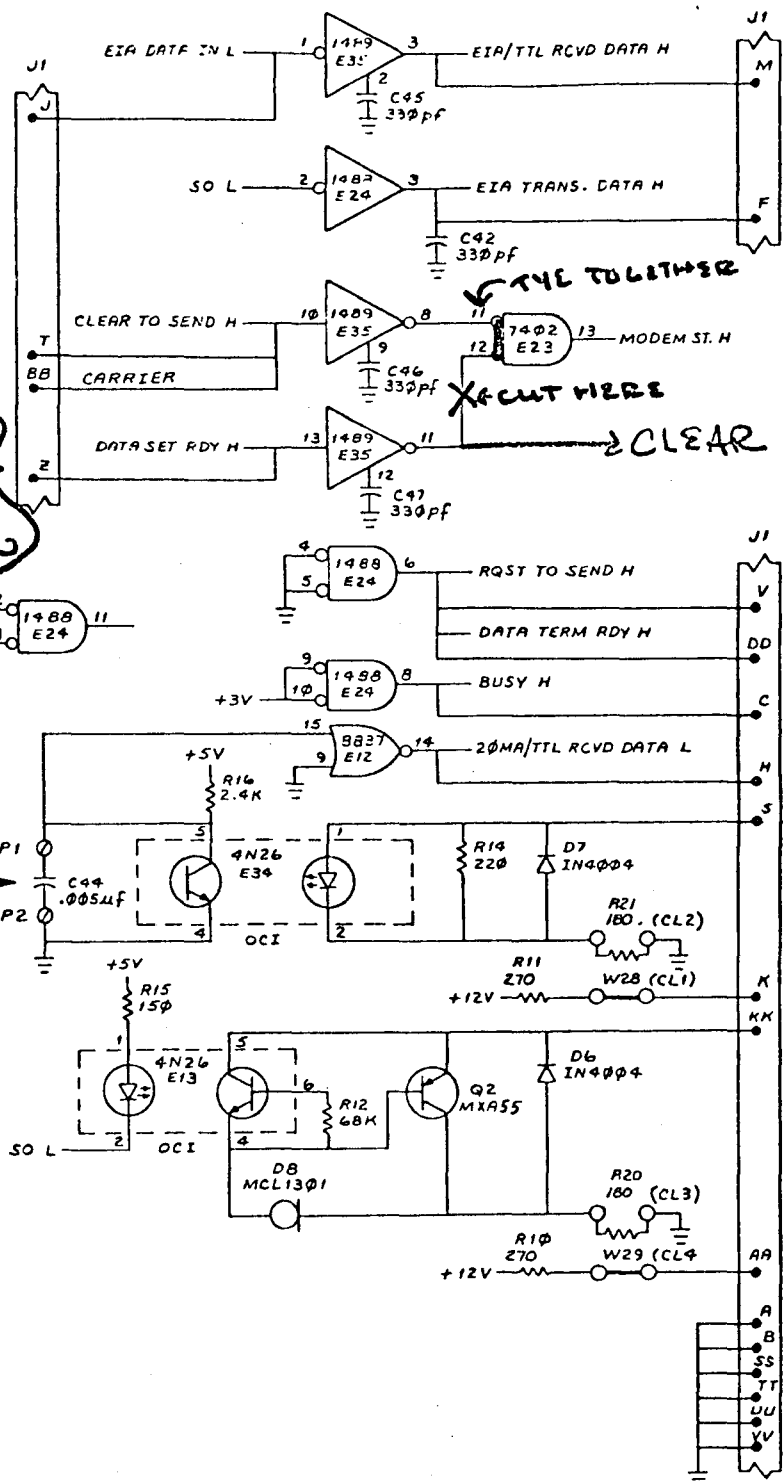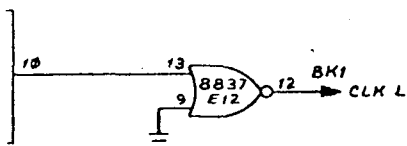2432 N.W. Johnson
Portland, Oregon 97210
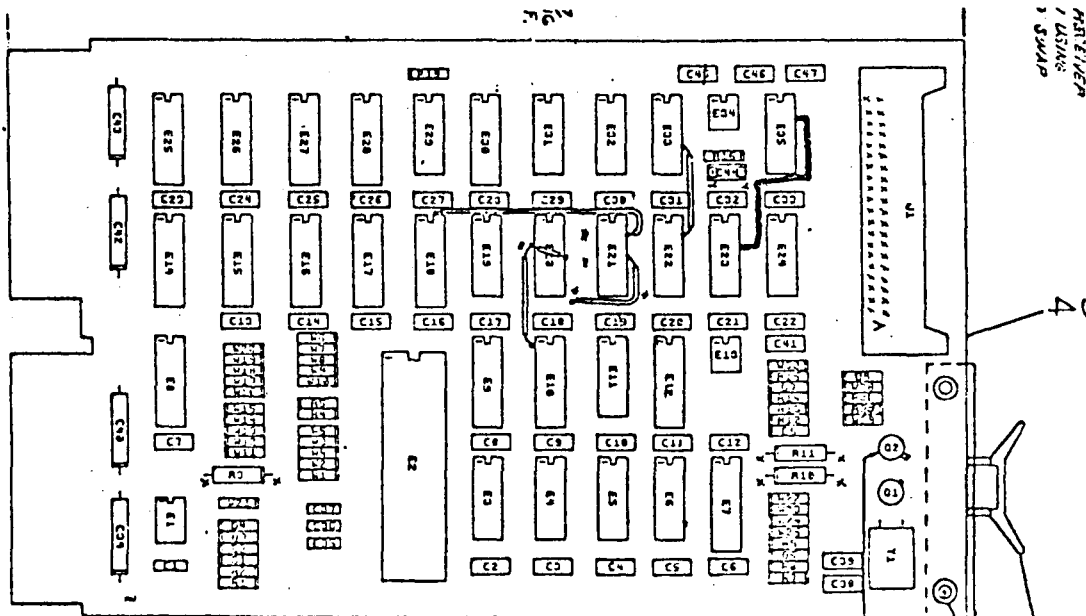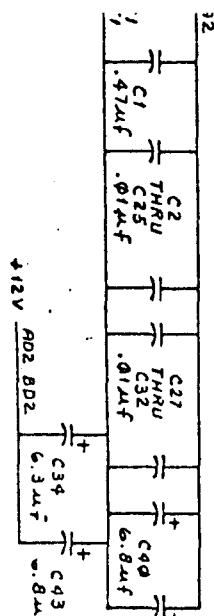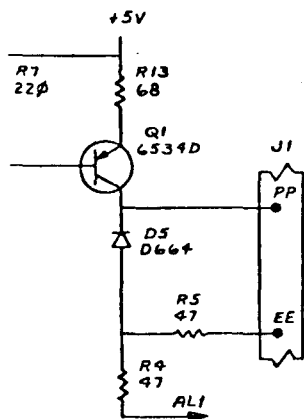
(PERIPHERAL & BAUD RATE LOGIC)

* SEE NOTE 2

TITLE	SIZE	CODE	NUMBER	REV
SERIAL LINE UNIT	D	CS	M7940-0-1	E

SCALE   SHEET   OF 5   DIST

(8)

8   7   6   5

8837
E12
DA H

SEL2 IN L — 18 — CLRR DONE   R DONE — 19
16 — STB STATUS   OR ERR — 15
4 — STBRD   FR ERR — 14
BLI   17 — RCLK   P ERR — 13
H

8881
E3
W21
(FEH)
API
B HALT L

J1
E

TTL SERIAL DATA IN L — 20 — SERIAL IN
HS UART
E2
RD7 — 5 — RD7 H
RD6 — 6 — RD6 H
RD5 — 7 — RD5 H
RD4 — 8 — RD4 H
RD3 — 9 — RD3 H
RD2 — 10 — RD2 H
RD1 — 11 — RD1 H
RD0 — 12 — RD0 H

RDAB 7 H — 33 — XD7
RDAB 6 H — 32 — XD6
RDAB 5 H — 31 — XD5
RDAB 4 H — 30 — XD4
RDAB 3 H — 29 — XD3
RDAB 2 H — 28 — XD2
RDAB 1 H — 27 — XD1
RDAB 0 H — 26 — XD0

SERIAL OUT — 25

SEL 6 OUT L — 23 — LDXD   XRDY — 22
CLK L — 40 — XCLK   EOC — 24
CLR LDC NB2 NB1 NP EP 2 SB
21 34 37 38 35 39 36

7410
E22
8881
E3
13

B DC OK H — 15
BAI
8837
E25
14
9

+3V
RDAB 0 H — 2 — D — 1 — 5 — BREAK H
7474
E5
SEL 4 OUT H — 3 — C — BREAK — 5
0 — 6
INIT L — 1

DC OK L

W4 (NB2)
W3 (NB1)
W1 (NP)
W5 (PEV)
W2 (2SB)

74S04
E4
3 — 4 — 5
CUT HERE
7402
E23
4 — TBMT H

CLEAR

AR2   AS2
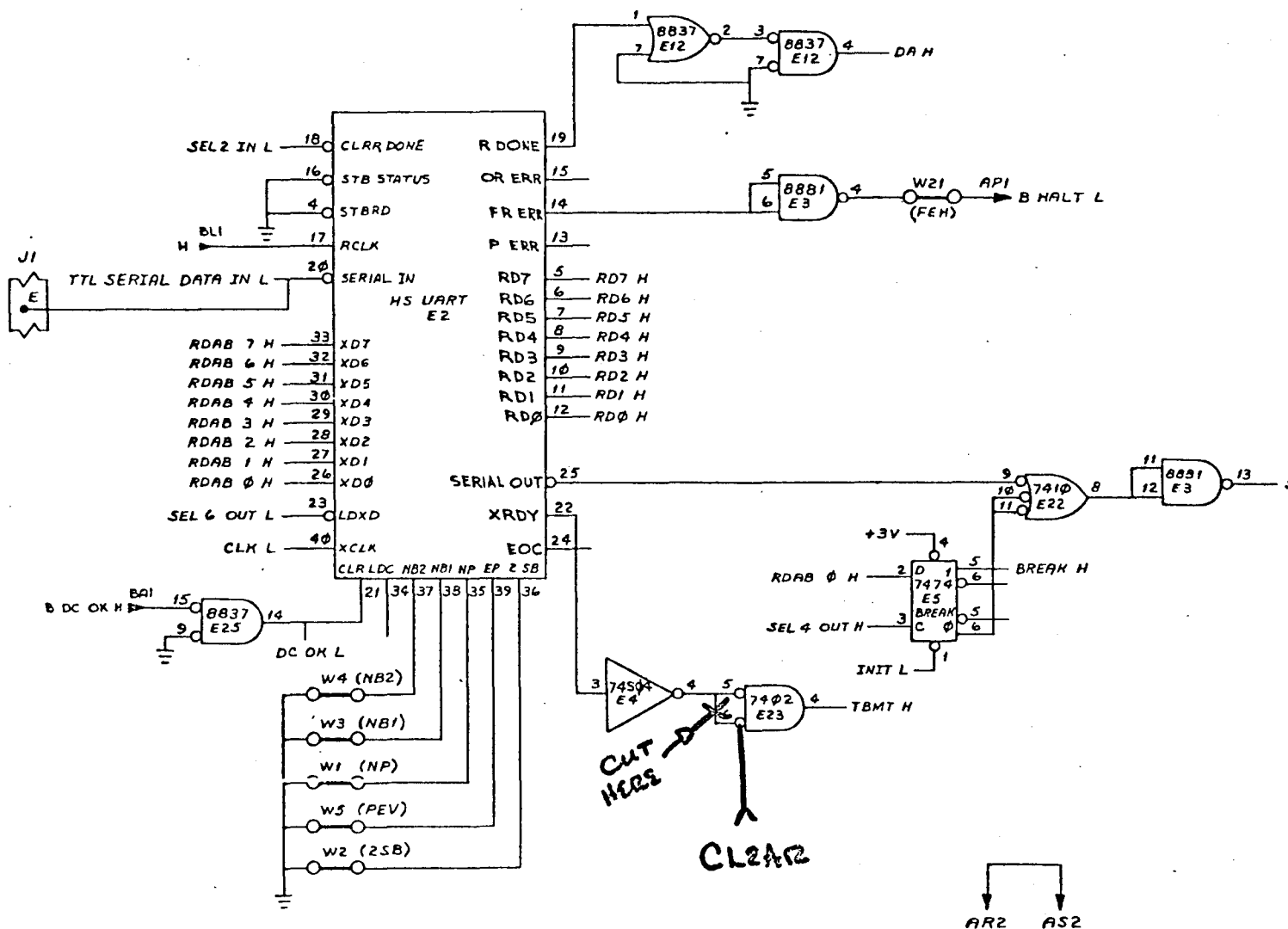
8   7   6   5

RT-11 as a task under RSX

There exists a modification of the RT-11 Monitor which allows it
to run as a task under RSX-11M. This version was originally
written by RT Development people as a prototype for a future
product. Although real-time applications and direct hardware
manipulation are not possible, this task is vary useful for host
support of program development for dedicated RT-11 systems.

The prototype was improved and documented by Gary Bernstein of
McGill University, in Montreal, Canada. The improved version
is available from the following sources:

CHESAPEAKE RT-11 LOCAL USER GROUP (old Wash. Area Group)
Contact: Henry Dardy
           Navel Research Laboratory
           Code 8133
           Washington, D.C.   20375
           (202) 767-3336

CHICAGO AREA LOCAL USERS GROUP FOR RT-11
Contact: Reid Brown
           Halgreen Drug Co.
           Intercom Project
           200 Wilmot Rd.
           Deerfield, Ill.   60015

SCURT (SOUTHERN CALIFORNIA USERS OF RT-11)
Contact: Mark Bartelt
           (213) 795-6811 ext 2663

It is hoped more distribution centers will arise.

Meanwhile back at the mill, the success of the prototype has re-
newed interest in the possible product, as indicated in the fol-
lowing quote from a letter from Richard Strauss, RT-11 Software
Product Manager, to the RT-11 SIG:

"In our current two year strategy there are funds assigned to the
development of an RT/RSX emulator. This particular product will
not only meet the needs of DECUS members, but seems to be an
integral part of our strategy. Work is not currently happening,
but planning is progressing in this area. A good guess would be
that such a product will exist in the one to two year time frame.

Being a large company with a changing business climate and evolving strategies, priorities change, things happen earlier than planned, some things are never done. As a policy Digital does not announce products until they are completed and in test. This goes for RT/RSX as well. All I can say, it is now planned.

My suggestion is that DECUS continue to distribute the best version available to them until we can announce its release as a product."

To insure continued development of this future product, interested users should contact me to indicate the extent of their interest.

Thomas J. Provost
MIT
P.O. Box 95
Middleton, MA   01949
(617) 245-6600

INSTALLATIONS

Experiences with TSX/RT-11

When our RT-11 system was originally configured two terminals were included – one to service the background and one to service the foreground – naturally. It very soon became apparent that the greater need was for more than one person to run background jobs at the same time. There just aren't that many jobs you can run in the foreground – particularly with a new installation.

Like others we considered REMOTE-11 - just for the multi-editing capability. The software cost seemed rather high for the limited advantages. It was thus that I went with great anticipation to a DECUS birds-of-a feather session on "multi-user RT-11" at the very grand indeed MGM grand hotel in Las Vegas.

Phil Sherrod described TSX to the gathered dozen hopefuls. As a DEC representative or two were there, there was a degree of shuffling and perhaps minor embarrassment, as a non-DEC commercial software pitch was on. Fortunately one user (a shill you say) was there who had TSX and had high praise for it. I left the meeting with the impression that TSX sounded good, but, after all, it wouldn't be supported by DEC.

A few months later, at the universities year end, there was, as sometimes happens, a small pot of gold to be spent. I decided to risk it. Yes, I ordered TSX cold - without finding out anything else about it - the queues for the lone background terminal were just too frustrating.

At the time TSX arrived our department had three DEC computers - two PDP-8's and the PDP-11. Six months later we had sold the two PDP-8's, had added a third terminal to the 11 and were thoroughly satisfied with TSX. Oh sure, there were problems. We reported them to the vendor and they were completely corrected and an update sent to us in 30 to 60 days. At present all bugs we encountered have been corrected and we simultaneous (3 terminals) run EDIT, TECO, MACRO, LINK, FORTRAN, BASIC, and FOCAL. The spooler works terrifically, users rarely know others are on, and advanced users love that virtual terminal capability. The purchase price of TSX would have been a bargain at triple the cost.

In short we're one satisfied customer. In case you're interested, TSX is available from:

S & H Computer Leasing Company
3709 Trimble Road
NASHVILLE, TN   37215
U.S.A.
PH: (615) 385-3875

It's well worth looking into. It's particularly nice that our users, who were familiar with RT-11, did not have to learn anything new to run TSX. To each user it looks just like RT-11.

Our PDP-11 installation consists of:

- PDP-11/34
- 32KW core memory
- DUAL RK05 cartridge disks
- DUAL RX11 floppy disks (on order)
- High Speed Paper Tape Reader/Punch
- L511 Centronics Printer
- AR11 Laboratory Peripheral
- Beehive CRT
- DECwriter
- Teletype

Stan Vivian
Department of Pharmacology
University of Manitoba
Faculty of Medicine
770 Bannatyne Avenue
WINNIPEG, Manitoba, Canada
R3E 0W3
PH: (204) 786-3642

BIOMEDICAL ENGINEERING UNIT
FACULTY OF MEDICINE
McINTYRE MEDICAL SCIENCES BUILDING   3655 DRUMMOND STREET, MONTREAL, QUE., CANADA   H3G 1Y6
McGILL UNIVERSITY

October 3, 1977

Mr. Tom Provost,
MIT/LNS,
Bates Linear Accelerator,
P.O. Box 95,
Middleton, MA
U.S.A.   01949.

Dear Tom:

As one of several installations who have an interest in
both RT-11 and RSX-11M, we have developed some very neat communication
software which allows us to run an RT-11 system with no system device
which communicates to the RSX-11M host. The user may do all normal
RT-11 program development and Fortran-type of applications including
I/O to the system disk. We have also developed a bootstrap (either
soft- or hardware loaded) which enables the RT-11 user running from
typically an LSI-11 to boot up as a virtual terminal to the RSX host,
or alternatively downline load a modified RT-11 system. We are
currently using the system in our lab and it has proven to be virtually
bug free and extremely cost effective. We are willing to make the
system available to educational and other non-profit institutions for
distribution costs. One time licensing fee for others is also available.
I would appreciate it if you could publish this information in the next
MINITASKER. Interested parties should contact either myself in the case
of education or non-profit institutions, or the Industrial Research Office
of McGill University, Montreal, Canada, for those who whish to purchase a
license.

Yours truly,

Gary Bernstein,
Manager,
Computer Systems.

(14)

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-----------------------------------------------------------------------
    QUESTIONAIRE - PLEASE FILL OUT AND RETURN
-----------------------------------------------------------------------
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THIS SECTION IS INTENDED FOR STATISTICAL INFORMATION. WE BELIEVE RT-11
APPLICATIONS SPAN THE MARKETPLACE IN TERMS OF SYSTEM SIZE, SYSTEM COST, AND
APPLICATION AREA. IF DIGITAL COULD BE CONVINCED OF THIS, WE MIGHT SEE RT-11
SUPPORT IN SUCH AREAS AS LARGE DISKS AND CPU'S.

1. INITIAL COST OF ALL EQUIPMENT IN CURRENT INSTALLATION   ($..........)
    INITIAL COST OF DEC EQUIPMENT IN CURRENT INSTALLATION   ($..........)

2. TOTAL COST OF ALL EQUIPMENT IN CURRENT INSTALLATION   ($..........)
    TOTAL COST OF DEC EQUIPMENT IN CURRENT INSTALLATION   ($..........)

3. TOTAL COST OF PLANNED EXPANSION FOR NEXT YEAR   ($..........)

    TOTAL COST OF PLANNED EXPANSION FOR NEXT 5 YEARS   ($..........)

5. ANNUAL COST OF HARDWARE MAINTENANCE   ($..........)

6. ANNUAL COST OF SUPPLIES   ($..........)

7. COST FOR ACQUISITION AND MAINTENANCE OF SOFTWARE FROM DIGITAL ($..........)

8. MANYEARS OF APPLICATIONS SOFTWARE TO DATE   ($..........)

9. MANYEARS OF APPLICATIONS SOFTWARE PLANNED   ($..........)

10. MANYEARS SPENT IN SUPPORT OF SOFTWARE FROM DIGITAL   ($..........)

11. INTEREST AREA (PRODUCT LINE)   (..........)
    1. COMMERCIAL   4. EDUCATIONAL   7. COMMUNICATIONS
    2. INDUSTRIAL   5. GOVERNMENT   8. ENGINEERING GRAPHICS
    3. LABORATORY   6. HOSPITAL   9. OTHER (LIST)   (..........)

(15)

THIS SECTION COMES IN PART FROM SCURT, THE SOUTHERN CALIFORNIA USERS OF RT-11.
IT IS A WISH LIST. PLEASE ALLOCATE POINTS TO EACH ITEM ACCORDING TO ITS
IMPORTANCE TO YOU. YOU HAVE 25 POINTS TOTAL. YOU MAY GIVE THEM ALL TO ONE ITEM
OF EXTREME IMPORTANCE TO YOURSELF, OR YOU MAY SPREAD THEM OVER A NUMBER OF ITEMS
YOU WOULD LIKE TO SEE IMPLEMENTED.

(POINTS)

(......) 1. AT PRESENT THE RT-11 MONITOR CAN ASSIGN BLOCK-REPLACEABLE DEVICES
             TO JOBS. WE WOULD LIKE THE CAPABILITY OF ASSIGNING ANY DEVICE
             (SUCH AS HARDWARE-MODE MT OR PAPER TAPE READER) TO A JOB.

(......) 2. EXPERT/NOVICE SWITCH OR SYSGEN OPTION ON COMMAND LANGUAGE, SO
             EXPERIENCED USERS CAN BYPASS VERBOSE COMMANDS AND TIME-CONSUMING
             CONFIRMATIONS.

(......) 3. SYSGEN OPTION TO ADD 1 WORD TO DIRECTORY ENTRIES AND TO UPDATE THIS
             WORD TO CONTAIN THE DATE OF LAST ACCESS.

(......) 4. REQUEST TO READ STATUS OF MAGNETIC TAPE DRIVE WITHOUT EXECUTING AN
             I/O COMMAND.

(......) 5. ADD COMMANDS TO PIP AND KMON TO ENABLE OPERATOR MANIPULATION OF
             MAGNETIC TAPE DRIVES (BACKSPACE, REWIND, ETC.   )

(......) 6. LINKER SHOULD PUT SYMBOL TABLE ON DISK IF NECESSARY.

(......) 7. SUPPORT AS AN OPTION, A LINKER WITH THE POWER OF THE RSX TASK
             BUILDER.

(......) 8. SUPPORT OVERLAYS TO EXTENDED MEMORY AS A LINK OPTION.

(......) 9. SUPPORT MEMORY RESIDENT OVERLAYS.

(......) 10 SUPPORT SHAREABLE MEMORY RESIDENT LIBRARIES.

(......) 11. SUPPORT DOS EDIT'S MARK FEATURE IN RT EDIT.   (ABILITY TO STORE
             VALUE OF POINTER FOR USE IN LATER COMMANDS.)

(......) 12. SUPPORT WILDCARD CHARACTER IN STRING SEARCHES IN RT EDIT.

(......) 13. SUPPORT A PAUSE FOR QUERY (/Q) FOR RT EDIT ITTERATIONS.

(......) 14. SUPPORT FOR MORE THAN ONE MACRO IN RT EDIT.

(......) 15. SUPPORT COMMON BLOCKS IN EXTENDED MEMORY.

(......) 16. SUPPORT INTEGER*4 IN FORTRAN ARITHMETIC STATEMENTS.

(......) 17. SUPPORT INCLUDE STATEMENT IN FORTRAN.   (INCLUDE STATEMENT WOULD BE
             REPLACED AT COMPILE TIME BY CODE IN FILE SPECIFIED.)

(. . . . . .) 18. SUPPORT REENTRANT SUBROUTINES AS A COMPILE TIME OPTION.

(. . . . . .) 19. SUPPORT OPTION FOR OPTIMIZING SPACE INSTEAD OF SPEED IN FORTRAN.

(. . . . . .) 20. SUPPORT EXTRACTION OF MODULE FROM LIBRARY.

(. . . . . .) 21. SUPPORT LOGICAL*2 TYPE IN FORTRAN.

(. . . . . .) 22. PERMIT O3 FORMAT OUTPUT OF BYTE VARIABLES IN FORTRAN.

(. . . . . .) 23. SUPPORT 1-BIT FILE PROTECTION. (COMMAND TO SET BIT FOR FILE WOULD
                    LOCK THAT FILE AGAINST DELETION UNTIL COMMAND TO UNSET IT.)

(. . . . . .) 24. LINKER SUPPORT FOR EXPLICIT ASYNCHRONOUS MANUAL OVERLAY.

(. . . . . .) 25. SUPPORT BREAK-THROUGH WRITE FEATURE.

(. . . . . .) 26. SUPPORT CAPABILITY FOR RUNNING PROGRAM TO DO SET OPERATION TO
                    IN-CORE HANDLER.

(. . . . . .) 27. ALLOW DIFFERENT MT DRIVES TO HAVE DIFFERENT CHARACTERISTICS AT THE
                    SAME TIME. (SOME INSTALLATIONS MIX 7 AND 9 TRACK DRIVES ON ONE
                    CONTROLLER.)

(. . . . . .) 28. SUPPORT WAITR TO TEST FOR CHANNEL DONE WITHOUT AWAITING CHANNEL
                    DONE.

(. . . . . .) 29. PERMIT FORTRAN OTS CODE TO LOAD IN OVERLAY REGION AS AN OPTION.

(. . . . . .) 30. PIP SUPPORT TO SUPPRESS TRAILING BLANKS AND CONVERT TABS TO
                    MULTIPLE SPACES AND BACK.

(. . . . . .) 31. FORTRAN OTS FUNCTIONAL SPEC MANUAL. (DOCUMENTATION PEOPLE PLEASE
                    NOTE THE RECURRENCE OF THIS REQUEST FOR ALL OPERATING SYSTEMS.)

(. . . . . .) 32. VERSION 3 LINKER GIVES OPTION OF LOADING CODE AT ADDRESS 2**N.
                    ADDRESS N*(32 WORDS) OR N*K WOULD BE MORE USEFUL AND MORE
                    MEANINGFUL.

(. . . . . .) 33. IN VERSION 3 ALL COMMON BLOCKS GO TO ROOT OF OVERLAY PROGRAMS.
                    COMMON BLOCKS SHOULD GO TO HIGHEST COMMON BRANCH OR THEY SHOULD GO
                    WHERE SPECIFIED IN THE LINK COMMAND.

(. . . . . .) 34. SUPPORT FILEX TO A SUBSET OF FILES-11 ON DISK.

(. . . . . .) 35. TECO

(. . . . . .) 36. RT AS A TASK UNDER RSX.

(. . . . . .) 37. REMOTE-11 TO AN RSX HOST.

(. . . . . .) 38. 11/70 SUPPORT.

(. . . . . .) 39. RK06 SUPPORT.

(17)

THIS SECTION COMES FROM THE DOCUMENTATION MANAGER IN
SMALL SYSTEMS PRODUCT DEVELOPMENT AT DIGITAL.

1. AS A USER, DO YOU FIND THE USER-ORIENTED HARDWARE
    AND SOFTWARE DOCUMENTATION ADEQUATE?   (. . . . .)

    EASY TO USE?   (. . . . .)

    WHAT COULD BE DONE TO IMPROVE IT? (. . . . .)

    (. . . . .)

2. DO YOU HAVE ANY PARTICULAR NEED FOR HARDWARE OR
    SOFTWARE INFORMATION WHICH IS NOT BEING MET?   (. . . . .)

    WHAT IS THAT NEED? (. . . . .)

    (. . . . .)

3. DO YOU CARE WHETHER A PRINT SET IS SHIPPED
    WITH YOUR SYSTEM?   (. . . . .)

4. DO YOU DESIGN HARDWARE MODULES AND/OR DEVICES
    USED ON SMALL PDP-11'S UNDER RT-11?   (. . . . .)
    IF SO, HAVE YOU ENCOUNTERED ANY PARTICULAR
    DIFFICULTIES?   (. . . . .)

    DESCRIBE THEM BRIEFLY. (. . . . .)

    (. . . . .)

5. DO YOU USE ANY OF THE DIGITAL PROCESSOR HANDBOOKS
    OR THE MICROCOMPUTER HANDBOOK ON A REGULAR BASIS?   (. . . . .)

    WHAT SORT OF DATA DO YOU WANT TO FIND IN THESE HANDBOOKS? (. . . . .)

    (. . . . .)

    HOW COULD THEY BE IMPROVED (. . . . .)

    (. . . . .)

6. DO YOU DO YOUR OWN MAINTENANCE?   (. . . . .)

    IF SO, IS DIGITAL DOCUMENTATION ADEQUATE?   (. . . . .)

    DO YOU KNOW WHERE TO ORDER MAINTENANCE DOCUMENTS?   (. . . . .)

THE SOFTWARE DOCUMENTATION TEAM FOR RT-11 HAS 15 QUESTIONS
ABOUT THE DOCUMENTS AND THE WAYS YOU USE THEM. WE THINK THE
MANUAL SET FOR RT-11 VO3 MARKS A REAL IMPROVEMENT IN THE
QUALITY OF THE DOCUMENTATION, PARTICULARLY IN THE NOVICE
USER AREA, AND WE HOPE YOU AGREE. THE RT-11 VO3 DOCUMENTA-
TION SET CONSISTS OF THE FOLLOWING MANUALS:

> RT-11 DOCUMENTATION DIRECTORY (DEC-11-ORDDB-A-D)
>
> RT-11 SYSTEM RELEASE NOTES (DEC-11-ORNRB-A-D)
>
> RT-11 SYSTEM GENERATION MANUAL (DEC-11-ORGMB-A-D)
>
> INTRODUCTION TO RT-11 (DEC-11-ORITA-A-D)
>
> RT-11 SYSTEM USER'S GUIDE (DEC-11-ORGDA-A-D)
>
> RT-11 SYSTEM MESSAGE MANUAL (DEC-11-ORMEB-A-D)
>
> RT-11 POCKET GUIDE (DEC-11-ORRCB-A-D)
>
> RT-11 ADVANCED PROGRAMMER'S GUIDE
> (DEC-11-ORAPA-A-D)

IF YOU HAVE SEEN OR USED ANY OF THE MANUALS IN THE RT-11 VO3
SET, PLEASE COMMENT ON THEM IN THIS SURVEY. HOWEVER, YOUR
COMMENTS ON THE V2C MANUALS WILL STILL BE VERY HELPFUL.

1. ARE YOUR COMMENTS ABOUT RT-11 V2C? ← OR RT-11 VO3? ←

THE SET OF MANUALS

2. DO YOU WANT A MASTER INDEX, A SINGLE VOLUME THAT INDEXES
ALL OTHER DOCUMENTS IN THE SET?

3. WHAT INFORMATION DO YOU THINK SHOULD BE COVERED IN A
SOFTWARE SUPPORT MANUAL?

4. DO YOU THINK AN INTRODUCTORY MANUAL FOR ADVANCED PRO-
GRAMMING WOULD BE USEFUL? TOPICS TO BE DISCUSSED COULD IN-
CLUDE, FOR EXAMPLE, RT-11'S PRIORITY STRUCTURE, SCHEDULING,
THE QUEUED I/O SYSTEM, SYNCHRONOUS VS. ASYNCHRONOUS I/O,
MANAGING FREE MEMORY, ETC.

5. HAS YOUR ORGANIZATION WRITTEN ANY DOCUMENTS ABOUT RT-11?

IF SO, HOW DO THEY FIT IN WITH DIGITAL'S SET?

YOU AND YOUR COLLEAGUES

6.   HOW DID YOU LEARN TO USE RT-11?

- FROM A COLLEAGUE?

- FROM REFERENCE MANUALS?

- FROM A COURSE?

7.   WHAT BACKGROUNDS DO THE REGULAR USERS OF RT-11 IN YOUR
ORGANIZATION HAVE?

- BUSINESS?

- MATHEMATICS?

- CLERICAL?

- NATURAL SCIENCES?

- HUMANITIES?

- SOCIAL SCIENCES?

- ENGINEERING?

- ARTS?

- COMPUTER SCIENCE?

- LAW?

- MEDICINE?

- OTHER?

HOW YOU USE RT-11

8.   WHAT IS YOUR PRINCIPAL APPLICATION FOR RT-11?

9.   DO YOU USE THE EXAMPLES IN THE MANUALS AS GUIDELINES TO
WRITE YOUR OWN COMMANDS OR CODE?

10. WHICH SYSTEM UTILITY PROGRAMS DO YOU USE MOST OFTEN? HAS SOMEONE IN YOUR ORGANIZATION WRITTEN A UTILITY PROGRAM THAT YOU USE FREQUENTLY? IF SO, PLEASE DESCRIBE IT.

11. DO YOU THINK THE RT-11 ERROR MESSAGES ACCURATELY DESCRIBE ERROR CONDITIONS? DO YOU THINK THE RECOMMENDED CORRECTIONS ARE ACCURATE AND COMPLETE?

12. HOW FREQUENTLY (IF AT ALL) DO YOU TRANSFER FILES BETWEEN RT-11 AND ANOTHER COMPUTER SYSTEM? WHAT IS THE OTHER SYSTEM?

13. WHAT ARE YOUR MOST COMMON USES OF A TEXT EDITOR?

14. WHICH TEXT EDITOR DO YOU USE MOST OFTEN, AND FOR WHAT KIND OF WORK?

SPRING DECUS - CHICAGO

15. WOULD ANYONE FROM YOUR ORGANIZATION ATTEND A SESSION (FORMAL OR OTHERWISE) ON RT-11 DOCUMENTATION? WHAT TOPICS WOULD YOU LIKE TO COVER AT SUCH A SESSION?

MANY THANKS! WE APPRECIATE YOUR TAKING TIME TO ANSWER THE QUESTIONS IN THIS SURVEY. WE WANT TO BE RESPONSIVE TO YOUR DOCUMENTATION NEEDS; YOUR ANSWERS TO THESE QUESTIONS WILL HELP US TO DO THAT.

THE FOLLOWING QUESTIONS ARE INTENDED FOR USERS WHOSE APPLICATIONS
ARE NOW OR COULD POSSIBLY BE DEVELOPED UNDER AN OPERATING SYSTEM
OTHER THAN THE ONE UNDER WHICH THEY RUN.   REFERENCES TO NON-RT-11
APPLICATIONS ARE INCLUDED FOR COMPLETENESS.
+-+

BRIEFLY, WHAT IS YOUR APPLICATION?

DOES IT RUN ON MORE THAN ONE OPERATING SYSTEM? IF SO, WHICH?

WOULD YOU LIKE IT TO RUN ON ANOTHER OPERATING SYSTEM?   IF SO, WHICH?

DO YOU EXPECT YOUR APPLICATION TO GROW? HOW? (E.G. MORE COPIES OF IT,
MIGRATE UP TO FASTER/BIGGER COMPUTER OR MORE POWERFUL OPERATING SYSTEM, ...)

DO YOU HAVE A NEED TO DO PROGRAM DEVELOPMENT ON AN OPERATING SYSTEM
THAT IS DIFFERENT THAN YOUR RUN-TIME OPERATING SYSTEM?

WHAT IS YOUR RUN-TIME OPERATING SYSTEM? (RT-11, RSX-11S, STAND-ALONE)

WHAT DO YOU CURRENTLY USE AS YOUR DEVELOPMENT SYSTEM? (RT-11, IAS,
RSX-11M, RSX-11D, RSTS, ...)

HOW OFTEN ARE FILES MOVED BETWEEN SYSTEMS?

AT WHAT LEVEL ARE FILES MOVED? (E.G. SOURCE, OBJECT, SAVE, DATA)

WHAT SIZE FILES ARE MOVED?

HOW MANY FILES ARE MOVED AT ANY GIVEN TIME?

WHAT MEDIA IS USED TO MOVE FILES? WOULD YOU PREFER TO USE A
DIFFERENT MEDIA? IF SO, WHY CAN'T YOU?

IS SUPPORT OF A CONVERSION UTILITY ADEQUATE FOR TRANSFERRING FILES?
(E. G. RSX'S FILEX, RSTS'S RTPIP, ...)

MUST YOU BE ABLE TO DIRECTLY ACCESS, FOR EXAMPLE, AN RT-11
FILE ON AN RT-11 VOLUME ON YOUR DEVELOPMENT SYSTEM? (I.E. DIRECT
ACCESS TO A RUN-TIME SYSTEM'S VOLUME ON DEVELOPMENT SYSTEM,
NOT THROUGH A CONVERSION UTILITY.)

WHAT LANGUAGE ARE YOUR APPLICATIONS PRIMARILY WRITTEN IN?

WOULD YOU PREFER TO BE USING ANOTHER LANGUAGE? IF SO, WHICH?

WHAT LANGUAGE SUPPORT DO YOU NEED ON YOUR RUN-TIME SYSTEM?

IS RUN-TIME ONLY LANGUAGE SUPPORT SUFFICIENT FOR YOUR RUN-TIME SYSTEM,
OR IS COMPILATION/ASSEMBLY REQUIRED?

WHAT SUPPORT DO YOU REQUIRE ON YOUR DEVELOPMENT SYSTEM:
        EDIT ONLY
        EDIT AND COMPILE/ASSEMBLY
        EDIT, COMPILE/ASSEMBLY, AND DEBUG

IS IT IMPORTANT THAT YOUR DEVELOPMENT AND RUN-TIME SYSTEMS LOOK THE SAME:
        CONSOLE COMMAND LANGUAGE (Y/N)
        UTILITIES (Y/N)
        LANGUAGES (Y/N)
        DEBUGGERS (Y/N)
        OTHER

HAVE YOU DEVELOPED ANY SOFTWARE TOOLS TO AID YOU IN DOING DEVELOPMENT
ON ANOTHER SYSTEM? IF SO, PLEASE DESCRIBE BRIEFLY.

WHAT WOULD BE THE IDEAL DEVELOPMENT ENVIRONMENT FOR YOUR APPLICATION?

IF YOU WERE PROVIDED WITH EMULATION OF YOUR RUN-TIME SYSTEM ENVIRONMENT
ON YOUR DEVELOPMENT SYSTEM, SHOULD FILE ACCESS BE TO RUN-TIME FORMAT
FILES AND VOLUMES, OR TO DEVELOPMENT SYSTEM FILES AND VOLUMES FOR LATER
CONVERSION TO RUNTIME FORMAT?

WHAT SOFTWARE DO YOU REQUIRE AT RUN-TIME? (ISAM PACKAGE, COMMUNICATIONS
PACKAGE, GRAPHICS, ...)

THE FOLLOWING QUESTIONS DEAL WITH COMMUNICATIONS SUPPORT.
+-+

DOES YOUR APPLICATION COMMUNICATE WITH ANOTHER COMPUTER?

WHAT IS THE OTHER COMPUTER?

HOW OFTEN DO YOU COMMUNICATE WITH THE OTHER SYSTEM? (I.E. ARE
COMMUNICATIONS BATCH'ED TO THE OTHER SYSTEM WHEN YOUR
APPLICATION IS NOT RUNNING? ARE YOU ALWAYS ON-LINE TO THE
OTHER SYSTEM? ...)

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WHAT SOFTWARE HANDLES THE COMMUNICATION ON THE TWO ENDS OF THE
COMMUNICATIONS LINK?

WHAT PROTOCOL DO YOU USE?   WHY?

WHAT KIND OF DATA DO YOU TRANSMIT? (ASCII RECORDS, BINARY NUMBERS, ...)

WHAT IS THE UNIT OF DATA TRANSMISSION? (RECORD, BLOCK, FILE)

DO YOU SHARE THE COMMUNICATIONS LINE?   HOW?

IS YOUR APPLICATION LOADED DOWN A COMMUNICATIONS LINE TO
THE RUN-TIME SYSTEM?   IF SO, WHAT SOFTWARE DOES THE TRANSMISSION?

WHAT SORT OF GENERALIZED COMMUNICATIONS PACKAGE COULD YOUR
APPLICATION MOST BENEFIT FROM?

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