

**RT-11**

December 1978

AD-C740B-B8

**THE  
SOFTWARE  
DISPATCH**

**digital**  
**SOFTWARE SERVICES**  
OPERATIONS GROUP

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## RT-11 SOFTWARE DISPATCH

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The RT-11 Software Dispatch complements the RT-11 V3B Software Dispatch Review. It publishes new and revised Software Product Descriptions, programming notes, software problems and solutions, and documentation corrections. Much of the material is developed from answers to customer Software Performance Reports (SPRs) significant to the general audience, and is printed here to establish a reference notebook for the customer's software interests.

### PRODUCTS SUPPORTED in the RT-11 SOFTWARE DISPATCH

APL-11 V1	FORTTRAN GRAPHICS PKG V1.1	MSB/FORTTRAN IV V1
BASIC/RT-11 V2	FORTTRAN/RT-11 Extensions V1B	MU BASIC/RT-11 V1
BASIC/RT Extensions V1	FORTTRAN/RT-11 LSI Extensions V1	PDL/RT-11 V1
COS-350/2780	FORTTRAN IV/RT-11 V2	PEAK-11 V2
CTS-300 V3, V4	GAMMA-11 F/B V2, V2C	PLOT-11/RT-11 V1.1
CTS-300 DICAM V1	INDUSTRIAL BASIC/RT-11 V1	RT-11/03 FORTRAN Extensions V1
CTS-300 DICAM II V1	LA-11 V3	REMOTE/RT-11 V1
CTS-300/DIS V1	LSP-11 V1	RT-11 V3, V3B
DECnet/RT-V1	LV11/RT-11 Plotting Pkg.V2	RT-11(CTS-300)LSI-11 2780 V2
FOCAL/RT-11 V1B	MSB11-V1	RT-11/2780 V2
	SSP-11/RT-11 V1	

### DISTRIBUTION

The Dispatch is directed to one software contact for each licensed Category A and B software product for one year after installation. No mailing will be made to addresses without a software contact name. Address changes and requests for information about maintenance service after the first year should be sent to the nearest DIGITAL Field Office. For address changes, include the new address and mailing label from the most recently received publication.

Software binaries and sources are provided only under licenses. The standard Terms and Conditions, OEM Agreement, and/or Quantity Discount Agreement contain the licenses for all binaries other than for DECsystem-10.

Eleanor F.Hunter, Editor  
Roxanne Alexander, Associate Editor

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### TRADEMARKS of DIGITAL EQUIPMENT CORPORATION Maynard, Massachusetts

COMPUTER LABS  
COMTEX  
DDT  
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DECCOMM  
DECsystem-10  
DECtape  
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FOCAL  
INDAC  
LAB-8  
MASSBUS  
UNIBUS

OMNIBUS  
OS/8  
PDP  
PHA  
RSTS  
RSX  
TYPESET-8  
TYPESET-11

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**USER LETTER**  
**Jan Fair, SPR Administration**

Customers (and others) have brought to our attention the need for additional information regarding SPR service, particularly as it involves SPR Administration. The following represents our attempt to fulfill this need. Your comments and suggestions are most welcome.

**HOW TO MAKE THE BEST USE OF SPR FORM**

**What WE Can Do for YOU**

1. Blank SPR forms are available upon request in the desired quantities through SPR Administration (P.O.Box F) and your local office/SPR Center.
2. Copies of the SPR acknowledgment and answer are sent to the appropriate DIGITAL Office/SPR Center for their information.
3. SPRs marked *SOFTWARE ERROR* or *INQUIRY* will have a response for supported Category A and B products. These SPRs should refer to suspected deficiencies in the software.
4. SPRs marked *FYI* or *SUGGESTION* are forwarded to the pertinent software group for information purposes, and are responded to at their discretion.
5. SPRs marked *DOCUMENTATION ERROR* should report those problems dealing with software manuals or newsletters, and will be forwarded to the pertinent software group.

**What YOU Can Do For US**

1. Customer Name and Address and Problem Statement should always be typed or printed clearly.
2. SPRs should not be used for problems concerning software policy, software distribution, or hardware. Your local office should be contacted in these cases.
3. It would be most helpful to all concerned, if problems with patches are reported as soon as possible.
4. For security SPRs, it is imperative that the *DO NOT PUBLISH* box be marked.
5. It would be helpful if tapes submitted with SPRs are labeled (track and density), and have a directory attached.
6. Should you ever receive an unacceptable SPR response, please contact us or the appropriate SPR Center so that the response may be readdressed.

## ANNOUNCING CTS-300 VERSION 5

To continue its timely support of new hardware, CTS-300 Version 5 is now available from the SDC (Software Distribution Center) as of November 1978. Version 5 runs under the recently released RT-11 V3B. With the V05 release, all previous versions will no longer be available. Support for Versions 3, 3.5, 4, and V04 Base Level 2 will continue for 90 days following the release of V05. Licensed users of versions 3, 3.5, 4, and V04 Base Level 2 may receive the update (V05) to CTS-300 in one of the following ways:

### Support Status

### Action

#### In Warranty

One-year software warranty in effect when CTS-300 V05 is released.

Order CTS-300 V05 In-Warranty Update Kit. (QJ354-W )

#### Out of Warranty

a. One-year Post-warranty Binary Program Update Service is in effect when CTS-300 V05 is released.

Your Update has been prepaid as part of your service. CTS-300 V05 will be sent to you automatically.

b. No service in effect.

Order CTS-300 V05 Post-Warranty Update Kit. (QJ354-H )

Your Software Dispatch mailing label displays the expiration date of your service and the option (Q) number of your present software service. The following example will enable you to determine your Support Status.

#### SOFTWARE DISPATCH LABEL--EXAMPLE

```
MAYN000000    FEB79    B3    Q###3#    1
JOHN DOE
DIGITAL EQUIPMENT CORPORATION
129 PARKER ST.
MAYNARD, MA 01754                                01754
```

If the sixth figure (boxed) of your "Q-number" is a "3," follow the Out-of-Warranty action a. (above)

Any other figure in that position indicates that you must order an update kit. Your expiration date will determine whether you should order an In or Out of Warranty Update Kit.

For specific price and order information, contact your local DIGITAL Field Office. Version 5 will be distributed on RX01, RK05, RL01, RK06, and RK07.

The primary goals of CTS-300 V05 are to support new hardware devices and provide multiterminal support for TSD under the Single-Job monitor. Additionally, DECFORM output is faster.

With Single-Job multiterminal support, the system overhead is comparable to that found in Versions 3 and 3.5.

#### **NEW DEVICE SUPPORT**

CTS-300 supports (via RT-11 V3B) two new mass storage devices:

##### **RL01 Disk**

CTS-300 supports the RL01 disk as a storage medium and as a system device. The RL01 is a removable cartridge disk that offers five megabytes of storage.

##### **RK07 Disk**

CTS-300 supports the RK07 cartridge disk as a storage medium and as a system device. The RK07, a removable cartridge disk with 28 megabytes of storage, uses the same RK611 controller as the RK06 disk. Programmed request allows programs to distinguish between the two devices on the one controller. Both RK06 and RK07 drives can be on one controller.

##### **New Line Interface**

RT-11 multiterminal support includes support for the DZV11 asynchronous four-line multiplexer for the LSI-11 microcomputer (RT-11 supports one DZV11).

#### **NEW SYSTEM UTILITY PROGRAMS WITH RT-11 V3B**

Two system utility programs, RESORC and FORMAT, are new with RT-11.

##### **RESORC Utility Program:**

The RESORC program examines the currently running RT-11 system and displays useful information about the status of the monitor, devices, terminals, and the system configuration.

##### **FORMAT Utility Program:**

The FORMAT program writes headers for RK05 disks. It can format an RK05 disk in any unit (0-7) of the device. Formatting an RK05 disk takes approximately 25 seconds.

This program replaces the CTS-300 V4 RKFMT program.

FORTTRAN IV V2.1 MAINTENANCE RELEASE (RB)

FORTTRAN IV V2.1 is a maintenance release for RSTS/E and RT-11 systems. The primary goal of this release is enhanced product quality, which is reflected by the following major features:

- o a new, simplified installation procedure for use on RT-11 systems.
- o full support for stand-alone FORTRAN (SIMRT)
- o corrections to problems encountered in V2.04 that relate to in-line code generation
- o corrections to V2.04 problems with the OPEN/CLOSE statements

In addition, all other significant problems in Version 2.04 have been fixed. At this time, the only known restrictions are:

- o function definitions require statements of the form  
REAL FUNCTION F\*4 (A)  
rather than the alternate form  
REAL \*4 FUNCTION F (A)
- o ASCII null characters cannot be output to a terminal.
- o SIMRT: the real-time clock must be disabled when running stand-alone FORTRAN programs from PROM.
- o RT-11 specific restrictions:
  - Restart of the FORTRAN compiler and FORTRAN programs does not operate correctly.
  - When CALL ASSIGN is used to request a file name under the F/B monitor, a CTRL/F must be typed before entering the file name.
- o RSTS/E specific restrictions:
  - An explicit terminal reference in a file name (e.g. KB2:) does not operate correctly; the users terminal KB: is used instead.
  - The DISPOSE = 'PRINT' or 'DELETE' parameters in the OPEN/CLOSE statements do not work; the file is always saved.

FORTTRAN IV/RT-11 V2.1

Seq 1 N  
2 of 3

FORTTRAN IV V2.1 for RSTS/E and RT-11 is now available from SDC. The ordering information below details the license and media options. Please refer to your sales representative for current prices.

RT-11 ORDERING INFORMATION

Single-use binary license, binaries and documentation with support services

QJ813-A\_ media available are : DECTape; 9-TK Magtape; RK05, RL01, RK06, and RX01 disks.

Single-use binary license, binaries and documentation with no support services

QJ813-C\_ media same as QJ813A\_ above.

Single-use binary license only - no binaries, documentation or support services

QJ813-DZ

Single-use source license, sources - no documentation or support. Requires a supported binary license as a prerequisite.

QJ813-E\_ media available are: 9-TK Magtape; RK05, RL01, and RK06 disks; microfiche.

Documentation kit only

QJ813-GZ

Out-of-warranty binary update option for V1C and V2 customers. Binaries and documentation only - no support.

QJ813-H\_ media same as QJ813-A\_ above.

Out-of warranty source update option for V1C and V2 customers. Source only - no documentation or support.

QJ813-N\_ media available are 9-TK Magtape; RK05, RL01 and RK06 disks.

In-warranty binary update option for V1C and V2 customers. Binaries and documentation only - no support.

QJ813-W\_ media same as QJ813-A\_ above.

RSTS/E ORDERING INFORMATION

Single-use binary license including binaries documentation and support services.

QR435-A\_ media available are: 9-TK and 7-TK Magtape, RK05, RL01, RK06, and RK07 disks.

Single-use binary license including binaries, documentation with no support services.

QR435-C\_ media same as QR435-A\_ above.

Single-use binary license only - no binaries, documentation or support services.

QR435-DZ

Documentation kit only

QR435-GZ

Out-of-warranty binary update option for V1C and V2 customers. Binaries and documentation only - no support services.

QR435-H\_ media same as QR435-A\_ above.

In-warranty binary update option for V1C and V2 customers. Binaries and documentation only - no support services.

QR435-W\_ media same as QR435-A\_ above.

MU BASIC-11/RT-11 V2 RELEASE NOTES AND INSTALLATION GUIDE CHANGES (CF)

- 1.0 Two RT-11, V3B patches were omitted from the V2 Release Notes (AA-H017A-TC). These patches must be installed.
- 1.1 "SJ TIMER SUPPORT" source patch as published in RT-11 Software Dispatch AUG 78, PAGE 72
- 1.2 "TERMINATING CONSOLE OUTPUT" - Source Patch as published in RT-11 Software Dispatch AUG 78, PAGE 79
- 2.0 These patches must be applied in addition to the RT-11 patches provided in the MU BASIC-11 V2 Release Notes. The patches have no effect on MU BASIC operation per se, but they are needed:
  - a) to increment edit levels so that the patches provided in the release notes may be applied as is.
  - b) because later patches are dependent on all previous ones.
- 3.0 Mechanics of Patching
  - 3.1 Follow the instructions in the Release Notes until you reach pages 12/13, "FIXES FOR TWO FB/XM PROBLEMS IN V03B".
  - 3.2 Install "SJ TIMER SUPPORT".
  - 3.3 Install "FIXES FOR TWO FB/XM PROBLEMS IN V03B".
  - 3.4 Install "TERMINATING CONSOLE OUTPUT".
  - 3.5 Continue with the Release Notes procedure on page 14.
- 4.0 Note that to keep the edit level in step in future the normal RT-11 patching procedure must be followed - which is to apply all patches in sequence.
- 5.0 Please note the following three print errors in the MU BASIC-11 V2 Release Notes, Page 7:
  - 5.1 The line beginning:  
\*EBRMONEB .....  
should read  
\*EBRMONFB .....

- 5.2 The line beginning:  
\*EC\$SIGN .....  
should read  
\*FC\$SIGN .....
- 5.3 The line:  
.IF FQ MTT\$Y  
should read  
.IF EQ MTT\$Y
- 6.0 The Release Notes have been republished to reflect the above changes. The re-order document number is AA-H017B-TC. All future MU BASIC-11/RT-11 V2 kits will include the new version of the Release Notes. (To order the new version contact your DIGITAL sales representative.)
- 7.0 The Installation Guide has been revised to reflect changes and correct errors. The re-order document number is AA-H038B-TC. All future MU BASIC-11/RT-11 V2 kits will include the new version of the Installation Guide. (To order the new version contact your DIGITAL sales representative.)

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RT-11 V3B  
RT-11 SYSTEM GENERATION MANUAL

Seq 3 N  
1 of 5

UPDATE PAGES (JS)

This article contains update pages for the RT-11 System Generation Manual. The update pages clarify procedures for installing RT-11 on RX01 and on magtape.

## GETTING STARTED WITH RT-11

Installing RT-11 on a particular configuration involves the following logical steps:

1. Bootstrapping the distribution medium.
2. Preserving the distribution medium by making a copy.
3. If the system device is the same as the distribution device, building a working system volume by deleting unwanted components from the copy and customizing the system for the particular installation.
4. If the system device is not the same as the distribution device, building a working system volume by transferring the relevant components to the system volume and customizing them for the particular installation.
5. Preserving the working system on a backup volume so that you need not repeat this procedure every time you reinitialize the system.

The discussion generally describes the logical operation that you are performing, followed by specific commands that perform that operation. If you wish to follow this material in a step-by-step format, you can enter the commands literally for the desired result. An understanding of what operations you are performing, and why, is important, however, because such an understanding better prepares you for dealing with error conditions and requirements specific to your installation. If you understand how the system works, you can substitute any command that has the desired result for any of the commands given below. The essential aspect is to complete all the logical steps discussed.

The commands and options used are given in their full form; you can abbreviate them. Default devices and file types are used explicitly; you can eliminate them.

### 2.2.1 Bootstrapping the Distribution Medium

If the distribution medium is disk, diskette, or DECTape, you can bootstrap the system directly and use it to copy the distribution volume. (In the following sections, the term "disk" is used to mean both cartridge disks and flexible diskettes.) Stop the processor to halt any previous program that is running, mount the distribution volume (the first volume, if you have a set of diskettes) in Unit 0, WRITE PROTECTED if possible, and proceed to Section 2.2.1.2.

If the distribution medium is magtape, you must build a minimal system on the system disk before you can copy the distribution tape. Proceed to the next section.

**2.2.1.1 Booting the Distribution Magtape** - Mount the RT-11 system magtape #1 on unit 0, ensuring that no write ring is inserted in the back of the tape reel. Ensure that the magtape is positioned at the load point; if it is not, manually position it.

#### NOTE

Magtape distribution kits contain two magtapes. Magtape #2 contains the RT-11 source files as well as the error

SPR 11-20484/RT147

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RT-11 V03B-00  
Utilities  
EDIT.SAV V04.02

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Page 1 of 1

EDIT ESCAPE CODE CORRECTION (SPR 11-20484 JM)

If EDIT is patched for a non-standard escape code, the inserted escape code is echoed instead of the "\$" echo. The following patch to EDIT will correct this problem.

This patch should be inserted only if a non-standard escape code is used as documented in Section 2.4.8.2 of the RT-11 System Generation Manual.

```
.R PATCH <RET>

FILE NAME--
*EDIT.SAV/C <RET>
*7620/ 2072 2031 <RET>
*E

Checksum? 52273 <RET>
```

This patch does not affect the version number.

RT-11 SOFTWARE DISPATCH  
CUMULATIVE INDEX  
DECEMBER 1978

This is a complete listing of all articles for current versions of RT-11 and related products. In the case of subordinate software, missing sequence numbers may pertain to problems unique to interaction with previous versions of the same product.

**IMPORTANT!**

Retracted articles are indicated: RETRACTION.

Flags are currently being installed for all articles. The flags and definitions are as follows:

M = Mandatory patch. These are critical patches which each customer is required to install.

O = Optional patch. These articles are applicable only if the reported problems have occurred at the customer site or if they are unique to his operation.

R = Restriction. These problems are not patchable in released software. Restrictions are reviewed and corrected when possible as part of the normal release cycle.

N = NOTE. This information may be helpful to the user.

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
<b>APL-11 V1</b>		
<b>APL.SAV PROGRAM PATCHES</b>		
ERRONEOUS "DEFINITION ERROR" DURING FUNCTION EDITING	01 M	Nov 77
LOSS OF LOWER-CASE ON RE-ENTRY TO APL-11	02 M	Nov 77
APL WORKSPACE	03 R	Nov 77
"SYSTEM ERROR" S GENERATED BY NULL LINE ELEMENTS	04	Dec 77
INTERNAL MEMORY ALLOCATION PROBLEMS	05 M	Dec 77
ERROR FOR SCALAR RESULT OF DECODE OR INNER PRODUCT OPERATION	06 M	Feb 78
SYSTEM ERROR ON PARAMETER RETURN	07 M	May 78
<b>BASIC-11/RT-11 V2</b>		
RESEQUENCE PRODUCES AN INCORRECT PROGRAM UNDER CERTAIN CONDITIONS	01 M	Aug 78
PRINT USING	02 M	Jun 78
MAX SIZE OF LINE ENTERED TO BASIC-11	03 M	Jun 78
REM STATEMENT CONTAINING LEFT PARENTHESIS CAUSES SUBSEQUENT SPACES AND PERIODS TO BE REMOVED	04 R	Jun 78
RUN (NH) COMMAND MAY GIVE AN ERROR MESSAGE	05 M	Jul 78
TERMINAL MAY HANG	06 M	Jul 78
DATA FILES	07 M	Jul 78
SAVE DEV: AND REPLACE DEV:	08 M	Jul 78
SINGLE PRECISION HANG AND NUMERIC CONVERSION PROBLEM (PATCH F)	09 M	Aug 78
CONVERSION PROGRAM	10 M	Sep 78
OVERLAYING WHILE IN A SUBROUTINE	11 R	Nov 78
OPERATION OF CTRL/C, AND RCTRL/C AND SYS (6) FUNCTIONS AND THE CTRL/C COMMAND	12 N	Nov 78
<b>BASIC/RT-11 EXTENSIONS V1</b>		
"IPK" SUBROUTINE	01 M	Aug 77
SAMPLING A/D CHANNEL NO. 15	02 R	Aug 77
SAMPLING AR11	03 M	Sep 77
"CLRD" AND "PUTD" ROUTINES	04 M	Nov 77
"SETR" AND "WAIT" COMBINATION MAY FAIL	05	Apr 78
<b>CTS-300 V3</b>		
CTS-300 V03 RELEASE NOTES	01	Apr 77
USE OF RSTAT WITH ISAM FILES	02 R	Aug 77
PATCH NUMBERS AND TITLES	03	Nov 77
<b>DECFORM</b>		
DECFORM ERRORS	01	Apr 77
REPLACEMENT PAGES	02	Apr 77

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
SEARCHMODE AND RENAM PROBLEM - NEW VERSION NUMBER	03	Jun 77
EXTRA CHARACTERS AT STATEMENT END	04	Jun 77
FOCOMP INCORRECTLY ALLOCATES AN EXTRA CHARACTER	05	Nov 77
REPLACEMENT PAGES	06	Aug 77
DECFORM RESTRICTIONS	07	Sep 77
CONDITIONAL GOTO AND CONDITIONAL SKIP	08	Oct 77
DECFORM PROBLEMS AND RESTRICTIONS	09 R	Nov 77
HANG ON EXIT	10	Jan 78
TWO PROBLEMS IN FOCOMP	11 M	Feb 78
EOF AFTER CHANGED RECORD	12 M	Mar 78
LOST RECORD ON DUPLICATE KEY	13 M	Apr 78
MESSAGE FOR SPEED READERS	14 M	Apr 78
EXCITING DECFORM VIA FIVE-PART QUESTION	15 M	May 78
<b>DOCUMENTATION</b>		
MULTIVOLUME FILES ON MAGTAPE	01 N	Feb 78
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DOCUMENT ERROR	03	Apr 78
<b>DICOMP</b>		
IMPROPER GLOBAL INFORMATION	01	Jul 77
COMMENT CAUSES ERROR	02	Aug 77
<b>FILEX</b>		
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OUT ERR WITH 128-CHARACTERS RECORDS	03 M	Jul 78
BLANK RECORDS	04 M	Sep 78
<b>ISMUTL</b>		
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WRONG RECORD COUNT	02	Jul 77
CTS-300 SYSTEM REFERENCE MANUAL	03	Oct 77
INCORRECT APPEND CALCULATION	04	Sep 77
ERR 16 IN REORG	05	Oct 77
THREE PROBLEMS IN ISMUTL	06 M	Jan 78
REPLACEMENT PAGES	07 N	Feb 78
WRONG FILE SPACE ALLOCATION	08 M	Apr 78
ERRONEOUS ERROR MESSAGE	09 M	Apr 78
ERROR 28	10 M	Apr 78
LEGAL CHARACTERS IN ISAM RECORDS	11 R	May 78
DUPLICATE KEYS IN THE INPUT FILE	12 M	Jun 78
MORE INPUT RECORDS THAN SPECIFIED	13 M	Jul 78
THREE PROBLEMS IN ISMUTL	14 M	Sep 78
FOUR PROBLEMS IN ISMUTL	15 M	Oct 78
<b>LPTSPL</b>		
NO CONTINUE AFTER PROGRAM ABORT	01 M	May 78
<b>SINGLE USER DIBOL</b>		
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CHANGE READS STATEMENT TO ACCEPT 8-BIT ASCII	02	Apr 77
LOCASE CONVERTS UNDERLINE TO RUBOUT	03	Jun 77
ISAM RECORDS CROSSING BLOCK BOUNDARIES	04	Aug 77
PROBLEM WITH 32KB OR LESS	05	Sep 77
REPLACEMENT PAGES	06	Oct 77
"NOT ENOUGH MEMORY" CONDITION	07 M	Jan 78
RECORDS BEING LOST	08 M	Feb 78
RUNNING V3 ON LSI	09 M	Apr 78
<b>SORTG</b>		
TAGSORTS NOT ALLOWED ON ISAM FILES	01	May 77
CORRECTION TO VERSION "A" PATCH	02	Oct 77
<b>SORTM</b>		
I/O ERROR INTERPRETED AS AN INPUT END OF FILE	01	Apr 77
NEGATIVE NUMBERS IN SORT/MERGE	02	Oct 77
SORTING CARETS	03 M	Jan 78
INCORRECT RECORD COUNT	04 M	Feb 78
FIRST RECORD OUT OF ORDER	05 M	Mar 78
ERR 16 IN TSD	06 M	Jul 78
MERGE WITH DESCENDING KEY	07 M	Sep 78

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
<b>TSD</b>		
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REPLACEMENT PAGES	02	Apr 77
PROGRAM SIZE CALCULATIONS FOR TSD	03	May 77
I/O RACE CONDITION	04	Jun 77
GARbled OUTPUT DUE TO ALPHA OR DECIMAL DISPLAYS	05	May 77
PROBLEM WITH RENAM	06	Jun 77
LOCASE CONVERTS UNDERLINE TO RUBOUT	07	Jun 77
ISAM FILE SHARING PROBLEM	08	Jun 77
IMPOSSIBLE TRAP ON OVERLAYING	09	Jun 77
ISAM RECORDS CROSSING BLOCK BOUNDARIES	10	Aug 77
RECORDS BEING LOST	11 M	Feb 78
PERMANENTLY LOCKED GROUP	12 M	Mar 78
RUNNING V3 ON LSI	13 M	Apr 78
CLOSING ISAM FROM AN EXTERNAL SUBROUTINE	14 M	Apr 78
PROBLEM WITH ISAM INPUT	15 M	Apr 78
<b>CTS-300 V3 AND CTS-300/DIS V3.5</b>		
ISAM REPAIR PROGRAM	01 O	Mar 78
<b>CTS-300 V4</b>		
<b>DECFORM</b>		
ADDITIONAL INFORMATION ON MATH OPTION	01 N	Dec 77
UNDEFINED GLOBALS WITH DECFORM	02	Jan 78
TWO PROBLEMS IN FOCOMP	03 M	Feb 78
EOF AFTER CHANGED RECORD	04 M	Mar 78
LOST RECORD ON DUPLICATE KEY	05 M	Apr 78
MESSAGE FOR SPEED READERS	06 M	Apr 78
EXITING DECFORM VIA FIVE-PART QUESTION	07 M	Jun 78
TOO FEW DATA FIELDS RETURNED	08 M	Jun 78
USR NOSWAP CAUSES TRAP TO 4	09 M	Aug 78
RANDOM ERRORS WITH FIELD CHECK	10 M	Oct 78
ALTERNATE KEYPAD MODE	11 M	Nov 78
<b>DICOMP</b>		
TRAP TO 4 UNDER XM	01 M	Feb 78
TRAP TO 10 UNDER FB	02 M	Feb 78
DON'T WASTE PAPER	03 M	Jul 78
<b>DOCUMENTATION</b>		
REPLACEMENT PAGES	01 N	Dec 77
DOCUMENTATION CHANGES TO CTS-300 SYSTEM USER'S GUIDE	02 N	Jun 78
DOCUMENTATION CHANGES TO DECFORM USER'S GUIDE	03 N	Jun 78
<b>ISMUTL</b>		
THREE PROBLEMS IN ISMUTL	01 M	Dec 77
WRONG FILE SPACE ALLOCATION	02 M	Apr 78
ERRONEOUS ERROR MESSAGE	03 M	Apr 78
ERROR 28	04 M	Apr 78
LEGAL CHARACTERS IN ISAM RECORDS	05 R	May 78
DUPLICATE KEYS IN THE INPUT FILE	06 M	Jun 78
MORE INPUT RECORDS THAN SPECIFIED	07 M	Jul 78
THREE PROBLEMS IN ISMUTL	08 M	Sep 78
FOUR PROBLEMS IN ISMUTL	09 M	Oct 78
<b>LPTSPL</b>		
JOB MISHANDLING	01 M	Jan 78
LPTSPL HANGS IF STARTED DETACHED	02 M	Nov 78
<b>REDUCE</b>		
MULTIPLE FILE PROBLEM	01 M	Jan 78
BAD FILE CAUSES SYSTEM HALT	02 M	Sep 78

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
WILD CARD PROBLEMS	03 M	Nov 78
DEFAULT DEVICE WITH SHORT COMMAND	04 M	Dec 78
<b>SINGLE USER DIBOL</b>		
PROBLEM WITH CLOSING A FILE	01 M	Dec 77
RANDOM ACCESS PROBLEM	02 M	Jan 78
MINUS ZERO	03 M	Jan 78
LPQUE DOES NOT WORK	04 M	Jan 78
CHANNEL 1	05 M	Jan 78
FIELD EDITING	06 M	Jan 78
WRONG ERROR MESSAGE	07 M	Feb 78
MINUS ZERO	08 M	Feb 78
S.U. DIBOL WORKS ONLY UNDER XM	09 M	Feb 78
RECORDS BEING LOST	10 M	Feb 78
NO SINGLE USER ON 11/10	11 M	Feb 78
RENAME PROBLEM	12 M	Apr 78
NO MAGTAPE IN V4	13 M	Apr 78
ABORT ON SECOND LPQUE STATEMENT	14 M	Jun 78
XCALL VERSN BEGETS TRAP TO 4 (See TSD, Seq 34 M)	15 M	Jun 78
LPNUM CAUSES FILE NOT FOUND	16 M	Jun 78
BAD OPEN	17 M	Jul 78
MONITOR TRAP WITH DIVIDE	18 M	Jul 78
RECORD NUMBERS GREATER THAN 65,535	19 M	Jul 78
PROBLEM ACCEPTING FROM A FILE	20 M	Jul 78
NO CTRL/C TRAP UNDER SUD	21 M	Aug 78
DIRECT CURSOR POSITIONING UNDER SUD	22 M	Aug 78
TTSTS DOES NOT WORK UNDER SINGLE USER DIBOL	23 M	Sep 78
CTRL/C TRAP AND TTSTS	24 M	Oct 78
ERR 23 WITH CARD READER	25 M	Oct 78
VERY LARGE RECORD NUMBERS	26 M	Nov 78
GARBAGE TO THE LP	27 M	Nov 78
<b>SORTG</b>		
KDTYP MISSING	01 M	Feb 78
THREE SORT PROBLEMS	02 M	Nov 78
<b>SORTM</b>		
SORTING CARETS	01 N	Dec 77
TAGSORTS WITH MULTIPLE KEYS	02 M	Jan 78
FIRST RECORD OUT OF ORDER	03 M	Mar 78
ERR 16 IN TSD	04 M	Jul 78
THREE SORT PROBLEMS	05 M	Nov 78
<b>SORTP</b>		
NO PROTECTION FROM MIXING DATA MODES	01 M	Jun 78
<b>STATUS.TSD</b>		
WRONG JX INFORMATION	01 M	Dec 77
PENDING MESSAGES	02 M	Jan 78
PROBLEM DURING JOB STARTUP	03 M	Mar 78
<b>TSD</b>		
PROBLEM WITH MULTIPLE ISAM FILES	01 M	Dec 77
TNMBR TRAPS TO 4	01a M	Jan 78
RANDOM ACCESS PROBLEM	02 M	Jan 78
MINUS ZERO	03 M	Jan 78
DELETE CAUSES STACK OVERFLOW	04 M	Jan 78
FIELD EDITING	05 M	Jan 78
PROBLEM WITH ISAM INPUT	06 M	Jan 78
SEND CAUSES STACK OVERFLOW	07 M	Feb 78
STATUS GIVES FALSE REPORT	08 M	Feb 78
FILE SHARING	09 M	Feb 78
CHANNEL IN USE PROBLEM	10 M	Feb 78
PROGRAMS CREATED IN REGION 0	11 M	Feb 78
IMPLICIT JOB STARTUP PROBLEM	12 M	Feb 78
PENDING MESSAGES DESTROY SYMBOL TABLE	13 M	Feb 78
TERMINALS IGNORED	14 M	Feb 78
TROUBLE WITH TSD UNDER FB	15 M	Feb 78
MEMORY FAULT WITH SEND/RECV	16 M	Feb 78
PERMANENTLY LOCKED GROUP	17 M	Mar 78
SLOW TERMINAL I/O	18 M	Mar 78
PROBLEM WITH FORCED JOB AND TERMINAL NUMBER	19 M	Mar 78
INCORRECT CHECK FOR FREE SPACE	20 M	Mar 78
SYSGEN/TSDGEN PROBLEM	21 M	Mar 78

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
OPENING LP: GENERATES ERRORS	22 M	Mar 78
RECORDS BEING LOST	23 M	Apr 78
BAD I/O, FLAG NOT CLEARED	24 M	Apr 78
CLOSING ISAM FROM EXTERNAL SUBROUTINE	25 M	Apr 78
DISPLAY FROM DETACHED PROGRAM TO DETACHED TERMINAL	26 M	Apr 78
NO MAGTAPE IN V4	27 M	Apr 78
BASE LEVEL 2	28 M	Apr 78
R6 STACK OVERFLOW	29 M	May 78
TSD HANGS IF LP GOES OFF LINE	30 M	Jun 78
SLEEP PAST MIDNIGHT, NEVER WAKE UP	31 M	Jun 78
LOWER CASE CONVERTS TO UPPER CASE	32 M	Jun 78
THREE PROBLEMS IN XMTSD	33 M	Jun 78
XCALL VERSN BEGETS TRAP TO 4 (See Single User DIBOL, Seq 15 M)	34 M	Jun 78
SLAVE REFUSES TO WORK	35 M	Jun 78
MORE LP: NOHANG DIFFICULTIES	36 M	Jun 78
MORE TRAPS TO 4 AND 10	37 M	Jun 78
NO ALIGN OR DELETE WITH LPQUE	38 M	Jun 78
TRAP TO 10 CAUSED BY OPEN ISAM FILE	39 M	Jun 78
NO ROOM FOR BUFFER CAUSES TRAP TO 4/10	40 M	Jun 78
MAGTAPE READ DOES NOT WORK	41 M	Jul 78
MONITOR TRAP WITH DIVIDE	42 M	Jul 78
RECORD NUMBERS GREATER THAN 65,535	43 M	Jul 78
BAD BINARY FILE	44 M	Jul 78
STOP CHAIN FAILURE	45 M	Aug 78
SKIPPED TERMINALS CAUSE FORCED JOB STARTUP PROBLEM	46 M	Aug 78
SKIPPED TERMINALS CAUSE " PROBLEM	47 M	Aug 78
ANOTHER EXTENDED MEMORY ALLOCATION PROBLEM	48 M	Aug 78
REMOTE TERMINAL PROBLEM	49 M	Aug 78
SEND TO -2 SOMETIMES FAILS	50 M	Aug 78
WASTED SPACE	51 M	Aug 78
CANNOT INTERRUPT TIGHT I/O LOOPS	52 M	Aug 78
PROBLEM WITH SEND	53 M	Sep 78
CTRL/C TRAP AND TTSTS	54 M	Oct 78
ATTACH SOMETIMES GETS CONFUSED	55 M	Oct 78
SHUFFLER/LINE PRINTER CONFLICT	56 M	Oct 78
VERY LARGE RECORD NUMBERS	57 M	Nov 78
STORES TO AN ISAM FILE CAN CAUSE I/O ERROR	58 M	Nov 78
GARBAGE TO THE LP:	59 M	Nov 78
<b>TSDGEN</b>		
HARDWARE FORM FEEDS AND TSD	01 M	Nov 78
SET TT SCOPE GETS RESET	02 M	Nov 78
<b>CTS-300/DIS V3.5</b>		
USE OF RSTAT WITH ISAM FILES	01 R	NOV 77
<b>DECFORM</b>		
SEARCHMODE AND RENAM PROBLEM - NEW VERSION NUMBER	01	Oct 77
MICRO CODE CAUSES TRAP TO 10	02	Oct 77
DECFORM RESTRICTIONS	03	Nov 77
EXTRA CHARACTERS AT STATEMENT END	04	Nov 77
FOCOMP INCORRECTLY ALLOCATES AN EXTRA CHARACTER	05	Nov 77
CONDITIONAL GOTO AND CONDITIONAL SKIP	06	Nov 77
DECFORM PROBLEMS AND RESTRICTION	07	Nov 77
HANG ONE EXIT	08 M	Jan 78
TWO PROBLEMS IN FOCOMP	09 M	Feb 78
EOF AFTER CHANGED RECORD	10 M	Mar 78
NEGATIVE NUMBER ENDING IN ZERO	11 M	Mar 78
LOST RECORD ON DUPLICATE KEY	12 M	Apr 78
MESSAGE FOR SPEED READERS	13 M	Apr 78
EXITING DECFORM VIA FIVE-PART QUESTION	14 M	May 78
<b>DICOMP</b>		
IMPROPER GLOBAL INFORMATION	01	Nov 77
COMMENT CAUSES ERROR	02	Nov 77
<b>DOCUMENTATION</b>		
MULTIVOLUME FILES ON MAGTAPE	01 N	Feb 78
PAGE CORRECTION	02 N	Apr 78
DOCUMENT ERROR	03 N	Apr 78

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
<b>FILEX</b>		
RESTRICTION ON FILEX	01 R	Nov 77
FILEX INFORMATION AND RESTRICTION	02 R	Mar 78
OUT ERR WITH 128-CHARACTERS RECORDS	03 M	Jul 78
BLANK RECORDS	04 M	Sep 78
<b>ISMUTL</b>		
INDEXING PROBLEM	01	Nov 77
INCORRECT APPEND CALCULATION	02	Nov 77
ERR 16 IN REORG	03	Nov 77
WRONG RECORD COUNT	04	Nov 77
THREE PROBLEMS IN ISMUTL	05	Jan 78
REPLACEMENT PAGES	06 N	Feb 78
WRONG FILE SPACE ALLOCATION	07 M	Apr 78
ERRONEOUS ERROR MESSAGE	08 M	Apr 78
ERROR 28	09 M	Apr 78
LEGAL CHARACTERS IN ISAM RECORDS	10 R	May 78
DUPLICATE KEYS IN THE INPUT FILE	11 M	Jun 78
MORE INPUT RECORDS THAN SPECIFIED	12 M	Jul 78
THREE PROBLEMS IN ISMUTL	13 M	Sep 78
FOUR PROBLEMS IN ISMUTL	14 M	Oct 78
<b>LPTSPL</b>		
NO CONTINUE AFTER PROGRAM ABORT	01 M	May 78
<b>SINGLE USER DIBOL</b>		
LOCASE CONVERTS UNDERLINE TO RUBOUT	01	Oct 77
ISAM RECORDS CROSSING BLOCK BOUNDARIES	02	Nov 77
PROBLEM IN 32K OR LESS	03	NOV 77
"NOT ENOUGH MEMORY" CONDITION	04	JAN 78
SPURIOUS I/O ERRORS CURING ISAM STORE	05	JAN 78
RECORDS BEING LOST	06 M	Feb 78
<b>SORTG</b>		
TAGSORTS NOT ALLOWED ON ISAM FILES	01	Oct 77
CORRECTION TO VERSION " " PATCH	02	Nov 77
<b>SORTM</b>		
NEGATIVE NUMBERS IN SORT/MERGE	01	Nov 77
SORTING CARETS	02 N	Jan 78
INCORRECT RECORD COUNT	03 M	Feb 78
FIRST RECORD OUT OF ORDER	04 M	Mar 78
ERR 16 IN TSD	05 M	Jul 78
MERGE WITH DESCENDING KEY	06 M	Sep 78
<b>TSD</b>		
I/O RACE CONDITION	01	Nov 77
ERRONEOUS PATCH TO TSD	01a	Nov 77
INCORRECT JOB NUMBER AT STARTUP TIME	02	Sep 77
PROBLEM WITH RENAM	03	Sep 77
LOCASE CONVERTS UNDERLINE TO RUBOUT	04	Oct 77
ISAM FILE SHARING PROBLEM	05	Nov 77
IMPOSSIBLE TRAP ON OVERLAYING	06	Nov 77
ISAM RECORDS CROSSING BLOCK BOUNDARIES	07	Nov 77
RECORDS BEING LOST	08 M	Feb 78
PERMANENTLY LOCKED GROUP	09 M	Mar 78
CLOSING ISAM FROM AN EXTERNAL SUBROUTINE	10 M	Apr 78
PROBLEM WITH ISAM INPUT	11 M	Apr 78
DECnet-RT V1		
<b>DDCMP</b>		
DDCMP LINE COUNTERS OVERFLOW TO ZERO	01 O	Jul 78
<b>DMC</b>		
DMC LINE COUNTERS OVERFLOW TO ZERO	01 O	Jul 78
<b>FORTRAN INTERFACE</b>		
DIFFERENCES IN RT AND RSX FORTRAN INTERFACE IMPLEMENTATIONS	01 N	Jul 78
<b>MODEM CONTROL</b>		
SUPPORT OF ASYNCHRONOUS HALF DUPLEX MODEMS	01 R	Jul 78

FOCAL/RT-11 V1B

FOR COMMAND WITHOUT AN ARGUMENT	01 M	Oct 75
OPERATE COMMAND CAUSES ERROR	04 M	Aug 76
FCLK ROUTINE GIVES INCORRECT TIME	05 O	Aug 76
"LIBRARY ASK" COMMAND	06 O	Feb 77
"/Z" SWITCH	07 M	Aug 77
@START NOT WORKING WHEN DOWN-LINE LOADING	08 M	Mar 78
LIBRARIES FROM FOCAL SOURCE DISK MUST BE REFORMATTED	09 N	Aug 78
CLOCK PROBLEM FOR PAPER TAPE (STAND-ALONE) FOCAL USERS	10 M	Nov 78

FORTRAN IV/RT-11 V2

COMPILER

KNOWN FORTRAN IV V2 BUGS	01 N	Oct 78
USE OF THE FIND STATEMENT	02 M	Oct 78
RAISING COMPLEX NUMBERS	03 M	Oct 78
EXTRA CHARACTERS MAY RESULT IN COMPILER TRAPPING	04 M	Oct 78
TRANSMITTING ASCII DATA	05 R	Oct 78
IN-LINE CODE	06 N	Oct 78
FORTRAN "ACCEPT" STATEMENT	07 R	Nov 78

FORTRAN IV/RT-11 V2.1

FORTRAN IV V2.1 MAINTENANCE RELEASE	1 N	Dec 78
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FORTRAN/RT-11 EXTENSIONS V1

RUNNING PROGRAM WITH "SETR"	01 M	Oct 78
IBEF NOT PROPERLY DECREMENTED	02 R	Oct 78
LPS DEVICE CONFLICT CAUSED BY CALL SETR AFTER CALL RTS	03 R	Oct 78
IADC AFTER RTS DOES NOT WORK	04 M	Oct 78
SUBROUTINE NAMING CONFLICT	05 N	Oct 78
PLOT55 DESCRIPTION	06 N	Oct 78
ILLEGAL MEMORY REFERENCE ERROR	07 M	Oct 78
DEVICE CONFLICT ERROR	08 R	Oct 78
TWO PROBLEMS WITH THE RT-11/FORTRAN GRAPHICS EXTENSIONS	09 M	Oct 78

FORTRAN/RT-11 EXTENSIONS V1B

FORTRAN CRASHES AFTER RUNNING PROGRAM WITH "SETR"	01 M	Oct 78
NEGATIVE INTENSITY	02 N	Nov 78

GAMMA-11 F/B V2

DATA ANALYSIS PROGRAM	01 M	Feb 77
STUDY TRANSFER PROGRAM DISPLAYS TOO MANY INDEX LINES PER PAGE	02 M	Feb 77
BASIC AND FOCAL	03 M	Feb 77
BACKGROUND PROGRAM CAN HANG THE FOREGROUND TERMINAL	04 M	Feb 77
CNTL/C UNDER SINGLE JOB MONITOR	05 M	Feb 77
CROSSHAIRS FAIL TO APPEAR IN SLICE	06 M	Feb 77
UNDOCUMENTED PROGRAMS	07 N	Mar 77
FORTRAN SUPPORT INCORRECTLY CONVERTS DATA AND TIME OF INQUISITION	08 M	May 77
"RS" COMMAND IS INCORRECTLY	09 N	Jun 77

GAMMA-11 F/B V2C

GATED LIST MODE IMAGES	01 O	Sep 78
TU16 SUPPORT	02 M	Sep 78
PROBLEMS WITH PLAYBACK BUFFER COMMENTS AND FLOOD CORRECTIONS	03 M	Oct 78
STATIC FOREGROUND ACQUISITION FAILS ON RK06 OR RL01 SYSTEMS	04 M	Oct 78
DYNAMIC CURVE CALCULATIONS MAY FAIL	05 M	Dec 78
RK06, 7 AND RL01 FOREGROUND ACQUISITIONS PROBLEMS	06 M	Dec 78
PROBLEMS WITH FLOOD CORRECTIONS	07 M	Dec 78
PROBLEMS WITH REGION OF INTEREST	08 M	Dec 78
KW11-P REAL-TIME CLOCK INCORRECTLY INITIALIZED	09 M	Dec 78
GAMMA-11 V2C NCV11 REAL-TIME CLOCK CAN BE DISABLED	10 M	Dec 78
KW11-P REAL-TIME CLOCK RUNS TOO FAST DURING GSA STUDIES	11 M	Dec 78
BUILDING AN RL01 GAMMA-11 V2C SYSTEM	12 M	Dec 78

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
PREDEFINED GATED LIST MODE STUDIES	13 M	Dec 78
GATED LIST MODE DATA ACQUISITION SET-UP	14 M	Dec 78
PROBLEMS WITH MAGTAPE DISTRIBUTION	15 N	Dec 78
<b>LABORATORY APPLICATIONS-11 V3</b>		
A NEW MODULE TO ENHANCE DATA FLOW WITHIN LA-11	01 N	Oct 76
<b>HISTO.MAC</b>		
ACQUIRING AND PROCESSING HISTOGRAM DATA	01 M	Sep 76
<b>LABMAC.SML</b>		
ERRONEOUS MACRO	01 M	Sep 77
<b>PEAK.MAC</b>		
WIDE PEAKS	01 M	Mar 76
PEAK PROBLEMS AND CORRECTIONS	02 M	Jul 76
ARITHMETIC CORRECTION FOR PEAK AREA	03 M	Dec 76
MISSING PATCH IN RELEASE NOTES	04 M	Oct 77
<b>SPARTA</b>		
LPS AND AR-11 VECTOR AND STATUS REGISTER	01 N	Dec 75
USING SPARTA AND FLOATING POINT BUFFERS	02 N	Feb 76
AR-11 TIMING PROBLEMS WITH ADSAM AND SPARTA	03 O	Feb 76
FFT SCALING CORRECTION	04 M	Feb 76
SCALE FACTOR CORRECTION FOR SPARTA COMMANDS FAC AND FCC	05 M	Mar 76
DATA DISPLAYS USING LA-11	06 N	Mar 76
DATA PREPARATION FOR SPARTA COMMANDS FAC AND FCC	07 N	Apr 76
SPARTA CORRECTIONS FOR POINT-PLOT DISPLAY	08 M	Apr 76
ADDING COMMANDS TO SPARTA	09 M	May 76
CORRECTION FOR THE DPV COMMAND WITH POINT PLOT DISPLAY	10 M	Jun 76
GENERAL SUBROUTINE MODULE FOR EAE	11 O	Jun 76
INCORRECT PHASE ANGLE CALCULATION	12 M	Oct 76
"MOU" AND "MIN" COMMANDS CAN BE READ OUT AND IN CORRECTLY	13 N	Jan 77
MULTIPLE SYNCH PULSES	14 M	Jan 77
AUTO AND CROSS CORRELATION	15 M	Jan 77
ALLOCATING MORE THAN 16K BUFFERS IN SPARTA	16 M	Feb 77
A/D SAMPLING: FAST MODE	17 M	Jul 77
A/D SAMPLING: FAST MODE EXIT	19 M	Mar 78
<b>SWEEP.MAC</b>		
SWEEP SAMPLING: FAST MODE	01 M	Aug 77
<b>THRU</b>		
HOW TO START DATA ACQUISITION WHEN CSTART EQUALS ZERO	01 N	Jun 76
MULTICHANNEL SINGLE RATE SCHMIT TRIGGER SWITCH BOUNCE	02 M	Dec 76
CONTINUOUS SAMPLING: CONDITIONAL ASSEMBLY ERRORS	03 M	Jul 77
CONTINUOUS SAMPLING: DMA WITH DUAL SAMPLE + HOLD	04 M	Jul 77
DOCUMENTATION CORRECTIONS	05 M	Nov 77
<b>LV11/RT-11 PLOTTING PACKAGE V2</b>		
SUBROUTINE PLOT DOES NOT CORRECTLY REPRODUCE VT11 PICTURE	01 M	Apr 78
<b>MU BASIC/RT-11 V1</b>		
BUILDING MU BASIC/RT-11 UNDER RT-11 V2C	01	Feb 76
REMOTE TERMINAL SUPPORT ON MODEMS	02	May 76
OVERLAY... LINE WORKS INCORRECTLY	03	May 76
USING IMMEDIATE MODE "GOSUBs"	04	Dec 76
CLOCK LOSES TIME ON RT-11 WHEN RUNNING MU BASIC	05	Jul 77
REM STATEMENTS	06	Feb 78
ADDITIONAL FILES ON RELEASE KIT (MUB*.*)	07 N	May 78
<b>MU BASIC/RT-11 SYSTEM INSTALLATION GUIDE</b>		
REPLACEMENT PAGES	01	Jan 77
REPLACEMENT PAGES	02 N	Jan 78
REPLACEMENT PAGES	03 N	Jan 78

MU BASIC-11/RT-11 V2

MU BASIC-11/RT-11 V2 CONVERSION PROGRAM	01 R	Nov 78
OPERATION OF CTRL/C, RCTRLC AND SYS (6) FUNCTIONS AND THE CTRL/C COMMAND	02 N	Nov 78
MEMORY REQUIREMENTS OF OPTIONAL FUNCTIONS ETC.	03 O	Nov 78
MU BASIC-11/RT-11 V2 RELEASE NOTES AND INSTALLATION GUIDE CHANGES	04 N	Dec 78
ORDER OF COMMON STATEMENTS AT START OF MUCNFG.B00, MUCNF1.B00, MUCNF2.B00	05 M	Dec 78

PDL/RT-11 V1B

CLARIFICATION OF SEARCH FAILURE IN SUBROUTINE FIND	01 N	Jul 78
FIND SUBROUTINE	02 R	Jul 78
PATCHES TO PDL	03 M	Jul 78
SUBROUTINE QKGT	04 M	Jul 78
PDL SUBROUTINE 'RDAA'	05 M	Sep 78
PDL PEAK ALGORITHM WILL NOT RECOGNIZE VALID PEAKS	06 M	Sep 78

PEAK-11 V1

"MREPRT" AND "REPRT" GET CONFUSED	01 M	Aug 78
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REMOTE/RT-11 V1

SCHEDULER DOES NOT PROPERLY SET PROCESSOR PRIORITY	01 M	May 76
NOEDIT- 0 HALTS	02 M	May 76
NUSERS=1 STAYS IN A FILE MESSAGE LOOP	03 M	May 76
INCORRECT SWAP AREA ALLOCATION FOR FOUR OR MORE USERS	04 M	May 76
REBOOT FROM SATELLITE DURING EDIT HANGS HOST	05 M	Jun 76
HARD ERROR ON LOOKUP IS FATAL	06 M	Jun 76
SECONDARY MODE PROGRAM LOAD FEATURE NOT COMPLETELY FUNCTIONAL	07 M	Jun 76
ONE SECOND TIMER FOR LINE TIMEOUTS IS SET INCORRECTLY	08 M	Aug 76
LINE FEEDS MAY CAUSE SYSTEM ERRORS--ASSEMBLY ERROR WITH DIAL AND NODDC	09 M	Aug 76
PROPER GENERATION OF REMOTE IS DEPENDENT ON MODULE ORDER	10 M	Aug 76
ASCII CODES 173 AND 174 DO NOT PRINT	11 M	Aug 76
IMPROPER FILLER HANDLING FOR VT05	12 O	Aug 76
SYSTEM CRASHES IF RUN IN FOREGROUND WITHOUT /N	13 O	Aug 76
"UNSAVE" COMMAND CAUSES SYSTEM ERRORS	14 M	Dec 76
FLET WILL REMOVE MORE THAN ONE USER FROM THE WAIT QUEUE	15 M	Dec 76
STACK FOR USER THREE IMPROPERLY SET	16 O	Dec 76
SECONDARY MODE LOADS DO NOT OPERATE PROPERLY	17 M	Jan 77
@START COMMAND GIVEN ON TERMINAL WITHOUT SATELLITE CAUSES CRASH	18 O	Jan 77
"RTSIM" DOES NOT SUPPORT 50 Hz LINE CLOCK	19 O	Jan 77
CHANNEL ACTIVE ERROR	20 M	Mar 77
THREE WORDS LOST ON DOWNLINE LOAD	21 M	Mar 77
CSISPC NOT PROPERLY SIMULATED	22 M	May 77
EXCEEDING CHARACTERS PER LINE LIMIT	23 M	Oct 77
UNASSIGNED	24	XXX XX
@RE IN THE SATELLITE DOES NOT WORK	25 R	Mar 78
"HANG" CONDITIONS	26 R	Apr 78
UNASSIGNED	27	XXX XX
USING KG-11 CRC CALCULATOR	28 M	Aug 78
PASTE CAUSES LINE DUPLICATION	29 M	Aug 78
"DAISY CHAIN" ARRANGEMENT IN RTSIM.MAC	30 M	Aug 78
OPTIONAL RMON IS OMITTED FROM RTS1M BY DEFINING NORMON=0	31 M	Oct 78
DL-11 ERROR AND CRC ERROR IN HOST	32 M	Oct 78

RT-11 V3

<b>DOCUMENTATION</b>		
TYPOGRAPHICAL ERRORS	01 N	Mar 78
ERROR IN FOREGROUND/BACKGROUND DEMONSTRATION	02 M	Aug 78
THE /LIST OPTION FOR THE DIBOL, FORTRAN, AND MACRO KEYBOARD MONITOR COMMANDS	03 M	Nov 78
<b>EDIT</b>		
EDIT DOES NOT OPERATE CORRECTLY UNDER XM MONITOR	01 M	Mar 78

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
<b>MACRO</b>		
.NARG FAILS WHEN AUTOMATIC LABEL GENERATION IS USED	01 M	Apr 78
<b>MISCELLANEOUS</b>		
GETSTR AND PUTSTR ROUTINES FOR IN-LINE CODE	01 M	Jun 78
ERROR IN THE CONCAT ROUTINE	02 M	Jun 78
ERROR IN MFATCH ROUTINE	03 M	Nov 78
<b>MONITOR</b>		
INCORRECT IDENTIFIER IN .TWAIT REQUEST CAUSES PROBLEMS	01 M	Mar 78
.CHAIN, .EXIT FROM VIRTUAL JOB; USR MOVING INTO PAR1 AREA	02 M	Apr 78
PATCH TO INTERRUPT EXIT ROUTINE	03 M	Apr 78
IMPROPER HANDLING OF THE KW11-P CLOCK	04 M	May 78
SPECIFYING 50-CYCLE CLOCK SUPPORT DURING SYSGEN OPERATIONS	05 M	Jun 78
EDITORS AND V3B MONITORS	06 M	Jun 78
TYPING NON-ASCII FILES TO CONSOLE AFTER ISSUING A GTON HANGS THE SYSTEM	07 M	Jun 78
LINK/FRUN FAILS WHEN PROGRAM IS OVERLAYED AND USES LIBRARIES	08 M	Jul 78
MULTITERMINAL CORRECTIONS	09 M	Aug 78
PATCH TO XM ADDRESS CHECKING	10 M	Aug 78
FIXES FOR TWO FB/XM PROBLEMS	11 M	Aug 78
TERMINATING CONSOLE OUTPUT	12 M	Aug 78
ISSUING SEEKS TO DX HANDLER IN XM CAUSES RANDOM SYSTEM FAILURES	13 M	Oct 78
CERTAIN EXTENDED MEMORY REQUESTS CANNOT BE ISSUED FROM BOTH MAINLINE CODE AND COMPLETION ROUTINES	14 M	Oct 78
THE "RUN" AND "GET" MONITOR COMMANDS DO NOT CORRECTLY LOAD THE PORTION OF A PROGRAM THAT OVERLAYS KMON	15 M	Oct 78
DX SJ MONITOR BOOTSTRAP CORRECTIONS	16 O	Oct 78
TYPING CTRL/O TO THE CONSOLE TERMINAL SOMETIMES CRASHES	17 M	Nov 78
LINK CAUSES ODD MONITOR ADDRESS TRAP	18 M	Nov 78
CHAINING FROM A VIRTUAL JOB AND RELATED PROBLEMS	19 M	Dec 78
DIRECTORY CORRUPTION	20 M	Dec 78
<b>SOURCES</b>		
UNRESOLVED DIFFERENCES IN DEMOX1.MAC	01 M	Aug 78
DISTRIBUTED MAGTAPE HANDLER CORRECTIONS	02 M	Sep 78
<b>SYSTEM HANDLERS</b>		
DM HANDLER CORRECTIONS	01 M	Oct 78
DM SYSTEM HANDLERS CORRECTIONS	02 M	Dec 78
<b>UTILITIES</b>		
DUP DEFAULT FILE SIZE AND NULL FILE TYPES ARE INCORRECT	01 M	Mar 78
DIR MAY INCORRECTLY LIST DIRECTORIES OF MAGTAPES	02 M	Mar 78
/L OPTION TO PIP MAY CUASE SYSTEM CRASH	03 M	Mar 78
LINK OUTPUT INVALID IF OBJ HAS AN EMPTY GSD RECORD	04 M	Mar 78
PAT GIVES FATAL ERROR IF OBJ HAS AN EMPTY RECORD	05 M	Apr 78
UNASSIGNED	06	XXX XX
EDIT VT11 DISPLAY FUNCTIONS WILL NOT OPERATE UNDER XM MONITOR	07 M/	78
TRANSFERS IN INTERCHANGE FORMAT WHEN NO SYSTEM DATE IS GIVEN	08 M	Jun 78
DUP SCAN RATE FOR FLOPPY	09 M	Jun 78
DUP /I AND /W SWITCHES DO NOT WORK PROPERLY	10 M	Jun 78
LINK/FRUN FAILS WHEN PROGRAM IS OVERLAYED AND USES LIBRARIES	11 M	Jul 78
DUP DOES NOT DIFFERENTIATE BETWEEN DELETED .BAD FILES AND PERMANENT ONES	12 M	Jul 78
ERRORS IN FILEX INTERCHANGE FORMAT	13 M	Jul 78
LINK PRODUCES INCORRECT .LDA FILES	14 M	Sep 78
DUP DOES NOT DETECT END OF SEGMENT IF IT IS FIRST ENTRY IN A DIRECTORY SEGMENT DURING A SQUEEZE OPERATION	15 M	Oct 78
LIBR CLEARING OF LOCATION ZERO	16 M	Oct 78
LINK ERROR IN PSECTS MOVED TO ROOT	17 M	Oct 78
PIP ERRONEOUSLY DELETES FILES	18 M	Oct 78
LIBR BLOCK BOUNDARY PROBLEM	19 M	Dec 78
<b>RT-11 V3B</b>		
<b>DOCUMENTATION</b>		
ERROR IN FOREGROUND/BACKGROUND DEMONSTRATION	01 M	Aug 78
THE /LIST OPTION FOR THE DIBO, FORTRAN, AND MACRO KEYBOARD MONITOR COMMANDS	02 M	Nov 78
RT-11 SYSTEM GENERATION MANUAL(UPDATE PAGES)	03 N	Dec 78

<u>Component</u>	<u>Sequence</u>	<u>Mon/Yr</u>
<b>MISCELLANEOUS</b>		
ERRORS IN THE SYSGEN CONDITIONAL FILE	01 M	Jul 78
ERROS IN MTATCH ROUTINE	02 M	Nov 78
<b>MONITOR</b>		
SOURCE PATCHING PROCEDURES FOR V3B	01 M	Aug 78
MULTITERMINAL CORRECTIONS	02 M	Aug 78
SINGLE JOB TIMER SUPPORT CORRECTIONS	03 M	Aug 78
FIXES FOR TWO FB/XM PROBLEMS IN VP3B	04 M	Aug 78
TERMINATING CONSOLE OUTPUT	05 M	Aug 78
EDITORS AND VO3B MONITORS	06 O	Aug 78
SEEK IN RK DRIVER	07 M	Aug 78
RL01 CONTROLLER VECTOR AT 160	08 M	Aug 78
FPU EXCEPTION HANDLING IN XM MONITOR	09 M	Sep 78
TWO EXTENDED MEMORY MONITOR PROBLEMS	10 M	Oct 78
TYPING CTRL/O TO THE CONSOLE TERMINAL SOMETIMES CRASHES RT-11	11 M	Oct 78
DX SJ MONITOR BOOTSTRAP CORRECTIONS	12 O	Oct 78
THE EDIT AND HELP MONITOR COMMANDS FAIL AFTER A VIRTUAL JOB HAS RUN	13 M	Nov 78
<b>SOURCES</b>		
UNRESOLVED DIFFERENCES IN DEMOX1.MAC	01 M	Jul 78
ISSUING SEEKS TO DX HANDLER IN XM CAUSES RANDOM SYSTEM FAILURES	02 M	Sep 78
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<b>SYSTEM HANDLERS</b>		
RL01 HANDLER CORRECTIONS	01 M	Sep 78
ISSUING A SEEK TO THE DY HANDLER CAUSES THE SYSTEM TO CRASH	02 M	Oct 78
DM HANDLER CORRECTIONS	03 M	Oct 78
DM SYSTEM HANDLERS CORRECTIONS	04 M	Dec 78
DY HANDLER SPFUN CORRECTION	05 M	Dec 78
<b>UTILITIES</b>		
ERRORS IN FILEX INTERCHANGE FORMAT	01 M	Jul 78
LINK PRODUCES INCORRECT .LDA FILES	02 M	Sep 78
LIBR CLEARING OF LOCATION ZERO	03 M	Oct 78
LINK ERROR IN PSECTS MOVED TO ROOT	04 M	Oct 78
DUP DOES NOT DETECT END OF SEGMENT	05 M	Oct 78
COPY/DEVICE FAILS ON DISK TO MAGTAPE	06 M	Oct 78
LINK CAUSES MONITOR ODD ADDRESS TRAP	07 M	Nov 78
EDIT ESCAPE CODE CORRECTION	08 O	Dec 78

RT-11/2780 V2

CORRECTIONS TO 2780 PACKAGE	01	Sep 77
RUNNING 2780 ON RT-11 V3	02	Nov 77
PATCHING THE 2780 IN RT-11 V3	03 M	Sep 78



# Software Product Description

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PRODUCT NAME: CTS-300, Version 5, Commercial Transaction System-300

SPD 12.9.4

## DESCRIPTION:

CTS-300 is a complete software environment for the DEC Datasystem 320s and 350s. It provides an operating system, a high-level programming language, system utilities, a text editor, a sort/merge program, and program preparation tools. Program preparation is done in a single-user environment, but production can be done with up to eight users on the system simultaneously.

Features of CTS-300 include:

*System Monitor* — There are two monitors delivered with CTS-300 Version 5, the single-job monitor and the foreground/background monitor. Both the single-job (SJ) and the foreground/background (FB) monitor support one production job with single-user DIBOL, up to four simultaneous production jobs with time-shared DIBOL. The FB monitor can support systems with greater than 56K bytes of memory. (When exercising this feature, the FB monitor is referred to as the XM monitor. The user must do a system generation to include XM support). The XM monitor supports up to sixteen simultaneous production jobs (and at most eight terminals) with timeshared DIBOL. This feature is available only for systems that include memory management.

These monitors provide clear and concise messages to prompt the operator, and the user's keyboard commands are consistent and short. The monitors support a contiguous file structure and files can be accessed randomly or sequentially. The user can assign symbolic names to the peripheral devices so that programs can be device-independent. There is also a batch facility so the user can queue up a series of jobs to run unattended by the operator.

*Command Language* — CTS-300 is designed for interactive use. The new keyboard commands are consistent in format and easy to understand. The high-level command language allows transition from source to executing code with one statement. Indirect files allow command sequences to be stored and invoked by the user.

*The DIBOL Language* — DIBOL is DIGITAL's own business-oriented high-level language. It is similar to COBOL in that it has a Data Division and a Procedure Division. Its procedural statements are English-like, but it is a more concise language than COBOL. DI-

BOL provides the ability to do data manipulation, arithmetic expression evaluation, table subscripting, record re-definition, external calls to other programs, and sequential and random access and indexed access to files. Exception conditions cause control to transfer to a user-specified statement which can query status registers to determine the cause of the condition. A comprehensive on-line debugging utility permits the program developer to isolate and correct programming errors quickly.

*Text Editor* — The Text Editor is used to create and modify ASCII files. Both character- and line-oriented commands are provided, along with full provision for command interaction, editing macros, and run-time file manipulation. The Text Editor is used to create DIBOL source programs as well as data files.

*Sort/Merge* — The Sort/Merge utility permits the user to define the parameters for the sorting or merging of data files. A DIBOL program is then generated by the system to perform the required sort or merge. The user can specify up to eight key fields to control the ordering of the output records, in either ascending or descending sequence. A wide range of control of operating parameters, such as the number of work files to be used, is provided to enable the user to achieve maximum sort efficiency.

*Linker* — The Linker is used to convert the output of the DIBOL compiler into run-time format. The Linker can combine a main program with many compiled external subroutines into a single executable job. The linker provides the ability to specify overlays, so the run-time job uses less main memory than would otherwise be required. Even with overlays, the Linker is very easy to use.

*PIP* — The Peripheral Interchange Program (PIP) is a program that allows transfer of files (ASCII or binary) between any RT-11 supported devices. PIP also allows the user to rename and delete files.

*DUP* — The Device Utility Program (DUP) performs general utility functions in support of disk devices. Among DUP functions are initializing devices, scanning for bad blocks, and compressing data on a disk.

*DIRECT* — The directory program (DIR) is used to list the file directory for disk devices. DIR allows directory listing sorted by file name, file type, date, size, or position.

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*Librarian* — The Librarian creates and maintains libraries of commonly used programs. The Linker uses the libraries in building executable jobs by copying into the job any required library programs.

*FILEX* — The FILEX (File Exchange) program provides for a universal file format, via floppy disks, between Datasystem 300s and 500s. This utility creates an IBM-compatible floppy, in 3741 format, which can be read by an IBM system and a Datasystem.

*DECFORM* — The DECFORM Data Entry 300 system utility is a "forms compiler" that processes screen format directives and produces a DIBOL program which, when compiled and executed, performs specified data entry functions. In addition to defining screen formats, auto-duplication, alphabetic or decimal checking, range checking, field totaling, cross-field validation, and auto-increment characteristics, DECFORM facilitates additions, inquiries, changes, verifications to sequentially ordered files, or ISAM (Indexed Sequential Access Method) files. Deletions are possible only with ISAM files. DECFORM is primarily a tool to facilitate and reduce program development.

*DMS-300* — Data Management Services for the DEC Datasystem 300 (DMS-300) provides capabilities for handling sequential, random or keyed records in files. Records can be keyed by a symbolic value within each record. Records thus keyed are accessed by an ISAM technique. DMS-300 also supports file sharing and multivolume files.

#### MINIMUM HARDWARE REQUIRED:

Any valid DEC Datasystem 320 or 350 series configuration that includes:

- A VT05, VT50H, VT52, VT100 or LA36 console terminal. A VT50H or VT52 terminal is required for use with the DECFORM utility.
- The Extended Instruction Set (EIS or equivalent) and memory management hardware (KT11 or equivalent), if extended memory support is required.

#### OPTIONAL HARDWARE:

- Additional memory up to a system total of 28K words (56K bytes) on D320 systems
- Additional memory to a system total of 124K words (248K bytes) on D350 systems
- Up to a system total of 8 VT05, VT50H, VT52, VT100 or LA36 terminals
- Up to 4 LS11, LA35, LA11, or LP11 line printers
- Up to 8 DL11 asynchronous line interfaces (1 per terminal)
- A DZ11 multiplexer with up to 7 lines
- RK11 disk cartridge controller with up to 8 logical disk units (An RK05-F fixed-head disk drive uses two logical units.)
- RL11 disk cartridge controller with up to 4 disk units
- RPR11 disk pack controller with up to 8 RPR02 disk drives
- RX11 floppy disk system (either single or dual drive)

- RX211 floppy disk system (double density)
- RK611 disk pack controller with up to 8 RK06 disk drives
- RK711 disk pack controller with up to 8 RK07 disk units
- CR11 card reader
- TME11 magnetic tape controller with up to 8 TE10 transports or a TJE16 controller with up to 8 TE16 transports

#### PREREQUISITE SOFTWARE:

None

#### OPTIONAL SOFTWARE:

None

#### TRAINING CREDITS:

TWO (2) — Applies only to options that include support services. Consult the latest Educational Services Catalog at your local office for the available courses, course requirements, and guidelines.

#### SUPPORT CATEGORY:

A — Software Support will be provided as stated in the Software Support Categories Addendum to this SPD.

#### UPDATE POLICY:

Software Updates, if any, released by DIGITAL during the one (1) year period following installation, will be provided to the customer for a media charge (includes no installation). After the first year, updates, if any, will be made available according to then prevailing DIGITAL policies.

#### ORDERING INFORMATION:

All binary licensed software, including any subsequent updates, is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions of Sale, which provide in part that the software and any part thereof may be used on only the single CPU on which the software is first installed, and may be copied, in whole or in part (with the proper inclusion of the DIGITAL copyright notice and any DIGITAL proprietary notices on the software) only for use on such CPU. All source licensed software is furnished only under the terms and conditions of a separate Software Program Sources Agreement between Purchaser and DIGITAL.

Standard options with no support services are only available after the purchase of one supported license. When a software license is ordered without support services, the category of support applicable to such software is Category C.

A single-use license only option is a license to copy the software previously obtained under license, and use such software in accordance with DIGITAL's Standard Terms and Conditions of Sale. The category of support applicable to such copied software is Category C.

The following key (E, Q, T, V, X, Y, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., QJ354-HE = distribution on RK05 disk.

- E = RK05 Disk Cartridge
- Q = RL01 Disk Cartridge
- T = RK06 Disk Cartridge
- V = RK07 Disk Cartridge
- X = RX02 Dual Density Floppy Diskette
- Y = RX01 Floppy Diskette
- Z = No hardware dependency

*Standard Options*

This software is available only with a valid DEC Datasystem 320 or 350 that includes support services. It is also offered under a license for use with a valid DEC Datasystem 320 or 350 that does not include software support services.

- DS352—RX01 Floppy Disk Based
- DS356—RPR02 Disk Pack Based
- D322—RX01 Floppy Disk Based
- D323—RX02 Floppy Disk Based
- D325—RL01 Cartridge Disk Based
- D324—RK05 Cartridge Disk Based
- D354—RK05 Cartridge Disk Based
- D355—RL01 Cartridge Disk Based
- D357—RK06 Disk Based
- D358—RK07 Cartridge Disk Based

*Update Options*

Users of previous CTS-300 versions whose specified Support Category warranty has expired may order the following software update at the then current charge for such update, for use under the existing license. Except where the medium is designated as Z, the update is distributed in source or binary form on the appropriate medium. A software update where the medium is designated as Z grants the user of CTS-300 the right to copy the previously ordered QJ354-H or QJ354-W software update for use on an additional single CPU on which a CTS-300 license has been obtained. No installation or other services are included unless specifically stated otherwise.

- QJ354 -H— Binaries, documentation (media: E, Q, T, V, X, Y)
- QJ354 -H— Right to copy for single-use (under existing license), no binaries, no documentation, no support services (media: Z)

Users of previous CTS-300 versions whose specified Support Category warranty has not expired may order under license the following software update for the then current media charge. The update is distributed in binary form on the appropriate medium and includes no installation or other services unless specifically stated otherwise.

- QJ354 -W— Binaries, documentation (media: E, Q, T, V, X, Y)

**ADDITIONAL SERVICES:**

- QJ354 -3— Standard Binary Program Update Service (media: E, Q, T, V, X, Y)

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ADDENDUM  
SOFTWARE SUPPORT CATEGORIES

Each software product (hereinafter 'SOFTWARE') with a designated Support Category A or B in the applicable Software Product Description (SPD) existing at the time of order will be the current release at the time of delivery and will conform to the SPD. DIGITAL's sole obligation shall be to correct defects (nonconformance of the SOFTWARE to the SPD) as described below. Any SOFTWARE with a designated Support Category C will be furnished on an 'as is' basis.

For SOFTWARE with a designated Support Category A or B, DIGITAL will provide the services set forth below without additional charge.

CATEGORY A

1. Upon notification by customer to the nearest DIGITAL office that the computer system, including all required prerequisite hardware and software, is ready for the installation of the SOFTWARE, DIGITAL will install such SOFTWARE in any location within the contiguous forty-eight (48) United States, the District of Columbia, or a country in which DIGITAL or a subsidiary of DIGITAL has a software service facility. The notification must be received by DIGITAL and the system must be ready for installation within thirty (30) days after the delivery of the SOFTWARE to customer or DIGITAL will have no obligation to install. Installation will consist of: (1) verification that all components of the SOFTWARE have been received by customer, (2) loading the SOFTWARE, and (3) executing a DIGITAL sample procedure.
2. During the ninety (90) day period after installation, if the customer encounters a problem with the current unaltered release of the SOFTWARE which DIGITAL determines to be a defect in the SOFTWARE, DIGITAL will provide the following remedial service (on site where necessary): (1) if the SOFTWARE is inoperable, apply a temporary correction (TC) or make a reasonable attempt to develop an emergency by-pass, and (2) assist the customer to prepare a Software Performance Report (SPR) and submit it to DIGITAL.
3. During the one (1) year period following installation, if the customer encounters a problem with the SOFTWARE which his diagnosis indicates is caused by a SOFTWARE defect, the customer may submit an SPR to DIGITAL. DIGITAL will respond to problems reported in SPRs which are caused by defects in the current unaltered release of the SOFTWARE via the Maintenance Periodical for the SOFTWARE, which reports SPRs received, code corrections, temporary corrections, generally useful emergency by-passes and/or notice of the availability of corrected code. Software Updates, if any, released by DIGITAL during the one (1) year period, will be provided to the customer on DIGITAL's standard distribution media as specified in the applicable SPD. The customer will be charged only for the media on which such updates are provided, unless otherwise stated in the applicable SPD, at DIGITAL's then current media prices.

CATEGORY B

During the one (1) year period following delivery, the services provided to the customer will be the same as set forth in 3 above.

CATEGORY C

SOFTWARE is provided on an 'as is' basis. Any software services, if available, will be provided at the then current charges.

DIGITAL shall have the right to make additional charges for any additional effort required to provide services resulting from customer use of other than current unaltered release of the SOFTWARE operated in accordance with the SPD.



## DECUS SPECIAL INTEREST GROUPS

A DECUS Special Interest Group (SIG) is an activity whereby members of the DIGITAL Equipment Computer Users Society who share common interests in a particular field, join together to promote the interchange of information. Specialization may be in application areas such as education or industry, specific software systems such as OS/8 and RSX-11, or a specific main-frame such as the DECsystem-10/20.

SIG members derive numerous benefits from communicating with others who share specialized interests and who may wish to share their experiences. SIG s sponsor business meetings, tutorials, and workshops at the various chapter symposia which fulfill the two-fold purpose of fostering communication among users and between users and DIGITAL. Channeled communication provides DIGITAL and the users with insight into the direction of future developments. SIG s provide direct feedback to DIGITAL's in-house activities and have thereby made substantial contributions to OS/8, RSX-11, RSTS and TOPS-10.

User submitted articles, minutes of local meetings, and letters comprise the major portion of the individual SIG newsletters. Suggestions, hints, bug fixes, program plans, or questions of a non-commercial nature are suitable material for SIG newsletters.

SIG members are encouraged to make presentations at the SIG sessions held during DECUS Symposia.

The semi-annual U.S. Symposia sessions are organized by special interest areas. Submissions received from the user community are reviewed by symposia committee members from the special interest groups for appropriate placement on the agenda.

Special Interest Group participation in the review of programs submitted to the DECUS Program Library provides an opportunity to improve the quality and utility of programs available to you and to fellow users.

DIGITAL standards are issued to DECUS members for review and on the theory and philosophy of the standards. DECUS is a voting member of ANSI X3. Users are encouraged to register their areas of expertise with DECUS and assist with reviewing standards. SIG s often play a role in this process.

Below is a list of U.S. based Special Interest Groups within DECUS.

If you would like information regarding membership in any of the Special Interest Groups, contact DECUS U.S. Chapter, 129 Parker Street, PK3-1/E55, Maynard, Massachusetts 01754 or one of the other DECUS Chapter offices in Kanata, Sidney or Geneva.

NETSIG—Networks Special Interest Group  
RSTS SIG—RSTS and RSTS/E Special Interest Group  
SIGIG—Special Interest Group on Interactive Graphics  
ESIG—Engineering Applications Special Interest Group  
SIG-18—18-Bit Users Special Interest Group  
12-Bit SIG—12-Bit User Special Interest Group  
RSX-11/IAS SIG  
RT-11 SIG  
EDUSIG—Educational Users Special Interest Group  
DEBUG—Digital Equipment Business Users Group  
MUSIG—Mumps Special Interest Group  
PASCAL SIG  
DBMS SIG  
TECO SIG  
LSI-11 SIG  
FOCAL SIG  
STANDARDS SIG



DIGITAL EQUIPMENT COMPUTER USERS SOCIETY

RT-11 SPECIAL INTEREST GROUP

A Special Interest Group has been formed to serve users of RT-11. The organization of the SIG consists of a SIG Chairman and working committees for standards, documentation, library submissions, newsletters, and help for new users. Submissions to the newsletter should be directed to:

John T. Rasted
JTR Associates
58 Rasted Lane
Meriden, CT 06450
(203) 634-1632

Other communications can be sent to:

Thomas J. Provost
P.O. Box 95
Middleton, MA 01949
(617) 774-2370
(617) 245-6600 (Boston tie line)

or

John T. Rasted
c/o DECUS
One Iron Way - MR2-3/E55
Marlboro, MA 01752

SIG's activities encompass the following:

- 1. Preparation of a SIG newsletter (user submissions are strongly encouraged).
2. Exchange of user-written programs. This exchange could include TASKS representing user-written extensions to RT-11 RT-11 (including, but not limited to device drivers) as well as utility and applications programs, etc.
3. Establishment of communications with the DECUS staff to obtain for SIG members early information on RT-11 related additions to the DECUS Library. These communications will also serve to provide prompt testing of such submissions.
4. Establishment of user input to appropriate groups within DEC, so that they will receive user feedback on any additions or needed changes to RT-11. Additionally, SIG members may receive early warning from DEC about RT-11 changes.
5. Establishment of SIG-maintained files of RT-11 errors and error solutions, where they exist, independent of DEC publications.
6. Establishment of RT-11 "Welcome Wagon" type services to aid new users.
7. Coordination of user input to standards and documentation work.

If you wish to become a member of the RT-11 SIG, please fill out the form below and return it to the DECUS Office. (Please type or print).

NAME \_\_\_\_\_ \*DECUS MEMBERSHIP NO. \_\_\_\_\_

AFFILIATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

Are you registered with DEC as an RT-11 user? \_\_\_\_\_ Version Number \_\_\_\_\_

Fortran? \_\_\_\_\_ Basic? \_\_\_\_\_

\*Please note one must be a member of DECUS prior to requesting RT-11 SIG involvement. For general membership information, contact the DECUS Office, One Iron Way - MR2-3/E55, Marlboro, MA 01752

## SOFTWARE PROBLEMS OR ENHANCEMENTS

Questions, problems, and enhancements to DIGITAL software should be reported on a Software Performance Report (SPR) form and mailed to the SPR Center at one of the following DIGITAL Offices: (SPR forms are available from the SPR Center).

AREAS COVERED	SPR CENTER	AREAS COVERED	SPR CENTER
United States, remainder of Far East, Middle East, Africa Latin America	Administrative Services Group, SWS P.O.Box F Maynard MA 01754	Italy	Digital Equipment SPA Viale Fulvio Testi 117 20092 Cinisillo Balsamo Italy
Canada	Digital Equipment Canada P.O.Box 11500 Kanata Canada K2H 8K8 Ontario	Japan	Digital Equipment Corp., INTL 3rd Floor Kowa Building 8-7 Sanban Cho Chiyoda Ku Tokyo 102 Japan
United Kingdom	Digital Equipment Corp., LTD Fountain House Butts Centre RG1 7QN Reading England	New Zealand	Digital Equipment Corp., LTD Challenge House 3 Wolfe Street P.O.Box 2471 Auckland New Zealand 10010
Australia-Melbourne	Digital Equipment Aust. Pty., LTD 60 Park Street South Melbourne Victoria Australia 3205	Belgium, Holland	Digital Equipment BV Kaap Horndreef 38 3563 AV Utrecht Netherlands
Australia-Sydney	Digital Equipment Aust. Pty., LTD 123 125 Willoughby Road P.O.Box 491 Crows Nest NSW Australia 2065	Denmark, Finland, Norway, Sweden	Digital Equipment Corp., AB Englundavaegen 73 TR 171 41 Solna Sweden
Brazil	Digital Equipment Comercio Ind Rua Batatais 429 Esq AL Campin 01423 Jardim Paulista Sao Paulo 0100 Brazil	Switzerland, Spain, Greece, Romania, Portugal, Bulgaria Yugoslavia	Digital Equipment Corp., SA 20 Quai Ernest Ansermet Boite Postale 23 CH 1211 Geneva Switzerland
Caribbean	De Latin America P.O.Box 11038 Fernando Juncos Sta. Santurce PR 00910	Austria, Poland Hungary, Rumania East Germany, West Germany, Russia, Czechoslovakia	Digital Equipment Corp., GMBH Wallsteinplatz 2 8000 Munchen 40 Germany 8000
France	Digital Equipment Corp., LTD. Centre Silic Cidex L225 18 Rue Saarinen 94533 Rungis France	Israel	DECSYS Computers, LTD 7 Habakuk Street Il-Tel Aviv 63505 Israel

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