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This guide describes the procedures for installing RMS-11 and RMS-11K V1.8 on PDP-11 and VAX-11 computers.

RMS-11 Installation Guide

Order No. AA-H235A-TC

SOFTWARE VERSION: RMS-11 V1.8
RMS-11K V1.8

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1/80-15

Contents

Chapter 1
Introduction

This document is a guide to the installation of the RMS-11(K) software on the following operating systems:

    IAS
    RSTS/E
    RSX-11M
    RSX-11M-PLUS

NOTE TO VAX USERS

Install RMS-11K as you do all software optional to the VAX/VMS system. See the *VAX-11 Software Installation Guide* about installing optional software.

However, you should also read Section 1.5 and Sections 4.1.1 through 4.1.5.

On IAS and RSX-11M systems, two RMS-11 installation kits are available:

Kit	Software Contents
RMS-11	Object library, utilities, and Resident Library that support the Sequential and Relative file organizations
RMS-11K	Object library, utilities, and Resident Libraries that support the Sequential, Relative, and Indexed file organizations

The installation procedure is identical for both kits; therefore, this guide serves both.

NOTE

If you have both kits (RMS-11 and RMS-11K), install **only** the RMS-11K software.

On RSTS/E and RSX-11M-PLUS systems, only the RMS-11K kit is available.

This guide complements the system generation procedures for the operating systems. Your system generation manual tells you when to install optional software: at that time, use this guide and the RMS-11(K) medium.

1.1 System Requirements

1.1.1 Software

Each system-specific chapter lists the system software components required to install RMS-11(K).

1.1.2 Configuration

To install RMS-11, you should have the minimum hardware configuration specified in your operating system's Software Product Description.

To install RMS-11K, you should have the minimum hardware configuration specified in your Software Product Description for RMS-11K.

1.1.3 Disk Storage Requirements

You should have at least 2450 blocks available on your system and library devices for use by the installation command file. For further breakdown of storage requirements (file sizes), see Table 1-1.

1.2 Installation Medium Contents

Each RMS-11(K) installation medium contains the files shown in Table 1-1.

Table 1-1: RMS-11(K) Installation Medium Contents
(* = RMS-11K only)

File Name	Approx. Size (blocks)	IAS	Destination Account Number RSTS/E	RSX-11M
BCKBLD.CMD	1	SY:[11,3]	on medium	SY:[1,24]
CNVBLD.CMD	1	SY:[11,3]	on medium	SY:[1,24]
DEFBLD.CMD	1	SY:[11,3]	on medium	SY:[1,24]
DFNBLD.CMD	1	SY:[11,3]	on medium	SY:[1,24]
DSPBLD.CMD	1	SY:[11,3]	on medium	SY:[1,24]
IFLBLD.CMD*	1	SY:[11,3]	on medium	SY:[1,24]
MAKRMSODL.CMD	90	LB:[1,1]	N/A	LB:[1,1]
RMS11.CMD	13	SY:[200,200]	N/A	LB:[200,200]
RMSRTS.CMD	1	N/A	LB:	N/A
RMSRES.CMD*	2	SY:[11,3]	on medium	SY:[1,24]
RMSSEQ.CMD	1	SY:[11,3]	on medium	SY:[1,24]
RSTBLD.CMD	1	SY:[11,3]	on medium	LB:[1,24]
RMS11.CTL	13	N/A	on medium	N/A
RMSRES.LIB*	19	N/A	SY:[0,1]	N/A
RMSSEQ.LIB	19	N/A	SY:[0,1]	N/A
RMSBCK.MAP	180	on medium	N/A	on medium
RMSCNV.MAP	182	on medium	N/A	on medium
RMSDEF.MAP	123	on medium	N/A	on medium
RMSDFN.MAP	143	on medium	N/A	on medium
RMSDSP.MAP	154	on medium	N/A	on medium

Table 1-1: RMS-11(K) Installation Medium Contents (Cont.)
(* = RMS-11K only)

File Name	Approx. Size (blocks)	IAS	Destination Account Number RSTS/E	RSX-11M
RMSIFL.MAP*	127	on medium	N/A	on medium
RMSRES.MAP*	80	on medium	N/A	on medium
RMSRST.MAP	208	on medium	N/A	on medium
RMSSEQ.MAP	13	on medium	N/A	on medium
RMSMAC.MLB	177	LB:[1,1]	LB:	LB:[1,1]
RMSFUN.OBJ	8	LB:[1,1]	on medium	LB:[1,1]
BCKBLD.ODL	8	SY:[11,3]	on medium	SY:[1,20]
CNVBLD.ODL	9	SY:[11,3]	on medium	SY:[1,20]
DEFBLD.ODL	2	SY:[11,3]	on medium	SY:[1,20]
DFNBLD.ODL	2	SY:[11,3]	on medium	SY:[1,20]
DSPBLD.ODL	2	SY:[11,3]	on medium	SY:[1,20]
IFLBLD.ODL*	6	SY:[11,3]	on medium	SY:[1,20]
IFLIAS.ODL*	40	SY:[11,3]	N/A	N/A
IFLRST.ODL*	40	N/A	on medium	N/A
IFLRSX.ODL*	40	N/A	N/A	SY:[1,20]
RMS11.ODL	63	LB:[1,1]	LB:	LB:[1,1]
RMS11S.ODL	7	LB:[1,1]	LB:	LB:[1,1]
RMS11X.ODL*	10	LB:[1,1]	LB:	LB:[1,1]
RMS12R.ODL	19	LB:[1,1]	LB:	LB:[1,1]
RMS12X.ODL*	10	LB:[1,1]	LB:	LB:[1,1]
RMSCNV.ODL	23	SY:[11,3]	on medium	LB:[1,20]
RMSODL.ODL	24	SY:[11,3]	on medium	LB:[1,20]
RMSRES.ODL*	11	SY:[11,3]	on medium	SY:[1,24]
RMSRLS.ODL	1	LB:[1,1]	LB:	LB:[1,1]
RMSRLX.ODL*	1	LB:[1,1]	LB:	LB:[1,1]
RMSRTS.ODL	38	N/A	LB:	N/A
RMSRTX.ODL	38	N/A	LB:	N/A
RMSSEQ.ODL	3	SY:[11,3]	on medium	SY:[1,24]
RMSUTL.ODL	4	SY:[11,3]	on medium	LB:[1,20]
RTSBLD.ODL	10	SY:[11,3]	on medium	LB:[1,20]
RSTBLD.ODL	1	N/A	LB:	N/A
RMSIFL.OLB*	281	SY:[11,3]	on medium	SY:[1,20]
RMSLIB.OLB	212	LB:[1,1]	LB:	LB:[1,1]
RMS11 .RTS	515	SY:[11,3]	on medium	SY:[1,20]
RMSUTL.OLB	19	N/A	SY:[0,1]	N/A
RMS11 .STB	3	N/A	LB:	N/A
RMSRES.STB*	23	LB:[1,1]	LB:	LB:[1,1]
RMSSEQ.STB	9	LB:[1,1]	LB:	LB:[1,1]
RMS11.TSK	18	N/A	LB:	N/A
RMSBCK.TSK	172	LB:[11,1]	SY:[1,2]	LB:[1,54]
RMSCNV.TSK	222	LB:[11,1]	SY:[1,2]	LB:[1,54]
RMSDEF.TSK	204	LB:[11,1]	SY:[1,2]	LB:[1,54]
RMSDFN.TSK	139	LB:[11,1]	SY:[1,2]	LB:[1,54]
RMSDSP.TSK	156	LB:[11,1]	SY:[1,2]	LB:[1,54]
RMSIFL.TSK*	198	LB:[11,1]	SY:[1,2]	LB:[1,54]
RMSRES.TSK*	95	LB:[1,1]	LB:	LB:[1,1]
RMSRST.TSK	188	LB:[11,1]	SY:[1,2]	LB:[1,54]
RMSSEQ.TSK	16	LB:[1,1]	LB:	LB:[1,1]

1.3 Documentation Conventions

Symbol or Term	Represents
RMS-11(K)	Description applies to both RMS-11 and RMS-11K installations.
Current RMS-11(K) users	Indicates those systems that have a version of RMS-11(K) already installed
New RMS-11(K) users	Indicates those systems that have **no** version of RMS-11(K) already installed
(CTRL/C)	Simultaneously press the CTRL key and another key. *Examples* (CTRL/Z), (CTRL/C)
(RET)	Press the RETURN key.
(LF)	Press the LINE FEED key.
Red	Where the instructions contain your input and system output, you type the characters in RED; the software prints the characters in BLACK.

1.4 After Installation

The installation process:

- on IAS, RSX-11M, and RSX-11M-PLUS systems, gives you the option of copying the following files to your system disk. You may reject this option if you need the disk space for more immediate projects--as long as you retain a copy of the installation medium.

- on RSTS/E systems, leaves the following files on the installation medium.

You need these files to patch and rebuild the RMS-11(K) utilities and Resident Libraries.

BCKBLD.CMD	BCKBLD.ODL
CNVBLD.CMD	CNVBLD.ODL
DEFBLD.CMD	DEFBLD.ODL
DFNBLD.CMD	DFNBLD.ODL
DSPBLD.CMD	DSPBLD.ODL
IFLBLD.CMD (RMS-11K only)	IFLBLD.ODL (RMS-11K only)
RSTBLD.CMD	RSTBLD.ODL
RMSUTL.ODL	RMSODL.ODL
RMSCNV.ODL	IFLIAS.ODL (RMS-11K only)
IFLRST.ODL (RMS-11K only)	IFLRSX.ODL (RMS-11K only)
RMSUTL.OLB	RMSIFL.OLB (RMS-11K only)
RMSRES.CMD (RMS-11K only)	RMSRES.ODL (RMS-11K only)
RMSSEQ.CMD	RMSSEQ.ODL
RMSFUN.OBJ	

When you are advised that a patch is necessary, you should follow these instructions:

1. Perform the patch procedure.

2. Rebuild tasks as follows:

    If you patched RMSUTL.OLB, you changed one or more modules in the RMS-11(K) utilities. The patch instructions tell you which one. You must now rebuild that utility with the following command: TKB @*utl*BLD

    where

    utl is the three-character mnemonic for the utility.

    Example To build the RMSBCK utility, you type the command:

    > TKB @BCKBLD

    * If you patched RMSLIB.OLB, you changed one or more modules in the RMS-11(K) routines built into the RMS-11(K) utilities, your tasks, and the RMS-11(K) Resident Libraries. To benefit from this patch, you must rebuild those tasks:

        - You rebuild the utilities as described in the preceding paragraph. You should rebuild all utilities installed on your system.

        - You rebuild each of your tasks by supplying the Task Builder with the appropriate command file.

        - You rebuild the RMS-11(K) Resident Libraries with the following commands:

        For RMSSEQ:

        TKB @RMSSEQ

        For RMSRES (RMS-11K only):

        TKB @RMSRES

    * If you patched RMSIFL.OLB (RMS-11K only), you changed one or more modules in the RMSIFL utility. You must now rebuild that utility with the following command:

    TKB @IFLBLD

1.5 Undocumented Features and Restrictions

- Add the following note to the *RMS-11 User's Guide*, Section 9.5.2.

NOTE

Any records containing duplicate key values can lose their input order. This note applies to:

- duplicate Primary Keys where RMSIFL sorts the input file

- all duplicate Alternate Keys

RMS-11 routines maintain a first-in, first-out (FIFO) ordering of records containing duplicate key values. When RMSIFL sorts records, this order can change unpredictably, depending on how the records occur in the sort work files when the work files are merged.

- Delete the following block of text from page 9-62 of the *RMS-11 User's Guide*:

- The output file must not have a bucket size greater than five blocks. Otherwise, RMSIFL prints the message:

```
?IFL -- THERE IS NOT ENOUGH IFL MEMORY FOR THE CURRENT COMMAND LINE
```

- Add the following note to the end of Section 9.5.4.1:

NOTE

RMSIFL dynamically allocates virtual address space to accomodate the requirements of input and output files. Therefore, the utility does not specifically limit the bucket sizes of input or output file or the sizes of records in either file. **However, the combination of unusually large bucket and record sizes, especially if RMSIFL must sort the input file** can cause RMSIFL to terminate execution of the command line.

Normally, the utility terminates after printing the message:

```
?IFL -- THERE IS NOT ENOUGH IFL MEMORY FOR THE CURRENT COMMAND LINE
```

RMSIFL can also terminate abnormally with a memory protection or other system-level error.

If either of these situations occurs:

1. Submit a Software Performance Report with all details of the situation including input and output file bucket sizes, input file Maximum Record Size, size of the largest record actually in the input file, and terminal display when RMSIFL aborted.

2. Recover using one of the following methods:

- Reduce input file bucket or maximum record size or both, and restart RMSIFL.

- Populate the output file using RMSCNV.

- When you install RMS-11(K) V1.8, the following capabilities of PDP-11 COBOL V4.0 become available:

You can qualify the file specification used in the ASSIGN clause or the VALUE OF ID clause with the following switches:

/DW   activates the RMS-11K Deferred Write I/O technique. RMS-11K writes I/O buffers to disk only when they are full, in contrast to the default technique where every write operation causes a physical I/O operation. This option is effective only for files that are not write-shared. Deferred Write should have some effect during Mass Insert operations even if the file is write-shared, if you provide one or more extra I/O buffers.

/MI   activates the RMS-11K Mass Insert I/O technique. This technique optimizes the insertion (into an Indexed file) of records sorted in order of ascending Primary Key value; the lowest Primary Key value in the series must also be greater than any Primary Key value already in the file. Mass Insert eliminates following the index for subsequent write operations.

Chapter 2
Installing RMS-11(K) on an IAS System

The RMS-11(K) installation procedure involves an MCR indirect command file named RMS11.CMD. The file asks questions concerning the installation medium and the system configuration and generates messages that fully document installation actions as they are automatically initiated.

2.1 Preparation

Before beginning the installation procedure in Section 2.2:

1. Boot your system, bringing it to its initial state as generated. This step is necessary because the RMS-11(K) installation process replaces the RMSCNV and RMSDFN task images. Since your system's boot procedure is tightly bound to the task images available when it was created, you must update that procedure after the RMS-11(K) installation to prevent error messages every time you boot the system. You update that procedure by saving the system after the RMS-11(K) installation is complete. The boot immediately before the installation prevents nonstandard installations and other configurations from being saved also.

2. Ensure that the following software is available:

   PIP
   FLX (magnetic tape kit only)
   REM
   INS
   LBR

   If PIP, LBR, and/or FLX are not installed, the installation command file attempts to install them from LB:[11,1].

3. Ensure that the following directories exist on your system. If they do not exist, create them.

   SY:[11,3]
   LB:[1,1]
   LB:[11,1]

4. Ensure that IND.TSK is installed from your system disk. If it is not, install it. IND.TSK executes indirect files. Refer to the *IAS User's Guide* for a description of the indirect file facility.

5. *Current RMS-11(K) users:* If you don't want your copies of the following files deleted and replaced, move or rename them. Some of these files are new with V1.8.

All files in SY:[11,3]

LB:[11,1]RMSBCK.TSK	LB:[11,1]RMSCNV.TSK	LB:[11,1]RMSDEF.TSK
LB:[11,1]RMSDFN.TSK	LB:[11,1]RMSDSP.TSK	LB:[11,1]RMSIFL.TSK
LB:[11,1]RMSRST.TSK		
LB:[1,1]RMSLIB.OLB	LB:[1,1]RMSMAC.MLB	LB:[1,1]RMSFUN.OBJ
LB:[1,1]RMS11.ODL	LB:[1,1]RMS11S.ODL	LB:[1,1]RMS11X.ODL
LB:[1,1]RMS12X.ODL	LB:[1,1]RMSRLX.ODL	LB:[1,1]RMSRLS.ODL
LB:[1,1]RMSRES.TSK	LB:[1,1]RMSRES.STB	
LB:[1,1]RMSSEQ.TSK	LB:[1,1]RMSSEQ.STB	LB:[1,1]RMS11R.ODL

2.1.1 Installing COBOL and RMS-11(K)

If you are installing PDP-11 COBOL V4.0 as well as RMS-11(K):

1.. Install RMS-11(K) first.

2. Use the file CBLV40.CMD on the RMS-11(K) installation medium as your COBOL installation command file instead of the file provided on your COBOL installation medium.

The CBLV40.CMD command file ensures that you have the latest versions of the RMS-11(K) ODL files after both installations are complete.

2.1.2 Effect on SYSLIB

This installation updates your system's SYSLIB.OLB and provides the V1.8 version of RMSLIB.OLB. Do not mix versions of these files: you must use the updated SYSLIB with the V1.8 RMSLIB and vice versa.

Example If you eliminate the SYSLIB update, yet use the V1.8 RMSLIB, task building results at least in the undefined symbol reference $SAVRM. And the tasks built will produce unpredictable results.

2.1.3 RMS-11(K) Resident Libraries

- The RMS-11(K) installation medium contains a Task Builder object library named TKB.OLB. Also on the medium is a text file named IASSGA.DOC that explains when and how you use the new object library. Both these files are in account [200,200].

- The RMSRES Resident Library is **not** built position-independent (/PI). Therefore, the RMSRES Resident Library must use APRs 7 and 6. The RMSSEQ Resident Library, however, is position-independent.

• Until you make the patch to the SYSLIB module OVCTR.MAC concerning Resident Libraries (published in your software publication), you must specify the read-write (RW) option, instead of the read-only (RO) option, when you task build against an RMS-11(K) Resident Library.

Example LIBR=RMSRES:RW

2.1.4 Modifying the RMS-11(K) Prototype ODL File

The file MAKRMSODL.CMD is an MCR command file that you can use indirectly. This file edits its own copy of the prototype RMS11.ODL file after asking you questions about the functions performed by your program. Using this file to produce a customized ODL file prevents you from making an error while editing a renamed copy of the RMS11.ODL. However, the command file uses the same ODL statements describing a 9KB overlay structure. Therefore, the resulting task is not smaller than if you used RMS11S.ODL, RMS11X.ODL, or your own version of RMS11.ODL. The task image size on disk can be smaller, though.

2.1.5 Increase in Task Size

The virtual address space required by a program linked with RMS-11(K) V1.8 is greater than the address space used by the same program linked with the V1.0 or the V1.5 object library. The increase in task size depends on:

• the RMS-11(K) file organizations selected

• the file and record operations used

• the manner in which the RMS-11(K) routines are overlaid

Example A program linked with the 9KB RMS-11K overlay structure via the RMS11X.ODL file changes as follows:

  • Root segment size increases by approximately 400 bytes.

  • Increase of approximately 500 bytes in the length of the longest series of overlay segments that must be resident in memory at the same time.

  • Overall virtual address space requirement increases by approximately 900 bytes.

Example A task using all RMS-11(K) facilities, built nonoverlaid, increases virtual address space requirement by approximately 1000 bytes.

2.2 Instructions

The following instructions describe the installation procedure for the RMS-11K software. You should perform this procedure using a hard-copy terminal and save the printout for future reference.

1. Physically mount the RMS-11(K) installation medium, using procedures in the manual for the unit.

CAUTION

Ensure that the medium is write-protected; that is, the write-enable ring is removed from the tape reel or the WRITE PROTECT switch/indicator is lit on the disk drive. This precaution ensures that the installation files are not destroyed.

2. Log in under account [1,1].

3. Logically mount the RMS-11(K) installation medium, using the command:

   - For disks:

   MOUNT/NOOP *dvn*: RMSKIT

   - For magnetic tapes:

   MOUNT/FOREIGN/NOOP *dvn*: RMSKIT

   where:

   dvn: specifies the physical name and number of the device carrying the installation medium.

   IAS responds with volume information.

   Example   If you mounted the RMS-11(K) installation medium on the first RK05 unit on your system, enter the command:

   MOUNT/NOOP DK0: RMSKIT

   IAS then displays:

   ```
   MOUNT-**VOLUME INFORMATION**
   DEVICE   =DKO
   CLASS    =FILE 11
   LABEL    =RMSKIT
   UIC      =[1,1]
   ACCESS   =[RWED,RWED,RWED,RWED]
   CHARAC   =[]
   ```

4. Copy the command file [200,200]RMS11.CMD from the installation medium to your account, using the command:

   - For disks:

   COPY *dvn*:[200,200]RMS11.CMD *.*

   - For magnetic tapes:

   COPY *dvn*:[200,200]RMS11.CMD/DOS *.*

   where:

   dvn: is the physical name and number you used in the MOUNT command (see step 3).

5. Execute the installation indirect command file by typing:

   MCR IND @RMS11

   The command file controls the installation of RMS-11(K).

6. After a series of operations and comments, the terminal prints:

```
* WHAT DEVICE IS YOUR DISTRIBUTION KIT MOUNTED ON (NO COLON) [S R:2-4]:
```

Type the physical name and number of the device carrying the installation medium (see step 3), in the form *dvn*.

An invalid device specification causes the terminal to print:

```
;
; *** INVALID DEVICE MNEMONIC ENTERED ***
;
```

Repeat this step.

7. The terminal prints:

```
* WILL YOU BE USING THE RMS RESIDENT LIBRARIES (STD AND 11K)? [Y/N]:
```

If you are installing RMS–11, the Resident Library is RMSSEQ, which supports Sequential files only. If you are installing RMS–11K, the Resident Libraries include RMSSEQ and RMSRES, which supports all RMS–11K file organizations.

Type one of the following:

Y   if you want the RMS–11(K) Resident Library(s) copied into LB:[1,1] on your system so that the system manager can install it (them) when this process has completed.

N   if you do not want the RMS–11(K) Resident Library(s) copied to your system.

8. The terminal prints:

```
; THE RMS-11 DISTRIBUTION KIT CONTAINS THE RMS-11 UTILITY TASK IMAGES.
; IT ALSO CONTAINS THE OLB, ODL AND CMD FILES REQUIRED TO RE-TASKBUILD
; THE RMS-11 UTILITIES IF THE NEED SHOULD EVER ARISE. THESE FILES
; WILL BE UNLOADED FROM THE DISTRIBUTION KIT ONTO YOUR SYSTEM DISK
; INTO DIRECTORY [011,003] IF YOU ANSWER "YES" TO THE FOLLOWING QUESTION.
; OTHERWISE, THEY WILL BE LEFT ON THE DISTRIBUTION KIT FOR LATER ACCESS.
;
* DO YOU WANT THE RMS UTILITY TASKBUILD FILES ON YOUR SYSTEM DISK? [Y/N]:
```

Type one of the following:

Y   if you want the installation process to copy the files required to rebuild the RMS–11(K) utilities onto your system. You use these files whenever a utility or an RMS–11(K) object module is patched (see Section 1.4).

N   if you do not want these files copied onto your system, but left on the installation medium.

9. The installation process performs a series of operations.

NOTE

Some of the REMOVE and PIP /DE commands may return errors. You can ignore them.

10. If your system disk is not an RK05, go to step 24; otherwise, the terminal prints:

```
; SINCE YOUR SYSTEM DISK IS AN RK DEVICE, YOU WILL BE GIVEN THE
; OPTION OF LOADING ONLY THOSE RMS-11 UTILITIES THAT YOU NEED ...
;
;
* DO YOU WANT THE RMSBCK UTILITY IN YOUR SYSTEM? [Y/N]:
```

Type one of the following:

Y   if you want to copy and install the task image of RMSBCK V1.8 onto your system; any RMSBCK task image already there is deleted. Go to step 11.

N   if you do not want the RMSBCK V1.8 utility copied and installed onto your system. Go to step 12.

11. The terminal prints:

```
* WHAT DISK DEVICE DO YOU WANT RMSBCK ON (NO COLON):
```

Type the physical name and number of the disk where you want the RMSBCK utility copied, in the form *dvn*.

12. After a series of operations, the terminal prints:

```
* DO YOU WANT THE RMSRST UTILITY IN YOUR SYSTEM? [Y/N]:
```

Type one of the following:

Y   if you want to copy and install the task image of RMSRST V1.8 onto your system; any RMSRST task image already there is deleted. Go to step 13.

N   if you do not want the RMSRST V1.8 utility copied and installed onto your system. Go to step 14.

13. The terminal prints:

```
* WHAT DISK DEVICE DO YOU WANT RMSRST ON (NO COLON):
```

Type the physical name and number of the disk where you want the RMSRST utility copied, in the form *dvn*.

14. After a series of operations, the terminal prints:

```
* DO YOU WANT THE RMSDSP UTILITY IN YOUR SYSTEM? [Y/N]:
```

Type one of the following:

Y   if you want to copy and install the task image of RMSDSP V1.8 onto your system; any RMSDSP task image already there is deleted. Go to step 15.

N   if you do not want the RMSDSP V1.8 utility copied and installed onto your system. Go to step 16.

15. The terminal prints:

    * WHAT DISK DEVICE DO YOU WANT RMSDSP ON (NO COLON):

    Type the physical name and number of the disk where you want the RMSDSP utility copied, in the form *dvn*.

16. After a series of operations, the terminal prints:

    * DO YOU WANT THE RMSCNV UTILITY IN YOUR SYSTEM? [Y/N]:

    Type one of the following:

    Y   if you want to copy and install the task image of RMSCNV V1.8 onto your system; any RMSCNV task image already there is deleted. Go to step 17.

    N   if you do not want the RMSCNV V1.8 utility copied and installed onto your system. Go to step 18.

17. The terminal prints:

    * WHAT DISK DEVICE DO YOU WANT RMSCNV ON (NO COLON):

    Type the physical name and number of the disk where you want the RMSCNV utility copied, in the form *dvn*.

18. After a series of operations, the terminal prints:

    * DO YOU WANT THE RMSDFN UTILITY IN YOUR SYSTEM? [Y/N]:

    Type one of the following:

    Y   if you want to copy and install the task image of RMSDFN V1.8 onto your system; any RMSDFN task image already there is deleted. Go to step 19.

    N   if you do not want the RMSDFN V1.8 utility copied and installed onto your system. Go to step 20.

19. The terminal prints:

    * WHAT DISK DEVICE DO YOU WANT RMSDFN ON (NO COLON):

    Type the physical name and number of the disk where you want the RMSDFN utility copied, in the form *dvn*.

20. After a series of operations, the terminal prints:

    * DO YOU WANT THE RMSDEF UTILITY IN YOUR SYSTEM? [Y/N]:

    Type one of the following:

    Y   if you want to copy and install the task image of RMSDEF V1.8 onto your system; any RMSDEF task image already there is deleted. Go to step 21.

    N   if you do not want the RMSDEF V1.8 utility copied and installed onto your system. Go to step 22.

21. The terminal prints:

    * WHAT DISK DEVICE DO YOU WANT RMSDEF ON (NO COLON):

    Type the physical name and number of the disk where you want the RMSDEF utility copied, in the form *dvn*.

22. If you are installing RMS–11, not RMS–11K, go to step 24; otherwise, after a series of operations, the terminal prints:

    * DO YOU WANT THE RMSIFL UTILITY IN YOUR SYSTEM? [Y/N]:

    Type one of the following:

    Y   if you want to copy and install the task image of RMSIFL V1.8 onto your system; any RMSIFL task image already there is deleted. Go to step 23.

    N   if you do not want the RMSIFL V1.8 utility copied and installed onto your system. Go to step 24.

23. The terminal prints:

    * WHAT DISK DEVICE DO YOU WANT RMSIFL ON (NO COLON):

    Type the physical name and number of the disk where you want the RMSIFL utility copied, in the form *dvn*.

24. The installation command file finally prints:

    ; *** RMS–11 SYSTEM INSTALLATION (VERSION 1.8) IS NOW COMPLETE ***

25. Type:

    SAVE

    IAS saves the current state of the system as part of its boot procedure.

26. Logically dismount the installation volume, using the command:

    DISMOUNT *dvn*: RMSKIT

    where:

    dvn: is the physical name and number of the device specified in step 3.

    Example   To finish the example started in step 3, enter:

        DISMOUNT DK0: RMSKIT

27. Physically dismount the installation medium, using the procedure in the manual for the unit.

28. Store the installation medium securely.

29. Modify your system start-up procedures to contain those of the following commands that are appropriate to your system, if they are not there:

- For PDS installations:

  INS LB:[11,1]RMSBCK/TASK=$$$BCK
  INS LB:[11,1]RMSCNV/TASK=$$$CNV
  INS LB:[11,1]RMSDEF/TASK=$$$DEF
  INS LB:[11,1]RMSDFN/TASK=$$$DFN
  INS LB:[11,1]RMSDSP/TASK=$$$DSP
  INS LB:[11,1]RMSIFL/TASK=$$$IFL (RMS–11K only)
  INS LB:[11,1]RMSRST/TASK=$$$RST

- For MCR installations:

  INS LB:[11,1]RMSBCK/TASK=...BCK
  INS LB:[11,1]RMSCNV/TASK=...CNV
  INS LB:[11,1]RMSDEF/TASK=...DEF
  INS LB:[11,1]RMSDFN/TASK=...DFN
  INS LB:[11,1]RMSDSP/TASK=...DSP
  INS LB:[11,1]RMSIFL/TASK=...IFL (RMS–11K only)
  INS LB:[11,1]RMSRST/TASK=...RST

This modification ensures that RMS-11(K) utilities are installed.

The *RMS-11 User's Guide*, Chapter 9, shows you how to use the RMS-11(K) utilities.

30. If you requested the RMS-11(K) Resident Library(s) (Y in step 7), your system manager can now install one or both of them. See the *RMS-11 User's Guide*, Chapter 8, for guidance in this procedure.

Chapter 3
Installing RMS–11K on a RSTS/E System

The RMS-11K installation procedure involves a control file named RMS11.CTL. The file generates messages that fully document installation actions as they are automatically initiated.

3.1 Preparation

Before beginning the installation procedure in "Instructions," Section 3.2:

- Ensure that the following software is available:

  SY:[1,2]PIP.SAV
  SY:LBR.TSK
  RT-11 Run-Time System
  RSX Run-Time System

- If your SYSLIB.OLB file is contiguous, make it noncontiguous or the installation process will fail.

- *For current RMS-11K users:* If you don't want your copies of the following files deleted and replaced, move or rename them. Some of these files are new with V1.8.

RMSFUN.OBJ	R1GET.OBJ	R1GSET.OBJ
SY:[1,2]RMSBCK.TSK	SY:[1,2]RMSCNV.TSK	SY:[1,2]RMSDEF.TSK
SY:[1,2]RMSDFN.TSK	SY:[1,2]RMSDSP.TSK	SY:[1,2]RMSRST.TSK
SY:[0,1]RMSSEQ.LIB	LB:RMSSEQ.TSK	LB:RMSSEQ.STB
LB:RMSRLS.ODL	SY:RMSFUN.OBJ	
LB:RMS11.ODL	LB:RMS11S.ODL	LB:RMSRTS.ODL
LB:RMSRTX.ODL	LB:RMS11X.ODL	LB:RMS12X.ODL
LB:RMS11.TSK	LB:RMS11.STB	SY:[0,1]RMS11.RTS
SY:[1,2]RMSIFL.TSK (RMS-11K only)		
SY:[0,1]RMSRES.LIB	LB:RMSRES.TSK	LB:RMSRES.STB

- *For current RMS–11K users:* This installation provides a new version of the RMS–11 Run-Time System (RMS11.RTS). In the process, it deletes the current version of the RTS. You cannot run tasks built against the older (V1.5) RTS using the newer RTS. See also the *RSTS/E V7.0 Release Notes* concerning this subject.

If you do not want to rebuild all tasks using this RTS, you should perform the following steps **before** installing RMS–11K V1.8.

1. Rename the RMS11.RTS file.

   Example   PIP RMSV15.RTS=RMS11.RTS/RE

2. Change the RTS attribute of each task using the RMS–11K RTS to contain the new name. There are at least three ways to do this; see your RSTS/E documentation for further explanation of syntax and procedures.

   - Use the NAME command provided by the UTILTY CUSP. This command enables you to change one file at a time.

     Example   RUN $UTILTY
                 NAME RMSV15=ARMS11.TSK

   - Use the RTS switch provided by the PIP.SAV CUSP. This facility enables you to use wild card characters and thereby affect multiple files.

     Example   RUN $PIP.SAV
                 ./RTS:RMSV15

   - Write a BASIC–PLUS program that searches for task files with the RMS11.RTS attribute, changing each one to specify the new name of the RTS.

3.2 Effect on SYSLIB

This installation updates your system's SYSLIB.OLB and provides the V1.8 version of RMSLIB.OLB. Do not mix versions of these files: you must use the updated SYSLIB with the V1.8 RMSLIB and vice versa.

Example   If you eliminate the SYSLIB update, yet use the V1.8 RMSLIB, task building results at least in the undefined symbol reference $SAVRM. And the tasks built will produce unpredictable results.

3.3 RMS–11K Resident Libraries

The RMS–11K Resident Libraries are built position-independent (/PI). Therefore, you can select the Address Page Register(s) dedicated to a Library when you task build against it or use the Task Builder's defaults (see the *RMS–11 User's Guide*, Chapter 8).

3.4 Increase in Task Size

The virtual address space required by a program linked with RMS-11K V1.8 is greater than the address space used by the same program linked with the V1.0 or the V1.5 object library. The increase in task size depends on:

- the RMS-11K file organizations selected

- the file and record operations used

- the manner in which the RMS-11K routines are overlaid

Example   A program linked with the 9KB RMS-11K overlay structure via the RMS11X.ODL file changes as follows:

- Root segment size increases by approximately 400 bytes.

- Increase of approximately 500 bytes in the length of the longest series of overlay segments that must be resident in memory at the same time.

- Overall virtual address space requirement increases by approximately 900 bytes.

Example   A task using all RMS-11K facilities, built nonoverlaid, increases virtual address space requirement by approximately 1000 bytes.

3.5 Instructions

The following instructions describe the installation procedure for the RMS-11K software. You should perform this procedure using a hard-copy terminal and save the printout for future reference.

1. Physically mount the RMS-11K installation medium, using procedures in the manual for the unit.

CAUTION

Ensure that the medium is write-protected; that is, the write-enable ring is removed from the tape reel or the WRITE PROTECT switch/indicator is lit on the disk drive. This precaution ensures that the installation files are not destroyed.

2. Log in under a privileged account.

3. If you received the RMS-11K installation files on magnetic tape, go to step 4; otherwise, logically mount the installation medium, using the command:

MOUNT *dvn*: RMSKIT/RO

where:

dvn: specifies the physical name and number of the drive carrying the installation disk.

Example If you mounted the installation disk on the first RK05 drive on your system, enter the command:

MOUNT DK0: RMSKIT/RO

4. Perform the following sequence of entries:

```
RUN $BUILD
BUILD build id system id
System Build <No> ?                        (RET)
Source Input Device <SY:> ?                dvn:
Library Output Device <SY:> ?              (RET)
Target System Device <SY0:> ?              (RET)
Library Account <[1,2]> ?                  (RET)
Control File is ?                          dvn:[1,2]RMS11.CTL

*** Copying file dvn:[1,2]RMS11.CTL to BLDnn.TMP ***

Function (Build/Patch, Patch, Build) <Build/Patch> ? (RET)
Patch file input location <SY:[200,200]> ?    dvn:[act nbr]
Save patched sources <No> ?                    (RET)
Additional Control File is <None> ?            (RET)
```

where:

dvn: specifies the physical name and number of the device carrying the RMS–11K installation medium

dvn:[act nbr]   specifies the physical name and account number that you have specified at this point throughout your system generation procedure

5. The terminal where you entered the commands prints the installation process.

Among other things, this process:

- Removes the following CCL commands. New RMS–11K users receive error messages that they can ignore. These CCL commands are then recreated (the RMSRST utility is given privileges).

  BCK
  CNV
  DEF
  DFN
  DSP
  IFL
  RST

- Removes the following Resident Libraries and Run-Time Systems. New RMS–11K users receive error messages that they can ignore. Then the control file adds the new RMS–11K RTS.

  RMSRES
  RMSSEQ
  RMS11.RTS

NOTE

All RMS–11K utilities use the RSX Run-Time System.

6. The control file terminates after displaying the line:

    ```
    !  RMS-11 INSTALLATION IS NOW COMPLETE
    ```

    If this message does not appear before the system prints the keyboard monitor prompt (Ready, by default), then a severe error occurred during the installation process. (The control file allows warning errors to occur.) Look at the messages printed during the process to determine where the error occurred. Correct the condition causing the error and restart this procedure.

7. The BUILD utility terminates after printing the line:

    ```
    !*** BUILD Complete ***
    ```

8. If you are using the RMS-11K installation file on magnetic tape, go to step 9; otherwise, logically dismount the installation volume, using the following command sequence:

    ```
    RUN $UTILTY
    #DISMOUNT dvn: RMSKIT
    #EXIT
    ```

    where:

    dvn: is the physical name and number of the disk drive specified in step 3.

    Example   To finish the example started in step 3, enter:

    ```
    RUN $UTILTY
    #DISMOUNT DK0: RMSKIT
    #EXIT
    ```

9. Physically dismount the installation medium, using the procedure in the manual for the unit.

10. Store the installation medium securely.

11. Modify your system start-up control file(s) to contain the following commands, if they are not there:

    ```
    FORCE KB0: ADD RMS11
    FORCE KB0: BCK-=$RMSBCK.TSK;0
    FORCE KB0: CNV-=$RMSCNV.TSK;0
    FORCE KB0: DEF-=$RMSDEF.TSK;0
    FORCE KB0: DFN-=$RMSDFN.TSK;0
    FORCE KB0: DSP-=$RMSDSP.TSK;0
    FORCE KB0: IFL-=$RMSIFL.TSK;0
    FORCE KB0: RST-=$RMSRST.TSK;PRIV0
    ```

    This modification makes RMS-11K software available to system users and designates RMS-11K utilities as CCL commands.

NOTE

> The RMSDFN utility is provided for compatibility only.
> You should use the RMSDEF utility to create RMS-11K
> files. Therefore, the line designating DFN as a CCL com-
> mand may be omitted from your control file without reduc-
> ing your RMS-11K capabilities.

12. The RMS11.CTL control file provides files that supply all RMS-11K
    functionality. If the users of your system do not require some of those
    features, you may delete the appropriate files.

    Example   If no one writes MACRO-11 programs that perform RMS-11K operations, you
                can delete LB:RMSMAC.MLB.

    Example   If no one uses an RMS-11K Resident Library, you can delete the .LIB file on
                SY: and the .TSK and .STB files on LB:.

13. If you are using the RMS-11K Resident Libraries, your system manager
    can now install one or both of them. See the *RMS-11 User's Guide*,
    Chapter 8, for guidance in this process.

    You should also add one or both of the following commands to your system
    start-up control file(s):

    FORCE KB0: ADD RMSSEQ
    FORCE KB0: ADD RMSRES

Chapter 4

Installing RMS-11(K) on an RSX-11M or RSX-11M-PLUS System

The RMS-11(K) installation procedure involves an MCR indirect command file named RMS11.CMD. The file asks questions concerning the installation medium and the system configuration and generates messages that fully document installation actions as they are automatically initiated.

4.1 Preparation

Before beginning the installation procedure in Section 4.2:

- Ensure that the following software is available:

  PIP
  REM
  LBR
  FLX (magnetic tape only)
  INS

  If PIP, LBR, and/or FLX are not installed, the installation command file attempts to install them from logical device $.

- *For current RMS-11(K) users:* If you don't want your copies of the following files deleted and replaced, move or rename them. Some of these files are new with V1.8.

LB:[1,54]RMSBCK.TSK	SY:[1,20]BCKBLD.ODL	SY:[1,24]BCKBLD.CMD
LB:[1,54]RMSCNV.TSK	SY:[1,20]CNVBLD.ODL	SY:[1,24]CNVBLD.CMD
LB:[1,54]RMSDEF.TSK	SY:[1,20]DEFBLD.ODL	SY:[1,24]DEFBLD.CMD
LB:[1,54]RMSDFN.TSK	SY:[1,20]DFNBLD.ODL	SY:[1,24]DFNBLD.CMD
LB:[1,54]RMSDSP.TSK	SY:[1,20]DSPBLD.ODL	SY:[1,24]DSPBLD.CMD
LB:[1,54]RMSIFL.TSK	SY:[1,20]IFLBLD.ODL	SY:[1,24]IFLBLD.CMD
LB:[1,54]RMSRST.TSK	SY:[1,20]RSTBLD.ODL	SY:[1,24]RSTBLD.CMD
LB:[1,1]RMSLIB.OLB	SY:[1,20]RMSUTL.OLB	SY:[1,20]RMSIFL.OLB
LB:[1,20]RMSODL.ODL	LB:[1,20]RMSCNV.ODL	SY:[1,20]IFLRSX.ODL
LB:[1,1]RMSFUN.OBJ	LB:[1,1]RMSMAC.MLB	LB:[1,20]RMSUTL.ODL
LB:[1,1]RMS11.ODL	LB:[1,1]RMS11S.ODL	LB:[1,1]RMS11X.ODL
LB:[1,1]RMS12X.ODL	LB:[1,1]RMSRLX.ODL	LB:[1,1]RMSRLS.ODL
LB:[1,1]RMS11R.ODL		
LB:[1,1]RMSRES.TSK	LB:[1,1]RMSRES.STB	SY:[1,24]RMSRES.ODL
LB:[1,1]RMSSEQ.TSK	LB:[1,1]RMSSEQ.STB	SY:[1,24]RMSSEQ.ODL
SY:[1,24]RMSRES.CMD	SY:[1,24]RMSSEQ.CMD	

4.1.1 Installing COBOL and RMS–11(K)

If you are installing PDP–11 COBOL V4.0 as well as RMS–11(K):

1. Install RMS–11(K) first.

2. Use the file CBLV40.CMD on the RMS–11(K) installation medium as your COBOL installation command file instead of the file provided on your COBOL installation medium.

The CBLV40.CMD command file ensures that you have the latest versions of the RMS–11(K) ODL files after both installations are complete.

4.1.2 Effect on SYSLIB

This installation updates your system's SYSLIB.OLB and provides the V1.8 version of RMSLIB.OLB. Do not mix versions of these files: you must use the updated SYSLIB with the V1.8 RMSLIB and vice versa.

Example If you eliminate the SYSLIB update, yet use the V1.8 RMSLIB, task building results at least in the undefined symbol reference $SAVRM. And the tasks built will produce unpredictable results.

4.1.3 RMS–11(K) Resident Libraries

The RMS–11(K) Resident Libraries are built position-independent (/PI). Therefore, you can select the Address Page Register(s) dedicated to a Library when you task build against it or use the Task Builder's defaults (see the *RMS-11 User's Guide*, Chapter 8).

Set up partitions for the Library(s) as follows:

Library Name	Partition Name	Minimum Partition Size
RMSRES	RMSRES	24KW
RMSSEQ	RMSSEQ	4KW

See the SET MCR command in the *RSX-11M Operator's Procedures Manual*.

4.1.4 Modifying the RMS–11(K) Prototype ODL File

The file MAKRMSODL.CMD is an MCR command file that you can use indirectly. This file edits its own copy of the prototype RMS11.ODL file after asking you questions about the functions performed by your program. Using this file to produce a customized ODL file prevents you from making an error while editing a renamed copy of the RMS11.ODL. However, the command file uses the same ODL statements describing a 9KB overlay structure. Therefore, the resulting task is not smaller than if you used RMS11S.ODL, RMS11X.ODL, or your own version of RMS11.ODL. The task image size on disk can be smaller, though.

NOTE TO VAX USERS

To use MAKRMSODL.CMD, you must logon using the /CLI=MCR switch.

4.1.5 Increase in Task Size

The virtual address space required by a program linked with RMS–11(K) V1.8 is greater than the address space used by the same program linked with the V1.0 or the V1.5 object library. The increase in task size depends on:

• the RMS–11(K) file organizations selected

• the file and record operations used

• the manner in which the RMS–11(K) routines are overlaid

Example A program linked with the 9KB RMS-11K overlay structure via the RMS11X.ODL file changes as follows:

> • Root segment size increases by approximately 400 bytes.
>
> • Increase of approximately 500 bytes in the length of the longest series of overlay segments that must be resident in memory at the same time.
>
> • Overall virtual address space requirement increases by approximately 900 bytes.

Example A task using all RMS-11(K) facilities, built nonoverlaid, increases virtual address space requirement by approximately 1000 bytes.

4.2 Instructions

The following instructions describe the installation procedure for the RMS–11K software. You should perform this procedure using a hard-copy terminal and save the printout for future reference.

1. Physically mount the RMS–11(K) installation medium, using procedures in the manual for the unit.

CAUTION

> Ensure that the medium is write-protected; that is, the write-enable ring is removed from the tape reel or the WRITE PROTECT switch/indicator is lit on the disk drive. This precaution ensures that the installation files are not destroyed.

2. Log in under a privileged account.

3. If you received the RMS–11(K) installation files on magnetic tape, go to step 4; otherwise, logically mount the installation medium, using the command:

    MOUNT *dvn*: RMSKIT

    where:

    dvn: specifies the physical name and number of the drive carrying the installation disk.

    Go to step 5.

    Example If you mounted the installation disk on the first RK05 drive on your system, type the command:

    > MOUNT DK0: RMSKIT

4. Identify the tape drive carrying the installation medium:

- On RSX–11M:

  ALL *dvn*:

- On RSX–11M–PLUS:

  MOUNT *dvn*:RMSKIT/FOR

where:

dvn: specifies the physical name and number of the drive carrying the installation tape.

5. Copy the installation command file RMS11.CMD from the installation medium to your account, using one of the following commands:

- For tape:

  FLX /RS=*dvn*:[200,200]RMS11.CMD/DO

- For disk:

  PIP =*dvn*:[200,200]RMS11.CMD

where:

dvn: specifies the device carrying the installation medium (see steps 3 and 4).

6. Execute RMS11.CMD as an MCR indirect file by typing:

@RMS11.CMD

This command file directs the installation of RMS–11(K).

7. After a series of operations, the terminal prints:

>* WHAT DEVICE IS YOUR DISTRIBUTION KIT MOUNTED ON (NO COLON) [S,R:2-4]:

Type the physical name and number of the device carrying the installation medium (see step 3), in the form *dvn*.

An invalid device specification causes the terminal to print:

>;
>; *** INVALID DEVICE MNEMONIC ENTERED ***
>;

Repeat this step.

8. After a series of operations, the terminal prints:

* WILL YOU BE USING THE RMS RESIDENT LIBRARIES (STD AND 11K)? [Y/N]:

If you are installing RMS–11, the Resident Library is RMSSEQ, which supports Sequential files only. If you are installing RMS–11K, the

Resident Libraries include RMSSEQ and RMSRES, which supports all RMS-11K file organizations.

Type one of the following:

Y   if you want the RMS-11(K) Resident Library(s) copied into LB:[1,1] on your system so that the system manager can install it (them) when this process has completed.

N   if you do not want the RMS-11(K) Resident Library(s) copied to your system.

9. The terminal prints:

```
>; THE RMS-11 DISTRIBUTION KIT CONTAINS THE RMS-11 UTILITY TASK IMAGES,
>; IT ALSO CONTAINS THE OLB, ODL AND CMD FILES REQUIRED TO RE-TASKBUILD
>; THE RMS-11 UTILITIES IF THE NEED SHOULD EVER ARISE, THESE FILES
>; WILL BE UNLOADED FROM THE DISTRIBUTION KIT ONTO YOUR SYSTEM DISK
>; INTO DIRECTORIES [001,020] AND [001,024] IF YOU ANSWER "YES" TO THE
>; FOLLOWING QUESTION, OTHERWISE, THEY WILL BE LEFT ON THE DISTRIBUTION
>; KIT FOR LATER ACCESS ...
>;
>* DO YOU WANT THE RMS UTILITY TASKBUILD FILES ON YOUR SYSTEM DISK? [Y/N]:
```

Type one of the following:

Y   if you want the installation command file to copy the files required to rebuild the RMS-11(K) utilities onto your system. You use these files whenever a utility or an RMS-11(K) object module is patched (see Section 1.4).

N   if you do not want these files copied onto your system, but left on the installation medium.

10. The installation command file performs a series of operations.

NOTE

Some of the REMOVE and PIP /DE commands may return errors. You can ignore them.

11. If your system disk is not an RK05, go to step 25; otherwise, the terminal prints:

```
>; SINCE YOUR SYSTEM DISK IS AN RK DEVICE, YOU WILL BE GIVEN THE
>; OPTION OF LOADING ONLY THOSE RMS-11 UTILITIES THAT YOU NEED ...
>;
>;
>* DO YOU WANT THE RMSBCK UTILITY IN YOUR SYSTEM? [Y/N]:
```

Type one of the following:

Y   if you want to copy and install the task image of RMSBCK V1.8 onto your system; any RMSBCK task image already there is deleted. Go to step 12.

N   if you do not want the RMSBCK V1.8 utility copied and installed onto your system. Go to step 13.

12. The terminal prints:

>* WHAT DISK DEVICE DO YOU WANT RMSBCK ON (NO COLON):

Type the physical name and number of the disk where you want the RMSBCK utility copied, in the form *dvn*.

13. After a series of operations, the terminal prints:

>* DO YOU WANT THE RMSRST UTILITY IN YOUR SYSTEM? [Y/N]:

Type one of the following:

Y   if you want to copy and install the task image of RMSRST V1.8 onto your system; any RMSRST task image already there is deleted. Go to step 14.

N   if you do not want the RMSRST V1.8 utility copied and installed onto your system. Go to step 15.

14. The terminal prints:

>* WHAT DISK DEVICE DO YOU WANT RMSRST ON (NO COLON):

Type the physical name and number of the disk where you want the RMSRST utility copied, in the form *dvn*.

15. After a series of operations, the terminal prints:

>* DO YOU WANT THE RMSDSP UTILITY IN YOUR SYSTEM? [Y/N]:

Type one of the following:

Y   if you want to copy and install the task image of RMSDSP V1.8 onto your system; any RMSDSP task image already there is deleted. Go to step 16.

N   if you do not want the RMSDSP V1.8 utility copied and installed onto your system. Go to step 17.

16. The terminal prints:

>* WHAT DISK DEVICE DO YOU WANT RMSDSP ON (NO COLON):

Type the physical name and number of the disk where you want the RMSDSP utility copied, in the form *dvn*.

17. After a series of operations, the terminal prints:

>* DO YOU WANT THE RMSCNV UTILITY IN YOUR SYSTEM? [Y/N]:

Type one of the following:

Y   if you want to copy and install the task image of RMSCNV V1.8 onto your system; any RMSCNV task image already there is deleted. Go to step 18.

> N   if you do not want the RMSCNV V1.8 utility copied and installed onto your system. Go to step 19.

18. The terminal prints:

```
>* WHAT DISK DEVICE DO YOU WANT RMSCNV ON (NO COLON):
```

Type the physical name and number of the disk where you want the RMSCNV utility copied, in the form *dvn*.

19. After a series of operations, the terminal prints:

```
>* DO YOU WANT THE RMSDFN UTILITY IN YOUR SYSTEM? [Y/N]:
```

The RMSDFN utility is provided for compatibility purposes only. You should use the RMSDEF utility to create RMS–11(K) files. Therefore, the utility may be omitted from your system without reducing your RMS–11(K) capabilities.

Type one of the following:

> Y   if you want to copy and install the task image of RMSDFN V1.8 onto your system; any RMSDFN task image already there is deleted. Go to step 20.

> N   if you do not want the RMSDFN V1.8 utility copied and installed onto your system. Go to step 21.

20. The terminal prints:

```
>* WHAT DISK DEVICE DO YOU WANT RMSDFN ON (NO COLON):
```

Type the physical name and number of the disk where you want the RMSDFN utility copied, in the form *dvn*.

21. After a series of operations, the terminal prints:

```
>* DO YOU WANT THE RMSDEF UTILITY IN YOUR SYSTEM? [Y/N]:
```

Type one of the following:

> Y   if you want to copy and install the task image of RMSDEF V1.8 onto your system; any RMSDEF task image already there is deleted. Go to step 22.

> N   if you do not want the RMSDEF V1.8 utility copied and installed onto your system. Go to step 23.

22. The terminal prints:

```
>* WHAT DISK DEVICE DO YOU WANT RMSDEF ON (NO COLON):
```

Type the physical name and number of the disk where you want the RMSDEF utility copied, in the form *dvn*.

23. If you are installing RMS-11, not RMS-11K, go to step 25; otherwise, after a series of operations, the terminal prints:

```
>* DO YOU WANT THE RMSIFL UTILITY IN YOUR SYSTEM? [Y/N]:
```

Type one of the following:

Y   if you want to copy and install the task image of RMSIFL V1.8 onto your system; any RMSIFL task image already there is deleted. Go to step 24.

N   if you do not want the RMSIFL V1.8 utility copied and installed onto your system. Go to step 25.

24. The terminal prints:

```
>* WHAT DISK DEVICE DO YOU WANT RMSIFL ON (NO COLON):
```

Type the physical name and number of the disk where you want the RMSIFL utility copied, in the form *dvn*.

25. The command file finally terminates after printing the line:

```
>; *** RMS-11 SYSTEM INSTALLATION (VERSION 1.8) IS NOW COMPLETE ***
```

26. Modify either your system start-up control or VMR file to include the following commands:

> INS LB:[1,54]RMSBCK
> INS LB:[1,54]RMSCNV
> INS LB:[1,54]RMSDEF
> INS LB:[1,54]RMSDFN
> INS LB:[1,54]RMSDSP
> INS LB:[1,54]RMSIFL (RMS-11K only)
> INS LB:[1,54]RMSRST

If your system disk is an RK05, you may have copied one or more utility task files to a disk and/or account other than LB:[1,54]. Be sure to use the correct device and account specification in the INS command. You may also want to eliminate one or more of the commands.

27. Logically dismount the installation volume.

Example To finish the example started in step 3, type:

> DMOUNT DK0: RMSKIT

NOTE

Logging off logically dismounts the volume.

28. Physically dismount the installation medium, using the procedure in the manual for the unit.

29. Store the installation medium securely.

30. If you requested the RMS-11(K) Resident Library(s) (Y in step 8), your system manager can now install one or both of them. See the *RMS-11 User's Guide*, Chapter 8, for guidance in this procedure.

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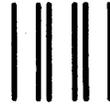☐ Other (please specify)_____

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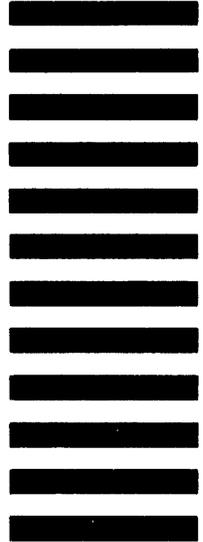   Country

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