

# Update Notice #1

December 1980

## PDP-11 SORT Reference Manual

AD-3341C-T1

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### NEW AND CHANGED INFORMATION

This update contains changes made to the *PDP-11 SORT Reference Manual*.

### INSTRUCTIONS

The enclosed pages are to be placed in the *PDP-11 SORT Reference Manual* as additions to current pages.

#### Old Page

Title/Copyright  
Appendix E  
Reader's Comment/Mailer

#### New Page

Title/Copyright  
Appendix E  
Reader's Comment/Mailer



**December 1980**

This document discusses the features and uses of the PDP-11 SORT utility. Installation procedures for the operating systems listed below are included. This document and the software to which it pertains are for use with RMS-11-formatted files only.

**PDP-11**  
**SORT Reference Manual**

Order No. AA-3341C-TC

Including AD-3341C-T1

**OPERATING SYSTEM:** RSX-11M  
RSTS/E  
IAS

**SOFTWARE VERSION:** SORT-11 V02

To order additional copies of this document, contact the Software Distribution Center, Digital Equipment Corporation, Maynard, Massachusetts 01754

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DECCOMM	DECsystem-20	TYPESSET-11

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APPENDIX E  
SORT INSTALLATION

E.1 GENERAL COMMENTS

SORT is an independent task that can be run under control of RSTS/E (V06B-02), RSX-11M (V3.0), or IAS (V2.0). SORT is neither shareable nor reentrant, so multiple calls to SORT create multiple copies of SORT in core storage.

E.2 SORT KIT CONTENTS

The SORT kit contains individual command files for you to use to build SORT on your operating system. These files are:

- For full RMS-11K (including indexed) support
  - SRTRIM.CMD - RSTS/E with RMS11 Runtime System
  - SRTEIM.CMD - RSTS/E with RSX Runtime System
  - SRTMIM.CMD - RSX-11M and IAS
  
- For sequential and relative only RMS-11 support
  - SRTRRM.CMD - RSTS/E with RMS11 Runtime System
  - SRTERM.CMD - RSTS/E with RSX Runtime System
  - SRTMRM.CMD - RSX-11 M and IAS

When you build SORT you must use one of these files, depending on which operating system and what kind of RMS-11 support you have.

The Task Builder command file contains a number of parameters that can be changed and options that can be included by the system manager to tune SORT to your installation's needs. These parameters control the size of the in-core work area (the scratch pad) which controls the task size, and the default logical unit and device assignments for the files SORT uses. Chapter 5 and Appendix D contain a full treatment of these parameters and other options. You can change the command file after it has been taken from the distribution medium and before the task build is started. To change just the task image size, see Section F.3.

As supplied by DIGITAL, the command file builds the largest possible task (28K words on RSTS/E, 32K words on RSX or IAS) on account number [1,2], the library account, under the name SORT.TSK. The program uses five scratch files as the default and finds and puts all files on the public disk structure.

## SORT INSTALLATION

### E.2.1 Building the SORT Task for RSX-11M or IAS

RSX-11M users can build and install SORT by using this procedure:

1. Use FILEX or PIP to transfer SORT from the distribution medium to a privileged account on public disk space:

```
>FLX SY:/RS=MM0:[1,2]*.*/DO
```

2. At this point make any changes to the Task Builder command file:

3. Build the task:

```
>TKB @SRTMIM          (for full RMS-11K
                      support on RSX-11M or IAS)
```

4. Install the task image:

```
>INS [1,2]SORT       (the default task
                      name is ...SRT)
```

5. Erase the files if no longer needed:

```
>PIP @SRTERS
```

6. Invoke SORT:

```
>SRT
SRT> (SORT is now ready)
```

#### E.2.1.1 BUILDING THE SORT TASK FOR RSX-11 AND IAS SYSTEMS WITH RLO2 DEVICE(S)

1. Use PIP to transfer the files from the distribution medium to a privileged account on public disk space.

```
PIP *.* /CO=DL0:[1,2]*.*
```

NOTE: "MOUNT"ing the device (Volume ID = SORTV2) which contains the distribution media may be required before files can be transferred to public disk space.

2. At this point make any changes to the Task Builder command file necessary (e.g. the task size may need to be changed.)

3. Build the task.

```
>TKB @SRTMIM          (for full RMS-11K support on
                      RSX-11M or IAS)
```

4. Install the task image.

```
>INS [1,2]SORT       (the default task name is
                      ...SRT)
```



## SORT INSTALLATION

5. Erase the files if no longer needed.
  - (a) The file "SRTERS.CMD" must be edited to append an asterisk as the file version number to each unwanted file. (Therefore, add ";" to each file to be deleted).

(b) >PIP @SRTERS

NOTE: The following message may be printed due to the fact that the file "SRTERS" deletes itself after deleting the other unwanted files. (Please ignore the message if it is printed.)

```
PIP -- S
PIP -- GET COMMAND LINE - FAILED TO OPEN @ FILE
```

6. Invoke SORT.

```
>SRT
SRT> (SORT is now ready)
```

### E.2.2 Building the SORT Task for RSTS/E

#### NOTE

The following procedures for installing SORT-11 apply only to RSTS/E V6C and earlier versions. For instructions on SORT-11 installation, refer to the RSTS/E System Generation Manual.

RSTS/E users can build and install SORT by using this procedure:

1. Use PIP to transfer the file from the distribution medium to a privileged account on public disk space:

```
PIP *.* /CO=MM0:[1,2]*.*
READY
```

2. At this point make any changes to the Task Builder command file.

3. Build the task:

```
RUN $TKB.TSK
TKB> @SRTRIM (full RMS-11 support)
TKB> //
READY
```

4. Make the task image executable by all users:

```
PIP $SORT.TSK<104>/RE
READY
```

## SORT INSTALLATION

5. Add the "SRT" CCL command:

```
RUN $UTILTY
UTILITY V06B-03 RSTS V06B-02 TS/1
#CCL SRT--=$SORT.TSK;0
#^Z
READY
```

6. Spool off and save the build map:

```
QUE SORT.MAP/DE
READY
```

7. Erase the files if no longer needed:

```
PIP @SRTERS
READY
```

### E.3 CHANGING THE SORT TASK IMAGE SIZE

The total size of the installed task image is controlled by the size of the psect AAAAAA, the scratch pad work area. To make the task smaller, cut down the size of the psect as follows:

1. Use an editor to access the proper command file.
2. Find the line "EXTCST=AAAAAA:XXXXXX".
3. Copy the number represented by XXXXXX here. A.
4. Determine the desired task size reduction in 4K word increments (e.g. 12KW = 3) B.
5. Multiply the number on line B by 20000(8). C.
6. Subtract line C from A using octal arithmetic. D.
7. Replace XXXXXX in the command file with the value on line D.
8. Continue with the build.

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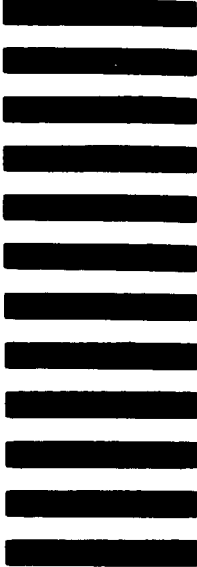


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