



# Software Product Description

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**PRODUCT NAME: SORT-11, Version 2**

**SPD 12.7.2**

**DESCRIPTION:**

SORT-11 is a utility that enables the user to reorder data from any input file into a new file in a sequence based upon control or key fields within the input data records. SORT-11 runs under any RSX-11M, IAS, RSTS/E, or CTS-500 operating system that includes RMS-11 record management services support.

SORT-11 can accept as input any RMS-11 format file and output a reordered RMS-11 format file.

Input files may contain data stored in binary EBCDIC or ASCII format, and the file organization can be sequential, relative, or indexed sequential. The reordering of information can be in ascending or descending order. There is no merge capability within the SORT package.

SORT-11 has four possible sorting processes: Record Sort, Tag Sort, Address Routing Sort, and Index Sort, as defined by a command string or specification file. Record Sort manipulates the records in their entirety. Tag Sort produces a reordered file by manipulating only the key position of each record. It then randomly reaccesses the input file to write out a newly sequenced file. Address Routing Sort produces a file for the data records, enabling the user to maintain one data file and multiple address files which are used to access the data in the desired sequence. Index Sort also produces a separate index file, but it contains both the key field from the data record and a pointer to the record's location in the data file.

SORT-11 also includes a set of subroutines, callable from other supplied languages, that can perform simple record sorting.

**MINIMUM HARDWARE REQUIRED:**

Any valid RSTS/E, CTS-500, RSX-11M, or IAS configuration with at least 24K bytes of memory in addition to the minimum required by the operating system.

**OPTIONAL HARDWARE:**

Supports any mass storage, unit record, or terminal device supported by the prerequisite software, except DECtape.

**PREREQUISITE SOFTWARE:**

One of the following operating system configurations that includes RMS-11 record management services:

RSTS/E, Version 6B or later, or  
CTS-500, Level 3A or 3B, or

RSX-11M, Version 3 or later, or  
IAS, Version 2 or later,

**OPTIONAL SOFTWARE:**

RMS-11K

**TRAINING CREDITS:**

None

**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.

The following key (D, E, Q, T, V) represents the distribution media for the product and must be specified at the end of the order number, e.g., QP601-AD = binaries on 9-track magnetic tape.

- D = 9-track Magnetic Tape
- E = RK05 Disk Cartridge
- Q = RL01 Disk Cartridge
- T = RK06 Disk Cartridge
- V = RK07 Disk Cartridge

*Standard Options*

*For RSTS/E or CTS-500 Systems*

QP601 -A— Single-use license, binaries, documentation, support services (media: D, E, Q, T, V)

*For RSX-11M Systems*

QP602 -A— Single-use license, binaries, documentation, support services (media: D, E, Q, T, V)

*For IAS Systems*

QP602 -A— Single-use license, binaries, documentation, support services (media: D, E, T)

*Update Options*

Users of SORT-11, Version 1, or PDP-11 COBOL, Version 2, whose specified Support Category warranty has expired may order under license the following software update at the then current charge for such update. The update is distributed in source or binary form on the appropriate medium and includes no installation or other services unless specifically stated otherwise.

*For RSTS/E or CTS-500 Systems*

QP601 -H— Binaries, documentation (media: D, E, T)

*For RSX-11M or IAS Systems*

QP602 -H— Binaries, documentation (media: D, E, T)

Users of SORT-11, Version 1, or PDP-11 COBOL, Version 2, 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 source or binary form on the appropriate medium and includes no installation or other services unless specifically stated otherwise.

*For RSTS/E or CTS-500 Systems*

QP601 -W— Binaries, documentation (media: D, E, T)

*For RSX-11M or IAS Systems*

QP602 -W— Binaries, documentation (media: D, E, T)

**ADDITIONAL SERVICES:**

None

**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.