

# Software Product Description

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**PRODUCT NAME: RJE/HASP, Version 1,  
Remote Communications for RSX-11M, RSX-11D and IAS**

**SPD 10.51.2**

**DESCRIPTION:**

RJE/HASP operates as a privileged non-check pointable task performing standard IBM HASP Remote Job Entry Work-station functions under the RSX-11M, RSX-11D, and IAS operating systems. RJE/HASP functions are executed concurrently with all other RSX-11/IAS operations.

Communications line control is performed directly by the RJE/HASP task. Concurrent use of the communications device by other RSX-11/IAS tasks is precluded. Any device accessible through the standard file control system or through input/output requests can be used as a source or destination for a file on an input or output data stream. The RJE/HASP task controls these devices through the use of file system calls and input/output requests. A common area is used for passing data to and from the disk. Any non-file structured device (i.e., card reader, punch, line printer) is attached by the RJE/HASP task during its use.

Operator control is provided through the MCR command dispatch feature. One terminal can be used for both RJE/HASP and RSX-11/IAS console operations or a separate operator's terminal can be dedicated to the RJE/HASP control function.

RJE/HASP provides the standard HASP protocol features of:

- data compression of repeated sequential characters including blanks
- full EBCDIC transparency
- multileaving
- printer vertical forms control skip to channel 1 (top of form) is supported. (No other vertical forms control is supported.)

RJE/HASP provides multileaved (pseudo simultaneous bi-directional) communication of up to 7 input and 7 output data streams. The number of input and output streams accommodated by a particular HASP task is fixed at assembly time. The operator can assign file-structured and non-file structured devices to data streams on a per file or temporarily dedicated basis.

**MINIMUM HARDWARE REQUIRED:**

Any valid RSX-11M with at least 32K words of memory and memory management, RSX-11D, or IAS operating system configuration which meets the following requirements:

*Main Memory:*

- Without file control support - RSX-11M Only
  - at least 9K words of memory allocated for RJE/HASP operation with one input and two output data streams (card reader, card punch, and line printer).
  - 300 words of memory are required for each additional stream without file control support
- With file control support
  - at least 14K words of memory allocated for RJE/HASP operation with one input and two output streams
  - 600 words of memory are required for each additional stream with file control support.

*Communication Devices:*

- One of the following communications line controllers:
  1. A DU11, DQ11, DUP11, or DP11 communications line controller for operation up to 4800 bps.
  2. A DQ11 communications line controller for operation up to 9600 bps. (Neither the DQ11-AB nor the DQ11-BB are required or supported.)
- Bell system or entirely equivalent modems as follows:
  - 201A 2000 bps Dial-up
  - 201B 2400 bps Private Line
  - 201C 2400 bps Dial-up
  - 208A 4800 bps Private Line
  - 208B 4800 bps Dial-up
  - 209A 9600 bps Private Line

*Required Hardware:*

- A KG11-A communications arithmetic unit

*Host System Compatibility*

The host system must be an IBM System/360 or System 370 running either:

- HASP II, Version 3.1
- HASP II, Version 4.0
- ASP Versions 2.3 through 3.1
- JES1/RES
- JES2
- JES3

The customer's IBM 360/370 configuration must in-

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clude one of the following Transmission Control Units with appropriate synchronous adaptor:

- 2701
- 2703
- 3704
- 3705

The customer's IBM 360/370 Remote Specification must include the following:

- Printer width: 132 characters
- Terminal type: System 360/22, 25, 30, 40, or 1130, or System 3
- Data format: Programmable interface
- Terminal Options: Console support, transparency

#### OPTIONAL HARDWARE SUPPORTED:

Any mass storage or unit record device supported by the standard file control system of the prerequisite software.

NOTE: Some DIGITAL character-oriented devices (e.g., card equipment) do not support Hollerith characters that do not have ASCII translations.

#### PREREQUISITE SOFTWARE:

One of the following operating systems:

RSX-11M, Version 2 or later  
RSX-11D, Version 6B or later  
IAS, Version 1.1 or later

#### OPTIONAL SOFTWARE SUPPORTED:

None

#### TRAINING CREDITS:

None

#### SUPPORT CATEGORY:

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

#### CUSTOMER RESPONSIBILITIES:

Before installation of the SOFTWARE, the customer must:

1. Obtain, install and demonstrate operational to DIGITAL'S satisfaction any modems and other equipment and facilities necessary to interface to DIGITAL'S communications line interfaces and terminals.
2. Install or have installed all hardware, including terminals, to be used on the system.
3. Generate for terminal support any and all IBM systems that will be communicating with the RJE/HASP terminal to DIGITAL'S satisfaction.
4. Make available to DIGITAL personnel all hardware, including communications facilities and terminals, to be used during installation and acceptance testing for a minimum of 16 hours scheduled at reasonable hours over a period of two days.
5. Provide access privileges and machine time on any and all IBM systems on which the installation is to be performed.

6. When communicating with IBM, make available to DIGITAL personnel an IBM 360/370 job stream to run via RJE/HASP on line to a 360/370 in accordance with the configuration specifications outlined above.

Delays caused by a failure to meet these responsibilities will be charged at the then prevailing rate for time and materials.

#### 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.

The following key (C, D, E, N, T, Y) represents the distribution media for the product and must be specified at the end of the order number, e.g., QJS60-XC = sources on DECTape.

C = DECTape  
D = 9-track Magnetic Tape  
E = RK05 Disk Cartridge  
N = TU60 Cassette  
T = RK06 Disk Cartridge  
Y = RX01 Floppy Diskette

#### Standard Options

QJS60 -X— Single-use license, source license, sources, documentation, support services (media: C, D, E, N, T, Y)

QJS60 -Y— Single-use license, source license, sources, documentation, no support services (media: C, D, E, N, T, Y)

#### 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.