

# digital

# Software Product Description

**PRODUCT NAME: LSP-11, Version 1.1**  
Laboratory Subroutine Package

**SPD 15.44.2**

## **DESCRIPTION:**

The Laboratory Subroutine Package (LSP) is a set of FORTRAN-callable subroutines that perform a variety of standard analytical tasks commonly encountered in the laboratory. All of the subroutines are dedicated to processing of data that has been acquired by other laboratory data acquisition software.

The Laboratory Subroutine Package provides the user with the following data manipulation subroutines.

- Peak processing
- Envelope processing
- Interval histogramming with reference points
- Fast Fourier transform
- Phase angle and amplitude spectrum
- Power spectrum
- Correlation function

## **MINIMUM HARDWARE REQUIRED:**

One of the following:

- Any valid RT-11 Operating System configuration supporting FORTRAN IV/RT-11 with at least 32K bytes of memory
- Any valid mapped RSX-11M Operating System configuration supporting either FORTRAN IV/IAS-RSX or FORTRAN IV-PLUS/RXS with at least a 32K byte user available partition
- Hardware configuration must contain a device capable of reading distribution media

## **OPTIONAL HARDWARE:**

- PDP-11 Extended Instruction Set
- PDP-11 Extended Arithmetic Element

## **PREREQUISITE SOFTWARE:**

- RT-11 Operating System, Version 4.0 and FORTRAN IV/RT-11, Version 2.5
- RSX-11M Operating System, Version 3.2 and either FORTRAN IV/IAS-RSX, Version 2.5 or FORTRAN IV-PLUS/RXS, Version 3.0

## **OPTIONAL SOFTWARE:**

None

## **TRAINING CREDITS:**

None

## **SUPPORT CATEGORY:**

DIGITAL SUPPORTED

LSP-11 is a DIGITAL Supported Software Product.

## **SOFTWARE INSTALLATION:**

CUSTOMER INSTALLED

LSP-11 is a software product engineered to be installed by the customer and includes other Software Product Support services listed below.

## **SOFTWARE PRODUCT SUPPORT:**

LSP-11 includes standard warranty services as defined in the Software Support Categories Addendum of this SPD.

## **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 License Agreement between Purchaser and DIGITAL.

Options with no support services are only available after the purchase of one supported license.

A single-use license only option is a license to copy the software previously obtained under license.

The following key (D, E, H, M, Q, T, Y, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., QJ724-AD = binaries on 9-track 800 BPI Magtape (NRZI).

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D = 9-track 800 BPI Magtape (NRZI)  
 E = RK05 Disk Cartridge  
 H = RL02 Disk Cartridge  
 M = 9-track 1600 BPI Magtape (PE)  
 Q = RL01 Disk Cartridge  
 T = RK06 Disk Cartridge  
 Y = RX01 Floppy Diskette  
 Z = No hardware dependency

*For RT-11 Systems*

QJ624 -A— Single-use license, binaries, documentation, support services (media: E, H, Q, Y)

QJ624 -D— Single-use license only, no binaries, no documentation, no support services (media: Z)

*For RSX-11M Systems*

QJ724 -A— Single-use license, binaries, documentation, support services (media: D, E, H, M, Q, T)

QJ724 -D— Single-use license only, no binaries, no documentation, no support services (media: Z)

*Update Options*

Users of LSP-11 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 binary form on the appropriate medium and includes no installation or other services unless specifically stated.

*For RT-11 Systems*

QJ624 -H— Binaries, documentation (media: E, H, Q, Y)

QJ624 -H— Right to copy for single-use (under existing license), no binaries, no documentation (media: Z)

*For RSX-11M Systems*

QJ724 -H— Binaries, documentation (media: D, E, H, M, Q, T)

QJ724 -H— Right to copy for single-use (under existing license), no binaries, no documentation (media: Z)

**ADDITIONAL SERVICES:**

Post-warranty Software Product Services for this software product are available with the prerequisite being the purchase of the RT-11 and/or RSX-11M Self-Maintenance Service for Software. Customers should contact their local DIGITAL office for additional information.