

# Software Product Description

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**PRODUCT NAME: Pen Plotter Utilities, Version 1.0**

**SPD 15.53.0**

**DESCRIPTION:**

The Pen Plotter Utilities are a set of FORTRAN callable subroutines which provide basic control of a Calcomp plotter. The routines run under the RSX-11M and VAX/VMS operating systems and communicate with the pen plotter via an asynchronous EIA serial interface (DL11, DH11 or DZ11) and a Calcomp Model 906 Controller.

By using the Model 906 Controller, it is possible to attach Calcomp plotters of different types using the same hardware computer interface and device handler.

The calls execute draw and move commands and establish program control parameters. They are fully compatible with the standard Calcomp calls. (In addition, calls are included which provide access to a library of Engineering Drawing Utilities, available as a separate product (SPD 15.54.x).)

The two types of pen plotter handler commands are pen movement-character drawing commands, and plotting control commands.

Subroutines included can carry out:

- initialize routines
- end routines
- pen selection
- line plotting
- plot string of characters

The Plotting Control commands are used with a COMMON area which contains information concerning:

- plotter step size
- current pen up/down
- pen in use, etc.

The utilities also provide a plot clipping capability to ensure that the physical position of the pen is always in synchronization with the logical position, even when the logical plot has extended beyond the edge limits of the plotter.

**MINIMUM HARDWARE REQUIRED:**

One of the following:

- Any valid RSX-11M Version 3.1 system configuration
- Any valid VAX/VMS Version 1 or later system configuration

Also required:

- 500 blocks of disk space
- 2K bytes main memory
- DL11, DZ11, or DH11 (EIA) serial interface
- Calcomp Model 906 serial EIA controller
- One Calcomp pen plotter from the
  1. 500/800 series, 936 plotter
  2. 1030/1050 series, 960 plotter

**NOTE:**

The customer must purchase the pen plotter and controller hardware from Calcomp, Incorporated.

**OPTIONAL HARDWARE:**

None

**PREREQUISITE SOFTWARE:**

*For RSX-11M systems:*

- RSX-11M Version 3.1 or later operating system and one of the following language processors:
  1. FORTRAN IV/IAS-RSX, Version 2 or later
  2. PDP-11 FORTRAN IV-PLUS, Version 2.5 or later

*For VAX systems:*

- VAX/VMS Version 1 or later operating system
- VAX-11 FORTRAN IV-PLUS, Version 1 or later

**OPTIONAL SOFTWARE:**

Engineering Drawing Utilities, Version 1.0 or later

**TRAINING CREDITS:**

None

**SUPPORT CATEGORY:**

C — 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

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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, Q, V) represents the distribution

media for the product and must be specified at the end of the order number, e.g., QS051-YD = sources on 9-track magnetic tape.

D = 9-track Magnetic Tape  
Q = RL01 Disk Cartridge  
V = RK07 Disk Cartridge

*Standard Options*

QS051 -Y— Single-use license, source license, sources, documentation, no support services (media: D, Q, V)

**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.