digital

Software Product Description

PRODUCT NAME: Engineering Drawing Utilities, Version 1.0   SPD 15.54.0

DESCRIPTION:

The Engineering Drawing Utilities are FORTRAN callable drawing subroutines designed to give a user enhanced control over graphics display and plotting devices. The utilities are available under the RSX-11M and VAX/VMS operating systems. The library includes subroutines which allow the application programmer to create relatively complex graphic output in an efficient manner. The calls can be directed to any of the following device types:

- DECgraphic refresh displays (VT11 or VS60 based), via the FORTRAN Graphics Package. See SPD 15.81.x.
- Pen Plotters (Calcomp), via the Pen Plotter Utilities. See SPD No. 15.53.x.
- Electrostatic Printer Plotter (Versatec) via the Electrostatic Plotting utilities. See SPD No. 15.52.x.

The following sections describe the key subroutines available. The user is provided considerable flexibility in defining user's units or plotter units (of measurements), absolute or relative movements, etc.

BASIC Symbol Drawing Commands:

These commands allow basic geometric symbols to be drawn with a single call and include:

ARC
CIRCLE
RECTANGLE
ELIPSE
PARABOLA
POLYGON
HYPERBOLA
DASHED LINES
PARALLEL LINES

UTILITY Drawing Commands

In addition to the basic commands, the library contains comprehensive utility calls to aid in efficient drawing creation, including:

FIG — Draws a continuous line through several points
FIGX — Draws a continuous line through points whose Y-coordinates are at set increments.
FIGY — Draws a continuous line through points whose X-coordinates are at set increments.
NORTH — Draws a north arrow
POINTR — Draws pointers for notes, etc.
XAXIS — Draws an axis parallel to the plotter X-axis
YAXIS — Draws an axis parallel to the plotter Y-axis
OBAXIS — Draws an axis at any angle of orientation

GRID — Draws a grid of horizontal and vertical lines
LOGAX — Draws a logarithmic axis
CALAX — Draws an annotated calendar scale
DIMLIN — Draws a dimension line
CENLIN — Draws a centerline
NOTE — Draws a single string of alphanumeric text
TEXT — Draws several lines of alphanumeric text
TITLE — Draws an alphanumeric title enclosed in a box
BORDER — Draws a rectangular border of parallel lines
XBAR — Draws a vertical bar chart given X-coordinates of data points
YBAR — Draws a horizontal bar chart given Y-coordinates of data points
NETWRK — Plots a network of lines between data points
TRANS — Calculates coordinates for a translated view of a figure
ROT3 — Calculates coordinates for a rotated view of a figure
PERSP — Calculates coordinates for a two-dimensional view of a three-dimensional figure
ISOM — Calculates coordinates for an isometric view of a three-dimensional figure
OBLQ — Calculates coordinates for an oblique view of a three-dimensional figure

Display "Snapshot" Facility:
In a system equipped with both DECgraphics display and a plotting device, the need frequently arises to output the current displayed image to hard copy. To facilitate this, a single "snapshot" call is also included in the library. "Snapshot" will take as input any VT11 or VS60 display file and produce a plotted output via the Pen Plotting Utilities (SPD 15.53.x), or the Electrostatic Plotting Utilities (SPD 15.52.x).

MINIMUM HARDWARE REQUIRED:
- Any valid RSX-11M Version 3 or later configuration, or any VAX/VMS, Version 1 or later configuration
- 2,200 blocks of disk space (sources, objects, and library)
- Between 2K bytes and 5K bytes main memory, depending on usage
- Specific hardware required by the Graphics/Plotting prerequisite software

OPTIONAL HARDWARE:
None

August 1978

PREREQUISITE SOFTWARE:

One of the following operating systems:

- RSX-11M Version 3 or later, and one of the following:
  1. FORTRAN IV/IAS-RSX, Version 2 or later
  2. FORTRAN IV-PLUS, Version 2.5 or later
- VAX/VMS, Version 1 or later, VAX-11 FORTRAN IV-PLUS, Version 1 or later

Also required is at least one of the following:

- FORTRAN Graphics Package, Version 1.1
- Pen Plotting Utilities, Version 1
- Electrostatic Plotting Utilities, Version 1

OPTIONAL SOFTWARE:

None

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 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., QS053-YD = sources on 9-track magnetic tape.

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

Standard Options

QS053 -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.