**PRODUCT NAME:** COGO-11, Version 1A, Coordinate Geometry Program

**DESCRIPTION:**
COGO is a tool for solving problems in plane coordinate geometry through the use of a computer program with a geometrically oriented language. COGO-11 executes an RSX-11M, RSX-11D, or IAS operating system. It uses many subprograms to operate on the coordinate table, a common set of up to 9999 points.

The COGO language is the part of the tool that the user works with directly. Most of the COGO-11 command names and command codes are identical with those of SELLs COGO and include:

- Control commands — to start and end a COGO job, and change the I/O devices
- Commands for maintaining tables (lists of related points such as road alignments or property lines)
- Commands for intersecting existing lines or figures to calculate a new point
- Commands that calculate and/or store one or more points
- "Locate" commands for traverse work
- Alignment commands
- Spiral commands
- Commands to maintain compatibility with the previous COGO so that existing input may be rerun
- Commands for outputting generated information from COGO

It is therefore suited to applications such as:
- Land surveying
- Highway design
- Right-of-way surveys
- Bridge geometry
- Subdivision work

The language consists of common engineering terms, and no computer experience is required. Problem definitions can be stored in a file of commands and executed at a later time, or can be entered using a terminal keyboard in interactive mode. The commands are identical for both methods.

**MINIMUM HARDWARE REQUIRED:**
Any valid RSX-11M, RSX-11D, or IAS operating system configuration with a 64K byte minimum user partition.

**OPTIONAL HARDWARE:**
None

**PREREQUISITE SOFTWARE:**
One of the following operating systems:
- RSX-11M, Version 2 or later
- RSX-11D, Version 68 or later
- IAS, Version 1 or later

With one of the following language processors:
- FORTRAN IV/IAS-RSX, Version 1C or later
- FORTRAN IV-PLUS, Version 2.5 or later

**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:**
No updates are planned for this product.

**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) represents the distribution media for the product and must be specified at the end of the order number, e.g., QPA03-YD = sources on 9-track magnetic tape.

D = 9-track Magnetic Tape
E = RK05 Disk Cartridge
Standard Options
QPA03 -Y— Single-use license, source license, sources, documentation, no support services (media: D, E)

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.