

# digital

# Software Product Description

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**PRODUCT NAME: FORTRAN IV/VAX to RSX, Version 2, Cross Compiler**

**SPD 25.17.0**

## **DESCRIPTION:**

FORTRAN IV/VAX to RSX is an extended implementation of FORTRAN based on ANS FORTRAN, X3.9-1966. The FORTRAN IV compiler operates under the VAX/VMS operating system to produce code for the RSX-11M operating system. The FORTRAN IV/VAX to RSX language includes the following extensions to the ANSI standard:

- general expressions allowed in DO loop parameters and subscripts
- mixed-mode arithmetic
- ENCODE and DECODE statements
- PRINT, TYPE, and ACCEPT input/output statements
- direct-access unformatted input/output DEFINE FILE statement
- comments allowed at the end of each source line
- PROGRAM statement
- FORTRAN IV-PLUS compatible language extensions (e.g., OPEN, CLOSE, list directed I/O)

RSX-11M systems supporting the memory management directives provide support for multiple memory-resident virtual arrays. Each array can have up to 32,767 elements.

The FORTRAN IV compiler system is designed to minimize the size of executable programs it produces. The resulting program is completely functional in the minimum task partition area of 8K words of memory.

FORTRAN IV/VAX to RSX compiled optimizations include:

- optimization of arithmetic and logical IF statements
- common subexpression elimination
- optional in-line integer code generation
- additional optimization algorithms

### *Object Time System*

The FORTRAN IV/VAX to RSX Object Time System (OTS) is a set of object modules selectively linked with the user's compiler-produced object modules to produce a task image ready for execution. The OTS is reentrant and most of the OTS can be made into a shared library for concurrent use by multiple tasks.

## **MINIMUM HARDWARE REQUIRED:**

Any valid VAX/VMS configuration

## **OPTIONAL HARDWARE:**

None

## **PREREQUISITE SOFTWARE:**

VAX/VMS, Version 1.0 or later

## **OPTIONAL SOFTWARE:**

None

## **TRAINING CREDITS:**

None

## **SUPPORT CATEGORY:**

A — 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.

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This product is available only on the floppy diskette medium.

**Standard Options**

- QE107 AY Single-use license, binaries, documentation, support services
- QE107 CY Single-use license, binaries, documentation, no support services
- QE107 DZ Single-use license only, no binaries, no documentation, no support services

**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**

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