digital
Software Product Description

PRODUCT NAME: VAX-11 FORTRAN IV-PLUS, Version 1.3 SPD 25.16.3

DESCRIPTION:

FORTRAN IV-PLUS is an extended FORTRAN implementation based on American National Standard (ANSI) FORTRAN, X3.9-1966. It operates under the VAX/VMS operating system to take advantage of the floating point and character string instruction set and the virtual memory system. VAX-11 FORTRAN IV-PLUS includes the following extensions to the ANSI standard:

- General expressions allowed in all meaningful contexts
- Mixed-mode arithmetic
- CHARACTER data type, including character variables, arrays, and functions
- BYTE data type
- INTEGER*2 and LOGICAL*2 data types in addition to INTEGER*4, LOGICAL*4, REAL*4, REAL*8, and COMPLEX*8
- Type*size notation as well as the standard notation for data types (e.g., REAL*4, LOGICAL*1)
- IMPLICIT statement
- Block IF-THEN-ELSE statements
- Generalized DO loops
- Statement list optional in assigned GOTO
- ENTRY statement
- OPEN and CLOSE file access control statements
- END= and ERR= in READ and WRITE statements
- Direct access input/output: formatted and unformatted
- List directed input/output
- ENCODE, DECODE statements
- PRINT, TYPE, ACCEPT input/output statements
- DEFINE FILE statement
- Constants and expressions in WRITE, PRINT, and TYPE statement.
- INCLUDE statement
- PARAMETER statement
- PROGRAM statement
- 15-character identifiers which may include dollar sign ($) and underscore (_)
- Comments allowed at end of each source line
- Lower, as well as upper, bounds specification in array declarators
- Generic function selection based on argument data type for FORTRAN defined functions
- Alternate RETURN specifiers in CALL statements

- Debug statements in source

Additional features include:

- Standard calls to system service procedures
- Generation of symbols for symbolic debugger
- Generation of sharable code

VAX-11 FORTRAN IV-PLUS compiler optimizations include:

- Optimizations of arithmetic IF, logical IF, and block IF-THEN-ELSE
- Common subexpression elimination
- Removal of invariant expressions from DO loops
- Allocation of general registers across DO loops
- Constant folding

MINIMUM HARDWARE REQUIRED:
Any valid VAX/VMS operating system configuration

OPTIONAL HARDWARE:
FP780 floating point accelerator

PREREQUISITE SOFTWARE:
- VAX/VMS operating system, Version 1.6

OPTIONAL SOFTWARE:
None

TRAINING CREDITS:
None

SUPPORT CATEGORY:
VAX-11 FORTRAN IV-PLUS is a DIGITAL Supported Software Product.

SOFTWARE INSTALLATION
DIGITAL installation is required for Software Product Support. There is no charge for installation if performed at the time of system installation. DIGITAL installed software products, except for operating systems, are subject to an add-on installation fee when purchased subsequent to system installation.

SOFTWARE PRODUCT SUPPORT
VAX-11 FORTRAN IV-PLUS includes Standard Services as defined in the Software Support Categories Addendum of this SPD.

ORDERING INFORMATION:
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 product is available only on the floppy diskette medium.

QE100 -A— Single-use license, binaries, documentation, support services (media: Y)

QE100 -C— Single-use license, binaries, documentation, no support services (media: Y)

QE100 -D— Single-use license only, no binaries, no documentation, no support services (media: Z)

Update Options:

Users of VAX-11 FORTRAN IV-PLUS 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.

QE100 -H— Binaries, documentation (media: Y)

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Users of VAX-11 FORTRAN IV-PLUS whose specified Support Category warranty has not expired may order under license the following software update for the then current media charge. The update is distributed in binary form on the appropriate medium and includes no installation or other services unless specifically stated.

QE100 -W— Binaries, documentation (media: Y)

Miscellaneous Options:

QE100 -G— Documentation only kit (media: Z)

ADDITIONAL SERVICES:

None