

# digital

# Software Product Description

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**PRODUCT NAME: APL-BASIC, Version 1, Entry Level APL System**

**SPD 22.6.2**

## **DESCRIPTION:**

APL (A Programming Language) is a concise programming language suitable for manipulating numeric and character array-structured data. It includes operators for array calculations. APL-BASIC is an entry level APL system for the KI10- and KL10-based DEC-system-10 and DECSYSTEM-20. It is a conversational system which allows the programmer to interact with the APL system and running programs.

### *Features:*

- Multiple statements can appear in a single line.
- Statement branching can occur anywhere in a statement line.
- The system provides immediate mode line editing of complex APL expressions.
- The system permits user-controlled tab positioning for I/O operations.
- The user's active workspace is dynamically variable.
- The workspace symbol table size is dynamically variable.
- The user workspace can be saved on disk or magnetic tape.
- All floating point calculations are done in double precision format (18 significant digits).
- The language provides system variables which contain information about the user's environment.
- The language provides system functions which contain information about variables in the active workspace.

## **MINIMUM HARDWARE REQUIRED:**

Any valid TOPS-10 or TOPS-20 configuration which includes:

- KI10 or KL10 central processor (TOPS-10 configurations only)
- a system total of at least 96K words of memory
- 30K words minimum permanent file storage

## **OPTIONAL HARDWARE SUPPORTED:**

Supports any unit record, terminal, or mass storage device supported by the prerequisite software.

## **PREREQUISITE SOFTWARE:**

One of the following operating systems:

- TOPS-10 operating system, Version 6.02 or later

- TOPS-20 operating system, Version 1B or later

## **OPTIONAL SOFTWARE SUPPORTED:**

None

## **TRAINING CREDITS:**

None

## **SUPPORT CATEGORY:**

B — 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 without additional 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 (F, M, P) represents the distribution media for the product and must be specified at the end of the order number, e.g., QH072-AP = binaries on 9-track magnetic tape (800 bpi).

F = 7-track Magnetic Tape  
M = 1600 bpi 9-track Magnetic Tape  
P = 800 bpi 9-track Magnetic Tape

### *Standard Options*

#### *For DECsystem-10:*

QH072 -A— Single-use license, binaries, documentation, support services (media: F, M, P)

QH072 -U— Armed services procurement regulation

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license, sources, documentation, support services (media: F, M, P)

For DECSYSTEM-20:

QT014 -A— Single-use license, binaries, documentation, support services (media: M)

QT014 -U— Armed services procurement regulation license, sources, documentation, support services (media: M)

*Upgrade Options*

The following option is available as an upgrade kit from APL-B for use on the same single CPU which APL-B is licensed. The license previously granted for APL-B shall be extended to cover this upgrade.

QH077 -A— Single-use license, binaries, documentation, support services (media: F, M, P)

**ADDITIONAL SERVICES:**

For DECsystem-10:

QH072 -3— Maintenance Service (media: F, M, P)

QH072 -Z— Armed services procurement regulation maintenance service (media: F, M, P)

For DECSYSTEM-20:

QT014 -3— Maintenance Service (media: M)

QT014 -Z— Armed services procurement regulation maintenance service (media: M)

**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.