



# Software Product Description

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**PRODUCT NAME: PDP-11/60 Microprogramming Tools, Version 1**

**SPD 15.89.1**

**DESCRIPTION:**

The PDP-11/60 Microprogramming Tools Software Kit provides basic microcode development software including a microcode assembler and a microcode loader for use with the user control store (UCS) option of the PDP-11/60 under the RSX-11M operating system.

The microcode assembler accepts micro instructions and DIGITAL-supplied MACRO commands, which define the 11/60 microword. The micro assembler produces an absolute object module and a user listing.

The microcode loader accepts an object module (created by the micro assembler) and a DIGITAL-supplied object module (to provide a dispatch table and error handling). It loads the writable control store of the PDP-11/60.

Sources are also included: They are written in MACRO-11 and FORTRAN IV-PLUS for the micro assembler and loader.

**MINIMUM HARDWARE REQUIRED:**

Any valid RSX-11M configuration with the PDP-11/60 UCS option and a 64K byte partition for microcode development.

**OPTIONAL HARDWARE:**

None

**PREREQUISITE SOFTWARE:**

RSX-11M Real-time Operating System, Version 3 or later.

**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 cop-

ied, 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 (E, T, V, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., KU116-AE = binaries and sources on RK05 disk.

E = RK05 Disk Cartridge  
T = RK06 Disk Cartridge  
V = RK07 Disk Cartridge  
Z = No hardware dependency

*Standard Options*

KU116 -AE—

User control store, single-use license, binaries and sources, documentation, no support services, distributed on RK05 disk.

KU116 -AT—

User control store, single-use license, binaries and sources, documentation, no support services, distributed on RK06 disk.

KU116 -AV—

User control store, single-use license, binaries, and sources, documentation, no support services, distributed on RK07 disk

*Miscellaneous Options*

QR444 -GZ—

Documentation only

**ADDITIONAL SERVICES:**

QR444 -SZ—

UCS Consulting Services (one week)

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.