

# Software Product Description

---

**PRODUCT NAME: BASIC-PLUS-2/RMS-11K for CTS-500, Version 1.5**

**SPD 13.7.2**

## **DESCRIPTION:**

BASIC-PLUS-2/RMS-11K is a software configuration option for the DEC Datasystems 530 and 570 series computer systems running CTS-500. The package includes the BASIC-PLUS-2 (Version 1.5) language processor and the RMS-11K (Version 1.5) multikey indexed access data management services. The package is an option for the CTS-500 Level 2A and 2B systems.

The BASIC-PLUS-2 language is a superset of Dartmouth BASIC. In addition to the elementary BASIC statements, BASIC-PLUS-2 also features:

- Terminal-format files
- Virtual arrays
- RMS Record I/O
- Extensive string support
- Full matrix package
- Long variable names
- IF..THEN..ELSE
- ON ERROR condition handlers
- Statement modifiers: IF, WHILE, UNLESS, FOR
- User-defined functions
- Multi-statement lines
- Multi-line statements
- Program segmentation: SUB, CALL, CHAIN, COMMON
- External subprograms

BASIC-PLUS-2 uses the full ASCII character set for its alphabet.

The BASIC-PLUS-2 language processor is composed of a compiler and an Object Time System/Library.

The BASIC-PLUS-2 compiler produces an object module from a source program. The compiler checks each program line for syntax errors and returns an appropriate message if an error is found. The user can then correct the program (if necessary) and compile it. Program compilations result in an object module that can be linked and executed at the operating system command level. On the CTS-500 system, the BASIC-PLUS-2 compiler can produce an image module that can be executed immediately, provided no CALL statement or RMS I/O is referenced.

BASIC-PLUS-2 Record I/O operations are controlled through the RMS-11K file structure. This method of Record I/O supports sequential, relative, and indexed

file organizations. RMS-11K features also include primary and alternate keys, fixed and variable length records, and record mapping.

RMS-11K provides keyed access record management services for the CTS-500 system. RMS-11K is comprised of a set of run-time service routines and utility programs that enable keyed access data files, including multi-key ISAM, to be defined, populated, updated and maintained on direct access storage devices. Once established, application programs retrieve, modify, or store logical data records by using key field reference values. RMS-11K run-time service routines provide all necessary access control, data buffering, record blocking/deblocking, and file structure maintenance. Additional utility program functions allow data files to be logically moved, copied, and restored from one storage device to alternate logical or physical storage devices.

## **MINIMUM HARDWARE REQUIRED:**

Any valid CTS-500, level 3A or 3B, system configuration.

## **OPTIONAL HARDWARE:**

None

## **PREREQUISITE SOFTWARE:**

CTS-500, Version 4, Commercial Transaction System, Level 2A or 2B

## **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.

-2-

**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, F, Q, T, V) represents the distribution media for the product and must be specified at the end of the order number, e.g., QP516-AD = binaries on 9-track magnetic tape.

D = 9-track Magnetic Tape  
 E = RK05 Disk Cartridge  
 F = 7-track Magnetic Tape  
 Q = RL01 Disk Cartridge  
 T = RK06 Disk Cartridge  
 V = RK07 Disk Cartridge

**Standard Options**

- QP516 -A— Single-use license, binaries, documentation, support services (media: D, E, F, Q, T, V) for CTS-500 Level 2A systems
- QP521 -A— Single-use license, binaries, documentation, support services (media: D, E, F, Q, T, V) for CTS-500 Level 2B systems
- QP516 -C— Single-use license, binaries, documentation, no support services (media: D, E, F, Q, T, V) for CTS-500 Level 2A systems
- QP521 -C— Single-use license, binaries, documentation, no support services (media: D, E, F, Q, T, V) for CTS-500 Level 2B systems

**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.